

CURRENT LEGAL DEVELOPMENTS

Balancing Effectiveness and Fairness in the Redesign of the Climate Change Regime

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Abstract

Since its modern inception in the 1960s, international environmental law (IEL) has faced three main challenges: (i) justifying the need for an international regulation of environmental issues (legitimacy); (ii) finding mechanisms to ensure compliance with IEL (effectiveness); and (iii) distributing equitably the benefits and burden of environmental protection (fairness). While it is nowadays possible to say that the legitimacy of IEL is no longer in question, the need to respond to challenges (ii) and (iii) has never been more pressing. This is particularly the case in the context of the redesign of the climate change regime (CCR), as the responses to (ii) and (iii) may conflict with each other. Industrialized countries who historically contributed the most to the artificial increase in greenhouse gases (GHGs) in the atmosphere have been matched, and even surpassed, in their level of GHG emissions by countries such as China, India, or Brazil, who are now being pressed to undertake real emissions-reduction commitments. Historically, however, none of these latter benefited from the emission laxity characterizing the nineteenth century and most of the twentieth century to further their development. While imposing specific emissions-reduction commitments on them would seem unfair, such commitments are nevertheless critical for the effectiveness of the regime both directly and indirectly (as without such commitments, industrialized countries may be reluctant to join or uphold a regime). The purpose of this article is to spell out in an orderly analytical manner the types of issue that must be addressed in seeking a balanced solution. This type of analysis can be conducted from several perspectives. The most directly relevant disciplines to deal with fairness considerations are admittedly ethics and political philosophy, and there is indeed a growing literature on climate fairness. Although this literature is briefly surveyed, the article focuses on the fairness dimensions of the existing legal arrangements or those currently being negotiated. There is a considerable gap between the theoretical approaches to climate fairness and the manner in which considerations of fairness operate in practice. This gap is mainly due to the need to account for political considerations or, in other terms, to balance fairness with political effectiveness. When such considerations are taken into account, the picture that emerges is quite different. The CCR is not built upon a single approach to fairness. Rather, fairness considerations are integrated through a patchwork of criteria used to distribute different objects (burden of emission reductions, emission rights, contribution to financial and

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technological assistance, and access to such assistance) among different actors situated at different levels.

Key words

Cancún; climate change; climate fairness; Copenhagen; distributive justice

I. INTRODUCTION

Since its modern inception in the 1960s, international environmental law (IEL) has faced three main challenges: (i) justifying the need for an international regulation of environmental issues (legitimacy); (ii) finding mechanisms to ensure compliance with IEL (effectiveness); and (iii) distributing equitably the benefits and burden of environmental protection (fairness). While it is nowadays possible to say that the need for an ‘international’ (as opposed to a merely domestic) regulation of some environmental problems is no longer in question, challenges (ii) and (iii) have never been more pressing.

This is particularly the case in the context of the redesign of the climate change regime (CCR), as the responses to (ii) and (iii) may conflict with each other. Industrialized countries who historically contributed the most to the artificial increase in greenhouse gases (GHG) in the atmosphere have been matched, and even surpassed, in their level of GHG emissions by countries such as China, India, or Brazil, who are now being pressed to undertake real emissions-reduction commitments. Historically, however, none of these latter benefited from the emission laxity characterizing the nineteenth century and most of the twentieth century to further their development. While imposing specific emissions-reduction commitments on them would seem unfair,¹ such commitments are nevertheless critical for the effectiveness of the regime both directly and indirectly (as without such commitments, industrialized countries may be reluctant to join or uphold a regime).

The importance of the ‘historical emissions argument’ should not be underestimated. Together with the ‘vulnerability argument’, namely the fact that the adverse impact of climate change will disproportionately be suffered by developing countries, the ‘historical emissions argument’ epitomizes the fairness imperative in the current renegotiation of the CCR. It would be very difficult indeed to argue that the ‘historical emissions argument’ (even more than the ‘vulnerability argument’) should not be taken into account in the redesign of the CCR. However, defining the specific role that considerations of fairness should play in this process is not

1 As noted in a statement from the Centre for Science and Environment (CSE), a Delhi-based think-tank, published at the time of the American rejection of the Kyoto Protocol: ‘The total carbon dioxide emissions from one U.S. citizen in 1996 were 19 times the emissions of one Indian. U.S. emissions in total are still more than double those from China. At a time when a large part of India’s population does not even have access to electricity, Bush would like this country to stem its “survival emissions”, so that industrialized countries like the U.S. can continue to have high “luxury emissions”. This amounts to demanding a freeze on global inequality, where rich countries stay rich, and poor countries stay poor, since carbon dioxide emissions are closely linked to GDP growth.’ See CSE, ‘The Leader of the Most Polluting Country in the World Claims Global Warming Treaty Is “Unfair” Because It Excludes India and China’ (2001), quoted in Steve Vanderheiden, ‘Climate Change, Environmental Rights, and Emission Shares’, in Steve Vanderheiden (ed.), *Political Theory and Global Climate Change* (2008), 43, at 44–5.

only conceptually difficult, but also extremely controversial, to the extent that the effectiveness of the overall endeavour seems to depend upon the prior resolution of the fairness conundrum.

There are at least three reasons that support this latter assertion. First, without the participation of large emerging economies, the future CCR will likely not be effective. As reportedly noted by Todd Stern, the US climate negotiator in chief, bringing China into the system is the ‘alpha and omega’ of the international process towards the redesign of the CCR.² This is so because without the participation of China, the US Senate would be reluctant to ratify any potential emissions agreement. Second, allowing large emerging economies to continue with anything approaching their current emissions levels would in fact amount to ignoring the implications of the ‘historical-emissions argument’ for some of the less-developed countries, which are the most vulnerable to the potentially adverse effects of global warming. Emissions tolerance for large emerging economies could indeed lead to the exhaustion of any remaining emissions margin for other developing countries, contradicting the very reason why the former are granted emissions tolerance in the first place. Third, the very categories used to assess the fairness of the regime are not necessarily adapted (nor were they designed) to identify, let alone address, some issues of fairness. For instance, the distinction between Annex I countries and non-Annex I countries for purposes of allocating obligations under the current CCR is not sufficiently sensitive to variations in the level of emissions, human development, financial and technological capabilities, population, and other criteria potentially relevant for a fair distribution of the benefits/burden of addressing climate change. Underlying the preceding considerations is the profound complexity of any attempt at balancing conflicting considerations to provide a plausible compromise, a ‘fair’ solution weighing and integrating all relevant preferences.

The purpose of this article is not to say what would be a fair redesign of the CCR. Many ‘fair’ solutions are possible and the difference between them is often a matter of political choice. Rather, and more modestly, my goal is to spell out in an orderly analytical manner the types of issue that must be addressed in seeking a balanced solution. This type of analysis can be conducted from several perspectives. The most directly relevant disciplines to deal with fairness considerations are admittedly ethics and political philosophy, and there is indeed a growing literature on climate fairness.³ Although this literature will be briefly surveyed, my focus will

2 Editorial, ‘Heating Up or Cooling Down?’, *The Economist*, 13 June 2009, 53. The important relationship between fairness and efficacy is also noted by Steve Vanderheiden in an essay summarizing his recent monograph on ‘atmospheric justice’:

[N]ormative concerns for fairness have featured prominently throughout the global climate policy process, and debates over the treaty’s fairness are inseparable from those about its efficacy, because no unfair global climate regime stands a chance of gaining the requisite assent of the world’s nations and no ineffective agreement can mitigate the unfairness of an environmental problem that is disproportionately caused by the world’s affluent while expected to visit disproportionately harm on the world’s poor.’

See Vanderheiden, *supra* note 1, at 44.

3 See, e.g., S. Gardiner, ‘Ethics and Global Climate Change’, (2004) 114 *Ethics* 555, at 578–83; P. Singer, ‘One Atmosphere’, in P. Singer (ed.), *One World: The Ethics of Globalization* (2002); D. Jamieson, ‘Climate Change and

be on the fairness dimensions of the existing legal arrangements or those currently being negotiated. There is a considerable gap between the theoretical approaches to climate fairness and the manner in which considerations of fairness operate in practice. This gap is mainly due to the need to account for political considerations or, in other terms, to balance fairness with political effectiveness. When such considerations are taken into account, the picture that emerges is significantly different. The CCR is not built upon a single approach to fairness. Rather, fairness considerations are integrated through a patchwork of criteria used to distribute different objects (burden of emissions reductions, emission rights, contribution to financial and technological assistance, and access to such assistance) among different actors situated at different levels.

The analysis is structured into four parts. The first part of the article (section 2) sets the conceptual background of the analysis by briefly surveying the three main challenges facing IEL in general and climate change regulation in particular. In the second part (section 3), after some clarifications regarding the types of argument used in distributive-justice theory, I discuss five major theories of climate fairness. The third part (section 4) examines the current CCR in order to spell out the choices made by the drafters to balance considerations of fairness and effectiveness. The fourth and final part (section 5) summarizes the results of the analysis and spells out the types of issues that would have to be addressed in developing a realistic account of climate fairness.

2. THE CHALLENGES FACING IEL

It seems useful to begin with a brief analytical survey of the types of response that have been given over time to the challenges of legitimacy, effectiveness, and fairness faced by IEL. It is, of course, not my intention to provide a detailed history of the field,⁴ but rather to situate the challenges now facing the redesign of the CCR against the general background of those underlying IEL as a whole.

Regarding the first challenge, the increasing recognition since the late 1960s of the need for an international regulation of certain environmental issues, as well as the development of numerous international instruments dealing with such issues, clearly suggests that, nowadays, the need for an international regulation (as opposed to a merely domestic one) of at least some environmental questions is well established. If one follows the main stages of development of IEL as a field, from the early times at which environmental protection was somewhat a by-product

Global Environmental Justice', in P. Edwards and C. Miller (eds.), *Changing the Atmosphere: Expert Knowledge and Global Environmental Governance* (2001), 287; M. Traxler, 'Fair Chore Division for Climate Change', (2002) 28 *Social Theory and Practice* 101; H. Shue, 'Subsistence Emissions and Luxury Emissions', (1993) 15 *Law and Policy* 39; W. Beckerman and J. Pasek, 'The Equitable International Allocation of Tradable Carbon Emission Permits', (1995) 5 *Global Environmental Change* 405; M. Grubb, 'Seeking Fair Weather: Ethics and the International Debate on Climate Change', (1995) 71 *IA* 463; E. Neumayer, 'In Defence of Historical Accountability for Greenhouse Gas Emissions', (2000) 33 *Ecological Economics* 185; S. Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (2008).

4 For such a history, see P. Sand, 'The Evolution of International Environmental Law', in D. Bodansky et al. (eds.), *The Oxford Handbook of International Environmental Law* (2007), 29.

of the protection of an economic or strategic interest⁵ to the adoption, after the 1972 Stockholm Conference⁶ and the 1992 Rio Conference, of a wide range of international instruments dealing with increasingly complex issues, such as ozone depletion, biodiversity, or climate change,⁷ the picture that emerges leaves little doubt as to the recognition by states that some environmental challenges call for an international regulation. This is not to say, of course, that such regulation has not been seen, at times, as controversial, nor that it has been considered 'equitable' or 'fair' on every point. Clearly, one of the major challenges now facing the climate change regime, as well as other regimes, is precisely one of fairness. However, the fairness controversy, which will be discussed below, has not gone as far as to deny the need for an 'international' regulation of some environmental questions. Therefore, I believe that, overall, IEL has satisfactorily addressed the first challenge identified above. A different question is whether the framework currently provided by IEL to manage the different environmental concerns is effective and/or fair.

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- 5 See, e.g., Trail Smelter Arbitration (*USA v. Canada*), III RIAA 1905–1982 (awards of 16 April 1938 and of 11 March 1941); Lake Lanoux Arbitration (*Spain v. France*), XII RIAA 281–317 (award of 16 November 1957); 1902 Convention for the Protection of Birds Useful to Agriculture, 102; British and Foreign State Papers, 969; 1911 Convention between the United States, Great Britain, Japan and Russia Providing for the Preservation and Protection of the Fur Seals, 37 United States Statutes at Large 1542; 1946 International Convention for the Regulation of Whaling with Schedule of Whaling Regulations, 161 UNTS 361.
- 6 Report of the United Nations Conference on the Human Environment, UN Doc. A/CONF.48/14/Rev.1 (1973), at 2–7; UN Doc. A/CONF.48/14, at 2–65; and (1972) 11 ILM 1416. The Stockholm Conference epitomizes the first phase of international environmental regulation, illustrated by several instruments, such as: the 1972 Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft 932 UNTS 3 (later modified quite fundamentally in 1996); 1973 International Convention for the Prevention of Pollution from Ships (MARPOL), (1973) 12 ILM 1319 (as modified by the Protocol of 1978 relating thereto); the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245; the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage, 1037 UNTS 151; and the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, 983 UNTS 243.
- 7 From a conceptual standpoint, the main achievement of the Rio Conference was the introduction of the concept of sustainable development. The origins of this concept are to be found in the work of both non-governmental and inter-governmental organizations. See, e.g., International Union for Conservation of Nature and Natural Resources (IUCN), United Nations Environment Programme (UNEP), World Wildlife Fund (WWF), *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (1980); Report of the World Commission on Environment and Development, *Our Common Future*, UN Doc. A/42/427 (1987) (commonly referred to as the 'Brundtland Report'), Annex. Also, the Rio Conference resulted in the adoption of two major treaties, in addition to other important instruments, namely the 1992 United Nations Framework Convention on Climate Change, (1992) 31 ILM 849 (UNFCCC or Convention); and the 1992 Convention on Biological Diversity, (1992) 31 ILM 82. Following the Rio Conference, two other important treaties were adopted, namely the 1994 United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, UN Doc. A/AC.24/15/Rev.7 (1994), (1994) 33 ILM 1328; and the 1995 Agreement for the Implementation of the Provisions of the United Nations Conventions on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 2167 UNTS 88. In the last decade, the attention of states has focused more on the implementation of existing instruments than on the development of new treaties, as evidenced by the texts adopted at the 2002 World Summit on Sustainable Development, in Johannesburg (one of the main instruments adopted at the WSSD was specifically entitled 'Plan of Implementation', paras. 1–2 of which referred to the principles and programmes of the Rio Conference and added the need to adopt 'concrete actions and measures'), and the recent resolution adopted by the UN General Assembly to convene what is commonly referred to as the 'Rio plus 20 Conference', scheduled to take place in Rio de Janeiro in 2012 (see UN Doc. A/RES/64/236). Para. 20(a) of this resolution identifies, as two main themes of the upcoming conference, the move to a 'green economy' and the 'institutional framework' for sustainable development.

Since IEL's modern inception back in the 1960s, effectiveness has always been a major issue. The obstacles to the effectiveness of IEL are many and diverse, ranging from scientific uncertainty, to political or strategic considerations, to economic counterincentives. By effectiveness, I refer here to the ability of IEL to solve, control, or at least manage a given environmental problem. In order to be effective, the adoption and operation of a given regime must not only be politically and economically feasible, but also technologically and administratively possible. In other terms, in addition to the will to commit to a given regime (which is closely related to the costs entailed by such a commitment), one must also take into account the technological and administrative capabilities of the different states concerned, some of which would be unable to comply even if they had the will to do so. The difficulties underlying the challenge of effectiveness can be illustrated in connection with the CCR.⁸ Until the issuance by the Intergovernmental Panel for Climate Change (IPCC) of its Fourth Assessment Report, in 2007,⁹ there was still a vivid controversy over the human causes of global warming.¹⁰ The IPCC report has clearly endorsed, from a scientific standpoint, the view that global warming in the last centuries is very likely the result of human activity. Since then, efforts to curb emissions at both the international and the domestic levels have significantly intensified. Despite the recent controversy over the procedures followed by the IPCC as well as some of the results reached in the second volume (Working Group II) of its Fourth Assessment Report (most notably the predictions relating to the melting of the Himalayan glaciers), the physical science basis for the IPCC's main conclusions seems now sufficiently solid for states to take serious action to reduce or control emissions of GHGs and adapt to the consequences of climate change. The effectiveness challenge is therefore not so much in the divergence of views on the importance of the problem, but rather in the economic, strategic, and fairness implications of the necessary reactions. For some industrialized states, such as the United States, the economic costs of taking action are politically unpalatable, especially taking into account that under the present regime, strategic competitors like China, India, or Brazil would not be themselves required to make similar efforts. There are, of course, many reasons why these and other 'developing' countries refuse to do so, including considerations of fairness. This takes me to the discussion of the fairness challenge.

Considerations of justice suggest, intuitively, that those countries who contributed the most to the rise of the level of GHGs in the atmosphere throughout their economic development starting in the eighteenth century should carry a heavier burden in the efforts to stabilize global climate. Those countries who contributed little or almost nothing to such rise should instead be given the opportunity to pursue their economic development as a priority. More generally, the idea that it is fair for developing countries to focus on their economic (and social) development rather

8 For an analysis of how scientific uncertainty has been handled in the CCR, see generally S. Weart, *The Discovery of Global Warming* (2009); and J. Vinuales, 'Legal Techniques for Dealing with Scientific Uncertainty in Environmental Law', (2010) 43 Vand. JTL 437.

9 Intergovernmental Panel on Climate Change (IPCC), *Fourth Assessment Report: Climate Change* (2007).

10 See generally N. Oreskes and E. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (2010), Chapter 6.

than to prioritize environmental protection has a long history that can be traced back to the modern inception of IEL. Shortly before the Stockholm Conference, in December 1971, Brazil sponsored a resolution eventually adopted by the United Nations General Assembly with 70 per cent of the votes suggestively called ‘Development and Environment’.¹¹ This resolution expressed the fears of developing countries that environmental protection may burden their efforts towards development. This is reflected *inter alia* by the assertion of ‘the primacy of independent economic and social development as the main and paramount objective of international co-operation’.¹² In the years following the Stockholm Conference, the tension epitomized by the resolution ‘Development and Environment’ remained a critical issue. In the report of the Brundtland Commission,¹³ adopted some 15 years after, this tension is addressed by asserting the possibility of combining development and environmental protection through the concept of sustainable development. Sustainable development is, however, a multi-levelled concept. Hardly anyone would disagree with its broad meaning, namely meeting the needs of the present without compromising those of future generations. However, at the more specific level of how to do that, controversy remains vivid. In the context of the CCR, the fairness concern has been addressed in a variety of forms, most notably through the adoption of the principle of common but differentiated responsibilities in Article 3(2) of the UNFCCC. However, it is not clear what this principle specifically means. A senior diplomat has identified three ways in which the principle could be used.¹⁴ They range from justifiable fairness considerations, to lower standards for treaty compliance by developing countries, to even a precondition for such compliance. It is also noteworthy that despite attempts from developing countries during the negotiation of the UNFCCC to formulate the reference to the historical responsibility of industrialized countries as a principle, such reference was only retained in a diluted manner, and it was confined to the preamble of the convention.¹⁵

The foregoing observations illustrate the complexity facing the attempts to make fairness considerations operational and, more specifically, to find a solution that is acceptable from the perspective of both fairness and effectiveness. In fact, a significant part of the problem is the absence of an acceptable common understanding that would provide a sort of baseline for the redesign of the CCR. In the last several years, there have been some attempts at filling this gap by applying ethical reasoning to the issues raised by climate change.

3. CLIMATE FAIRNESS IN THEORY

There are different ways in which ethical reasoning can be applied to environmental issues. After a brief survey of the structure of ethical argument as it is commonly

¹¹ UN Doc. A/RES/2849 (1971).

¹² *Ibid.*, para. 11.

¹³ See the Brundtland Report, *supra* note 7.

¹⁴ R. Benedick, *Ozone Diplomacy* (1998), 241.

¹⁵ D. Bodansky, ‘The United Nations Framework Convention on Climate Change: A Commentary’, (1993) 18 *Yale JIL* 451, at 498.

approached in the literature on distributive justice (3.1), I discuss some efforts to apply ethical theory to climate change (3.2).

3.1. The structure of ethical argument

A first useful distinction can be made between human-centred ethical approaches and environment-centred ones.¹⁶ Whereas human-centred approaches evaluate acts in the light of their consequences on humans (directly or indirectly, for instance, by way of the effects of environmental damage on human welfare) or of a rule that prescribes a certain behaviour vis-à-vis humans, environment-centred approaches evaluate human action in the light of its impact on the environment (irrespective of their indirect impact on humans), or of a rule that prescribes a certain behaviour vis-à-vis the environment (understood as including both its animate – plants, animals – and inanimate – water, air, land – components). Although environment-centred approaches are important on many policy fronts, in the context of the redesign of the CCR it appears more realistic to focus on human-centred approaches. The main reason for this is that the wide-ranging effects of climate change would affect humans in a particular manner. Climate change is not an issue, such as wildlife protection, where the most directly concerned object of the actions to be evaluated is animals (or another component of the environment other than humans) as such. Actions affecting climate are most likely to impact humans as one species among the many other species now present on the planet. The primary and most powerful ethical consideration that can be mobilized in the context of climate change is therefore direct impact on humans, and possibly on the survival of part of the human population. This is, of course, not to say that other types of reasoning (including environment-centred) would not be relevant to this issue. The choice of retaining human-centred approaches is, in this context, dictated mainly by the need to take effectiveness considerations into account.

Human-centred ethical approaches can be classified according to several criteria, which reflect fundamental debates among moral and political philosophers. Let me briefly mention three classifications, which will be useful to understand how considerations of fairness and effectiveness are treated in theory and practice. A first classification focuses on the reasons why certain acts, conduct, or institutions are ethically acceptable. On this basis, ethical approaches can broadly be divided into three categories, namely consequences-based approaches,¹⁷ duty-based approaches,¹⁸ and virtue-based approaches.¹⁹ It is very difficult to specifically define each approach, as each may take different forms. A more affordable task is to provide a basic characterization of the most salient features of each one of them. Regarding consequences-based approaches, the classic form of which is utilitarianism,²⁰ the

16 See generally, e.g., C. Stone, 'Ethics and International Environmental Law', in Bodansky et al., *supra* note 4.

17 See, e.g., P. Pettit, 'Consequentialism', in Peter Singer (ed.), *A Companion to Ethics* (1991), 230.

18 See, e.g., R. Sullivan, *Immanuel Kant's Moral Theory* (1989); J. Waldron, *Theories of Rights* (1984); R. Brandt, *Morality, Utilitarianism, and Rights* (1992).

19 See, e.g., G. Pence, 'Virtue Theory', in Singer, *supra* note 17, at 249.

20 See, e.g., R. Goodin, *Utilitarianism as a Public Philosophy* (1995).

characteristic feature is that the moral character of acts, conduct, or institutions depends only upon their consequences (in terms of a given form of value, utility, good, etc.) irrespective of their conformity with particular rules or prescriptions. Consequentialism is far more complex than this characterization conveys, as it is unclear inter alia what exactly we are supposed to maximize (pleasure, utility, multiple goods), of whom (one person, one specific group, an entire country, the entire planet), and how the calculation should be effected (with respect to acts, sets of acts, rules, sets of rules). Consequentialism is often contrasted with duty-based or 'deontological' approaches, according to which the moral character of acts, conduct, or institutions depends on their external and/or internal (intent) conformity with a given rule or set of rules, irrespective of any consideration of consequences. The most prominent illustrations of this approach are, perhaps, the rational ethics elaborated by the German philosopher Immanuel Kant²¹ or the so-called 'ethics of rights',²² which can be found at the foundations of the liberal justifications of human rights. As consequentialism, duty-based approaches are problematic in many respects, particularly because their requirements may sometimes lead to unrealistic outcomes. As for virtue-based approaches, in essence, they relate moral life (acts or conduct) to the pursuit of certain virtues. Perfectionism, as some forms of virtue-based approaches are usually called,²³ attaches moral value to the pursuit of a virtuous life. Virtuous conduct is, moreover, not to be defined by the mere respect of a given rule, but requires that such respect be the reflection of an acquired disposition to behave well in all circumstances. At the level of a society, virtue-based theories appear less relevant, as they focus on the perfectionism of an individual.²⁴ By contrast, consequentialist and deontological theories remain fully relevant. Different forms of utilitarianism and of ethics of rights can be and have been used to distribute the benefits and burden in different areas of human activity, from political to economic to cultural activities. Intuitively, both types of reasoning are important to achieve socially satisfactory outcomes. It seems hardly contestable that social policies should seek to increase social welfare. Equally desirable is that the increase in social welfare be not pursued even at the price of violating basic individual rights. The underlying moral values of these two forms of reasoning, namely the pursuit of the 'good' and the pursuit of what is 'right', entertain, however, complex relationships. From a theoretical standpoint, utilitarianism is indifferent as to how the benefits and the burdens are distributed among the different individuals (or individual states) in a society, or how they are distributed over time, as long as the chosen distribution

21 See, e.g., I. Kant, *Foundations of the Metaphysics of Morals: Text and Critical Essays* (ed. R. P. Wolff) (1969); *Critique of Practical Reason* (trans. L. White Beck) (1960); L. White Beck, *A Commentary on Kant's 'Critique of Practical Reason'* (1960).

22 See, e.g., J. Locke, *Second Treatise of Government* (ed. C. Macpherson) (1980); J. Simmons, *The Lockean Theory of Rights* (1992); J. Waldron, *supra* note 18.

23 See, e.g., Aristotle, *The Nichomachean Ethics* (eds. J. Ackrill and J. Urmson) (1998); P. Foot, *Virtues and Vices and Other Essays in Moral Philosophy* (1978); A. MacIntyre, *After Virtue* (1984).

24 Although one may also link them to education and lifestyle, which are critical for a long-term solution to the challenges posed by climate change as well as, more generally, to most environmental challenges. One of the commitments adopted by states under the UNFCCC is precisely to '[p]romote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations': UNFCCC, Art. 4(1)(i).

yields the highest net utility. In other words, if maximizing the net utility entails sacrificing one or more sectors of the population (or one or more states), then this is acceptable in the utilitarian view. On the contrary, duty-based approaches consider as an absolute priority the respect of certain norms, even if that entails reducing welfare. Of course, there have been efforts to reconcile these two competing views, such as the so-called ‘rule-utilitarianism’²⁵ or John Rawls’s theory of ‘justice as fairness’ applied to international relations.²⁶ These efforts are reflected in some theories of climate fairness, which will be discussed later on.

A second classification focuses on the underpinnings of moral standards. In other words, what is the basis to conclude that a standard of conduct or an institution has a moral character and must be respected? Two types of answer have been given to this question. According to one approach, moral character is based on the substance of the standards or institutions in question or, more specifically, on their grounding in religious beliefs, natural law, rationality, a prevailing will, or culture, irrespective of the process through which such standards or institutions were adopted in the first place. Historically, the legitimacy of many regimes and institutions was based on substantive explanations, such as their conformity with divine law or with the rational nature of man or the will of the people.²⁷ There is another broad strand of ethical theories that grounds the moral character of standards or institutions on the specific process through which they have been adopted, irrespective of their specific content. This approach, often referred to as ‘procedural justice’, can be found to different extents in the writings of political philosophers such as Jürgen Habermas or John Rawls, and more generally at the basis of those regimes and institutions characterized by checks and balances.²⁸ The main idea underlying this second strand of theories is that the rules governing the process for the adoption of standards and institutions must themselves be fair for such standards and institutions to be fair. As in the preceding classification, there are difficulties and ambiguities with each one of these approaches. One major issue concerning substantive approaches is that in many modern societies, one can no longer persuasively refer to what François Lyotard called ‘grands récits’ or ‘grand Narratives’ of history and mankind as the foundations of all morals and justice.²⁹ This is why institutions have turned to the consent of the people, not necessarily as a new god, but rather as the basis of legal regimes. However, such more procedural approaches also raise problems. One typical issue is how to consider a discriminatory regime that has come to power with the consent of the majority of the people or a discriminatory regime that has been adopted through an otherwise fair process.

25 G. Scarre, *Utilitarianism* (1996), 122; J. Harsanyi, ‘Rule Utilitarianism, Equality, and Justice’, (1985) 2 *Social Philosophy and Politics* 115, at 125–6.

26 J. Rawls, *The Law of Peoples* (2002).

27 See, e.g., the essays collected in P. Helm (ed.), *Divine Commands and Morality* (1981); R. Tuck, *Natural Rights Theories: Their Origin and Development* (1979).

28 See, e.g., J. Rawls, *A Theory of Justice* (1971); J. Habermas, *Faktizität und Geltung: Beiträge zur Diskurstheorie des Rechts und des demokratischen Rechtsstaats* (1992); the essays contained in K. F. Ruhl and S. Machura (eds.), *Procedural Justice* (1997); and C. Lafont, ‘Procedural Justice? Implications of the Rawls–Habermas Debate for Discourse Ethics’, (2003) 29 *Philosophy and Social Criticism* 163.

29 J.-F. Lyotard, *The Postmodern Condition* (1979).

The third classification cuts across the two preceding ones and focuses on the anthropological conceptions underlying different ethical approaches. The main question is whether it is possible to assume perfectly rational actors with no cultural attachments or specificities as the starting point for deciding what is moral and what is not, or the processes through which such decisions are made. According to those approaches often referred to as 'liberalism' (which may be either consequential or deontological, substantive or procedural), ethical reasoning must assume that individuals are rational actors and set aside all the cultural differences that, in practice, characterize the real world. This would be the only way to find a common denominator serving as a starting point for a universal moral theory, and thus to avoid the pernicious implications of cultural relativism. Other approaches often referred to as 'communitarian' have stressed the importance of taking into account community values in any attempt at building a realistic ethical theory.³⁰ Such values are an integral part of real people and no realistic ethical theory can make abstraction of them in order to gain generality. In fact, the effort to gain generality may itself be problematic, as ethical reasoning should take into account the common values and understandings shared by the members of a community. A very interesting account of distributive justice from a communitarian perspective, which is particularly relevant to the topic of this article, is the one provided by Michael Walzer's *Spheres of Justice*.³¹ Instead of seeking an overall distribution system applicable to all goods, as in the case of most liberal theories, Walzer introduces in the distribution equation the shared values of each community. On this basis, he develops an account of distributive justice based on 'distribution spheres' concerning one particular 'good', the distribution of which is effected by means of distribution criteria that depend upon the social understanding of the good concerned in a given community. Walzer acknowledges that such an approach is heavily dependent upon the existence of shared values and understandings or, in other words, of a real community. The so-called 'international community' has not reached such a level yet and, as a result, the account of distributive justice offered by Walzer cannot be applied, for the time being, beyond political communities.³² However, the structure of the distribution arrangements described by Walzer takes us closer to the reality of distribution efforts, including in the context of the CCR.

30 See, e.g., Michael Sandel, *Liberalism and the Limits of Justice* (1981); A. MacIntyre, *Whose Justice? Which Rationality?* (1988); C. Taylor, *Sources of the Self: The Making of the Modern Identity* (1989); M. Walzer, 'The Communitarian Critique of Liberalism', (1990) 18 *Political Theory* 6; M. Walzer, *Thick and Thin* (1994).

31 M. Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* (1983).

32 According to Walzer, *ibid.*, at 29–30:

The only plausible alternative to the political community is humanity itself, the society of nations, the entire globe. But were we to take the globe as our setting, we would have to imagine what does not yet exist: a community that included all men and women everywhere. We would have to invent a set of common meanings for these people, avoiding if we could the stipulation of our own values. And we would have to ask the members of this hypothetical community (or their hypothetical representatives) to agree among themselves on what distributive arrangements and patterns of conversion are to count as just.

3.2. Climate change in ethical perspective

The foregoing considerations provide a number of useful conceptual tools to understand how ethical reasoning has been applied to the issue of climate fairness. As a rule, most accounts of climate fairness combine consequences-based and duty-based reasoning as well as substantive and procedural approaches. Moreover, most of them are closer to liberalism, in the meaning briefly characterized above, than to communitarian approaches. This is understandable to the extent that, as recognized by some communitarians, there is still no 'real' international community with an array of shared values and understandings sufficiently thick to give rise to distribution spheres. Therefore, the efforts at designing a theoretical framework for climate fairness have focused on how to distribute emissions rights.

A first answer ('approach 1') is to provide equal per capita entitlements to anthropogenic emissions. Gardiner characterizes this stance as follows: 'some acceptable overall level of anthropogenic greenhouse emissions should be determined scientifically, and then . . . this should be divided equally among the world's population, to produce equal *per capita* entitlements to emissions.'³³ This distribution criterion tends to ignore the historical-emissions argument, as what counts is the current distribution basis, namely a country's population. However, some variants of the argument seek to adjust the equal distribution by taking into account the historical emissions record.³⁴ In the policy arena, a distributional approach along such lines was formulated already in 1990 by the Global Commons Institute under the name 'Contraction and Convergence' or 'C&C'. The 'contraction' term of the model refers to the overall emissions budget (a reduction in overall emissions) that is targeted, whereas the 'convergence' term focuses on the distribution of the entitlements to such emissions that tend, over time, to a target of equal per capita distribution, to be achieved at a given date.³⁵

A second approach that has been advanced ('approach 2') is distribution of emissions rights on the basis of prior entitlement or prior use of a given resource.³⁶ This is, in essence, an acknowledgement of the status quo in that the use of such a criterion would distribute emissions according to the level of emissions per country or per capita at some recent point in time, which may be regularly updated. Thus, whereas this approach takes history into account, the historical emissions record is used not to challenge future entitlements, but to comfort the current level of emissions.

A third approach ('approach 3'), which, to some extent, may be considered a more subtle variant of the preceding one, links the claimed emissions share to economic output or productivity or some efficiency benchmark. The use of such benchmark would, in practice, favour those countries with higher levels of technology,

33 See Gardiner, *supra* note 3, at 583–4, and the references to other authors cited therein; see also Singer, *supra* note 3; and Jamieson, also *supra* note 3.

34 See, e.g., K. Smith, 'The Natural Debt: North and South', in T. W. Giambelluca and A. Henderson-Sellers (eds.), *Climate Change: Developing Southern Hemisphere Perspectives* (1996), Chapter 16.

35 For the current model, see the Global Commons Institute's website, available at www.gci.org.uk. The convergence side of the C&C model is flexible enough to introduce several considerations in defining the rate and pace of convergence. As a result, it could also be seen as an expression of other approaches to climate ethics.

36 L. Raymond, 'Allocating the Global Commons: Theory and Practice', in Vanderheiden, *supra* note 1, at 5–6.

including green technology.³⁷ The underpinnings of these ‘benchmark approaches’ are somewhat ambiguous. Whereas they seek to reward efficiency (in terms of either output, productivity, or energy use), which is admittedly a good thing, they penalize those countries that have not yet reached efficiency standards comparable to those of industrialized countries.

A fourth approach (‘approach 4’) focuses on equalizing the marginal costs incurred by countries in their efforts to stabilize climate.³⁸ The core idea of this approach is not to allocate emission entitlements as such, but rather to distribute among different countries shares of the overall effort that are equally burdensome, after considering the capabilities of each state. Developing countries would thus have to contribute less to the overall effort to curb climate change, but such smaller contribution would be proportionally similar in terms of effort to the larger contribution of an industrialized country with stronger capabilities. According to its proponent:

under suitable publicity conditions, when each nation is allotted an equally burdensome share of the task or chore of dealing with climate change, then each nation knows that no other nation has stronger (prudential) reasons to defect than it has. Where this result can be achieved or satisfactorily approximated, each nation confronts an important measure of moral pressure to cooperate in the maintenance of this public (global) good from the knowledge that its defection is no better motivated than is the defection of any other nation.³⁹

Although resorting to marginal costs is quite challenging, as such costs are difficult to assess accurately, this approach provides an interesting attempt at incorporating a formalized account of effectiveness, understood as the absence of reasons to defect or, more precisely, the absence of a reason to defect that would be proportionally stronger than those of the other states involved.

A fifth approach (‘approach 5’), which has attracted considerable attention from practitioners and academics alike, makes a distinction between ‘subsistence emissions’, which must be allocated per capita, and other emissions, including ‘luxury emissions’, which may be allocated in some other manner. The main proponent of this approach, Henry Shue,⁴⁰ argues in essence that there is an individual right to the emissions that are necessary for subsistence or for some basic living standard, and that such a right must have moral priority over other requirements, including curbing emissions to stabilize climate. Underlying this approach, one may read the basic structure advocated by John Rawls, for whom basic rights have absolute (‘lexical’) priority over utility considerations. One interesting variant of Shue’s argument, also in the line of Rawlsian approaches, is the one recently developed by Steve Vanderheiden.⁴¹ For this author:

37 Ibid., at 6–7, and references cited therein. See also D. Victor, *Climate Change: Debating America’s Policy Options* (2004); A. Rose and B. Stevens, ‘The Efficiency and Equity of Marketable Permits for CO₂ Emissions’, (1993) 15 *Resource and Energy Economics* 117.

38 See, e.g., Traxler, *supra* note 3.

39 Ibid., at 101.

40 Shue, *supra* note 3.

41 Vanderheiden, *supra* notes 1 and 3.

[A] just global emission allocation is one that (1) pays sufficient attention to global emission caps such that it avoids causing future climatic instability; (2) ensures that the distribution of emission shares among and within nations allows for adequate economic and human development; (3) assigns the remedial costs associated with climate change mitigation in accordance with a defensible account of moral responsibility, in which fault-based national liability is assigned in accordance with luxury but not survival emissions.⁴²

Regarding the relative priority among these principles, Vanderheiden notes that:

The right to develop cannot trump the right to survival emissions, nor can it trump the equally basic right to an adequate environment, but the former must be recognized as making a more compelling claim to limited atmospheric space than do those *de facto* claims now being made on that space by the relatively affluent residents of industrialized nations.⁴³

Approach 5 is particularly interesting in that it provides a structured view of the different grounds that can be mobilized in the context of climate change negotiations while at the same time spelling out their relative importance in terms of fairness. Specifically, the right to development may indeed base a claim for some sort of emissions tolerance, but only if the most basic rights of other peoples are guaranteed. Beyond such basic requirements, the right to development recovers its moral strength.

The main difficulty with these different approaches is not their conceptual soundness or ethical persuasiveness, but their implications from the perspective of effectiveness. Considerations of effectiveness are difficult to introduce into an ethical approach, as this would amount to accounting for the impact of power politics on ethical reasoning. However, any attempt at balancing fairness and effectiveness in the redesign of the CCR should be expected to clarify how these two types of consideration interact, or are likely to interact, in practice. In the following section, I will look at the actual manner in which considerations of fairness and effectiveness have been handled in the practice of the CCR. The analysis of the CCR will focus on how ethical reasoning has been displayed in order to shape certain questions relating not only to the distribution of emissions rights, but also to other 'objects' of distribution. In conducting such an analysis, I will endeavour to highlight what type of ethical reasoning seems more adapted for balancing considerations of fairness and effectiveness in this precise context.

4. CLIMATE FAIRNESS IN PRACTICE

Reference to fairness considerations in the UNFCCC is not infrequent. One could mention, for instance, the preamble of the Convention, which states *inter alia* that:

the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries

⁴² Vanderheiden, *supra* note 1, at 47.

⁴³ *Ibid.*, at 63.

are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.⁴⁴

Another powerful statement of the same idea is found in Article 3 of the Convention, at paragraphs 1 and 2:

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

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

These two paragraphs make reference to a milder form of the ‘historical-emissions argument’,⁴⁵ namely the principle of common but differentiated responsibilities, as well as to the ‘vulnerability argument’. The contents of these two paragraphs are echoed by several other provisions of the Convention.⁴⁶

Even more emphatic is the fact that developing countries have not been included in the list of countries appearing in Annex I to the Convention, which, under the Kyoto Protocol, are subject to quantified emission targets.⁴⁷ Developing countries are instead subject to loosely defined mitigation commitments characterized in Article 10 of the Kyoto Protocol,⁴⁸ which refers back to the general mitigation obligations applicable to all states party to the Convention under Article 4(1), ‘taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances’.

44 As noted by Bodansky, *supra* note 15, at 498:

While this paragraph contains much that is of interest to developing countries, it represents a substantial compromise on their part. Developing countries had sought inclusion of the ‘main responsibility’ principle, which posits that since the climate change problem results primarily from the overconsumptive and profligate lifestyles of developed countries, developed countries bear the main responsibility for combating it. The first clause of paragraph 3, reflecting only the first half of this principle, appears as a neutral factual statement, severed from the corollary that ‘developed country parties should take the lead in combating climate change’, which appears only later in the Convention. Similarly, the reference in the second clause to ‘per capita emissions’ is all that remains of an Indian proposal that the Convention should promote the convergence of greenhouse gas emissions at a common *per capita* level. Finally, the concluding clause, referring to the growth in emissions of developing countries, was originally proposed as a principle and phrased in mandatory rather than descriptive terms.

45 During the negotiations, there was agreement between developed and developing countries that developed countries ‘should take the lead in combating climate change and the adverse effects thereof’, as noted in Art. 3(1). Both groups disagreed, however, on the reasons why developed countries were to take the lead, with developing countries referring to the historical emissions argument and developed countries referring to their stronger financial and technological capabilities: Bodansky, *supra* note 15, at 502–3.

46 See, e.g., the different regimes set out by UNFCCC Art. 4(1)–(2): see also Arts. 4(3) and (5), 7, 8, and 9.

47 1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change, 2303 UNTS 148 (Kyoto Protocol), Art. 3(1) and Annex B.

48 *Ibid.*, Art. 10.

This choice was explicitly made from the beginning of the process that eventually led to the adoption of the Kyoto Protocol. The very first decision adopted by the Conference of the Parties (COP) after the entry into force of the Convention, the so-called ‘Berlin Mandate’, specifically stated that the negotiation process had to be guided by:

[t]he fact that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that the per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.⁴⁹

Accordingly, this decision stated that the process would not:

introduce any new commitments for Parties not included in Annex I, but reaffirm existing commitments in Article 4.1 and continue to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4.3, 4.5 and 4.7.⁵⁰

As noted by one commentator, during the negotiations leading to the adoption of the Kyoto Protocol, ‘[i]t was undisputed that, in line with the Berlin Mandate, the emission commitments in the protocol should apply to Annex I Parties under the Convention’.⁵¹ However, some countries sought to use new annexes in the protocol – a strategy that would have allowed for the listing of commitments also for countries not included in Annex I of the Convention. Eventually, the chairman of the Ad Hoc Group in charge of the negotiations, the Argentine ambassador Estrada-Oyuela, confined himself to Annex I to the Convention in order to avoid the creation of new categories of parties through the use of new annexes – an option strongly opposed by China and the Group of 77.⁵²

The inventory of the provisions in either the UNFCCC or the Kyoto Protocol that are relevant from a fairness perspective could be pursued for some time. However, rather than multiplying such examples, a more illuminating approach would seek to distil from these and other provisions the more general approach to fairness implicit in these texts. In conducting such an analysis, it is important to go beyond the basic understanding that developed and transitional countries carry a heavier burden than developing countries because of their relative contribution to the problem or their respective capabilities. Remaining at such a basic level of understanding would be utterly insufficient to analyse the issues of ‘degree’ involved in any attempt at balancing fairness and effectiveness in the redesign of the CCR. At the same time, one must also refrain from going into unnecessary details that would blur the overall picture rather than clarifying it.

49 The Berlin Mandate: Review of the adequacy of Article 4, paragraph 2 (a) and (b), of the Convention, including proposals related to a protocol and decisions on follow-up, Dec. 1/CP.1, UN doc. FCCC/CP/1995/7/Add.1 (1995), at 4, para. 1(d).

50 *Ibid.*, para. 2(b).

51 J. Depledge, ‘Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History’, Technical Paper, UN Doc. FCCC/TP/2000/2 (2000), para. 134.

52 *Ibid.*, paras. 135–137.

To avoid falling into either one of these two extremes, the analysis of the fairness considerations underpinning the current CCR as well as the options proposed for its redesign will be guided by three main questions: (i) at what level (international, regional, national, sub-national) should the distribution of this common resource be effected? ('distribution level'); (ii) among whom? ('distribution actors'); and (iii) according to which specific distributional criteria? ('distribution criteria').

4.1. Distribution level

Regarding the distribution level, the current legal arrangements adopt a traditional approach, distributing the efforts among states parties to the UNFCCC and, as applicable, the Kyoto Protocol. According to Article 4(1), '[a]ll Parties' shall take a series of steps to deal with climate change.⁵³ Other paragraphs of Article 4 impose supplementary obligations to other categories of states, which will be discussed in

⁵³ Under UNFCCC Art. 4(1):

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

- (a) Develop, periodically update, publish and make available to the Conference of the Parties, in accordance with Article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;
- (b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;
- (c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors;
- (d) Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;
- (e) Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;
- (f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;
- (g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;
- (h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;
- (i) Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations; and
- (j) Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12.

connection with question (ii). The Kyoto Protocol adopts a similar approach in its Articles 2, 3, and 10.⁵⁴ According to these provisions, states parties (especially those listed in Annex I of the UNFCCC, which are subject to quantified emission reduction targets under Article 3(1) and Annex B of the Protocol) must take measures (of their choice) to reduce their emissions. Thus, both the Convention and the Protocol distribute, in their present state, the burden of combating climate change among states parties.

However, the Kyoto Protocol specifically allows for an alternative approach in Article 4,⁵⁵ according to which Annex I parties may conclude an agreement to fulfil their commitments under Article 3(1) jointly. This possibility, often referred to as the 'bubble',⁵⁶ consists of distributing an aggregate share of the burden to combat climate change to an entity encompassing several states (e.g. the joint emission target set in Annex B to the Kyoto Protocol for the European Community). For the purposes of the Kyoto Protocol, as long as the aggregate target is met, the commitments of states parties included in the bubble are deemed to be respected, irrespective of whether some of these latter have respected their individual commitments or not. This mechanism aims to provide additional flexibility to the extent that states within the bubble are able to accommodate fairness considerations not only through their national policies (by allocating the burden of reducing emissions among different branches and sectors), but also through regional inter-state arrangements. Typical policies in this regard would allow for an increase in the emissions in one country in exchange for money transfers to another country whose needs in terms of emissions rights are lower.⁵⁷ Although such policies are most often discussed from the perspective of efficiency (itself a subcategory of effectiveness), they are also important from a fairness perspective, as they provide additional flexibility in the allocation of the burden of combating climate change.

Another possibility, which is being explored in some of the proposals submitted in the context of the current climate negotiations, mostly at the initiative of Japan, is to use a sub-national distribution level focusing on sectors of activity (e.g. aviation or maritime transport) instead of on economy-wide state-level targets, as did both the UNFCCC and the Kyoto Protocol.⁵⁸ Such an alternative approach would still distribute the burden of combating climate change among states. However, the fact that under such arrangements (e.g. sector-specific protocols or decisions of the COP), the emissions reduction could potentially have to be effected at the level of a specific sector (within a state or, by aggregation, the overall sector across states) justifies

54 Kyoto Protocol Arts. 2 and 3 (applicable to Annex I countries), and Art. 10 (applicable to both Annex I and non-Annex I countries).

55 *Ibid.*, Art. 4.

56 See M. Grubb, C. Vrolijk, and D. Brack, *The Kyoto Protocol: A Guide and Assessment* (1999), 122 ff.

57 At the level of the European Community, one such arrangement is the European Emissions Trading Scheme (ETS) established in 2003 by Directive 2003/87/EC, and significantly modified in 2009 by Directive 2009/29/EC. The Kyoto Protocol has sought to introduce this additional degree of liberty also for countries that have not availed themselves of the 'bubble' mechanism, through the 'Joint Implementation' mechanism established in Art. 6.

58 See generally D. Bodansky, *International Sectoral Agreements in a Post-2012 Climate Framework* (2007). See also M. Mukahanana-Sangarwe, Second Iteration of the Text to Facilitate Negotiations prepared by the Chair of the AWG-LCA, UN Doc. FCCC/AWGLCA/2010/8 (2010) (Working Document), Chapters I(C)(4) and IX.

its treatment as an alternative distribution level. From a fairness perspective, this approach would most directly channel the burden of combating climate change to the sectors that are mainly responsible for GHG emissions. Although a similar distribution could be carried out by means of domestic legislation, an international instrument directly setting a given distribution may be potentially less vulnerable to domestic industry pressures, much in the way that protected zones established by international law may be more effective than those established only by domestic law. This is, of course, an empirical claim, the accuracy of which would most likely vary from one country to another. Indeed, industry lobbies may, for instance, be able to block the ratification of an international instrument, thus thwarting in practice the main advantage often associated with sectoral approaches, namely the ability to bring into the agreement states who are not ready to undertake economy-wide commitments.

4.2. Distribution actors

The identification and conceptualization of distribution actors are closely related to the distribution level selected. Quite obviously, for an inter-state distribution level, the distribution actors will be states. Similarly, for a higher distribution level, the distribution actors will be groups of states acting as a single entity, whereas for a sub-national (e.g. sectoral) distribution level, the distribution actors will be sub-national entities, either legal (a province or a federated state) or conceptual (e.g. a sector or an industry). However, the analysis of distribution actors is not limited to the 'level' of the actors concerned. The most important issue captured by this second dimension is, in fact, the substantive identification and conceptualization of the relevant actors. In the context of the CCR, we must therefore focus on the categories of states (Annex I parties, non-Annex I parties, developed-country parties, countries undergoing the process of transition to a market economy, developing-country parties, etc.) or sectors (aviation, maritime transport, etc.) used to operate the distribution in a given instrument. The conceptual scope of these categories has, indeed, important distributional consequences that require clarification. For instance, the selection of the wide-ranging category of 'parties not included in Annex I', equated for many purposes with that of 'developing-country parties', can be seen as one of the main obstacles to the effectiveness of the CCR as well as one of the main bones of contention of the current negotiations. Similarly, defining a sector as 'transport' is fundamentally different from speaking of 'automobiles', as speaking of 'land-use change' is different from speaking of 'forestry'. The selection and definition of conceptual categories are thus major tools to either stress or downplay a material cleavage among states or its implications in terms of fairness.

The UNFCCC and the Kyoto Protocol are both based on a fundamental distinction between 'parties included in Annex I' and 'parties not included in Annex I'. This distinction provides the thrust of the whole CCR as it currently stands. Although it was used parsimoniously in the text of the Convention,⁵⁹ such distinction pervades

59 The term 'Parties included in Annex I' appears four times in the text of the Convention, twice in connection with substantive commitments (Art. 4(2) and (6)) and twice in connection with procedural commitments

the text of the Kyoto Protocol.⁶⁰ The main purpose of using this distinction is to circumscribe *ratione personae* the scope of most of the obligations set out in the Protocol. Under both the Convention and the Protocol, parties included in Annex I have more stringent obligations, the most important of which are the emissions-reduction commitments under Article 3(1) and Annex B of the Kyoto Protocol. Parties included in Annex I carry therefore a heavier burden than other countries in dealing with climate change. The Convention and the Protocol supplement this basic distinction with some additional ones. In particular, ‘developed-country parties included in Annex II’ of the Convention (which excludes ‘parties included in Annex I that are undergoing the process of transition to a market economy’⁶¹) have additional obligations in connection with financial assistance and technology transfer to ‘developing-country parties’.⁶² Some provisions introduce further distinctions within the category ‘developing-country parties’ to better reflect the position of certain states, such as ‘developing-country parties that are particularly vulnerable to the adverse effects of climate change’,⁶³ ‘small island countries’,⁶⁴ ‘countries with low-lying coastal areas’,⁶⁵ ‘countries with arid and semi-arid areas, forested areas and areas liable to forest decay’,⁶⁶ ‘countries with areas prone to natural disasters’,⁶⁷ ‘countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products’,⁶⁸ or ‘least-developed countries’,⁶⁹ in an attempt to take into account the interests of the different negotiating groups and blocks.⁷⁰

Despite the apparent accuracy of the categories, what is critical for distribution purposes is how each category is used or, more specifically, what benefit/burden is attached to a given category. Viewed from this perspective, the current CCR seems to incur a number of intentional oversimplifications, of which two are particularly important. First, the potential recipients or ‘creditors’ of the obligation of

(Art. 12(2) and (5)). By contrast, the term ‘Parties not included in Annex I’ appears only once, in connection with the possibility offered to such states to ‘upgrade’ their obligations to the level of those of ‘Parties included in Annex I’ (Art. 4(2)(g)).

60 The term ‘Party (Parties) included in Annex I’ appears 36 times, with some iterations occurring within provisions (Arts. 1(7), 2(1)–(9) and (13)–(14), 4(1), 5(1), 6(1) and (3)–(4), 7(1)–(4), 8(1), 10(b)(ii), 12(2), (3)(b), 25(1) and (2)). By contrast, the term ‘Parties not included in Annex I’ appears only three times (Arts. 10, and 12(2) and (3)).

61 This category of states has some additional flexibility in meeting the quantified targets set in Annex B of the Kyoto Protocol. According to Art. 4(6) of the Convention, such flexibility is provided ‘in order to enhance the ability of these Parties to address climate change, including with regard to the historical level of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol chosen as reference’. One important issue in respect of which such additional flexibility has been granted is the choice of base year or period for implementation of the emissions-reduction commitments under the Kyoto Protocol. See Communications from Parties included in Annex I to the Convention: guidelines, schedule and process for consideration, Dec. 9/CP.2, UN Doc. FCCC/CP/1996/15/Add.1 (1996), at 15, para. 5 (setting base years other than 1990 for Bulgaria, Hungary, Poland, and Romania); see also Kyoto Protocol, Art. 3(5).

62 UNFCCC Art. 4(3)–(5); Kyoto Protocol, Art. 11(2)–(3).

63 UNFCCC Art. 4(4).

64 Ibid., Art. 4(8)(a).

65 Ibid., Art. 4(8)(b).

66 Ibid., Art. 4(8)(c).

67 Ibid., Art. 4(8)(d).

68 Ibid., Art. 4(8)(h).

69 Ibid., Arts. 4(9) and 12(5); Kyoto Protocol, Arts. 2(3) and 3(14).

70 F. Yamin and J. Depledge, *The International Climate Change Regime* (2004), 30–48.

'developed-country parties included in Annex II' to provide financial assistance include not only poor countries, but also emerging economies.⁷¹ Second, except for the case of least-developed countries, which is expressly envisioned in both the UNFCCC and the Kyoto Protocol (by reference), the obligations of countries such as China, Brazil, and India are virtually identical to those of the other countries that are far poorer, less developed, and, most importantly, less polluting. For these reasons, there have been some attempts at either clarifying the contents of the term 'developing countries' or, more radically, at introducing new categories more adequately reflecting the position of emerging economies. Let me deal with these two issues in turn.

Regarding the *clarification attempts*, at the seventh Conference of the Parties, in 2001, the Central Asia, Caucasus, Albania and Moldova Group (CACAM) requested clarification of their status in connection with their eligibility under the Convention's financial assistance mechanism, operated by the Global Environmental Facility (GEF).⁷² As stated in the note introducing the items raised by the CACAM countries in the agenda, a number of countries not included in Annex I of the Convention (including the CACAM countries) are not considered or do not consider themselves 'developing countries', and yet they are interested in receiving financial and technical assistance. The letter requested the Convention's Executive Secretary, in particular, to provide 'an official legal clarification in regard to the status of our countries in the context of decisions of the UNFCCC and the Kyoto Protocol'.⁷³ The issue was subsequently considered by the Subsidiary Body on Implementation (SBI) established under the Convention, as well as by the COP, but no official definition has so far been adopted.⁷⁴ A number of COP decisions suggest, however, that any party not included in Annex I, whether it is considered or considers itself a 'developing country' for other purposes, is potentially eligible for financial assistance under the Convention's mechanisms.⁷⁵ Further clarification of what specific circumstances entitle a country (either a 'developing country' or country not covered by this term) to have access to financial and/or technical assistance would clearly constitute an improvement in terms of fairness.

71 Ibid., at 272 ff. Yamin and Depledge note, however, that a number of non-Annex I parties that would technically be eligible to receive funding from the Global Environmental Facility have refrained from seeking funding. These include the Republic of Korea and Singapore.

72 Letter from the Central Asia, Caucasus and Moldova Countries on their Status under the Convention dated 27 July 2001, annexed to a Note by the Secretariat (dated 11 October 2001), UN Doc. FCCC/CP/2001/12.

73 Ibid., at 3.

74 A draft note by the chair of the SBI concluded that 'the CACAM countries by virtue of their status as Parties not included in Annex I to the Convention were eligible for funding under the GEF' and recommended that 'in future all references to Parties in decisions of the Conference of the Parties should follow the language of the Convention, for example "Parties included in Annex I" (Annex I Parties), "Parties included in Annex II" (Annex II Parties) and "Parties not included in Annex I" (non-Annex I Parties)': Request from a Group of Countries of Central Asia and the Caucasus, Albania and the Republic of Moldova Regarding Their Status under the Convention: Draft Conclusions Proposed by the Chair, UN Doc. FCCC/SBI/2002/L.14, paras. 2 and 5. On this point, and the relationship with the GEF's funding policies, see Yamin and Depledge, *supra* note 70, at 274–5.

75 Dec. 5/CP.11, UN Doc. FCCC/CP/2005/5/Add.1, at 15, para. 2; Dec. 3/CP.12, UN Doc. FCCC/CP/2006/5/Add.1, at 9, paras. 1(e) and 2(a)–(c); Dec. 7/CP.13, UN Doc. FCCC/CP/2007/6/Add.1, at 33, paras 1(e)–(l) and 2(a) and (b); Dec. 4/CP.14, UN Doc. FCCC/CP/2008/7/Add.1, at 6, para. 1(d) (requesting that the GEF 'continue to improve access for all developing countries, in particular least developed countries, small island developing States and countries in Africa, to Global Environment Facility resources').

In this connection, there have also been some initiatives *to redefine the boundaries* between ‘parties included in Annex I’ and ‘parties not included in Annex I’, mostly to account for the specific position of emerging economies. Here, I will limit my analysis to three of these initiatives. The first is the Draft Protocol submitted by the United States in June 2009, in view of the Copenhagen Summit.⁷⁶ Article 2(1) of this instrument required ‘developed-country parties’ to state quantified emissions-reduction targets in the 2020 timeframe⁷⁷ as well as the formulation and submission of a low-carbon strategy of some quantified amount by 2050.⁷⁸ Paragraph 2 of this same article stated that ‘[r]ecognizing that the circumstances of countries naturally evolve over time, Paragraph 1 above shall apply, when Appendix 1 is next updated, to other Parties in accordance with objective criteria of economic development’.⁷⁹ Moreover, paragraph 3 of this same article required ‘developing country Parties whose national circumstances reflect greater responsibility or capability’ to state ‘nationally appropriate mitigation actions in the 2020/[] timeframe that are quantified’⁸⁰ as well as to adopt a long-term low-carbon strategy.⁸¹ The difference between the position of emerging economies, thus characterized, and that of other developing countries is further emphasized by Article 2(4) of the Draft Protocol, according to which ‘[o]ther developing country Parties should implement nationally appropriate mitigation actions and develop low-carbon strategies, consistent with their capacity’.⁸² As we now know, the US proposal did not overcome the scrutiny of other states. However, the effort to redefine the basic distinction between ‘parties included in Annex I’ and ‘parties not included in Annex I’ was to some extent preserved, albeit in a diluted manner, in the so-called ‘Copenhagen Accord’.⁸³

As is the Convention, the Copenhagen Accord is premised in the principle of common but differentiated responsibilities,⁸⁴ and it expressly states at the outset that the goal to achieve the peaking of global and national emissions as soon as possible should be pursued, ‘recognizing that the time frame for peaking will be longer in developing countries and bearing in mind that social and economic development and poverty eradication are first and overriding priorities of developing countries’.⁸⁵ If these two statements seem to reaffirm, rather than blur, the distinction between distribution actors made in the Convention and the Kyoto Protocol, some nuance is introduced in paragraph 5 of the Accord, according to which:

[n]on-Annex I Parties to the Convention will implement mitigation actions, including those to be submitted to the secretariat by non-Annex I Parties in the format given in Appendix II by 31 January 2010, for compilation in an INF document Least developed

76 Draft Implementing Agreement under the Convention prepared by the Government of the United States of America (draft of 6 June 2009), UN Doc. FCCC/CP/2009/7 (US Draft Protocol).

77 Ibid., Art. 2(1)(a).

78 Ibid., Art. 2(1)(b).

79 Ibid., Art. 2(2).

80 Ibid., Art. 2(3)(a).

81 Ibid., Art. 2(3)(b).

82 Ibid., Art. 2(4).

83 Dec. 2/CP.15, UN Doc. FCCC/CP/2009/11/Add.1, Annex (Copenhagen Accord).

84 Ibid., para. 1.

85 Ibid., para. 2.

countries and small island developing States may undertake actions voluntarily in the basis of support.⁸⁶

The distinction thus emphasized is perhaps too shy, and it was to some extent present already in the Convention. What is more noteworthy is that despite the fact that the Copenhagen Accord is neither a binding agreement nor was it approved by the COP,⁸⁷ a large number of developing-country parties declared their support for the document, by communicating voluntary but quantified emissions-reduction or efficiency targets or at least current and projected measures.⁸⁸ Therefore, the attempts of some developed states at redrawing the initial distinction on which the CCR is based in order to enhance the commitments of emerging economies seems to be moving forward. With it, a more effectiveness-sensitive approach to fairness is taking shape, to the extent that, despite their fairness claims, several emerging economies have nevertheless made public their emissions-reduction pledges.

This point seems to be confirmed by the thrust of the current negotiations. As is well known, since COP 13, which took place in Bali in 2007, the negotiations regarding the post-2012 CCR have followed two main tracks: one under an Ad Hoc Working Group on the Kyoto Protocol (AWG-KP) and the other under an Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA). The fundamental difference between these two negotiation tracks is that the Kyoto track preserves the initial equation as regards distribution actors whereas the LCA track seeks to introduce a new equation rebalancing the level of commitments of emerging economies. In other words, it is a distributional question that concerns the identity and the conceptualization of the actors among which the burden of fighting climate change must be (re)distributed. The draft document prepared by the chair of the AWG-LCA as a basis for the negotiations of August 2010 in Bonn reflected in part some of the choices underlying the Copenhagen Accord.⁸⁹ Although this is only a draft, which includes opposing versions advanced by different parties, many similarities with the approach adopted by the Copenhagen Accord can be detected. Let me briefly point out a few of them that are relevant from the perspective of redrawing the boundaries of the distinction between 'Parties included in Annex I' and 'Parties not included in Annex I'. Chapter 1, letter G of the Working Document focuses on 'Enhanced Action on Mitigation and Its Associated Means of Implementation'. Paragraph 29 of the text takes up the basic idea of paragraph 5 of the Copenhagen Accord in stating that:

[Developing country Parties will implement the mitigation actions submitted to the secretariat in the format of Appendix II, consistent with Article 4, paragraph 1, and Article 4, paragraph 7, and in the context of sustainable development][Those mitigation actions taken and envisaged by developing countries [shall] be communicated in

86 Ibid., para. 5.

87 The COP merely took note of the Copenhagen Accord. See *supra* note 83.

88 See the list of 'Communications received from Parties in relation to the listing in the chapeau of the Copenhagen Accord' on the UNFCCC website, available at <http://unfccc.int/meetings/items/5276.php>.

89 Working Document, *supra* note 58.

national communications or otherwise communicated to the secretariat and be added to the list in Appendix II]],⁹⁰

Moreover, when supported by international technological, financial, or capacity-building assistance, such mitigation action 'shall be subject to measurement, reporting and verification at the international level'.⁹¹ Furthermore, developing-country parties are further expected to prepare low-emission development plans, although such plans are not a precondition for international support.⁹²

Again, as the wording proposed by the Working Document will have probably changed by the end of COP 16, in Mexico, there is little interest in multiplying the references. What I find nevertheless noteworthy is the effort, suggested by this and the other two documents mentioned, to redefine the distribution actors to enhance the commitments of emerging economies and thereby accommodate fairness and effectiveness considerations.

4.3. Distribution criteria

Underlying the choices made in connection with the distribution level and the distribution actors is a set of often unspecified distribution criteria. Such criteria provide, however, the very reasons why a distributional choice is made in a given way. For instance, the differing commitments undertaken by 'parties included in Annex I' and 'parties not included in Annex I' under the current CCR can be largely explained as an application of two distribution criteria, namely 'historical emissions' and 'level of development'. Conversely, the attempts at redrawing the boundaries between the aforementioned categories of states, in order to enhance the commitments of emerging economies, can be seen as an application of two other distribution criteria, namely 'current and projected emissions' and 'economic power'. As this basic example shows, it is very important to spell out both the criteria that may justify a given distribution and the relative weight given to each criterion for any given distributional choice. This analytical process has been conducted *in abstracto* by the different ethical approaches to climate change reviewed in section 3 of this article. My purpose here is not to duplicate such analysis or to add an additional perspective, but rather to induct from both the current legal arrangements and the options under negotiation the distribution criteria that seem to be guiding the redesign of the CCR. As we shall see, such criteria often take the form of trade-offs between two competing values.

A first criterion concerns the manner in which the emissions of GHGs are calculated. The criterion most frequently used focuses on the production of GHG emissions rather than on their consumption. An example will help clarify the

90 Ibid., Chapter I(G)(29).

91 Ibid., Chapter I(G)(34) and (35). Although the foundations for the measurement, reporting, and verification of nationally appropriate mitigation actions by developing countries had been laid out already in the Bali Mandate: see Bali Action Plan, Dec. 1/CP.13, UN Doc. FCCC/CP/2007/6/Add.1, para. 1(b)(ii)–(iii)). This explicit reference to MRV 'at the international level' seems to be the result of the proposal made by the US Secretary of State, Hillary Rodham Clinton, on the penultimate day of the Copenhagen conference. See J. M. Broder and E. Rosenthal, 'Obama Has Goal to Wrest a Deal in Climate Talks', *New York Times*, 17 December 2009, available online at www.nytimes.com/2009/12/18/science/earth/18climate.html (accessed on 30 October 2010).

92 Working Document, *supra* note 58, Chapter I(G)(48).

distributional implications of this choice. Under the production-based approach, the emissions arising from the production of a ton of cement in China would be counted as part of China's emissions share (although, technically, China still has none under the current arrangements). This would remain the case even if the use or consumption of such a ton of cement takes place in Switzerland or Germany. The current CCR follows a production-based approach.⁹³ A change of approach would have major distributional consequences, as one could expect that a large part of the GHG emissions originating in developing countries would then be counted as part of the emissions of their export markets, which are often developed countries.

A second criterion widely used in both the current and the projected legal arrangements is historical emissions. As already noted, allocation of the burden to mitigate climate has so far been operated largely on the basis of historical emissions. This is mentioned *inter alia* in the UNFCCC (preamble⁹⁴ and, less explicitly, Article 3(1)⁹⁵), in the Kyoto Protocol (which, in Article 3, imposes quantified commitments only on parties included in Annex I), and, more recently, in the Working Document (Chapter I, preamble⁹⁶). However, this criterion has been used to justify the principle of allocation (to Annex I states) and not the specific shares of each country (which were not negotiated on the basis of quantified estimations of historical emissions). The most important competing value is effectiveness, to the extent that allocating the burden of combating climate change solely on the basis of historical emissions would not be sufficient to prevent dangerous human interference with the climate system,⁹⁷ let alone to reach the objective mentioned in paragraph 1 of the Copenhagen Accord⁹⁸ of limiting the rise in global average temperature to a maximum of 2°C. Given the projected emissions of a number of developing countries, especially emerging economies, their contribution to the global mitigation appears indeed indispensable to stabilize GHG concentrations in the atmosphere at an acceptable level. Without such contribution, the 'historical-emissions' criterion would yield unfair results, because those developing countries that are more vulnerable to the consequences of climate change would suffer disproportionately to accommodate the interests of emerging economies. This concern started to be more directly addressed after the COP shifted its attention specifically to adaptation measures under Article 4(8)–(9) of the Convention.⁹⁹ This shift raised, in turn, another issue of fairness arising from the difference between adaptation of developing countries to the consequences of climate change (a need aired, in particular, by small island nations and least-developed countries) and adaptation of developed countries to the impact

93 Dec. 13/CMP.1, UN Doc. FCCC/KP/CMP/2005/8/Add.2.

94 UNFCCC preamble, noting 'that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries'.

95 UNFCCC, Art. 3(1), stating the principle of common but differentiated responsibilities and exhorting developed-country parties to 'take the lead in combating climate change and the adverse effects thereof'.

96 Working Document, *supra* note 58, Chapter I, preamble: 'Acknowledging that the largest share of historical global emissions of greenhouse gases has originated in developed countries and that, owing to this historical responsibility, developed country Parties must take the lead in combating climate change and the adverse effects thereof.'

97 UNFCCC, Art. 2.

98 Copenhagen Accord, *supra* note 83, para. 1.

99 Dec. 3/CP.3, UN Doc. FCCC/CP/1997/7/Add.1, at 32.

of the implementation of response measures (a need aired by oil-exporting countries and, more specifically, by Saudi Arabia). The 'developing countries' concerned by these two dimensions of adaptation are in very different situations. Whereas small island nations and least-developed countries actively seek to strengthen the CCR, oil-exporting countries see such an eventuality as a considerable drawback to their economic interests.¹⁰⁰ And yet, for political reasons, the concerns of the two groups were artificially linked as one point in the agenda. As noted by Yamin and Depledge, since COP 5 in 1999, there have been efforts to dissociate these issues in order to better deal with the needs of the most vulnerable countries.¹⁰¹ The link is still apparent, however, in the text of the Copenhagen Accord,¹⁰² as well as in the Working Document,¹⁰³ although in both cases, the emphasis is clearly on assisting vulnerable countries.

A third criterion opposes development needs to prior entitlement and lifestyle. If the historical-emissions criterion concerns, as I have mentioned, the principle of allocation (to Annex I) of the burden to combat climate change, the present criterion focuses instead on providing a basis for quantifying specific shares. This criterion has been at the root of the CCR from its inception in the UNFCCC¹⁰⁴ to the current negotiations.¹⁰⁵ As discussed in section 3 of this article, this criterion is also

100 See generally J. Depledge, 'Striving for No: Saudi Arabia in the Climate Change Regime', (2008) 8 *Global Environmental Politics* 9.

101 Yamin and Depledge, *supra* note 70, at 231.

102 Copenhagen Accord, *supra* note 83, para. 3, stating that:

Adaptation to the adverse effects of climate change and the potential impacts of response measures is a challenge faced by all countries. Enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention by enabling and supporting the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing countries, especially in those that are particularly vulnerable, especially least developed countries, small island developing States and Africa. We agree that developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity-building to support the implementation of adaptation action in developing countries. (emphasis added)

103 Working Document, *supra* note 58, Chapter II, para. 1, where it is apparent that the establishment of the link in the text devoted to 'Enhanced action on adaptation' is still an open option:

[The Conference of the Parties, . . . 1. [Agrees that adaptation to the adverse effects of climate change [and/or to the impact of the implementation of response measures] is a challenge faced by all Parties and that enhanced action and international cooperation on adaptation is urgently required to enable and support the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing country Parties, taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, and further taking into account the needs of countries in Africa affected by drought, desertification and floods.

104 The use of square brackets indicates wording in the Working Document which is open for negotiation. UNFCCC, Preamble:

Noting . . . per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.'

105 Working Document, *supra* note 58, Chapter I, Preamble:

Reaffirming that social and economic development and poverty eradication are the first and overriding priorities of developing country Parties, and also that the share of global emissions originating in developing countries will grow to meet their social and development needs.

the one privileged by most ethical theories for the distribution of emission rights among states and/or individuals. According to the manner in which it is spelled out, its application would tend to strengthen the bargaining position of developing countries (approach 1 – equal per capita entitlement to emissions – and approach 5 – allocation per capita of subsistence emissions and allocation of luxury emissions by other criteria)¹⁰⁶ or that of developed countries (approach 2 – allocation based on prior use – and approach 3 – allocation on the basis of efficiency).¹⁰⁷ Whereas it seems justified to grant developing countries more emission rights in order to further their development, it appears unrealistic to expect that developed countries will drastically reduce their emissions to prioritize the needs of other countries. They may do so to some extent and/or offer assistance to developing countries, but it is difficult to determine the precise extent to which such an effort should be carried out. The key question in this respect would be to identify the threshold of socioeconomic development beyond which developing countries (or their populations) have no longer priority over developed countries (or their populations) in connection with emissions rights. If China, India, or Brazil were to reach (if they still have not) a given threshold of socioeconomic development (which developed countries reached in the past), such a priority would no longer operate. One may ask whether it is possible at all to identify a threshold that would be both morally and realistically satisfactory. If the threshold is too high, the only way to preserve the possibility of attaining it (fairness) may not allow stabilizing the climate (effectiveness), either because the participation of one or more of the countries who claim the right to attain such threshold is a *sine qua non* condition of effectiveness or because tolerating accession to such threshold would be politically unrealistic from the perspective of developed countries. From an empirical standpoint, finding such a threshold is, of course, a matter of negotiation. One important approach in seeking a balance between the interests of the different states is the adjustment of the timeframe. It seems now widely recognized that the peaking of the emissions of developing countries will have to take place at some point in time, but it will be later than for developed countries. This approach leaves some room for phase-out policies in developed countries and for development in developing countries.

A fourth and related distribution criterion would be based on the population level of each country. This is a position defended by countries such as India or China by reference to equal per capita emissions, which would amount to multiply their available emissions by an order of 5–15 on average. As noted in the statement of an Indian think tank quoted in the introduction to this article:

[a]t a time when a large part of India's population does not even have access to electricity, Bush [the former U.S. president] would like this country to stem its 'survival emissions', so that industrialized countries like the U.S. can continue to have high 'luxury emissions'. This amounts to demanding a freeze on global inequality, where

¹⁰⁶ Ibid., Part II, Section B.

¹⁰⁷ Some developing countries, including China and India, are adopting this approach in their voluntary emissions target: see below, note 109. This suggests that the type of approach favoured by a given country is largely based on its own level of emissions.

rich countries stay rich, and poor countries stay poor, since carbon dioxide emissions are closely linked to GDP growth.¹⁰⁸

The underpinnings of this criterion have already been discussed in connection with the foregoing criterion. As to the limitations to the use of per capita distribution, they are mainly two: (i) effectiveness (multiplying the emissions rights of certain emerging economies would prevent climate stabilization, even if the emissions rights of the developed countries were significantly reduced, which, realistically, could only be pushed up to some extent); and (ii) fairness to other developing countries who would not be able to profit from their emissions entitlements as fast as emerging economies and would, in practice, lose their entitlements as the atmosphere becomes saturated. Moreover, the distribution of emissions within a country such as China or India may also raise fairness concerns, to the extent that it seems contradictory to claim larger emission entitlements to improve the lives of the population without taking serious steps to proceed to a fair domestic distribution of such entitlements. In retrospect, this criterion seems to have operated as a bargaining tool rather than as an actual approach to distributing the benefits/burden of combating climate change, as countries such as China and India have formulated voluntary emissions-reduction objectives without making them dependent on per capita distribution.¹⁰⁹

A fifth distribution criterion, which is related to the third criterion identified above, is based on financial and technological capability. The thrust of this criterion is that those states that have better means to combat climate change should carry a proportionally heavier burden, in a way comparable to progressive taxation of revenue. Under the current CCR, this criterion underlies the distinction between ‘parties included in Annex I’ and ‘parties included in Annex II’. Only the latter are technically required to provide financial and technological assistance under Article 4(3)–(5) of the Convention and Article 11 of the Kyoto Protocol.¹¹⁰ The difference between Annex I and Annex II of the Convention is interesting because it shows, to some extent,¹¹¹ the respective scope of the historical emissions criterion (Annex I) and of the capabilities criterion (Annex II). The selection of providers of funds, technology, and capacity-building is indeed based on capabilities and not on historical emissions, as suggested by the deletion of Turkey, an Annex I country, from the list in Annex II because of Turkey’s reduced capabilities as compared with those

¹⁰⁸ *Supra* note 1.

¹⁰⁹ Letter of 28 January 2010 to the Executive Secretary of the UNFCCC from Su Wei, director general of the Department of Climate Change at the National Development and Reform Commission of China, available online at http://unfccc.int/files/meetings/application/pdf/chinacphaccord_app2.pdf (accessed 30 October 2010); letter of 30 January 2010 to the executive secretary of the UNFCCC from Rajani Rajan Rashmi, joint secretary of the Indian Ministry of the Environment and Forests, available online at http://unfccc.int/files/meetings/application/pdf/indiaphaccord_app2.pdf (accessed 30 October 2010).

¹¹⁰ See, however, the exceptions to this rule discussed by Yamin and Depledge in connection with Art. 12 of the Kyoto Protocol and the replenishment of the GEF: Yamin and Depledge, *supra* note 70, at 266–7.

¹¹¹ An important nuance regarding this proposition must be introduced in connection with the situation of ‘Parties included in Annex I that are undergoing the process of transition to a market economy’. It could be argued that the inclusion of such parties in Annex I of the UNFCCC was at least partly motivated by their desire to profit from the regime being established, specifically by selling their excess of emission rights to developed countries. While there may be some truth in this argument, one must not overlook that, at the time of their listing in Annex I of the UNFCCC, the possibility of profiting from the trading of emission rights was entirely speculative, as the Kyoto Protocol had still to be negotiated.

of other Annex II countries.¹¹² At the same time, the definition of the recipients of such assistance is also based, at least in part, on capabilities, as suggested by the fact that some Annex I countries undergoing a transition to a market economy could obtain funding from the GEF (although not under the Convention's financial mechanism) for their climate change-related activities, provided that they are parties to the UNFCCC.¹¹³ However, the fact that, as already pointed out when discussing the distribution actors, any 'party not included in Annex I' would be potentially eligible to receive assistance shows that the scope of the capabilities criterion is to some extent limited by its interplay with the historical-emissions criterion.

Aside from the five foregoing criteria, other distribution criteria could potentially be inducted from the legal arrangements forming the CCR. However, the criteria discussed in the preceding paragraphs are, in my view, those that better reflect the fundamental distributional choices made in the design and the current attempts at redesigning the CCR.

5. CONCLUDING REMARKS

The foregoing considerations suggest that the attempts at designing a set of rules for the CCR that is both fair and effective should be based on a clear understanding of (i) the distribution level, (ii) the distribution actors, and (iii) the distribution criteria, applicable to allocate the benefits/burden of combating climate change.

Regarding the distribution level, the approach followed so far privileges an inter-state distribution, although other distributional levels could be selected. I mentioned two of them, namely the supranational level illustrated by the quantified emissions target set in Annex B to the Kyoto Protocol for the European Community and the sub-national level exemplified, with some nuances, by transnational sectoral approaches.

The selection of a distribution level is closely related to the identification and conceptualization of the distribution actors. Once it is decided that the distribution will be operated among states, it is still necessary to determine what the position of the different states will be. One possibility would be to treat them all on an equal footing, although this approach would be unsatisfactory in an area such as climate change with respect to which states are, according to their circumstances, in very different positions. Another possibility is to introduce differences of treatment among different distribution actors. Such an approach seems much more appropriate in the context of the CCR, although differential treatment raises in turn many difficult questions, such as the criteria that would be used to identify and conceptualize

¹¹² Proposal to amend the lists in Annexes I and II to the Convention by removing the name of Turkey: Review of information and possible decisions under Article 4, paragraph 2(f) of the Convention, UN Doc. FCCC/CP/2000/5/Add.1, at 23, paras. 83–85; Dec. 26/CP.7, UN Doc. FCCC/CP/2001/13/Add.4, at 5.

¹¹³ According to the Instrument for the Establishment of the Restructured Global Environmental Facility, para. 9(b), available at www.thegef.org/gef/sites/thegef.org/files/publication/GEF_Instrument3.pdf:

GEF grants for activities within a focal area addressed by a convention referred to in paragraph 6 but outside the framework of the financial mechanism of the convention, shall only be made available to eligible recipient countries that are party to the convention concerned.

See also the discussion in Yamin and Depledge, *supra* note 70, at 275–6.

different categories of distribution actors. Moreover, the situation of distribution actors may change over time. The CCR has been based, since its inception, on the principle of common but differentiated responsibilities, provided in Article 3(1) of the UNFCCC. This principle has been operationalized by means of the fundamental distinction between ‘countries included in Annex I’ (with real commitments) and ‘countries not included in Annex I’ (without real commitments) – a distinction that seems no longer adapted to reflect the situation of emerging economies. For these reasons, there have been attempts at redrawing the boundaries of this distinction, the success of which has so far remained limited.

Underlying the differentiation of the actors concerned by a given distribution is a set of ‘distribution criteria’, more or less explicit in different regimes. Such criteria often take the form of a trade-off involving competing values. The weight given to each value and, as a result, the manner in which the relevant criterion operates considerably depends upon the object of the distribution (e.g. burden of reducing emissions, rights to emit GHG with or without quantified limits, contribution to financial and technological assistance, access to such assistance). Some criteria (e.g. historical emissions) may explain the allocation of one object of distribution (e.g. burden of reducing emissions) better than that of a different object of distribution (e.g. contribution to financial and technological assistance, which is based on capabilities). I have endeavoured to identify and discuss the criteria that I see as the most important to understand the choices underlying the CCR and the current negotiations towards its redesign. The use of different criteria for different objects, and the relative weight given to the competing values involved in each criterion, act as important tools to balance considerations of fairness and effectiveness.

The basic conclusion that, in my view, emerges from the foregoing discussion is that in climate change as in many other areas, a fair but ineffective distribution may, in fact, be worse, and therefore more unfair, than an ethically less elegant patchwork of criteria applied to different objects distributed among different actors at different levels. Such an alternative account bears some resemblance to Michael Walzer’s conceptualization of different distributional spheres each concerning a specific good and governed by a specific distribution criterion. However, unlike in Walzer’s account, the distribution of the different ‘goods’ or ‘objects’ operated by the CCR is not based on shared values or understandings. Rather, the ‘objects’ and ‘criteria’ are the result of complex and lengthy negotiations, which bear in turn some resemblance to procedural-justice accounts. The overall balance between fairness and effectiveness that arises from the analysis of the CCR is thus a complex aggregation of more specific balances struck with respect to specific distribution objects. A realistic account of climate fairness should, in my view, start at the level of each ‘sphere’, identifying the object of distribution, developing appropriate categories of distribution actors, and exploring the most appropriate criteria to organize the distribution for each object. Only then would it be possible, on the basis of how the different balances have been struck for each object, to assess the overall fairness of the CCR. I have not provided such an account here, but I do hope to have spelled out the types of issue that would have to be addressed in the pursuit of such an endeavour.