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Burden-Sharing and Allocation Criteria under the UN Climate Regime – Neither Fair nor Effective

Summary

The United Nations Framework Convention on Climate Change (UNFCCC) calls on all parties to protect the climate system in accordance with their common but differentiated responsibilities and respective capabilities. This principle of equity was formulated at the United Nations Conference on the Environment and Development held in Rio de Janeiro in 1992 and still serves as the template for the development of criteria designed to ensure fair burden-sharing under the UN climate regime. Since then, however, the responsibilities and capabilities of countries have changed considerably with respect both to climate protection and to protection against the effects of climate change. Against this backdrop, it is clear that the current burden-sharing and financial transfer criteria are both unfair and ineffective from a climate policy viewpoint: unfair mainly when it comes to financing adaptation to climate change; ineffective in reducing greenhouse gas emissions.

In the financing of adaptation measures, vulnerability to the consequences of climate change is the main allocation criterion under the climate regime. However, that criterion has yet to be applied in practice, there being no objective measure of the impact of climate change. Numerous normative decisions need to be made, but there is no sign of a consensus among either academics or politicians. As the Framework Convention and the Kyoto Protocol both fail to define "vulnerability" and "particularly vulnerable countries," the Adaptation Fund and the planned Green Climate Fund, for instance, will be unable to allocate scarce resources equitably on the basis of the vulnerability criterion. Vulnerability is not currently considered when priorities are set for accessing adaptation financing under the UN climate regime.

As regards climate protection, it is clear that global warming cannot be restricted to 2 °C if the burden is shared in accordance with the Kyoto Protocol. The division in 1992 of countries into those with and those without climate protection obligations has hitherto proved ineffective: traditionally large emitters have made little or no contribution to reducing emissions; major new emitters are under no obligation to do so.

If the international community wants effective, equitable climate protection, it will have to stop dividing the world into two categories and instead specify new burden-sharing and allocation criteria based on the principle of equity. That step was not taken in Copenhagen and, given its major implications, is unlikely to be taken in Durban. Does this mean that the question of equity is becoming a blind alley of international climate policy?

The present analysis shows that, in a world still characterised by major disparities in levels of prosperity, differentiation is still needed if a fair, negotiated solution is to be found. It is equally clear, however, that the criteria for the implementation of the equity principle should be developed with each country's capabilities borne in mind.

Where adaptation financing is concerned, this means distinguishing between developing countries according to their "response capacity", that is, their ability to react to climate change.

To reduce emissions, everyone should have the same emission rights within a fixed global carbon budget, and all countries should be under an obligation not to exceed their national budgets. In this way internationally comparable common standards would be set. Implementation would be supported by tradable rights and financial transfers.

Application of the equity principle to date

The equity debate focuses on different interpretations of the first principle of the UNFCCC (Article 3.1): "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." The principle of "common but differentiated responsibilities" forms the conceptual basis for the fair distribution of the obligations and costs associated with global environmental protection and for related financial transfers in an economically unequal world.

In 1992, the parties to the UNFCCC were divided into two camps on the basis of this principle of equity: the developed countries and the countries emerging from the dissolution of the Soviet Union (Annex I states), on the one hand; the developing countries (Non-Annex I states), on the other. This division was retained in the 1997 Kyoto Protocol and, above all, reflects the political tradition of the post-colonial division of the world. It was implicitly based on two assumptions, the first that rich countries are able to help poorer countries to cope with problems, the second that greater prosperity goes hand in hand with greater energy consumption, as the historical example of industrialisation demonstrates. The right to development granted to the South in the Framework Convention is therefore linked to the right to emit more greenhouse gases as long as renewables continue to be more expensive than fossil energy and the additional cost of reducing emissions is not redistributed internationally.

However, the responsibilities and capabilities of individual countries within these two groups are very different and have also changed enormously over the past 20 years. Accordingly, negotiating interests sometimes differ widely in certain areas, even within each group. From the climate policy viewpoint, the creation of the two groups is both unfair and ineffective: unfair mainly when it comes to financing adaptation to climate change; ineffective in reducing greenhouse gas emissions.

Vulnerability as allocation criterion – alleged equity

The main criterion in the application of the equity principle when support is given to adaptation measures under the Convention is the degree of vulnerability to the consequences of climate change. Above all, developing countries "particularly vulnerable" to the adverse effects of climate change are to be assisted (Articles 3.2 and 4.4 of the UNFCCC).

However, what "particularly vulnerable" means has remained unclear ever since, which constantly hampers the implementation of the Convention. Any attempt to arrive at a fair method of burden-sharing based on the concept of vulnerability poses problems, logical though it may seem at first sight.

The Intergovernmental Panel on Climate Change (IPCC) uses the concept of vulnerability to designate the degree of exposure to the harmful effects of climate change, including climate variability and extreme events. Vulnerability is defined as a function of the character, magnitude and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity. This concept attempts to identify the link to *exposure* to climate change and so to limit financial support to costs related to damage caused by climate change or adaptation to it. Distinguishing climate change from climate variability and weather extremes now plays a subordinate role.

Implementing the concept proves to be problematical. Firstly, all countries are affected by climate change. What does "particularly" mean in this context? What is needed is a comparison of different impacts, such as the normative weighting of the severity of a drought or flood. Objectively, politically and ethically, this is extremely difficult, and agreement is therefore unlikely. Second, there is no standard political or scientific definition of vulnerability of the kind needed for such comparisons. More than 25 definitions, concepts and methods are used to measure vulnerability, which leads to a paradox, as Birkmann (2006, 11) aptly points out: "We aim to measure vulnerability, yet we cannot define it precisely." As neither the Framework Convention nor the Kyoto Protocol specifically defines what is meant by "vulnerability" and "particularly vulnerable countries," they do not form criteria on which to base the equitable allocation of resources from the Adaptation Fund or the planned Green Climate Fund, for example.

All in all, this means that any Non-Annex I country can argue that it is "particularly" affected by climate change, making it impossible to prioritise countries for burden-sharing purposes. In the past, this has resulted in countries as different as Saudi Arabia, China and Tanzania having the same rights of access to funding. Vulnerability thus only seems to be the criterion on which to base the objective distribution of funds, when in fact this depends on numerous prior normative policy decisions. The Board of the Kyoto Protocol Adaptation Fund is currently trying to solve this problem.

Conversely, does this mean that the concept of "vulnerability" cannot be used in the context of practical policy? Certainly not. The main problem lies in linking it to the effects of climate change, since it is not in this respect that countries mainly differ, but rather in their ability to respond to climate change and their options in this regard. In general, this is reflected in the term "response capacity," meaning a system's ability "to adjust to a disturbance, moderate potential damage, take advantage of opportunities, and cope with the consequences" (Gallopín 2006). Some researchers use the term "vulnerability" only in this sense – as a function of a system's vulnerability and its capacity to respond. This concept of vulnerability reflects one of the two main dimensions of the equity principle:

the 'respective capabilities' of countries to deal with climate change.

The signatory states should therefore focus on response capacity rather than exposure if they are to ensure an equitable allocation of funds. For this the UN system already has a number of indicators, among them the *Human Development Index*. To a limited extent, such indicators have already been used to assist the group of Least Developed Countries in particular. Another option, however, would be to apply new or additional criteria, such as a country's share of global carbon emissions, reflecting its responsibility for climate protection.

The current use of the vulnerability criterion in the allocation of funds basically amounts to all Non-Annex I countries being declared particularly vulnerable. This may also have impeded the effective implementation of the treaty, some industrialised countries being unwilling to fund adaptation measures in countries that have sufficient resources of their own or are oil-producers. In terms of regime effectiveness, however, what is more problematical is the stagnation of the negotiations on emissions reduction obligations.

Reduction obligations – reality overtakes political categories

The Kyoto Protocol specifies that industrialised countries have quantified, binding obligations in international law to reduce their greenhouse gas emissions from 2008 to 2012. Each country's emissions reduction target is based on criteria designed to ensure equitable burden-sharing. However, beyond the historical view of who has caused climate change, an important aspect of the equity principle, there are no general criteria for determining who is under an obligation to reduce emissions. In particular, there is no criterion that takes account of dynamic changes in the distribution of future emission volumes. Nor has any provision been made for developing countries to be under an obligation to reduce emissions after 2012.

In terms of effectiveness, the Kyoto Protocol was criticised even in the 1990s for its loopholes and for the controversial nature of the basis on which carbon emissions were to be measured. The target of a 5 per cent reduction in emissions from their 1990 level was also too modest to prevent significant increases in greenhouse gas concentrations in the atmosphere. An added factor was that the Protocol was not ratified by the USA, one of the main contributors to climate change. It argued that the Protocol did not adequately involve such major future emitters as China and India in climate protection. The Protocol would therefore be ineffective and to the USA's disadvantage in competition with such other countries.

As regards climate protection, this line of argument can be accused of enabling the USA to defer emission reductions. This will dramatically increase the global cost both of the conversion of infrastructure that will be needed in the future and of measures to repair the damage due to the effects of dangerous climate change.

China and India insist that the grouping of countries in the Kyoto Protocol be retained so that they may continue to make independent decisions on the energy base for their economic development. One equity argument in their favour is the low per capita level of emissions which – major disparities notwithstanding – they have in common with most developing countries. That line of argument is, however, untenable if we consider how urgent climate protection has generally become. For a 2 °C scenario the IPCC has calculated that by 2020 the developing countries would have to reduce the growth of their emissions by 15-30 per cent compared to a *business-as-usual* scenario, provided that industrialised countries simultaneously reduced their emissions by 25-40 per cent compared to 1990.

In fact, China overtook the USA as the largest emitter in 2007. Emissions due to energy consumption are already higher in developing countries than in industrialised countries and, if the current trend continues, will be twice the OECD level by 2030. Other major emitters (some of which have very low per capita rates) are India, Brazil, Indonesia and South Africa. In the short term these countries would benefit from a continuation of the Kyoto Protocol, because it makes few demands on their current climate policies and they also benefit from the Clean Development Mechanism. This is not to the advantage of the poorest developing countries, which also have the greatest difficulty coping with the impacts of climate change. In other words, grouping all the developing countries together poses problems in that it is not only ineffective, but also unfair.

In these circumstances, climate protection should be guided not only by a country's responsibility but also by its capabilities. It should be defined not only as an obligation, but also as a right, thus enabling all the signatory states to be treated equally. This might be achieved if the same emission rights were taken as the starting point rather than current emission levels, with each country having an emissions budget.

At the negotiations held in Bangkok in April 2011, India presented a budget approach based on a global emissions budget that upheld the 2 °C target and provided for equal emission rights. In 2009 the German Advisory Council on Global Change (WBGU) proposed a similar budgetary approach: emission rights would not be defined annually, but for the period 2010 to 2050, and on the basis of the population in 2005. Both proposals include tradable rights, making the budget approach more flexible and target-based than earlier proposals, which used complex formulas (economic strength, absolute and relative emission levels, economic growth) to calculate reduction obligations, but did not provide for emission rights. Such an approach would also focus on a country's ability to reduce emissions.

Current state of negotiations – how to escape from the dead end?

Developing countries still want to belong to the Non-Annex I group even though past negotiations have revealed their divergent interests and new dynamics in the formation of negotiating groups. Thus the Africans came forward with their own negotiating positions, South and Central American countries spoke under the ALBA (Bolivarian Alliance for the Americas) umbrella, and China, India, Brazil and South Africa founded the BASIC group, which has met several times since late 2009. Nonetheless, this new dynamic has yet to leave its mark in negotiation documents.

When it comes to the allocation of funds for adaptation measures, priority is still given to the least developed countries, small island states and African countries affected by drought, desertification and flooding, but as other countries are not ruled out, this does not constitute a new or unambiguous criterion. The developing countries as a group have yet to come forward with a proposal for solving the problem of ensuring equity in the allocation of finance. Where reduction obligations are concerned, the differences are clearer.

AOSIS, the Alliance of Small Island States, and the LDCs are calling for a new, binding agreement rather than an extension of the Kyoto Protocol. This is opposed by the BASIC and OPEC states. The Copenhagen Accord has done away with the division of the world into two, as set out in the Kyoto Protocol, and covers more than 80 per cent of global greenhouse gas emissions, but at the expense of binding global reduction targets which would serve as a compulsory benchmark for national contributions.

Calculations since Cancún have, however, revealed that the achievement of the 2 °C target is becoming more remote: not only are the current voluntary obligations inadequate, but emissions rose again in 2010.

If the international community wants effective and equitable climate protection, it will have to abandon the blanket division of the world into two camps and instead specify new criteria for burden-sharing and allocation based on the principle of equity. No such decision was reached in Copenhagen. Nor, sadly, is a fresh approach to climate policy likely at the forthcoming climate summit in Durban, given its far-reaching implications.

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