Kyoto's 'flexible mechanisms' and the right to pollute the air[1]

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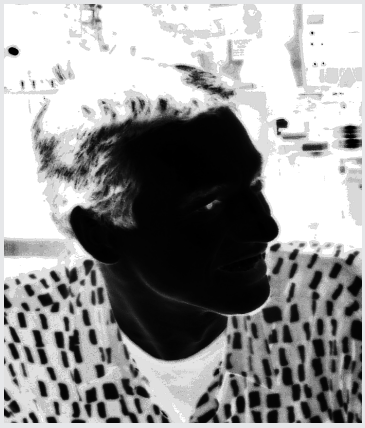
The current financial and economic crises are generating pressures towards the regulation of the global capitalist economy, but the much-heralded strategies for reform remain mere piecework and seem to have reached their limits long before the crisis has run its course. After all, their primary focus is on the revitalisation of the banking and trade sectors, not on global environmental issues. The relapse suffered by Angela Merkel – once hailed as the 'climate chancellor', now considered once again a run-of-the-mill car and industry chancellor – shows that during a crisis, the environment has no lobby. To be sure, environmental organisations, green (wings of) parties, engaged scientists and international environmental and development NGOs issue regular reminders about the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. But that, too, is symptomatic of the problem: the crisis has not led to a critique of market-based instruments, but rather to an ever more desperate attempt to cling to them, in spite of all their weaknesses, for beyond them there seems to be nothing but political wilderness. This makes a critique of the political economy of climate change all the more important.[1]



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1 For a more detailed exposition of this argument cf., Brunnengräber (2009), *Die politische Ökonomie des Klimawandels*.

The Kyoto Protocol is a set of political rules for the economic management of a capitalist crisis phenomenon, which had already been on the agenda long before the financial crisis – at least since the UN Conference on Environment and Development in Rio de Janeiro in 1992. The third Conference of the Parties (COP) to the UNFCCC in Kyoto in 1997 agreed on a path towards the regulation of the crisis. Ecological necessities such as reducing the use of fossil fuels, the expansion of renewable energies, as well as new concepts of mobility and new lifestyles were largely ignored. Powerful economic interests were pushing for market-based instruments and insisted that these should not interfere with growth targets or economic competitiveness. As a result, the mechanisms contained in the Kyoto Protocol will not make it possible 'to reduce emissions more quickly than the rhythm of economic growth would allow', argues Enrique Leff (2002: 102).

At the same time, the Kyoto Protocol was also the starting point for the emergence of an international regime of resource management that would soon open up new business opportunities. Within the context of international climate governance, economic processes have taken on a life of their own and now reach far beyond the protocol as such. The crisis is seen not as a systemic crisis of capitalism, but as an opportunity: a 'Green New Deal' or a 'Global Green Recovery' (Edenhofer/Stern 2009; cf., also Friedman 2008) is meant to create jobs, reenergise the global economic system *and* protect the climate. A 'green capitalism' is seen as a significant source of potential technological innovations, if only governments get the incentives right.[2] We are witnessing the emergence of a climate neo-liberalism, which may very well energise some national economies, but will certainly not protect the climate.

Climate change and global constitutionalism

At the international level, governments have waived such options as taxes, imposing bans on certain substances or reducing ecologically damaging subsidies. Dominant actors within these governments, as well as private businesses and international NGOs (participating in the process in a kind of conflictual cooperation) have largely enforced the use of economic instruments in the international governance of climate change. When governments guarantee rights to pollute by emitting CO_2, they develop a specific steering mechanism by means of which they create the framework for economic actors to regulate themselves. By doing so, they abdicate their responsibility for the general good and, in this case, for the environment. Governments only point the self-regulating markets in one particular direction, primarily in order to secure the later surveillance and control of newly institutionalised property rights, thereby reducing transaction costs. In the context of 'global constitutionalism' (Gill 2000), the contractual international regulation of 'rights to pollute' is thus the precondition for the creation of new markets.
For companies, this implies the emergence of

2 According to Hans-Joachim Schellnhuber of the Potsdamer Institut für Klimafolgenforschung, protecting the climate will lead to a 'third industrial revolution' due to the technological innovations it will induce (*Frankfurter Rundschau*, 8 November 2005).

new criteria of competitiveness, which affect the conditions for the valorisation of capital, their investment and innovation strategies and their choice of location and technology. The precondition for this is the ability to render the natural environment in monetary values. Nature the way that we perceive it does not exist per se, but is subordinated to the dominant socioeconomic rationality. This rationality also shapes the politics of climate change: rather than ethical questions, it is questions about the costs of climate change and of instruments for companies, states and societies that determine the dominant discourse. 'If we do not take any steps to protect the climate', says Claudia Kemfert of the Deutsches Institut für Wirtschaftspolitik, 'by 2100 we will be faced with global climate change-related damages of up to 20 trillion US$' (2005: 1). Nicholas Stern, former chief economist at the World Bank, has calculated that a further increase in greenhouse gas (GHG) emissions could lead to up to 20 per cent being lopped off the global GDP by 2050. These kinds of calculations are primarily intended to make environmental problems fit into economic discourses.

At the same time, the instruments in the Kyoto Protocol cement the separation of international climate change politics from other international institutions and organisations. In many ways, the treaties aiming for economic growth and the liberalisation of trade in goods and services contained within the World Trade Organization (WTO) contradict the goal of the Kyoto Protocol. The discursive-ideological as well as institutional separation of a *global climate problem* and *fossil fuel (in-)security* enacts a (temporary) rapprochement between the economy and the environment (Altvater 2008). But because fundamentally the contradictions cannot be excised, the governance of climate change remains a fragile construct (Brunnengräber 2007).

Carbon trading, or the valorisation of nature

The creation of a market for tradable CO_2 emissions is seen as a significant step towards the solution of the global climate crisis. By virtue of being tradable, CO_2 certificates are meant to contribute to the reduction of greenhouse gas emissions in the places where such reductions are cheapest. The *cap* that limits the amount of certificates is intended to contribute to the realisation of greenhouse gas reduction targets. This trade in emission rights follows an economic logic that is fundamentally and widely accepted. However, so far experiences with this instrument, both in Germany and the wider EU, have been rather sobering, even if the impacts of carbon trading have not been only negative for German industry. Although emission rights were given away for free in the first trading period, energy companies simply added their *theoretical* costs to the price of energy (*windfall profits*). According to the German ministry of the environment, in 2005 this practice resulted in the companies raking in profits of between € 6 and € 8 billion at the expense of their customers (*Tagesspiegel*, 16 May 2006).

In the EU, some 9,400 energy producers and industrial facilities require a certificate for each ton of CO_2 emitted. However, given that the EU's member states were rather generous in their distribution of about 1,829 million tons of emission rights, industry's real requirements were exceeded by 44 mil-

lion tons in 2005. In May 2006, the price of these emission rights accordingly collapsed from € 30 per ton to less than € 10, 'an embarrassing success for the environment', a German newspaper commented (*die taz*, 16 May 2006). From 2008 to 2009, the price of certificates that the KFW Bankengruppe could sell for the German government had crashed by 60 per cent. At EXX, the energy exchange in Leipzig, they were temporarily available for less than € 8 (cf., www.exx.com for an evaluation of the first trading period cf., DEHSt 2009). In the second trading period (2008–12), the number of CO_2 certificates that were distributed was somewhat reduced as a result of pressure from the European Commission. Now, however, the economic crisis and the ensuing reduction in the CO_2 emissions of many companies are leading to a drop in demand for the certificates, which in turn reduces their price.

But the mechanism at the heart of the Kyoto Protocol can only work efficiently if certificates are scarce and therefore expensive. If they are too cheap, they do not generate pressure towards reducing emissions and their steering effect remains limited (cf., Brouns/Witt 2008). In addition, prices for certificates have been extremely volatile, highly dependent on the ups and downs of the business cycle and the vagaries of speculation. So far, the erratic movements of the price of certificates have more or less negated the hoped-for regulatory effects (Hollain 2009). Carbon trading is thus an instrument of dubious value that cannot guarantee a reduction in greenhouse gas emissions. In fact, it is even doubtful whether the certificates that are being traded on the exchanges actually still represent real emissions, or whether they have become mere objects of speculation whose material (physical-chemical) effect on the atmosphere becomes obscured.

> Protecting the climate thus becomes 'a matter for speculators' who strive for rents and profits from financial transactions, while not being at all interested in climate change (Altvater 2008: 154).

Another problem is the participation of the Central and Eastern European (CEE) countries in the emissions trading system. The agreement in Kyoto was that Russia and Ukraine would, by 2012, merely have to stabilise their emissions as measured against the baseline of 1990. But the breakdown of their economies generated massive real reductions in greenhouse gas emissions, such that today both countries can sell their surplus emission rights on the future market for certificates. Even in the absence of any further measures to achieve reductions, Russia's emissions in 2020 would most likely still be some 20 per cent lower than those of 1990. The CEE countries will thus be able to sell significant amounts of 'excess' emission rights on the market, although these certificates will not be based on any real emission reductions. Many describe the possibility that governments and companies will use these certificates to effectively buy themselves out of their responsibility to reduce emissions as the production of 'hot air'. The problem might only deepen once the developing and newly industrialised countries participate in the global carbon-trading market. For reasons of justice, these countries are granted the right to increase emissions in order to close gaps in economic development and progress (cf., the article in this journal by Eduardo Gudynas). The quandary is that the emission allowances they are granted can be unrealistically high.

A reduction of absolute emissions in the industrialised countries, as formulated in the Kyoto Protocol, seems hardly realistic against this backdrop since additional emission certificates are so easy to come by. Even the German Bundesverband Emissionshandel und Klimaschutz has to admit that the trade in CO_2 certificates has so far 'inhibited rather than strengthened the transformation of the energy sector towards structures that are less dependent on emissions'. Renewable energies have not benefited from the emissions trade either. It is not merely teething problems that are preventing an anti-fossilistic transformation, but political and economic constraints, interests and power relations. The emissions trade functions as a creative form of CO_2 accounting that simply allows business as usual to continue. This might explain the 'unprecedented lack of critique vis-à-vis the fundamental flaws of emissions trade', as Valentin Hollain puts it (2009: 25).

Flexibility through loopholes: The Clean Development Mechanism

The Clean Development Mechanism (CDM) opens yet another way for the governments and companies of industrialised countries to meet their emission reduction targets by reducing emissions not in their own but in developing and newly industrialised countries. The CDM effectively allows CO_2 reductions to be 'exported' to the global South, while emissions in the industrialised nations remain constant or even increase, depending on how many CERs (Certified Emissions Reductions) are fed into domestic systems. Common examples include reforestation projects or the construction of wind turbines and power plants. The emissions saved or captured by such projects are then credited towards the investing government or company and deducted from their respective emission reduction targets. The argument is that, from a global point of view, it is irrelevant where exactly greenhouse gas emissions are reduced. Thus, protecting the climate is made possible not only cheaply and efficiently but also profitably.

Growth prospects for CDM projects are significant. In June 2006, 190 projects were registered and 860 were in preparation. By early 2009, 1,400 projects had been registered and 4,600 projects were in preparation (see http://cd4cdm.org for current numbers). The frequently high expectations for CDM projects were often disappointed, however. In order for investments in emission reductions to qualify as CDM projects, they have not only to make a contribution to sustainable development but also fulfil the criterion of *additionality*. In order to qualify for the CDM, projects have to prove that they would indeed generate *additional* emissions reductions in their host country. Measures that would also have been taken in the absence of the CDM (such as the construction of a hydroelectric power station that was planned before the existence of the CDM) are not eligible under the Kyoto agreement. One particular goal of CDM is also to support 'host countries' on their path to more sustainable (cleaner) development by way of technology transfer.

Primarily, however, CDM helps industrialised nations and their companies to avoid having to really reduce their emissions at home. The actual point of the instrument is to reduce the costs of protecting the climate by implementing measures where expenses are low and profits high (Witt/Moritz 2008). The additionality and actual contribution to

sustainable development that many CDM projects make is also in question. One study reveals that 40 per cent of the CDM projects registered before summer 2007 did not meet the criterion of additionality (Schneider 2007). This means that 'false certificates' reach the EU, eventually leading to a global *increase* in CO_2 emissions. A particularly strong critique is directed towards projects to eliminate or dispose of partly halogenated hydrocarbons (HFCs) and laughing gas (N_2O) in China, India and Brazil. More than one-third of the tradable certificates derive from these so-called 'end-of-pipe' technologies. The gas that forms as a residue in the production of coolants has very high global warming potential and is an extreme climate killer. By burning it, emission certificates can be earned fast and at low cost.

The CDM is biased in favour of large projects and tends to ignore smaller ones with relatively higher costs. Over 90 per cent of the CERs come from India, China, South Korea and Brazil. However, especially Least Developed Countries (LDCs) often lack the institutional infrastructure for CDM projects. Likewise, few CDM investments reach rural areas. The lasting transformation of energy systems and the extension of decentralised renewable supply systems are goals of the CDM only on paper. Market-based mechanisms invest where it is cheapest. Costlier efforts to protect the climate – efforts that demand strong investment in sustainable technologies – are neglected (CDMWatch 2004).

Peanuts for adjustment measures

When it comes to climate protection and adjustment measures, the LDCs commonly demand support from industrialised nations. The latter should carry the 'new and additional' costs[3]. Three global financial funds have been established to meet these demands: 1) The so-called Special Climate Change Fund (SCCF) with the goal of promoting development in the energy and transport sectors. By March 2008, the fund had received about US$ 90 million in voluntary contributions (GEF 2008); 2) the Least Developed Countries Fund (LDCF) provides financial aid for the implementation of the most important adjustment measures and serves only LDCs. Altogether, US$ 170 million had been paid voluntarily into the fund by March 2008; and 3) the Adaptation Fund (AF), whose aim it is to strengthen concrete adjustment measures and projects. This fund is financed by a mandatory 2 per cent tariff on each CER generated by CDM projects. Measured against current stimulus packages, these sums are hardly more than 'peanuts'. Furthermore, the projects most likely to be funded are those that open up new market opportunities for the technologies produced by industrialised countries.

The countries most affected by climate change are those of the global South – countries that are extremely poor by socioeconomic standards. The consequences of climate change will spawn and intensify conflicts over access to resources such as water or arable land (Unmüßig/Cramer 2008, WBGU 2007). Considering the adjustment measures and financing programmes employed so far, there exists reasonable concern that these are not based on the needs of the most vulnerable populations, but rather determined by other inter-

3 Art. 4.3. and 4.4., UNFCCC, United Nations (1992).

ests. This would seem to be confirmed by the exclusion of local actors from the planning stages of national adjustment strategies and by the apparent economic and technological prioritisations (Dietz/Scholz 2008).

Hot investment climate

In industrialised countries, climate change has long been of economic importance. International regulations create a booming market of unforeseen possibilities. Consulting firms are founded that advise the industry in its approach to emissions trading, while banks and brokerage houses create their own boards to manage the trade. On the stock market, new types of financial instrument are developed that take into account companies' efforts to reduce their climate footprint. Meanwhile, companies develop programmes that allow offsetting emissions caused by international travel by way of special taxes. The purchase of emission certificates for individuals is managed by initiatives like MyClimate or climepartner (www.myclimate.org, www.climatepartner.com). Evaluation services assess companies' CO_2 emissions and counsel on reduction possibilities. International agencies direct climate protection programmes towards developing countries, and internet firms offer emission-free communication platforms. In addition, there are the reports and surveys from the field of economics that supplement and rationalise the process.[4]
Climate change has been on the agenda of reinsurance companies such as Munich Re and Swiss Re since the 1970s. They are mainly affected by the increasing costs of natural catastrophes. Early on, their main concerns were damages to objects or services already insured. The key question was risk assessment. The costs likely to be caused by climate change were factored into prognoses of estimated future damages. The reinsurance companies were among the very few players in the private sector to demand far-reaching reductions in greenhouse gas emissions and adaptation measures as soon as climate change politics became an international issue. They have also added their own studies to relevant discussions.

Recently, the market opportunities created by the climate change debate have become ever more obvious. Insurers offer comprehensive policies, from covering your own home against storm floods to covering entire tourist regions against potential income loss as a consequence of climate change. Take, for example, the case of coral reef bleaching. Ernst Rauch writes:

As concentrations of climate gases soar, so do the demands upon the insurance industry: without adequate primary insurance rates, stable reinsurance capacity will no longer be possible. The solution lies in risky joint ventures between primary and secondary insurance companies and the capital market. (www.munichre.com, downloaded 15 September 2006)

Conclusion: multiple crises?

Destructive modes of production as well as resource-intensive consumer habits and mobility needs are being defended. Neoliberal policies would not be successful if they were not able to transform the climate change debate into new market opportunities. The 'flexible mechanisms' are neither

4 Cf. 'Zum Geschäft mit der Erwärmung', *Der Spiegel* 32/2005, and 'Das Portal zum Emissionshandel und Klimaschutz', www.co2-handel.de.

aimed at reducing growth nor towards energy or development policies. No measures are introduced that increase the production of renewable energies, or contribute to the decentralisation of energy structures. The focus lies instead on the societal use and valorisation of nature, as well as on the enormous innovation potential of the climate change label for the economy. The regulation of climate governance by the market is the result of special interest lobbyism, contributing to the stabilisation of hegemonic capitalist structures and exploiting climate protection for profits made in newly created (financial) markets. The empirically evident difficulties of administering the mechanisms of the Kyoto Protocol thus form a veil behind which the consolidation of a *political economy of climate change* and the *economisation of nature* proceed apace.

This raises the question of whether the international climate regime is in fact the right institution to combat climate change
Twelve years after signing the Kyoto agreement (1997) and 17 years after signing the Framework Convention on Climate Change (1992), it should be obvious that the effects of these policies are not only incredibly slow, but also that they have not achieved their desired outcomes. Presently, the financial crisis and economic recession make low energy prices, the preservation of jobs and national competitiveness more important than the reduction of emissions caused by production and consumption. This goes for all countries: industrialised, newly industrialised, developing. We can hardly expect upcoming negotiations and conferences on climate change to change this.

The concept of a Green New Deal does to some degree respond to criticism of the climate policies we have seen to date, but it remains very vague as far as future measures are concerned. So far, no response to the ever-increasing destructive consumption of resources has been found. The idea of sustainability, celebrated in 1992, has failed (Park et al. 2008). Technological approaches, insurance policies and adjustment measures fit smoothly into the ambitions for growth and market efficiency. They follow the same logic that has been responsible for the destructive ecological effects of industrialisation. In the end, it is always easier to approve economic stimulus packages that cosmetically modify existing structures than strive for fundamental transformations that challenge a paradigm of growth which is both ecologically unsustainable and socially unjust.

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