Elmar Altvater
Achim Brunnengräber (Eds.)

After Cancún

Climate Governance or Climate Conflicts

ENERGIEPOLITIK UND KLIMASCHUTZ

VS RESEARCH

Elmar Altvater · Achim Brunnengräber (Eds.)

After Cancún

VS RESEARCH

Energiepolitik und Klimaschutz

Herausgegeben von
PD Dr. Achim Brunnengräber, TU Dresden
PD Dr. Lutz Mez, FU Berlin

Elmar Altvater
Achim Brunnengräber (Eds.)

After Cancún

Climate Governance or Climate Conflicts

VS RESEARCH

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at http://dnb.d-nb.de.

1st Edition 2011

Editorial Office: Frank Schindler | Verena Metzger

VS Verlag für Sozialwissenschaften is a brand of Springer Fachmedien.
Springer Fachmedien is part of Springer Science+Business Media.
www.vs-verlag.de

Cover design: KünkelLopka Medienentwicklung, Heidelberg
Printed on acid-free paper
Printed in Germany

ISBN 978-3-531-18291-9

Contents

Contributors

Elmar Altvater is a Professor emeritus for International Political Economy at the Free University Berlin and a member of the Scientific Council of ATTAC, Germany. E-Mail: altvater@zedat.fu-berlin.de

Achim Brunnengräber is a Visiting Professor at the Technische Universität Dresden, Chair for International Politics, and Associated Professor (Privatdozent) in Political Science at the Free University Berlin.
E-Mail: priklima@zedat.fu-berlin.de

Martin Bitter is a PhD student at the Free University Berlin. He is working on the emergence of a „European Carbon Economy" from a critical political economy approach. E-Mail: m-bitter@web.de

Bettina Knothe does research and consultancy in the field of sustainability and gender. She also works as a trainer in adult education with focus on gender trainings and teaches yoga. E-Mail: knothe@medeambiente.de

Lutz Mez is a Senior Associate Professor at the Department of Political and Social Sciences, Free University Berlin, and former managing director of the Environmental Policy Research Centre (FFU). E-Mail: lutz.mez@fu-berlin.de

Edward Nell is the Malcolm B. Smith Professor of Economics at the New School for Social Research in New York. E-Mail: nelle@newschool.edu

Peter Newell is currently Professor of Development Studies at the University of East Anglia. From September he will be Professor of International Relations at the University of Sussex. E-Mail: P.Newell@uea.ac.uk

Matthew Paterson is a Professor of Political Science at the University of Ottawa. E-Mail: Matthew.Paterson@uottawa.ca

Armon Rezai is an assistant professor in environmental economics at the Vienna University of Economics and Business (WU). E-Mail: Armon.Rezai@wu.ac.at

Miranda Schreurs is a Professor of Comparative Politics and the Director of the Environmental Policy Research Centre at the Free University Berlin. She is also Vice-Chair of the European Environment and Sustainable Development Advisory Councils (EEAC). E-Mail: miranda.schreurs@fu-berlin.de

Willi Semmler is Chair and Professor at the Department of Economics at the The New School, New York. E-Mail: SemmlerW@newschool.edu

Simon Wolf is a Professor of Economics at the New School for Research in New York. E-Mail: simonwolf@gmx.net

Preface

This volume is the final publication of a „Jointly Executed Research Project“ (JERP) on questions of „Global Environmental Governance“. It was one of 18 sub-projects within the Network of Excellence: „GARNET – Global Governance, Regionalisation and Regulation: The Role of the EU“. The Network of Excellence was supported by the European Union within Research Framework Programme 6. It was coordinated by Richard Higgott, University of Warwick, UK. A number of working conferences and doctoral seminars were organised to coordinate the research activities of the scientists from several European countries participating in the JERP. The subjects ranged from European environmental governance and geopolitical aspects of environmental governance to money and finance in global environmental governance. In addition to a large number of individual publications the present anthology resulted from the workshops and scientific discussions. At the same time it represents the further development and updating of a German publication with the title „Ablasshandel gegen Klimawandel“ (the selling of indulgences against climate change), published in 2008 by VSA Verlag in Hamburg.

No preface is complete without expressions of thanks: to the JERP partners, to the participants in the workshops and to the authors of this volume for their constructive collaboration. Bettina Knothe (Berlin) and Eleni Tsingou (Warwick) were untiring in the organisation and administration of the JERP. Alexander Wajnberg and Christin Linße painstakingly edited the texts. Irene Wilson provided excellent support in the translation and correction of a number of contributions. We also wish to express our thanks to Richard Higgott and his team at the University of Warwick, without whose commitment and cultivation of a cooperative atmosphere GARNET, the Network of Excellence, would have never come to existence.

Elmar Altvater and Achim Brunnengräber Berlin, May 2011

With the Market Against Climate Catastrophe – Can That Succeed? – Introduction

Elmar Altvater / Achim Brunnengräber

The situation is paradoxical. The fossil-nuclear energy model causes catastrophes: at the end of the energy chain these are the emissions of greenhouse gases with their effects from the melting of the polar icecaps, the rising of the sea level, the flooding of coastal regions and the expansion of deserts, to the „unusual" weather events with heat waves and flooding which cost many people their lives (in Russia alone according to statistics of the reinsurance companies the number of deaths due to heat waves in 2010 was 55,000). These catastrophes influence the evolution of life, perhaps even hamper it, and they certainly cause considerable damage measured in monetary terms. The Stern-Report calculated this in 2006. The size of the losses to be expected is probably about 20 per cent of the global social product.

But already at the beginning of the fossil energy chain, in the exploration and production of non-conventional oil from the deep sea or from tar sand and oil shale, considerable damage to the environment takes place and there are repeated catastrophes such as the spectacular one caused by the explosion of the oil platform Deepwater Horizon in the spring of 2010, which caused contamination of the Gulf of Mexico. Less spectacular, although comparably damaging, are the contamination of lakes and rivers in the Niger delta and in the western Amazon, the extensive damage to the ecosystems of the Orinoko basin in Venezuela and the forests in Canadian Alberta. Non-conventional oil is focused on when conventional oil runs out. The peak of oil production („peak oil") has been reached and has perhaps already been passed. Wars are being conducted over access to the reserves and influence on price formation.

The risk of catastrophes is even greater in the nuclear cycle. Although this has a beginning when the uranium is extracted from the earth, so far it has no end, since there is no safe final disposal of nuclear waste. If the cycle is closed, then in the form of a catastrophe of immeasurable dimensions such as in Fukushima in March 2011. With nuclear energy the catastrophe is programmed as long as there is no place for the final disposal of waste for the next 100,000 years of human and geological history. Atomic catastrophe is only a matter of time,

E. Altvater, A. Brunnengräber (Eds.), *After Cancún*, DOI 10.1007/978-3-531-94018-2_1,

and that is what makes nuclear technology so dangerous. If, as statisticians emphasise, a worst case scenario should only take place every 10,000 years per reactor, i.e. only once in a period which covers the entire history of human civilisation from the beginning of culture in Mesopotamia to Fukushima, then with approximately 500 atomic reactors in the world today (but with an increasing trend) we can expect a worst case scenario every two decades. That is roughly the rhythm of Harrisburg 1979, Chernobyl 1986 and Fukushima 2011.

All these possible catastrophes, and those which have already become reality, point to the necessity of finding alternatives to both fossil and nuclear energy soon; that means the use of renewable energy sources. Probably, this can only be successful if at the same time the systems for the conversion of energy and the way in which these are used in production, consumption and transport are adapted, i.e. changed, because the „harvest" of renewable energy – related to the energy used to produce it (measured as EROEI = energy return on energy invested) – is as a rule less than in the case of fossil and nuclear energy. The energy concentrated in the fossil and nuclear resources of the Planet Earth allows these, furthermore, to be used independently of time and space, which is in stark contrast to the external energy source „sun", which is dependent on the time of day, the season and on the position on the „limited surface area" of the Planet Earth as well as on the regional situation. This is true in principle for all renewable energies: for wind, photovoltaics, water, tides, biomass, solar heat or geothermal energy.

The hardly controversial necessity of the transition to renewable energies is, however, weakened in the discourse. It is claimed that an increase in energy efficiency by the „factor 4" would suffice, and above all the transition to renewable energy would not require a fundamental change in societal relationships. The transformation of the energy regime seems possible without touching the relationships of power or the habits of the fossil-nuclear epoch. Theoretically, the revision or advancement of the proven theories of the academic mainstream is unnecessary and the accustomed thought patterns can be spun further and social practices continued.

The idea therefore is widespread that energy and climate policy can make use of market mechanisms, especially since the projects against climate change and for the introduction of alternative energy schemes have promising names: Green New Deal, Global Green Recovery, Green Climate Fund, Green Economy. Green is the colour of hope, and that this has its roots in the 20th century is expressed quite clearly in the reference to the New Deal of the Roosevelt administration in the USA of the 1930s. In the public debate the global environmental crisis and the impact of climate change on human beings has already morphed into a historical opportunity which should be grasped using „green" technology.

Growth has a future, despite the „limits to growth“ which were pointed out by the Club of Rome in 1972. Jobs are created in the new industries of producing the equipment for alternative energies, a new basis of legitimation for development policy can be constructed with climate policy measures and even the crisis-ridden financial markets are helped with innovative futures for oil supplies or with certificates for emission rights which are traded on special exchanges. The vices of capitalism thus do not have to be left behind in the epoch of renewables, as energy and climate papers are magnificently suited to speculation. Market based financial instruments offer more than enough opportunities to make a profit with climate policy. The concept of reconciling climate policy with the market appears to be so charming and fascinating that it finds broad agreement not only in the scientific debate. Even some of the critics of „financially driven capitalism“ can find advantages in the idea of opening up a new dynamic field of investment for idle capital. All at once the „limits to growth“ can be politically overcome by reverting them into the new concepts of the „growth of the limits“.

New fields of activity are opened up for economic and climate policy experiments undertaken by the old, but also by new, actors in international climate policy. Among these are not only new international organisations but also non-governmental organisations (NGOs) and transnational corporations. Their theoretical approaches are generally influenced by neoliberalism. World market conditions have been deeply changed by the flexibilisation of labour markets, by the opening of the markets for goods and services and last but not least by the liberalisation of financial markets, the privatisation of public goods and the far-reaching deregulation of policy. In this context, the application of the market mechanism as a tool to combat climate change finds many supporters among climate policy actors.

The pitfalls and limits of the market mechanism in climate policy are the subject of this book. It will be argued that the chances of a global green recovery of crisis-shaken capitalism can only be assessed and estimated against the background of the dominant neoliberal paradigm and by taking the existing functional logic of the system into account. The contributions in this volume show that climate policy is no longer determined only by the annual international climate negotiations (which in recent years failed again and again), but that climate change and climate protection have developed into a lucrative and integral part of a much broader financial market, trade and energy policy.

Although climate policy and climate science are still young, the discourses concerning them have already been realigned several times. Following the agreement on the United Nations Convention on Climate Change (UNCCC) in 1992 at the UN Conference on Environment and Development (UNCED) in Rio de Janeiro, climate change was treated as one of the most important global envi-

ronmental problems (in addition to the threat to the diversity of species, the extension of deserts and the dramatic losses of forests). Five years later at the Conference in Kyoto the discussion of three market-based instruments with which the warming of the Earth's atmosphere was to be countered was in the foreground. These were, firstly, trade in CO_2 emission rights, secondly, „joint implementation" (JI), by which the reduction obligations in country A were to be lessened by investments to reduce emissions in country B, and thirdly the „clean development mechanism" (CDM), with which CO_2 reductions in developing countries were to be credited to companies in the industrial countries, if the latter invested in developing countries.

The idea of conducting climate policy with „market based instruments" met with widespread agreement from the beginning, but the doubts as to whether a radical reduction of CO_2 emissions can be achieved with market based instruments are now being voiced ever more loudly. Since 2008 the financial crisis has clearly demonstrated how little efficient financial markets are. Also, the implementation of the market based Kyoto instruments has not been free of conflict and friction. On the contrary, new problems have arisen, so that the question whether climate policy can be conducted successfully with „flexible instruments" continues to be the subject of controversial discussion and until now remains unanswered.

It is therefore all the more surprising that today hope is being spread that for the idle capital which has been lying fallow since the global financial and economic crisis investments to the tune of several thousand million US dollars for combating climate change would be possible; the struggle against climate change is thus being upgraded – at least discursively – to a comprehensive rescue package in order to overcome the financial turmoil. In view of the experiences with Deepwater Horizon and Fukushima at the beginning of the fossil and nuclear energy chain, however, scepticism is also growing as to whether market instruments and investments in green technology or in green investment funds will be able to achieve the obviously urgently needed change of direction in the energy and climate regimes.

The question from which we started, whether a Green New Deal appears realistic, therefore cannot be answered simply by looking at the Kyoto instruments. The functional logic and the structures of capitalism as a whole must be examined. Climate change threatens us all, although to differing degrees, and it represents a comprehensive crisis of societal relations of humankind to nature. A reduction in the emission of greenhouse gases must be achieved very quickly, more quickly than is being aimed for by the climate negotiations. The extent is also greater than the Kyoto protocol envisages. And according to all the forecasts for the consumption of fossil energy it appears almost impossible to achieve the

target. 50% fewer CO_2 emissions by 2020 are necessary if the concentration of greenhouse gases in the atmosphere is to remain below the critical limit of 550 ppm. But how can that be achieved?

The Market: Your Friend and Helper?

There are only four possible paths. The first aims for an increase in energy efficiency in order to consume less fossil energy per unit of national product. The second path leads us into landscapes of carbon sinks, primarily in re-afforested woods and monocultures in the global South. The market based instruments are intended (on the first path) to sink emissions via an increase in efficiency in the use of energy, and on the second path with the help of ET, CDM and JI to provide for the reduction of emitted CO_2.

On the third path the emitted CO_2 is separated, captured and stored in the Earth's crust (carbon capture and storage, CCS). It is not sure whether this method is technically viable. Only the fourth path leads away from the fossil energy regime to a world of renewable, solar energy sources, i.e. away from the closed fossil and nuclear energy systems into the open, solar energy system. In the closed system at the beginning of the energy chain the energy sources are extracted from the Earth's crust and at the end of the energy chain the emissions (greenhouse gases and atomic waste) are „disposed of" in the atmosphere or the pedosphere and lithosphere of the Earth. After the transition to the solar energy regime the remaining fossil reserves can stay in the earth: „leave the oil in the soil". Which path will be taken is a question of hegemonic struggles and of political decisions. These can foresee market incentives, or they can be based on permits and prohibitions, on active state investments and the control of these, but also on enlightening political education. In the Kyoto agreement the commitment is above all to the incentive system of the market.

This is paradoxical, firstly because a market for CO_2 does not exist. CO_2 has no use-value with which needs could be satisfied. On the contrary, it is harmful; it therefore cannot be transformed into a tradable commodity. CO_2 is a bad, not a good, which one would wish to get rid of as quickly as possible – if only that were so easy. Since there is no market for CO_2, it is impossible to regulate its exchange effectively by using market mechanisms. The obvious thing to do, therefore, would be to prevent CO_2 emissions by means of legal requirements and prohibitions, with threshold values and technical prescriptions.

However, it is possible to exchange pollution rights on a market which must be created by the state. Admittedly, the „making" of a market requires considerable preconditions. Although the atmosphere, into which the greenhouse gases

are released, is not privatised, and CO_2 does not become a private asset, rights to the pollution of the atmosphere („allowances“) are politically constructed. These are then awarded to CO_2 emitters according to a national allocation plan – gratuitously, as in the EU to date, or for a price determined by auction. This will possibly be the case in the EU as of 2012. The scarcity of the economic good „pollution rights“ is therefore determined artificially, i.e. politically, namely by the upper limits to emissions („caps“). „Green climate capitalism“ is thus only so charming because it is politicised through and through. Something not really tradable must be transformed into a tradable good. This is a political trick by which, however, things are given their real nature, namely to be objects tradable by private persons.

The producers of CO_2 now have an individual economic right to pollute the atmosphere. They receive a politically certified good which they can trade like sides of bacon, barrels of oil, Christmas decorations or stocks, option certificates, futures and other financial instruments which are „originated“ by securitisation. But certificate markets do not function in the same way as weekly markets at which people not only buy and sell but also like to stop for a chat. They have a global reach, they are under the influence of power, they are subject to hard locational competition and are drawn into the intrigues on the financial markets and into their tendencies to crisis; they land in the financial speculators' arsenal of „financial weapons of mass destruction“ (Warren Buffet). Price movements on an artificial market such as that for emission certificates are erratic and extremely volatile, as *Nell, Semmler and Rezai* show in this volume. The certificates have no connection to costs of labour and capital because the prices are generated on a market which has no history, no morals values and no assignable costs. A market without history is like a rootless reed in the wind, however, and therefore the high volatility is not surprising.

The market based instruments of climate protection do look elegant, however. They fit into the world view of a global (neo)liberal order, in which market ranks above planning, economics above politics and the private sector above public goods and the state. Many environmentalists, globalisation critics, representatives of green and left-wing parties and the majority of environmental economists have fallen for the charm exuded by market economy solutions even when they fail. They are fascinated by the promised artifice of an idea: quantities are determined (caps) politically and then the free market mechanism generates price signals and profit incentives in such a way that the pursuit of individual interests leads to an optimal result for everybody, for the entirety of the more than six billion citizens of the Earth. The result of applying this intelligent mechanism is a reduction in greenhouse gas emissions by the percentage which is

necessary from a climate policy perspective – without legal requirements, prohibitions and state bureaucracy, with all the freedom of the market.

Nevertheless, a further consideration raises fundamental doubts as to the suitability of market economy instruments for combating climate change. Markets are economic places where the supply of goods meets with monetary demand. A market economy is therefore always (*per definitionem*) a monetary economy, whether the money in circulation is termed Dollar, Euro, Peso or Kauri. If money becomes a commodity, then financial markets are formed. Money and financial assets are traded at a market price. This is interest rate. Interest must be paid, however, by those demanding money, by investors, to those granting credit, e.g. banks. The satisfaction of interest demands is only possible, however, if a real surplus, a surplus value is produced, i.e. if the economy grows. This only takes place if additional materials and energy are consumed and, accordingly, if additional greenhouse gases are emitted. Instead of contributing to the reduction of greenhouse gas emissions, market instruments promote them.

The market economy system, and its dynamism and efficiency which are so praised by its neoliberal supporters, is a precondition for a market based climate policy and at the same time is supporting it. Much can be expected from market based instruments – but not a radical reduction of greenhouse gas emissions. The reduction eventually takes place during and as a result of the crises of the market. Thus, if the market mechanism cannot be trusted, environmental taxes (e.g. a *carbon tax*) and legal regulations represent a better and more adequate means to reduce greenhouse gas emissions. In addition – on the fourth path – a socio-ecological reconstruction in the direction of a solar society must become the most important environmental policy objective.

On the Contributions in this Volume

Peter Newell and **Matthew Paterson** demonstrate that the political answers to climate change are developed in the context of a global, neoliberal capitalism, and ask under what conditions decarbonisation would be possible. They identify strategies and debates which would already lead to tensions and contradictions with the present fossil capitalist system. In spite of the obvious problems and difficulties of these approaches certain social powers challenge capitalism and its hegemony in the course of a socio-techno-political transformation. With reference to Gramsci, they theoretically assume that there now exists at least a historic bloc in construction which they can imagine sustaining climate change policy. Their argument is discussed taking the examples of the emissions trade as it is practised in the European Union and of the Clean Development Mechanism. Newell and

Paterson refer to, but do not discuss in detail, the increasing importance of the „financialisation of nature“, or what Marx called „fictitious capital“.

Simon Wolf argues that climate politics has turned into an issue of finance and investment, as scaling up the financial support for mitigation in developing countries is said to be crucial for successfully meeting the climate challenge. Informed by an economic understanding of climate change that was primarily established by the Stern Review, the climate finance discourse compares abatement opportunities across sectors and world regions along their cost-effectiveness, and concludes that a large share of global emission reductions must happen in developing countries. One consequence of this rationality is the urgency that is given to implementing a financial mechanism for reducing emissions from deforestation and degradation (REDD). As the larger share of developing countries in global emission reductions requires levels of climate finance that by far exceed the resources currently available from the funding mechanisms under the UNFCCC and beyond, a central role is ascribed to private investments. The role of governments, accordingly, is to incentivise private finance flows by creating conducive investment environments and overcoming investment barriers through regulation and public finance mechanisms.

An alternative framing of the climate finance issue that started from political objectives rather than economic rationalities and constraints, Simon Wolf argues, would reveal that traditional forms of regulation such as standard setting or taxes could be used for redirecting existing financial flows rather than hectically searching for new sources of funding. This would, at the same time, not only address some of the root causes of climate change, but provide governments with a new stream of income that could be used for policies and measures that are not deemed attractive by private investors, but are desirable from a societal point of view.

The „ecological modernisation“ approach, writes **Martin Bitter,** is based on the assumption that capital accumulation could be politically regulated in a way that cuts pollution to an „optimal level“. Its basic strategy is the valorisation and monetisation of nature, commonly known as the „internalisation of external effects“. In his article, however, it is argued that nature and economy have to be grasped from an immanent perspective in order to understand the contradictory character of this internalisation. Applied to the case of the European Union Emissions Trading Scheme (EU ETS), it is conceded that carbon is being priced while becoming an important factor of production. However, this process implies contradictory effects because a) a political construction of (temporary) property rights is necessary which tends to perpetuate social power relations from the Fordist Epoch; b) the monetary expression of carbon is inherently arbitrary and prone to crisis; c) the individualised natural commodity conceals the underlying

social relations that are the driving forces of climate change; d) the transformation of different socio-natural relations into the exchange value of CO_2 equivalents abstracts from important structural distinctions in the society-nature metabolism. The article concludes with the enhancement of different time structures of (financial) markets, policy making and nature, stressing their „structural causality“ (Althusser) for future investigations of carbon markets.

In the contribution by **Edward Nell**, **Willi Semmler** and **Armon Rezai**, the authors discuss economic theories with which emissions trade is justified and compare them with theories preferring to combat the global rise in temperatures by means of taxation. In unison with the IPCC reports they show that the regulation via taxes is preferable to market based instruments. The experiences of the European emissions trade system are presented as an argument in order to show empirically that market based instruments are disappointing. None of the objectives aimed for could be achieved. The volatility of the prices of certificates is extremely high, so that this method even tends to have a counterproductive effect with regard to environmental policy.

Achim Brunnengräber discusses the climate policy of the EU. He examines explicitly the indissoluble connection between energy policy and climate policy, focusing on the energy chain from the inputs to the outputs, the CO_2 emissions. In order to counter the political and economic risks which arise from the dependence of the EU on energy imports, the EU wishes to start a „new industrial revolution“ to speed up low-carbon growth, to increase its own energy production dramatically and to maximise competitiveness. The expansion of renewable energy forms and the flexible instruments of the Kyoto protocol, especially emissions trade, are part of this strategical approach. At the same time, however, the EU was unable to effect the strengthening of renewable energies in the international climate negotiations nor could it establish a strategy oriented towards the internal market which could have prevented the fact that the Kyoto objective of the EU (-8% by 2012 compared to 1990) will only be achievable with the aid of „escape routes“ (sinks, CDM). At the same time EU energy security policy aims to secure the supply of oil and gas, to win new regions for this (import diversification) and to make investments in new and better pipelines and storage. This shows the strong obsession of the EU with low energy prices as a precondition for economic growth and for the realisation of the Lisbon strategy of 2005. Cheap and reliable energy provision is necessary for the realisation of the „Global Europe“- concept, of 2007, namely to morph into the most competitive and dynamic economic area in the world.

Elmar Altvater argues that the energy chain is doubly determined, from the extraction of the reserves of fossil fuels to the emissions caused by their combustion in order to gain useful working energy. We are dealing with material and