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CLIMATE CHANGE AND JUSTICE

ON THE ROAD TO COPENHAGEN



HOW FAIR IS FAIR ENOUGH?

Two climate concepts compared

Two models are currently being pitted against one another in the discussion of a fair climate regime: Contraction and Convergence (C&C) and Greenhouse Development Rights (GDRs). The controversy revolves around issues of fairness and feasibility, and the question of how fair is fair enough. Other approaches with the potential to mitigate emissions fairly are not in discussion at present. The debate over these concepts is vital, as having actors who are individually committed to ambitious goals but divided at the conceptual level could prove fatal for climate policy as a whole. The following is an overview of the core elements of both.



THE THEATRICALIZATION OF NATURE. HYPERBOLE AS THE SWAN SONG OF THE NATURAL.
"KITKO RIVER" FROM THE *MUSEUM OF NATURE* SERIES BY ARTIST ILKKA HALSO.

CONCEPT 1

"CONTRACTION AND CONVERGENCE (C&C) IS EASIER TO IMPLEMENT POLITICALLY AND HAS GREATER POTENTIAL FOR A GLOBAL COMPROMISE."

BY KATRIN KRAUS AND KONRAD OTT
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Concepts related to the architecture of future climate protection treaties must have the potential to prevent or at least limit dangerous man-made interference with the climate and distribute the financial burdens of climate policy fairly. They should also be suitable for implementation within the existing worldwide political situation – i.e., they should be acceptable and feasible. The fairness of a concept is therefore a precondition for its acceptance, and acceptance is, in turn, the key to its implementation. Yet a concept

marked by great fairness may nevertheless prove unenforceable in practice and thus may not yield benefits for the environment. The four criteria by which a concept can be evaluated – effectiveness, equity, political acceptance, and political feasibility – are interrelated.

C&C was developed by the Global Commons Institute (GCI) in the early 1990s. C&C describes an approach for negotiating a global climate protection treaty. A first step is to determine a stabilization level for the atmospheric concentration of greenhouse gasses. In the second step, the global emissions budget resulting from that emissions ceiling is distributed over a period of years so that the per-capita emissions rights of all countries are roughly the same by the convergence year. An essential element of C&C is therefore the transition period in which global emissions are steadily reduced (contraction) while the emissions rights of individual countries, which initially corresponded to their actual emissions at the beginning of the period, are adjusted toward an equitable per-capita level (convergence). At the end of the transition period – i.e., in the

convergence year – all countries will have the same per-capita budget.

The institute also proposes global emissions trading and a cutoff year, after which the further development of the population will no longer affect global allocation. The latter proposal is designed to eliminate incentives for programs to increase birth rates. The concept thus allocates the remaining emissions rights equitably according to a protection goal to be established. Assuming 2°C is an acceptable goal, the convergence will permit maximum CO₂ emissions of two tons per person per year. For industrialized countries, that will mean reductions of 80 (Germany) or 90 (United States) percent vis-à-vis 1990 levels or massive purchases of emissions rights, benefiting poor countries with low per-capita emissions.

The concept of Greenhouse Development Rights (GDRs) was introduced in 2004. The following elements are central to GDRs:

1. The GDRs concept initially specifies a emergency emissions pathway that reflects alarming new research findings and is very likely to limit global warming to 2°C. According to that path, CO₂ emissions should peak in 2013, then decline by up to 6 percent per year. By 2050, they would be 80 percent below 1990 levels.
2. GDRs defines a global development threshold with an income limit of \$7,500 purchasing power parity. GDRs recognizes the right of individuals with lower incomes to development – those who are poor by definition would not have to contribute toward climate protection. Individuals with higher incomes – the global consumer class – should bear the costs of mitigation and adaptation. Intranational income distribution would thus serve as the basis for the global distribution of climate protection burden.
3. The burden would be distributed according to a Responsibility and Capacity Indicator. Capacity is defined as income exceeding the development threshold, while cumulative emissions since 1990 arising from an income exceeding the threshold are the measure of responsibility. Both elements are weighted and used to calculate the indicator.
4. The Responsibility and Capacity Indicator states mitigation obligations for industrialized countries that would exceed 100 percent within a few years. The EU, for example, would be required to curb emissions by 140 percent by 2030. Industrialized countries have a double mitigation obligation – domestically, and in poorer countries. They would thus be required to shoulder higher burdens than under C&C.
5. Two options are available for implementing the concept. The first involves global emissions-trading based on national business-as-usual (BAU) emissions paths, which are revised and renegotiated at regular intervals. The second is based on a regular estimate of global emission mitigation and adaptation costs. The national shares of those costs are then calculated using the Responsibility and Capacity Indicator and the funds are collected at the national level as a climate income tax. At the global level, the money is then allocated to a climate change fund to finance mitigation and adaptation measures. Unlike C&C, a GDRs regime would not allocate scarce emissions rights, but would distribute the burden of fighting climate change, including the necessary adaptation measures. Due to the horizontal nature of adaptation programs, those costs could increase virtually infinitely, however.

Results of the comparison of both concepts

The two concepts differ in their objectives and scopes. While the authors of GDRs intend to solve the global poverty crisis together with the climate crisis, C&C focuses exclusively on climate. For C&C,

mitigating poverty tends to be a welcome side effect. While GDRs would apply the Responsibility and Capacity Indicator to emissions reduction and adaptation, C&C only deals with reducing emissions. In that respect, C&C is incomplete. The results of the comparison are summarized below for each of the criteria.

Political feasibility – In terms of political feasibility, C&C has a significant advantage in that it only requires two questions to be answered – the stabilization goal and the duration of the transition period. C&C is therefore much easier to negotiate. In a GDRs regime, many individual issues would be subject to negotiation, such as the development threshold, the year from which responsibility for past emissions would be assumed, and the formula and weighting used to calculate the Responsibility and Capacity Indicator. Above all, the regular development and negotiation of national BAU scenarios reduces the clarity of the GDRs concept and increases the volume of data it requires. The simplicity of C&C arises from its low data requirements (population figures and national emissions), making it more manageable. A C&C regime also provides long-term planning security for all countries.

Equity – Ethically justifying C&C requires viewing the capacity of the atmosphere to absorb greenhouse gases as common property. Assuming that the equal distribution of such resources is intuitively the most attractive solution – why, after all, should any particular group have a higher moral claim to them? – then equal distribution is the solution to be preferred. The favoring of countries with high emissions implied by the transition period can be justified ethically by the time those countries will need to transform their infrastructure and lifestyles. With regard to the principle of difference, it may be noted that C&C does not force the poorest countries to shoulder the climate protection burden and lets them distribute their income from emissions trading.

The developers of GDRs also regard the atmosphere to be common property, but call for equity with regard to the right to development rather than identical emissions rights. In doing so, they emphasize that they see this as the right to personal development, and that they only reduce personal development to its economic dimensions to facilitate calculating the Responsibility and Capacity Indicator. GDRs imply a global redistribution of existing income: any disposable income above the development threshold is potentially available to finance global climate protection. In the case of GDRs, the presupposed emergency ethic justifies the earners' lack of rights to income exceeding the development threshold. The economic consequences of GDRs are more difficult to assess than those of C&C.

Political acceptability – C&C has been endorsed in recent years by the German Chancellor Angela Merkel, the EU, and several developing countries, while the GDRs concept has not been accepted by any country to date.

In a C&C regime, developing countries with low per-capita emissions are not required to contribute toward climate protection and can dispose freely over their income from emissions trading. Developing countries with per-capita emissions close to the global average would soon have to depart from their BAU development path or purchase emissions rights, however.

GDRs would require rich inhabitants of developing countries to contribute toward climate protection to keep the emissions for which they are responsible from being lost in their country's average. While this requirement is equitable, it may be contrary to realities on the ground, as the rich are also politically influential and the shares of newly industrialized countries are borne by broad sections of their populations.

Both concepts require substantial payments by industrialized nations. As C&C does not specify exact target values, it provides a degree of leeway that could permit industrialized countries to accept it. A more distant convergence date and a higher stabilization target could, for example, reduce the burden on countries with high per-capita emissions.

In the case of GDRs, it is important to note that the required double obligation could reach dizzying levels for industrialized nations.

Positive effects for the environment – The two concepts differ in that C&C is neutral with regard to the stabilization level, while GDRs dictate an ambitious emissions reduction path. It remains doubtful, however, whether GDRs can achieve greater reductions than a C&C regime due to three serious risks inherent to GDRs:

1. C&C has the advantage of being suitable for relatively quick implementation, while GDRs are complicated and encompass controversial detail issues that require time-consuming negotiation. This contradicts the urgency of the ambitious climate policies stressed by GDRs.
2. While the limited loading capacity of the atmosphere is central to C&C and economic development is thus only permissible within that natural limit, the GDRs concept gives national development ambitions priority and attempts to harmonize them with natural limits only in a subsequent step.
3. The GDR concept uses disposable income as its standard for a decent life and grants all of the planet's inhabitants the right to the resources they need to live as members of the global consumer class. However, as popular as the idea of sustainable consumerism may be, the fact remains that the lifestyle of the global middle class is both energy and resource-intensive, and as the main cause of the climate crisis, it cannot be practiced over the long term by all of Earth's nearly 6.8 billion inhabitants. A global GDRs regime would run the risk of legitimizing the infrastructure projects that developing countries would need to realize a Western lifestyle for their populations as a whole. It would not be possible to reconcile such development with safe ecological limits.

CONCLUSION

As we have shown, the GDRs concept achieves poorer results according to all criteria. In comparison to GDRs, C&C is easier to implement politically, has the greater potential for global compromise, is based on a less contestable ethical foundation and has greater potential to change public awareness and behavior in the long term. Overall, C&C is the concept to favor. While the image of a divided world central to the GDRs framework may describe the present reality accurately, it does not provide a long-term vision for overcoming the gulf between rich and poor, between North and South. C&C, by contrast, evokes the image of a global community united under the mounting pressure of the crisis to realize a cautious and sustainable management of the climate system. C&C should nevertheless give greater consideration to the fact that conventional development paths involving increasing economic growth and consumption of fossil fuels will not be feasible for many countries in the future. C&C should recognize the responsibility of rich countries to support the poor in adapting – not out of charity, but out of justice.

This article is based on a dissertation submitted by Katrin Kraus to Greifswald University in 2009: *Contraction & Convergence and Greenhouse Development Rights: a critical comparison between two salient climate-ethical concepts*. The complete document (in German only) is available at www.boell.de/thema

CONCEPT 2

“THE GREENHOUSE DEVELOPMENT RIGHTS MODEL IS THE FAIREST WAY TO DISTRIBUTE THE BURDEN.”

BY TILMAN SANTARIUS

Emissions mitigation goals designed to avert dangerous disturbances of our climate are currently being negotiated in international climate conferences. What constitutes a fair share of the burden? Just how deeply should Germany and the EU, Japan and the United States, China, India, and the developing countries cut their emissions? And how much would they have to contribute in financial terms toward a just solution of the global problem? Countless proposals of how to distribute the burden have been made in recent years, and some of them are obviously fairer than others.

Human rights are the root of justice. Recognizing them is the foundation of all justice; realizing them must be the first and highest goal of a policy with the capacity for justice. The protection of human rights is the central theme by which the Greenhouse Development Rights (GDRs) model defines the distribution of the global burden.

The GDRs model initially defines a “development threshold.” People whose income – regardless of whether they live in the North or South – is below that threshold are not expected to share in the costs of solving the global climate problem. The exact level of that threshold is, of course, open to negotiation. Empirical analysis of the income levels at which the classic plagues of poverty – hunger, malnutrition, illiteracy, chronic disease, etc. – begin to disappear could serve as an orientation. This can be deemed the point at which basic human rights have been realized – \$7,500 purchasing power parity per person per year could serve as a suitable threshold in this regard.

People whose income is above that threshold should be expected to share in the costs of solving the global climate problem. The obligations of individual countries can then be calculated on the basis of their historical responsibility for climate change (the sum of their cumulated per-capita emissions since 1990) and their aggregate capacity (the sum of all individual incomes above the development threshold). Industrialized countries such as Germany, in which 95 percent of the population has an income exceeding the threshold and enjoys lifestyles that generate comparatively high emissions, should bear a greater burden than most developing countries, in which only a small share of the population has an income exceeding the development threshold.

THE REQUIREMENTS

What are the results of the GDRs model? As the world's richest country and largest polluter, the United States would have to bear nearly one-third of the responsibility; the EU would follow with around one-quarter. The German share would amount to 5.2 percent. China – as the world's most populous country and by now a fairly strong polluter in comparison to other developing countries – would be responsible for 7.4 percent. In total, the industrialized countries would bear around three-quarters, and the developing countries one-quarter of the global burden.

Allocating just over 5 percent of the global responsibility to Germany does not sound particularly radical initially. But calculating the actual emissions reduction that this would require of Germany if the 2°C goal were to be met changes the picture drastically: Germany's fair contribution would be an 84-percent reduction of its emissions vis-à-vis 1990 levels by 2020. It is quite

clear that such a goal will not be attainable through climate protection measures within Germany alone in such a short time. And that's also not necessary. The GDRs model only states that Germany's fair share of the global burden amounts to an 84-percent reduction. A significant part of the German mitigation goal and comparably high goals of other industrialized countries can also be realized in other countries.

The GDRs model results in a double obligation for the industrialized countries: to cut their domestic emissions significantly, and to provide extensive support for mitigation in developing countries. This double obligation of rich countries is the key to pursuing ambitious climate protection goals worldwide while guaranteeing the universal right to a dignified life.

The question that arises initially is whether this is not a completely unrealistic demand. A look at the costs reveals that the challenge would be quite manageable. What would it cost if Germany were to realize half of its GDR mitigation goal – nearly 350 megatons of CO₂ – outside of Germany via emissions trading? At an estimated €60 per ton of CO₂ in the year 2020, it would amount to €24 billion. That's certainly not peanuts – but considering what is at stake, it does not seem outrageous either. Not all emissions reductions in the South can be attained through emissions trading, however; additional mechanisms and instruments will need to be developed to moving an extensive global cooperation forward.

COMPARISON OF CONCEPTS

In comparison with the Contraction and Convergence (C&C) model, which distributes the global burden according to per-capita emissions rights, the GDRs model appears more equitable in multiple respects. Firstly, it distributes the burden on the basis of common but differentiated responsibility and respective capability. In that respect, it complies with the most important core principle of international climate policy. By contrast, C&C ignores that principle. Distribution according to per-capita rights may seem equitable. But why should people who have hardly contributed to climate change in the past only receive the same emissions rights as those who have enjoyed an affluent, emissions-intensive lifestyle for a very long time? The poor must be granted emissions rights that will enable them to realize their human right to a life with dignity. Identical treatment of people living in different circumstances is not just, nor does it represent equal opportunity.

It is simply too late for the C&C model. When the Global Commons Institute developed it in the early 1990s, it was still assumed that distribution based on identical per-capita rights would leave poor countries headroom for development. Since then, CO₂ has been released into the atmosphere at an unprecedented rate. Climate researchers have also since determined that deeper cuts will be needed than originally assumed to ensure that global warming does not exceed the dangerous threshold of 2°C. In 2050, it will only be possible to emit one ton of CO₂ per capita. As average emissions in developing countries currently exceed two tons, it would be imperative for them to throttle their emissions in absolute terms immediately if the C&C model were to be followed. But is it just to require poor people who hardly have the means to invest in climate protection – and who did not cause the problem – to bear a share of the mitigation burden? Shouldn't those people who have the resources and access to the latest climate-friendly technology carry the poor's load for them?

CONCLUSION

Even those willing to let equity take a back seat in favor of better chances of political realization are unlikely to consider the C&C model suitable. All signs speak against the developing countries accepting an agreement in Copenhagen that would soon subject them to absolute emissions reduction requirements. Raising this demand would be to risk the failure of the Copenhagen conference. Also, the double obligation of industrialized countries – which will also require them to support mitigation activities in developing countries – have long been the focus of current climate negotiations.

Admittedly, whether that support will reach the level called for by the Greenhouse Development Rights model is anyone's guess. That will probably be decided in the back rooms during the last night of the conference, and questions of equity will possibly no longer be the central issue. ■■■



The Greenhouse Development Rights Framework: The Right to Development in a Climate Constrained World.

A report by Paul Baer, Tom Athanasiou, Sivan Kartha and Eric Kemp-Benedict. Published by the Heinrich-Böll-Stiftung, Christian Aid, EcoEquity and the Stockholm Environment Institute. Revised 2nd edition! Berlin 2008, 112 pages



The Heinrich Böll Foundation as actor in international climate and energy policy

Through our worldwide regional positioning with 28 offices covering more than 60 countries, we have great political reach in all regions. The international network of the Heinrich Böll Foundation consists of partner organizations and individuals such as Green-allied movements, non-governmental organizations, think tanks and academic institutions, parliaments and ministries, all of whom share our values – sustainability, democracy and human rights, self-determination, justice, and gender-equity.

Self-understanding of the Heinrich Böll Foundation is based on four guiding principles:

- 1.** A global energy policy transformation: The global temperature rise must be limited as far below 2°C warming as necessary, compared to pre-industrial levels, to avoid catastrophic climate change.
- 2.** Just effort-sharing in the climate regime: Responsibility for climate protection needs to be strengthened. Efforts to mitigate and adapt to climate change must be shared among countries on a fair and socially sustainable manner.
- 3.** Comprehensive support to the vulnerable: Population groups and countries worldwide already suffer from the consequences of climate change. Particularly the disproportionately-affected poor require not only support to adjust to climate change but also chances for human development.
- 4.** Mainstreaming the gender dimension: We work actively for a gender-equitable coherent financial architecture and sustainable adaptation policy to achieve climate objectives.