

Germany's International Climate Initiative – A Bilateral Fund as Innovative Financing Mechanism

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Abstract:

How to generate funds for mitigation and adaptation measures is one of the central questions of the on-going climate negotiations. In 2008 Germany invested €120 million of the revenues from the greenhouse gas emission allowances auctioning in combating climate change in developing countries and emerging economies. The reason for this might be not only the economic rationality of investing means from polluters where pollution causes most harm and where pollution can be avoided most effectively. Germany by implementing this innovative financing mechanism, rather, engages as an international norm entrepreneur and offers the international community a new role model on how to generate new and additional financial support for climate change measures in developing countries and emerging economies.

However, the current agenda on aid effectiveness moves away from bilateral cooperation. Indeed, Germany commits huge amounts of funding to existing multilateral funds. The puzzle is therefore what justifies bilateral initiatives and if there is a need at all for new additional climate financing instruments.

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1. Finance for the Protection of our Climate

The world is looking anxiously to the coming negotiations of the UNFCCC in Copenhagen this year in December. An agreement about the future of the Kyoto Protocol is urgently needed as scientists find more and more evidence that climate change is happening and it is happening even faster today than thought yesterday (CO2-Handel 2009).

Since the adoption of the Bali Road Map during COP 13 and COP/MOP 3 in Bali 2007, the negotiations are centred on four building blocks: 1. mitigation, 2. adaptation, 3. technology transfer and 4. the provision of financial resources (UNFCCC 2008). The issue of how to organize sufficient financial support for climate action in the area of mitigation and adaptation as well as for technology transfer for developing countries and emerging economies came up as one of the central questions. It became clear that emerging economies are not willing to agree to any emission reductions without substantial financial support from the industrialized world. But they realized that emission reductions are not sufficient when only the industrialized world reduces and therefore they are willing to negotiate about reduction targets for themselves – but only in exchange for financial support (Cléménçon 2008; Watanabe et al. 2008). With the Bali Action Plan it was possible to concretize Article 4.3 and 4.5 of the UNFCCC, which treat the need of financial support and technology transfer from Annex-II countries to developing countries and emerging economies.

Nearly at the same time discussions arose about how to structure new multilateral funds, where these additional funds should come from and how to manage them. The first initiatives for additional bilateral funding for climate change projects, as a new way of finance for climate change, were set up.

To prevent the world from dangerous climate change means to stick to the 2 degree target. Recent studies about the international need for additional finance to stick to this target are estimate the amount of 200-210 billions USD for mitigation and between 28-67 billion USD for adaptation per year in 2030 (UNFCCC 2007a). Other studies, based on different scenarios make higher or lower estimates (International Energy Agency 2008; Stern 2008; Stern 2006). It is not worth to discuss about the right numbers. The central message is that there is a huge demand for additional money to adapt our lifestyle and economy to the limits of our planet in a situation of a world population that is still growing, the omnipresent wish to safe our wealth, to lift more people out of poverty and that it is cheaper to take action now than to wait any longer. Hit hardest are the populations in the Least Developed Countries (LDCs) as effects of climate change are stronger in tropical regions and adaptation capacities as well as the general

level of development are low. There is a special need for these countries to get access to additional finance to address the challenges of climate change.

This paper will give a short introduction into the already existing structure of financial assistance to developing countries in the field of climate change. Secondly, the new funds, which were mainly founded in 2007/2008 are presented. The analysis will mainly focus on bilateral initiatives and the German International Climate Initiative (ICI) and its mechanism of raising new additional funds for climate protection.

2. The International Financial Architecture to fund Climate Protection Measures

The already existing multilateral financial architecture to fund climate protection measures consists of the Global Environmental Facility and the funds created under the UNFCCC as the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), which were lately joined by the newly established Adaptation Fund. First a short introduction into the GEF is given, how and why it was established and what it is criticized for. Secondly, the above named funds are discussed briefly. It is central to understand the GEF and the already existing funds in order to understand the considerations about a new structure for climate change finance.

The Global Environment Facility

The GEF is at the heart of the multilateral financial structure and the biggest existing facility to provide funds for the protection of global environmental goods. Its objective is to support developing countries and emerging economies in their effort to comply with multilateral environmental agreements. The GEF came into being in the course of the Rio Conference 1992. Today the GEF serves as the financial mechanism to the UNFCCC, CBD, UNCCD and to the Stockholm Convention on Persistent Organic Pollutants (GEF 2009).² With the success of the Montreal Protocol Ozone Fund and the flourishing of new multilateral environmental agreements the finance ministries of industrialized countries feared new and rising demands for financial commitments to support developing countries in their compliance to MEAs (Biermann/Simonis 1999; Luken/Grof 2006). Instead of supporting a variety of different very specialized funds, they opted for the creation of one central facility (Clémençon 2006). Today 178 countries are members of the GEF. The main organ of the GEF is the GEF-Council. It has 32 members, of which 16 are representatives of developing countries, 14 of industrialized countries and 2 of countries in transition. Meetings are held twice a year and decisions are

² With the decision 9/CP.1 by the Conference of the Parties of the UNFCCC agreed to the GEF as interim financial mechanism. This arrangement gained permanent status with the decision 3/CP.4 UNFCCC (2007a).

taken by consensus. If it is not possible to reach a consensus, a formal vote is held, by which a double majority needs to be reached.³ The Council is responsible to the conference of the parties. Projects are implemented by World Bank, UNDP, UNEP, UNIDO, FAO and IFAD as well as through regional development banks. The activities of the GEF are structured into six focal areas (GEF 2008b).

The GEF Trust Fund is replenished every four years by the voluntary contributions of donor countries. The contributions are based on a burden-sharing framework (GEF 2005). 32 states contributed to the replenishment for the years 2006-2010 which reached a total of 3.13 billion USD (GEF 2008d).⁴ 3.3 billion USD were allocated to the focal area climate change within the GEF Trust Funds from 1991 to 2010 (UNFCCC 2007a: 5). The GEF provides funds for the agreed incremental costs, which developing countries have by implementing the UNFCCC and other MEA. Incremental costs are defined as the difference between an economically cheap, but environmentally harming and a more expensive, but environmentally friendly solution (GEF 2008c). Since 2005 a new Resource Allocation Framework (RAF) was established by the GEF-Council, which serves as framework to allocate the resources of the GEF to the participating member states and to the focal areas (Clémençon 2006: 59). It is based on the GEF Benefits Index and the GEF Performance Index. The GEF Benefits Index calculated the potential of each country to contribute to the global environmental goods. The GEF Performance Index calculated the capacity of a country, which is necessary to establish the GEF programme successfully. The system was established to reach a higher reliability and more transparency in the resource allocation. Each state can calculate with an allocation of at least one million USD (UNFCCC 2007b: 165). Through the RAF the focal area climate change is concentrated on 46 countries only. The highest allocation goes to China, India, Russia, Brazil, Mexico and South Africa. Only 148,6 million USD are allocated to the remaining 115 countries (UNFCCC 2007a: 9). The RAF leads to a concentration of funds on emerging economies and complicates the access to additional funds for LDCs.

Although seen as an innovative mechanism, the GEF is highly criticized and confronted with strong requests for reform. Since its foundation it has always been critically observed by developing countries, mainly because of its close relationship with the World Bank and the strong influence of donor interests (Sharma 1996). The GEF-Pilot underwent a profound

³ 60 % of the votes of the member states and 60 % of the votes of the donor countries

⁴ Australia, Belgium, China, Denmark, Finland, France, Germany, Greece, Great Britain, India, Ireland, Italy, Japan, Canada, Korea, Luxembourg, Mexico, New Zealand, The Netherlands, Nigeria, Norway, Austria, Pakistan, Portugal, Slovenia, Spain, South Africa, Sweden, Turkey, USA, Czech Republic. See GEF (2008d).

reorganization process and gained acceptance by allowing general membership and by establishing a new decision-taking mechanism (Payne 2001b).⁵

One of the main difficulties is that contributions to the GEF are voluntarily. The Fourth Replenishment negotiations clearly showed the fragility of the burden-sharing agreement and the high dependency on the political will in donor countries (Clémençon 2006). The confidence into the GEF and into the financial promises of the industrialized world was jeopardized during these negotiations. Furthermore the high complexity of the organization, but also of the project approval procedure is criticized. First, it is very difficult and complex to define the incremental costs, especially to define the baseline. Second, disagreements between the GEF and the Conference of the Parties about the implementation of directives are very common (Clémençon 2006: 54). The complexity is further enhanced by the fact that in many countries different ministries are responsible for the Conference of the Parties to the UNFCCC and the GEF with the effect that relevant information is not always available to the country representatives or is not linked to the GEF context (Clémençon 2006: 64). The GEF seems to be captured in a vicious circle of reporting commitments, low human resources, low financial resources for the complexity of the topic, low political support, high complexity of the coordination process and rising demands from the conference of the parties. With the new executive director Monique Barbut in 2006 new impulses have been set. The project pipelines were revised, new strategies for the focal areas were developed, the possibilities of programmatic approaches and the RAF implementation were evaluated. The objective was to reduce the project cycle from an average duration of 66 month to 22 month (Barbut 2006: 11). The GEF as a whole shall become more effective and transparent. It is highly questionable, if the GEF is able to manage the amount of financial flows that are needed for combating climate change adequately.

The Funds under the UNFCCC and the Adaptation Fund

Next to the GEF Trust Fund with the focal area climate change, three new funds in the climate sector have been established with the Marrakesh-Accords: the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) under the UNFCCC and the Adaptation Fund under the Kyoto Protocol (UNFCCC 2007b: 162). The LDCF as well as the SCCF are administered by the GEF. They depend on the voluntary contributions of the donor states. In accordance with the conference of the parties they are separated from the GEF Trust Fund and therefore they do not depend on the RAF or the replenishment negotiations. Donor

⁵ For a detailed description of the reorganization process see Fairmann (1996: 55-88).

states are anytime able to contribute to the funds. By this mechanism, donor states gain in flexibility, but at the same time it leads to less reliability for GEF’s planning processes and for the receiving states (UNFCCC 2007a: 9). During the negotiations in Poznan LDCs complained about the difficult access to LDCF funds (de Boer 2008).

The Adaptation Fund (AF) is particular in comparison to LDCF and SCCF. First of all the AF was not established under the UNFCCC, but under the Kyoto Protocol. Therefore the AF is bond to the mandate of the CMP/Members of the Protocol (Müller 2007). The AF first was operationalized during the negotiations in Bali 2007. The funds for the AF are taken from a 2 % levy on the CERs resulting from CDM projects (Harmeling/Bals 2008: 31). The volume of the fund therefore depends on the amount of CERs generated and on the realized market prices. The discussion about the AF mainly focuses on the issue of the institutional structure. During the negotiations in 2006 the EU proposed the GEF as administration to the fund (Müller 2007). But many of the LDCs are not quite happy with the work of the GEF and the modality how they administer the funds in the adaptation area. Furthermore they criticize the strong influence of donors to the GEF-Council. But there was no counterproposal presented, therefore the secretariat of the AF was assigned on an interim basis to the GEF. During the negotiations in Poznan 2008 the adaptation fund board was confirmed as independent legal entity, which will be supported by the GEF secretariat on administrative issues. Through this the direct access of the members of the protocol to the funds is assured (IISD 2008: 9). The AFB is located at the UNFCCC, Bonn (Harmeling/Bals 2008: 31). The composition of the AFB is extremely relevant and was highly debated as this is the central organ where all relevant decision on the project criteria and granting of funds will be taken. The decision taken during the negotiations at Bali is as follows:

Composition of the AFB from CMP3 until CMP5

Country Group	Number	Board Members (replacement)
Africa	2	Senegal, South Africa (Kenya, Egypt)
Asia	2	Quatar, Mongolia (Indonesia, Uzbekistan)
Eastern Europe	2	Poland, Albania (Russia, Ukraine)
Group of Latin America and Caribbean Countries (GRULAC)	2	Jamaica, Uruguay (Cuba, Argentina)
Western Europe and others	2	Switzerland, Germany (Norway, Finland)
Small Island Developing States	1	Tuvalu/Barbados (Maledives)
Least Developed Countries	1	Tanzania (Bangladesh)
Annex I	2	Japan, France (Spain, Great Britain)
Non-Annex I	2	Columbia, Pakistan (Ghana, Lesotho)

Source: adoption of (Adaptation Fund 2008).

The majority of the AFB members are representatives of developing countries. Decisions are taken by consensus. If it is not possible to reach a consensus, a 2/3 majority is necessary. Since the decision of the AF in Bali 2007 six meetings were held. Main issues of the first meetings have been topics as responsibilities of the different organs, getting clear on the priorities in the granting of funds, as well as budgetary questions (GEF 2008a).

If the available funds from the GEF Trust Fund, LDCF, SCCF and AF are taken together, they are by far not sufficient to respond to the international need for finance in the area of mitigation and adaptation. In the case of the LDCF and the SCCF by now no more project proposals are accepted to the project pipeline as financial commitments of donor states are missing.

In sum, the responsibilities assigned by the different MEAs to Global Environment Facility (GEF) are high. But they are not sufficiently supported by financial commitments and human resources. The high complexity of the coordination process and of the project approval process leads to large delays in the implementation of the projects at the country level, which highly contributes to the discontent.

The chart provides an overview over the recently discussed funds.

Funds	Area of activity	Volume	Origin of Funds
GEF Trust Fund – Climate Change Focal Area	Mitigation and adaptation	3.326,60 Mio. USD (1991-2010)	Replenishment based on burden-sharing agreement, voluntarily, each 4 years
LDCF	Adaptation (National Adaptation Plans of Action)	160 Mio. USD	Voluntary, contributions are welcomed anytime
SCCF	Adaptation, technology transfer, mitigation, diversification of economic activities	67 Mio. USD, of which 57 Mio. USD are reserved for the adaptation programme under the SCCF and 10 Mio. USD for the technology transfer programme	Voluntary, contributions are welcomed anytime
Adaptation Fund	Adaptation	Depends on the amount and the prize of CERS, annually 80-200 Mio. USD (2008-2012)	2 % levy on CERS from CDM projects

Source: own illustration based on (UNFCCC 2007b: 164 f.)

3. Recent developments

As mentioned above, there have been several new developments of funds in the field of climate change finance since 2007. States and multilateral organizations proposed new programmes, launched debates or already established new funds. Discussions take place at special events – as in the case of the World Bank proposed Climate Investment Fund– or at

the Side Events during the official negotiation process of UNFCCC. The complexity is high and information is rare. Porter et al. (2008) presented a paper in May 2008, in which they presented the new initiatives and their characteristics. They ask for more coordination of the different initiatives. The focus of the study is on funds financed by public funds.

New bilateral funds:

- Australia: Global Initiative on Forests and Climate
- Germany: International Climate Initiative⁶
- European Commission: Global Climate Change Alliance
- Great Britain: Environmental Transformation Fund – International Window
- Japan: Cool Earth Partnership
- Norway: International Climate and Forest Initiative
- Spain: Millennium Development Goals Fund

New multilateral funds:⁷

- GEF: GEF Tropical Forest Account
- GEF-IFC: Earth Fund
- World Bank: Climate Investment Funds (CIFs)
 - Clean Technology Fund (CTF)
 - Strategic Climate Fund (SCF)
- World Bank: Forest Carbon Partnership Facility

The funds differ about the objectives, the volume and the projected duration. Some of the bilateral initiatives contribute to multilateral funds. The British Environmental Transformation Fund – International Window will transfer the available amount of 800 million pounds directly to the World Bank's CIFs (Department for Environment 2008; The World Bank 2008a).

The development of a new financial architecture, parallel to the agreed one during the official climate negotiation process, is critically observed by NGO representatives. For WEED, a German NGO, these processes are jeopardizing an agreement between developing and industrialized countries (WEED 2008).⁸ During the presentation of the new World Bank funds, a strong discussion about the future governance structure of those funds arose. The first proposal included a strong role for the World Bank, in June 2008 it was agreed that the International Bank for Reconstruction and Development (IBRD) will figure as a trustee to the funds and will be observed by a Trust Fund Committee.⁹ The committee consists of eight representatives of donor states, eight representatives of receiving countries and one

⁶ Porter also names the Life Web Initiative, which indeed forms a part of the ICI.

⁷ Porter also adds the Adaptation Fund, which is already addressed.

⁸ WEED is a German NGO in the field of world economy, ecology and development.

⁹ For a detailed description of the discussion process see Müller/Winkler (2008)

representative of the regional development banks. Decisions will be taken by consensus. In addition to this the committee of the SCF also includes observers from UNFCCC, UNDP, UNEP, GEF and the civil society (The World Bank 2008b: 12). In the case of the CTF only one UN- and one GEF-observer are allowed (The World Bank 2008c: 10). The discussion about the governance structure of the World Bank funds got into the discussion flow about the adaptation fund, where developing countries strongly gained in influence.

By September 2008, the World Bank was able to announce commitments of ten donor countries to provide as much as 6.1 billion USD to the Climate Investment Funds (CIF), which will therefore be available for investments in climate protection measures (The World Bank 2008a). The stronger influence of the developing countries on the governance structure of the funds, seem not to diminish the willingness of the donor states to contribute to these new funds.

Although the World Bank is trying to install itself as one of the central actors for the international financial architecture in the field of climate change, other models for multilateral funds are discussed during the sessions of the UNFCCC and in numerous side-events. One of the most discussed proposals is the one of the Mexican delegation, known as Multinational Climate Change Fund (Haites 2008: 28 f.).

The focus of this paper lays on bilateral funds, but it is important to know the multilateral structures and the actual discussions about them, in order to be able to locate the bilateral activities of the countries. The question is now: why do countries get active and create bilateral funds, while at the same time there is already a large supply of existing multilateral funds and discussions about possible new ones are taking place? It is important to understand the motivations of countries for bilateral initiatives, in order to think about how an international financial architecture for climate change finance should look like. In order to achieve a maximal willingness for more financial support and coordinated action to enable strong action on climate change, it is essential to understand the logic of action of states and to act on them.

The analysis will show why bilateral funds can be justified in an international system of climate financing. Briefly, the argument will touch on the following: Bilateral initiatives can be more innovative because they can take more risks of failure than multilateral ones. This is due to the very reason of bilateral initiatives being redundant. Thus, failure of a project or even an initiative does not leave gaps but can be bridged by others, while multilateral funds

must always avoid such duplicate structures and have the financial leverage to up-scale innovations rather than make these innovations.

As a case study the German Climate Initiative is analyzed.

4. Redundancy in International Cooperation

Redundancy is necessary to allow for synergies to emerge and gaps in needed action to be avoided. Most academic arguments in the field of international cooperation equate redundancy with inefficiency. Although that is not justified always as Landau argues (Landau 1969). His argument runs as follows: Zero redundancy increases the probability of failure. For, top-down, hierarchically and intentionally planned and organized systems are prone to make mistakes at least in certain parts of the organized system or interventions as they can only process a limited amount of information. Large complex systems tend to amplify small errors.

“The failure, then, of a single part can mean the failure of the entire system (...) In complex and tightly ordered systems the cost of error can run very high.” (Landau 1969: 350)

Thus, redundancy of bilateral funds works as insurance for the whole system of financing for mitigation and adaptation:

“Concerns about redundancy and efficiency are red herrings for (organizational, S.W.) design principles. Redundancy amplifies the political influence of policy networks involved in governance, and also assures that the governance system persists even if one of the nodes suffers political setbacks. Redundancy in funding of sources may also compensate for episodic shortfalls in financing from principal funding sources.” (Kanie, Haas, Murphy 2004: 276)

Redundancy decreases error-proneness and increases innovation (Diller 2002: 232). If the global climate finance architecture really avoids redundancy of funds and activities, like multilateral funds must do, the effectiveness of the whole governance system would depend on the success and effectiveness of every single individual (multilateral) fund involved. As soon as one fails, the whole system would be jeopardized by failure. System theory concludes that complex systems cannot be governed except in a spontaneous, self-organizing way, which, indeed, reflects the challenge of global climate governance in a world of growing interdependence and complexity. (compare Messner 1995: 127/128 and 176)

Redundancy allows other parts or interventions to correct individual failures. With reference to John von Neumann, Landau argues that the whole can be more than the sum of its parts by “adding sufficient redundancy”.

“The probability of failure in a system decreases exponentially as redundancy factors are increased.” (Landau 1969: 350)

Landau explains this fact, referring to Warren McCulloch’s “principle of redundancy of potential command”, by “(...) some ‘overlap’ at all times which enables residual parts or subsidiary centres

to 'take over'." (Landau 1969: 351) This principle corresponds with the concept of governance, as explained by Rhodes referring to Rosenau, to be more participatory. For, all individual initiatives might engage in collective action, depending on their knowledge, when it is best. (Rhodes 1997: 58)

Basically, Landau argues against the image of centrally planned systems and the functions of central control points in any kind of organizations to make systems more efficient. Such a benevolent dictator, even if she were, indeed, benevolent, cannot possibly control and process the necessary information and action. (Landau 1969: 353-355) The only way out of the dilemma of the apparent necessity as well as impossibility of governance of complex systems are self-organizing systems, as Landau suggests for "large-scale organizations", where "redundancy serves many vital functions". (Landau 1969: 356) Redundancy allows flexible forms of governance because governance functions are distributed across the whole system, and redundancy fosters innovation in an evolutionary, not planned way. (Probst 1987: 81)

However, redundancy, of course, is costly, indeed.

It "(...) remains to learn to distinguish between inefficient redundancies and those that are constructive and reinforcing (...)." (Landau 1969: 356)

Thus, there might be an optimal point of balancing costly redundancy with costly risk of system failure.

This point can be approached in a demand-driven manner, as long as countries demand activities to satisfy their needs and start to collaborate with bilateral funds from a global climate finance system. Given these activities are not centrally planned or somehow coordinated, the redundancy of activities for sustainable development is likely to increase. Nevertheless, effectiveness and efficiency increase as well. For, only if countries develop *pro-actively* with ownership, activities will be sustainable. And if these actors *cooperate* with bilateral funds, partners are able to exchange information on their strategic action and consider thereby mutual negative external effects which decrease efficiency due to redundancy. The communication of action allows different actors to avoid too much duplication and vary their activities so that probability rises to find at least one successful strategy to cope with certain problems. For, the variation of overlapping activities allows an almost evolutionary trial-and-error method to search for the most efficient action to address certain situations.

Concluding, to set up bilateral funds makes even sense from a subordinate point of view. Several bilateral funds instead of one (or very few) central structure fosters innovations and allows to take more risks as single failures do not menace the whole system and leave unbridged gaps behind. Bilateral funds can work as back up for each other as well as for multilateral funds and increase the innovative ability of the overall international system.

5. Case Study: The German Climate Initiative

The German Climate Initiative is one of the recently created bilateral funds. The decision for this new initiative is part of the Integrated Energy and Climate Package (IEKP) of the German Government, agreed on in December 2007 (Bundesministerium für Umwelt 2007: 3). It is the aim of the IEKP to reach emission reductions of 40 % in Germany by 2020.

After controversial discussions within the German government, 400 million € were assigned to the German Environmental Ministry for additional climate protection activities, in 2008 (Bundesministerium für Umwelt 2008a). The Climate Initiative consists of a national and an international component. The main part of political attention and therefore also the main amount of financial resources (280 million € in 2008 and 340 million € in 2009) is with the national component. The international component, called International Climate Initiative (ICI) has had an annual volume of 120 million € in 2008 and 2009. This paper will focus on the international component and will only provide a short introduction to the national programme.¹⁰

5.1 From Auctioning of Emission Certificates to the Creation of the Climate Initiative

With the creation of the European emission trading system (EU ETS) the question arose how to allocate the certificates to the companies under the trading system. Two options were strongly discussed: to allocate them for free, based on the former emissions of the companies (grandfathering) or to auction them. In the first trading period (2005-2007) grandfathering was mainly employed. Since January 2008 it was made possible by the EU Commission to auction up to 10 % of the allocated emission certificates (DEHSt 2007). From 2013 on a 100 % auctioning is planned. Germany used the possible and opted for auctioning. In the framework of the IEKP it was agreed on to reinvest the earnings of the auction of emission certificates into climate protection measures and to allocate these earnings to the budget of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) with the budget plan of 2008 (Bundesministerium für Umwelt 2008a). Germany is the first country, which utilizes the earnings of auctioning emission certificates to directly reinvest them into national and international climate measures. The German Ministry for the Environment is responsible for the area of climate change within the German federal administration. Therefore the earnings out of this new market-based instrument also fall into its competence. For the budgetary year of 2008 the environmental ministry got an assignment of 400 million €. The actual earnings for 2008 have been as large as 900 million €

¹⁰ Information about the national component is available at www.bmu.de/klimaschutzinitiative (information so far is provided in German only).

(Bundesministerium für Umwelt 2009b). As the price for emission certificates rose in 2008, the budgetary allocation in 2009 was expanded to 460 million €. Because of the effects of the international financial and economic crisis the prices of emission certificates are down in 2009 and the optimistic estimate of additional earnings of more than 900 million € will probably not be met. The price lies at 13,82 € in July 2009 and reached by now an average price of 12,74 € in 2009 (Bundesministerium für Umwelt 2009a).

5.2 The National Climate Initiative

The National Climate Initiative consists of various support programmes and individual projects in the field of consumers, business, municipalities and education. Central aim of the NCI is to reduce GHG-emissions by increasing energy efficiency and energy conservation. The NCI supports the use of already available technologies in order to increase their market share and to show that climate protection is possible and pays off for the individual. A mix of instruments from direct investment support to the provision of additional information is used.

Central support programmes are:

- Support Programme for Municipalities and Other Entities
- Incentive Programme for Combined Heat and Power
- Incentive Programme for Climate Protection Measures at Commercial Cooling Devices
- Support Programme for the Use of Bio-energy
- Market Incentive Programme for Renewable Energies¹¹
- Environmental Innovation Programme¹²

The Support Programme for Municipalities and Other Entities combines three focal points of support: 1. Concepts for Climate Protection, 2. Energy Efficient Technologies in the Use of Electricity, 3. Pilot Projects for CO₂-Neutrality. The programme works with grants up to 80 % of the total project costs for the development of concepts, 25 % of the total costs for the investment in energy efficient technologies (lighting, pumps in heating and ventilation etc.) and with 60 % of the climate-related incremental costs for pilot projects. Furthermore, municipalities who want to implement a Concept for Climate Protection can apply for receiving an additional support for a climate protection manager. Which means the NCI is also providing support for employing additional staff with the principal task of implementing climate protection measures. Through this the very common barriers of missing human resources and knowledge are addressed.

The Incentive Programme for Mini-Combined Heat and Power addresses individuals as well as small companies by paying an additional amount to each installed entity. The Incentive

¹¹ The existing programme received additional funds from NCI.

¹² The existing programme received additional funds from NCI.

Programme for Climate Protection measures at Commercial Cooling Devices acts in the same manner. The Support Programme for the Use of Bio-Energy actually integrates a variety of activities in the field of Bio-energy with the aim to promote this technology and in order to find solutions to unresolved questions in this field. The Market Incentive Programme supports the use of renewable energy technologies with concrete investment assistance. This programme existed before the National Climate Initiative was initiated and only was augmented in its volume. It is the same case with the Environmental Innovation Programme, which is one of the oldest instruments of supporting environmental innovations in Germany. The Environmental Innovation Programme supports unique, innovative technologies and their very first installations as a kind of pilot.

Consumers are addressed as well by the support programmes as by individual projects. Individual projects for consumers mainly focus on providing information about energy conservation and energy efficient technologies for the use in households. Also climate-friendly mobility concepts are addressed. Examples are projects by the Federation of German Consumer Organisations, Caritas and Stiftung Warentest (Foundation for Product Testing).

The business is addressed by providing adequate information about energy efficient technologies for example through the establishment of a competence centre. One of the highlights is the project “30 pilot networks for climate protection and energy efficiency”. Each network consists of 10 to 15 SMEs who are willing to increase their energy efficiency. Regular meetings help to connect and to share experiences. These networks are advised by the Fraunhofer Gesellschaft. The business sector is therefore mainly addressed by the NCI by providing information and by creating new forms of cooperation and networks in order to increase the awareness about energy efficiency and how it benefits business.

Also actions in the field of education are supported, mainly by providing funds for additional energy conservation activities combined with educational activities in schools and nursery schools.

These projects are partly coordinated with other federal ministries as the Federal Ministry of Economics and Technology, the Federal Ministry of Transport, Building and Urban Affairs and the Federal Ministry of Food, Agriculture and Consumer Protection.¹³

5.3 The International Climate Initiative

The ICI supports projects in two thematic areas. The first area focused on supporting a sustainable energy infrastructure and economy (Section I), the second area focused on adaptation to the negative effects of climate change and protection of climate relevant

¹³ For further information see www.bmu-klimaschutzinitiative.de.

biodiversity (Section II). It is aimed at spending 60 million € in each of the thematic areas, but it is not binding. In section I projects in the field of energy efficiency, renewable energy and reduction of F-gases are central. In section II the intersection of protection of biodiversity and climate protection is the key element (Bundesministerium für Umwelt 2007). Projects are supported in emerging economies, developing countries and countries in transition.

The ICI falls into the competence of the Federal Ministry for the Environment. But the Federal Ministry for Economic Cooperation and Development and the Federal Foreign Office have to agree on every project in order to ensure the coherence of the German bilateral cooperation (Bundesministerium für Umwelt 2008a: 21). Furthermore it was decided by the German budget commission and clarified by a report of the Federal Ministry of Finance that the 120 million € of the ICI need to be registered as Official Development Aid (ODA) (Bundesministerium für Umwelt 2008a: 27). Projects are able to register as ODA by fulfilling the criteria of the Development Assistant Committee (DAC) about ODA. The ICI had to present reports to the budget commission bi-annually in 2008, which was cancelled in 2009. Through this mechanism coordination with the parliament as well as the government takes place. The ICI is also bound to a decision of the parliament that two-thirds of the funds need to be spent by the bilateral institutions for international cooperation. In 2008, only one-third of the funds were available for projects with multilateral organizations. Through the ICI the Federal Ministry for the Environment for the first time gets involved at a larger scale in the field of project-based international cooperation with developing countries and is establishing itself as a new actor.

The Federal Ministry for the Environment is supported by a Programme Office, which is located with GTZ, but also integrates KfW staff. Therefore the two big German institutions for international cooperation are involved to run the ICI as a working mechanism and are providing their experiences in the field of development and environmental projects. The receiving countries are participating in the development and implementation of the projects through the normal mechanisms of bilateral cooperation. As an additional tool to increase participation as well as communication between the official negotiation process and the ICI, an international advisory group is established (Federal Ministry for the Environment 2008: 22).

The objectives of the ICI are defined as follows:

- “to contribute effectively to mitigation and adaptation measures,
- to protect climate relevant biodiversity,
- to support innovative and multipliable solutions and approaches,

- to show that climate protection is possible and can lead to economic success,
- to give impulses to cooperation with emerging economies and developing countries in the framework of the Post-2012 climate negotiations” (Bundesministerium für Umwelt 2008b)

The objectives are supported by a set of criteria, which serve also to the project selection process. The criteria for the project selection are as follows:

- “mitigation effect
- innovative character
- multiplier effect
- economic effect
- Support to the international climate regime post-2012
- Adaptation to the negative effects of climate change
- Protection of climate relevant biodiversity
- Official Development Aid criteria need to be fulfilled
- Embeddedness with the German international cooperation” (Bundesministerium für Umwelt 2008a: 8)¹⁴

The projects need not to fulfil all of the criteria at the same time, as differences between the thematic areas of mitigation and adaptation are prevalent (Bundesministerium für Umwelt 2008a: 5). The projects are supported by grants. The German institutions of bilateral cooperation as GTZ and KfW, as well as NGOs and multilateral organizations and business may submit project proposals. The (regional) development banks as KfW, EBRD and IRBD play a special role as they are offering special credit lines to support renewable energies and/or energy efficiency. The whole process in 2008 was dominated by high time pressure and by the need to realize a fund flow as high as possible to respond to domestic political pressures.¹⁵ The strategy of the new bilateral fund was formulated at the same time as the programme office was established and project selection criteria were formulated. The operationalization of such a large project-based fund is completely new for the administration of the Federal Ministry for the Environment. Therefore not only a large need for coordination with other ministries, but also within the own administration, arose. The process character of the ICI was very pronounced during its first year.

5.4 The ICI at the Project Level

The analysis relies on the project data of October 2008. This included all projects that were asked to hand in a detailed project description and already passed the examination at the Federal Ministry for Economic Cooperation and Development and at the Federal Foreign Office. Because of the tight time frame, it was not possible to approve all projects on time in

¹⁴ For a more detailed description of the criteria see Bundesministerium für Umwelt (2008a)

¹⁵ Personal communication.

2008. Some of them got the final ok only in 2009. But I am relying on these data as it represents best the intention on the allocation of funds by the Environmental Ministry.

In 2008 84 project proposals with a total delivery volume of ca. 80 million € for 2008 allocated to Section I sustainable energy infrastructure and economy, while 57 project proposals with a total delivery volume of 48.4 million € allotted to Section II adaptation and biodiversity. In total 141 projects were envisioned to get finance from the ICI. The project duration varies between one and four years. Most of the projects are found in China (14), India (10), Brazil (9), Russia (7) and Ukraine (7). In 2008 eight projects in LDCs are supported with ICI-funds. LDCs included in the portfolio are Burkina Faso, Central African Republic, DR Congo, Madagascar, Mali, Tanzania, Zambia and Cambodia.¹⁶

Projects are planned to take place in over 50 countries. In 2008 no balance between Section I and Section II was achieved. The imbalance is partly caused by the different character of project types, different financial needs, and varying project duration. The limited availability of commitment authorization for the following years leads to a preference of projects with high investment costs at the beginning, which are typically more common in Section I.

5.5 Theoretical Analysis of the ICI and the states' motivation to put up bilateral funds

With the ICI a new mechanism to generate funds for climate change measures came up. The funds from the auctioning of emission certificates are directly re-invested into climate change projects at the national and international level. To better understand the intention and motivation of states to put up bilateral funds, while a working multilateral structure already exists, a theoretical analysis was undertaken. Three theoretical approaches taken from the IR theories were analysed about their explanation potential. Two of them form part of the institutionalism approach and follow the consequential logic of action. First the functionalism of David Mitrany was analyzed. Mitrany, also often criticized, offers first explanations about the logic of action of political actors in the situation of creating new organizations and under high problem pressure. Functionalism focuses on the problem solution and on the satisfaction of needs.¹⁷

As a second theoretical approach, the neo-institutionalism was analyzed. The focus here lies on the work of Keohane. Here states are seen as rational-self-interested actors, who cooperate

¹⁶ For more detailed information about the supported projects under ICI see www.bmu-klimaschutzinitiative.de (available as well in English).

¹⁷ See also Eastby (1985); Groom (1975a: 1-6); Groom (1975b: 93-111); Groom/Taylor (1975); Long/Ashworth (1999: 1-26); Mitrany (1966); Mitrany (1975); Sewell (1966).

with other states in order to achieve common goals through the support of international institutions (Keohane 1984). Questions centre on issues of trust, governance and the realization of economic interests.¹⁸

As a third step the approach of the norm entrepreneur was analyzed as an input of constructivism. In this case a behavioural logic of action is applied. In this case the constructivist approach of the norm entrepreneur fills the deficits of the institutionalist approaches and interprets the creation of new funds as an intention to promote a new norm. As authors most centrally Finnemore and Sikkink are to be named (Finnemore 1998).

The functionalistic approach of Mitrany was not able to provide an explanation why states put up bilateral funds. It was shown that bilateral funds can be seen as serving a functional need and as responding to problem pressure and that the problem structure allows to provide these additional funds on a bilateral mode. But they cannot explain the form of the provision of additional funds. Following the theoretical approach the provision of funds is possible at a local, regional, national, bilateral and multilateral scale. In case of the ICI the starting point was determined not by rising problem pressure, but in relation with the emissions trading system. By ignoring the political element, Mitrany aims to achieve higher efficiency and a stronger orientation on human needs. In this case, it might be possible to ignore the political elements between states, but the ICI is bound by political conflicts within and between the participating national ministries. At least during the starting period of the ICI political conflicts were very prevalent. A concentration on needs is only achieved insufficiently. As the first projects started only in October 2008 it is very much too early to talk about the long-term effects effectiveness of the ICI and its impacts on the climate negotiations. One element of the ICI with a high potential to spread the positive experiences of bilateral cooperation to the international negotiation process is the international advisory panel.

The institutionalist approach by Keohane enables us to focus on the potential to realize ones self-interest in international cooperation. It is assumed that cooperation only takes places as long as the own interests of the state are guaranteed and supported (Keohane 1984). The hypotheses focus on three aspects: 1. the meaning of trust, 2. the meaning of the governance structure, 3. the meaning of economic interests in the creation of bilateral funds. The analysis about the meaning of trust focuses on the role of the GEF as central multilateral institution for the funding of global environmental goods. Interviews as well as the literature show a crisis of

¹⁸ See Axelrod/Keohane (1986: 226-254); Keohane (1984); Keohane (1989); Rittberger/Zangl (2002); Snidal (2005: 73-93); Zangl/Zürn (2003).

confidence between the donor states as well as against the institution as such in recent years. Following theoretical assumptions, cooperation should result to be more difficult and bilateral initiatives may arise as solutions. Empirical no absolute turning away from the GEF can be observed. Germany instead increased its contributions in order to compensate the reductions of the USA. In face of the crisis of confidence it seems to be rational and in line with the theory not to provide the additional funds of the innovate mechanism for multilateral structures. But the neo-institutionalist approach is not able to explain why Germany contributes more funds than the agreed sum in the burden sharing agreement to the GEF.

The next hypothesis focuses on the connection between the governance structure, the realization of self-interests and the disposition for payments. Next to the GEF, the World Bank Funds as well as the Adaptation Fund are analyzed. No connection was found between the governance-structure and the disposition for payments.

In the question about how strong economic interest influence the selection bias of countries for project support was analysed. It can be shown that promotion of export is central to putting up bilateral initiatives. By using bilateral structures it is easier to support national companies and to open new markets for the national industry.

The functionalism showed that the problem and need structure allows to use bilateral funds and to achieve first fast success with the project implementation. The neo-institutionalism showed that creation of new bilateral funds is always also based on national self-interests. In the case study, also the a crisis of confidence and economic interests show the direct vantages of bilateral funds to the nation state, multilateral structures are still supported. Consequently this is not a case of absolute refusal of multilateralism. Bilateral activities are seen more as an additional engagement of states beyond their multilateral obligations.

In sum, functionalism and neo-institutionalism are not able to explain why Germany lies back on bilateral structures in funding for climate change. The third theoretical approach, which together with the neo-institutional approach supports the central argument is presented now. The ICI as such is the result of a new way of generating additional funds for climate protection measures. By the use of a market-based mechanism - the auctioning of GHG-emission certificates – additional funds are generated. The auctioning guarantees a stable and reliable flow of funds. Therefore the climate initiative is designed as a self-sustainable mechanism though which funds that are paid by German industries to compensate their CO₂-emissions under the EU-ETS are redirected to serve as finance for new environmental measures. By doing this, Germany stands for a new norm in the international debate about

additional funds: Revenues of the auctioning of pollution rights shall be reinvested into climate protection measures – not only at the national, but also at the international level. Additional norms present in the German position are to establish the polluter-pays approach and the moral obligation to support the Global South financially. The approach of Finnemore/Sikkink will be used to analyze if Germany holds a role as norm entrepreneur at the international level.

Norm Entrepreneurs by Finnemore/Sikkink¹⁹

- “Constructivists focus on the role of ideas, norms, knowledge, culture, and argument in politics, stressing in particular the role of collectively held or intersubjective ideas and understandings of social life.” (Finnemore/Sikkink 2001: 392)
- Norms are defined as “a standard of appropriate behaviour for actors within a given identity”(Finnemore 1998: 891). Norms are therefore common and generally binding codes of behaviour.
- The constructivist approach postulates the independent effect of norms on politics. Ideas and norms bear social power.
- States orient themselves on norms and align their action to them. Norms act as a kind of broker to assess which kind of action is appropriate (logic of appropriateness). What is appropriate is assessed only by the interaction with other actors (states).
- The identity and the interests of states are influenced by norms.
- Power is a function of norms, ideas and social institutions. Power is found in discursive practices, cultural values and institutions.
- Norms are actively created and supported by actors. Actors, who actively promote concrete norms, are called norm entrepreneurs.
- The norm life-cycle by Finnemore/Sikkink explains how norms come about and under which conditions they are sustained:
 - 1. Norm creation: norm entrepreneurs who support a specific norm, need support from other actors to reach the international level. The central element of this stage is the persuasion of other actors and the framing of the issue. Empirical studies suggest that the support of one third of the states is needed for a norm to reach the second stage at the international level. The national level is especially important and gets more and more connected with international processes. Not only states but also NGOs might act as norm entrepreneurs at this stage.
 - 2. Norm acceptance: Here international and transnational norm influences are much more important than the national processes. The central mechanism is socialization.²⁰ Norms, which have their origin somewhere else in the international system are internalized by states.
 - 3. Norm internalisation: Norms are no longer questioned (taken-for-granted-mentality) and will disappear from political debates.
- Central factors which influence the potential of a norm to reach international acceptance: legitimacy, prominence, intrinsic character of the norm, proximity to norm already in place, and historic context.

¹⁹ See Finnemore (1996); Finnemore (1998: 887-917); Finnemore/Sikkink (2001: 391-416); Ingebritsen (2002: 11-23); Payne (2001a: 37-61); Risse (2002: 597-623).

²⁰ Defined as the process of learning and integration of an actor into the generally favoured codes of conduct in a community.

The German case is still on the first stage of developing an international norm. Central aspects are the framing of the norm and the persuasion of other actors to support the new norm internationally. Germany is known internationally for being engaged with the issue of climate change. A very good example is the adoption of the Integrated Climate and Energy Programme (IEKP) in 2007 and the strong involvement in green technologies.²¹ During the German Presidency of the European Council, the German chancellor clearly showed a strong engagement for more climate protection. In the field of development cooperation, 26 % of the German ODA is assigned to the area of environment (Hicks et al. 2008: 143). These are only some references, by which one can assume that Germany has a climate-protection-identity and a pioneering role on the international level.

The application of the theory onto the empirical case leads to the following hypothesis:

Main thesis: Germany acts as a norm entrepreneur to the norm, revenues of the auctioning of pollution rights shall be reinvested in national and international climate protection measures, as a precondition to establish a self-supporting system for climate change funding.

1. At the beginning of a creation process for a new norm, NGOs play an important role and it is their function to convince state actors to support the norm.
2. If states want to convince states to support a new norm, they use different mechanisms as framing, symbolic politics, and strategic information etc.
3. If states want to reach international acceptance of a norm, the implementation of the norm into their action support the conviction of new supporters. An implementation based on the own interpretations is only viable bilaterally.
4. The norm, to use revenues of the auctioning of pollution rights for climate protection measures, has through its intrinsic character, through the prominence Germany as norm entrepreneur and by the historic context, and its implementation at the national level, a high potential to achieve international acceptance.

The main thesis is supported by the theses 1-3. The analysis of the recent activities of Germany to promote the ICI clearly showed that the international public is addressed and that Germany is advocating the new norm as being one possible element for the much needed international financial architecture. Presentations about the ICI are held by the environmental minister and by various members of the ministry at a variety of international events. The ICI is clearly placed into the context of innovative financial mechanisms and its self-supporting

²¹ About the market for green technologies, see Egelin et al. (2007).

structure is highlighted. The German initiative gains in persuasiveness through linking the promotion of a new norm, the self-supporting financial mechanism through the auctioning of emission certifications and the direct re-investment into climate protection measures. The link to discussions about the governance of the international financial architecture is forced and the bilateral initiative is often presented as a testing of a new model.²² In the long run, Germany aims for more coordination of the governance of the already existing and recently discussed climate funds.²³ Germany is using its growing independence, which comes with the establishing of a bilateral initiative instead of a larger participation in multilateral structures, to give impulses for the future arrangement of the international financial architecture for climate change finance. At the same time, Germany proposes a potential role-model to the international community on how to generate new and additional funds for climate change. With the ICI, Germany, as a climate pioneer, uses the influence of norms on the international relations and its own position within the state-system to formulate and realize actively a new system of generating additional funds for climate change. The establishment of a new bilateral fund enables Germany to support actively and observable, with own funds, more climate projects and innovative approaches. The establishment of such a new principle for funding into state action is only possible, with a minimum of independence of other states and ideas.

6. Summary

This theoretical analysis of the ICI tried to work out the motivations of states to put up bilateral funds. Three theoretical approaches were used and analyzed about their explaining potential for this case. As it is only a single-case study, the value of the results are only limited. The functionalism explains why additional funds are provided. Essential is the high problem pressure. Bilateral funds open a more pragmatic approach and provide fast results on the short run. But functionalism is not able to explain why bilateral initiatives gained in momentum. It showed that funds for climate change may be provided at different levels, but also showed that the problem structure of climate change needs a coordination process at the global level. It therefore asks for more coordination between bilateral and multilateral initiatives.

The neo-institutionalist approach focuses on the self-interests of states in cooperation. The emphasis to make multilateral cooperation work is on trust. If a multilateral structure is supported, the governance structure of the specific funds has no influence on their willingness

²² See German Side-Event in Bonn, 7. June 2008.

²³ Interview with Karsten Sach, head of directorate of the German Environment Ministry.

to provide funds. But national interests are important for the question on how to use funds. This was shown in the debate about how to use the additional revenues of the auctioning of emission certificates. In the national context it is more difficult to justify a contribution to multilateral structures, than to set up a new bilateral programme. A bilateral fund frees the country from coordination with other states, which also allows to take more risks of failure and to invest in innovations, and makes it easier to use their engagement for public relations. The observability of the states action is higher. With the instrumentalisation of the fund to promote a new financial mechanism the third theoretical approach is introduced.

The case needs a mixed explanation of neo-institutionalism and constructivism. On the one hand, national interests are best realized in a bilateral fund, which facilitates the coordination within the German government and leads to a higher support for allocating additional funds for climate protection. On the other hand, the bilateral funds enable the German government to propose a new financial mechanism and a new norm on how to use revenues from emission certificate auctioning with a higher reliability as the model is already implemented and tested by them. The ICI demonstrates thereby that and how the transition to a low carbon economy is doable and how financing for ambitious targets can be provided.

If this new norm gains in momentum we will have to await the results of the on-going discussion on the financial architecture and the post-Kyoto arrangements.

7. Literature

- Adaptation Fund* 2008: Members of the Adaptation Fund Board, in: http://www.adaptation-fund.org/images/AFB_members_update_05.27.08.pdf; 01.10.2008.
- Axelrod, Robert/Keohane, Robert O.* 1986: Achieving Cooperation under Anarchy: Strategies and Institutions, in: Oye, Kenneth A. (Eds.): Cooperation under Anarchy, Princeton, 226-254.
- Barbut, Monique* 2006: The New GEF: A Proving Ground for Our Sustainable Future, Washington, D.C., in: http://thegef.org/uploadedFiles/Council_speech_in_booklet_form_dec06%20web.pdf; 17.11.2008.
- Biermann, Frank/Simonis, Udo E.* 1999: The Multilateral Ozone Fund. A Case Study on Institutional Learning, in: International Journal of Social Economics 26: 1/2/3, 239-273.
- Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* 2007: Eckpunkte für ein integriertes Klima- und Energieprogramm, (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit), in: http://www.bmu.de/files/pdfs/allgemein/application/pdf/klimapaket_aug2007.pdf; 15.12.2008.
- Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* 2008a: Eckpunkte der Klimaschutzinitiative. Bericht an den Haushaltsausschuss, (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, Ausschussdrucksache 4287 16. Wahlperiode), in: http://www.bmu.de/files/pdfs/allgemein/application/pdf/ausschussdrucks_16_4287.pdf; 12.07.2008.
- Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* 2008b: Internationale Klimaschutzinitiative, Berlin, in: http://www.bmu.de/files/pdfs/allgemein/application/pdf/klimaschutzinitiative_flyer_d_e.pdf; 04.10.2008.
- Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* 2009a: Veräußerung von Emissionsberechtigungen in Deutschland. Monatsbericht Juli 2009, Berlin, in: http://www.bmu.de/files/pdfs/allgemein/application/pdf/monatsbericht_kfw_0907_bf.pdf; 22.08.2009.
- Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* 2009b: Veräußerungen von Emissionsberechtigungen in Deutschland. Jahresbericht 2008 Berlin, in: http://www.bmu.de/files/pdfs/allgemein/application/pdf/jahresbericht_kwf_08.pdf; 22.08.2009.
- Clémençon, Raymond* 2006: What Future for the Global Environmental Facility?, in: The Journal of Environment Development 15, 50-74.
- Clémençon, Raymond* 2008: The Bali Road Map. A First Step on the Difficult Journey to a Post-Kyoto Protocol Agreement, in: The Journal of Environment & Development 17: 1, 70-94.
- CO2-Handel* 2009: Sondergutachten Umweltrat: Deutschland muss CO2-Emissionen bis 2020 halbieren, 30.08.2009), Berlin, in: http://www.co2-handel.de/article186_12350.html; 02.09.2009.
- de Boer, Yvo* 2008: UNFCCC Executive Secretary Yvo de Boer briefing the press on the fourth day of the Conference, 04.12.2008), Poznan, in: http://unfccc.int/meetings/cop_14/items/4481.php; 09.12.2008.
- DEHSt* 2007: Entgeltliche Abgabe von Emissionsberechtigungen in der Handelsperiode 2008-2012: Verkauf oder Auktionierung?, (Mai 2007), Dessau.

- Department for Environment, Food and Rural Affairs* 2008: Funding: International Environmental Transformation Fund and Climate Investment Funds, 18.07.2008, London, in:
<http://www.defra.gov.uk/environment/climatechange/internat/devcountry/funding.htm> ; 12.12.2008.
- Diller, Christian* 2002: Zwischen Netzwerk und Institution. Eine Bilanz regionaler Kooperationen in Deutschland. Opladen: Leske+Budrich.
- Eastby, John* 1985: Functionalism and Interdependence, Lanham.
- Egeln, Jürgen/Gehrke, Birgit/Lehler, Harald/Licht, Georg/Rammer, Christian/Schmoch, Ulrich* 2007: Bericht zur technologischen Leistungsfähigkeit Deutschlands 2007, Bonn, Berlin.
- Fairmann, David* 1996: The Global Environment Facility: Haunted by the Shadow of the Future, in: Keohane, Robert O./Levy, Marc A. (Eds.): Institutions for Environmental Aid. Pitfalls and Promise, Cambridge, 55-88.
- Federal Ministry for the Environment, Nature Conservation and Nuclear Safety* 2008: The International Climate Protection Initiative of the Federal Republic of Germany, Berlin.
- Finnemore, Martha* 1996: National Interest in International Society, Ithaca und London.
- Finnemore, Martha* 1998: International Norm Dynamics and Political Change, in: International Organization 52: 4, 887-917.
- Finnemore, Martha/Sikkink, Kathryn* 2001: Taking Stock: The Constructivist Research Program in International Relations and Comparative Politics, in: Annual Review of Political Science 4, 391-416.
- GEF* 2005: Overview of Burden-Sharing for GEF Replenishments, Rome, in:
http://gefweb.org/Replenishment/Reple_Documents/documents/R.4.17%20Burden%20Sharing.pdf; 30.09.2008.
- GEF* 2008a: Adaptation Fund Report, 16.10.2008), Washington, D.C., in:
http://www.gefweb.org/uploadedFiles/Documents/LDCFSCCF_Council_Documents/LDCFSCCF5_November_2008/LDCF.SCCF.5.Inf.4%20Adaptation%20Fund%20Report.pdf; 17.11.2008.
- GEF* 2008b: GEF's Organizational Structure, Washington, in:
<http://gefweb.org/interior.aspx?id=38>; 02.09.2009.
- GEF* 2008c: Incremental Costs, in: <http://www.gefweb.org/interior.aspx?id=80>; 01.10.2008.
- GEF* 2008d: Replenishment, in: <http://gefweb.org/interior.aspx?id=38>; 29.09.2008.
- GEF* 2009: About the GEF, Washington D.C., in:
http://gefweb.org/interior_right.aspx?id=50; 02.09.2009.
- Groom, A. J. R.* 1975a: Functionalism and International Relations, in: Groom, A. J. R./Taylor, Paul (Eds.): Functionalism. Theory and Practice in International Relations, London, 1-6.
- Groom, A. J. R.* 1975b: Functionalism and World Society, in: Groom, A. J. R./Taylor, Paul (Eds.): Functionalism. Theory and Practice in International Relations, London, 93-111.
- Groom, A. J. R./Taylor, Paul* (Eds.) 1975: Functionalism. Theory and Practice in International Relations, London.
- Haites, Erik* 2008: Negotiations on Additional Investment and Financial Flows to Address Climate Change in Developing Countries, New York, in:
http://www.undp.org/climatechange/docs/English/UNDP_Investments_Financing_fina1.pdf; 15.12.2008.
- Harmeling, Sven/Bals, Christoph* 2008: Adaptation to Climate Change - Where do we go from Bali? An Analysis of the COP 13 and the Key Issues on the Road to a New Climate Change Treaty, Bonn.

- Hicks, Robert L./Parks, Bradley C./Roberts, J. Timmons/Tierney, Michael J.* 2008: Greening Aid? Understanding the Environment Impact of Development Assistance, Oxford.
- IISD* 2008: Summary of the Fourteenth Conference of Parties to the UN Framework Convention on Climate Change and Fourth Meeting of Parties to the Kyoto Protocol: 1-12- December 2008, in: *Earth Negotiations Bulletin* 12: 395.
- Ingebritsen, Christine* 2002: Norm Entrepreneurs. Scandinavia's Role in World Politics, in: *Cooperation and Conflict* 37, 11-23.
- International Energy Agency* 2008: World Energy Outlook, Paris, in: <http://www.worldenergyoutlook.org/2008.asp>; 02.09.2009.
- Kanie, Norichika, Peter Haas, Craig Murphy* 2004: Conclusion: Institutional Design and Institutional Reform for Sustainable Development. In: Norichika Kanie, Peter Haas (eds.): *Emerging Forces in Environmental Governance*. Tokyo New York Paris: United Nations University Press, p. 263-281.
- Keohane, Robert O.* 1984: *After Hegemony. Cooperation and Discord in the World Political Economy*, Princeton.
- Keohane, Robert O.* 1989: *International Institutions and State Power. Essays in International Relations Theory*, Boulder.
- Landau, Martin* 1969: Redundancy, Rationality, and the Problem of Duplication and Overlap. In: *Public Administration Review* July/ August 1969, p. 346-358.
- Long, David/Ashworth, Lucian M.* 1999: Working for Peace: the Functional Approach, Functionalism and Beyond, in: Ashworth, Lucian M./Long, David (Eds.): *New Perspectives on International Functionalism*, Houndsmills, Basingstoke, 1-26.
- Luken, Ralph/Grof, Tamas* 2006: The Montreal Protocol's Multilateral Fund and Sustainable Development, in: *Ecological Economics* 56, 241-255.
- Messner, Dirk* 1995: *Die Netzwerkgesellschaft. Wirtschaftliche Entwicklung und internationale Wettbewerbsfähigkeit als Probleme gesellschaftlicher Steuerung*. Köln: Weltforum Verlag.
- Mitrany, David* 1966: *A Working Peace System*, Chicago.
- Mitrany, David* 1975: *The Functional Theory of Politics*, London.
- Müller, Benito* 2007: *Nairobi 2006: Trust and the Future of Adaptation Funding*, Oxford.
- Müller, Benito/Winkler, Harald* 2008: One Step Forward, Two Steps Back? The Governance of the Climate Investment Funds, (Oxford Energy and Environment Comment, February 2008), Oxford, in: http://www.oxfordenergy.org/pdfs/comment_0208-1.pdf; 30.10.2008.
- Payne, Roger A.* 2001a: Persuasion, Frames and Norm Construction, in: *European Journal of International Relations* 7, 37-61.
- Payne, Roger A.* 2001b: The Legitimacy of the Global Environment Facility, in: Jeong, Ho-Won (Ed.): *Global Environmental Policies. Institutions and Procedures*, Houndsmills, Basingstoke, 161-189.
- Probst, Gilbert* 1987: *Selbstorganisation: Ordnungsprozesse in sozialen Systemen aus ganzheitlicher Sicht*. Berlin and Hamburg: Paul Parey.
- Rhodes, R.A.W.* 1997: *Understanding Governance. Policy Networks, Governance, Reflexivity, and Accountability*. Buckingham Philadelphia: Open University Press.
- Risse, Thomas* 2002: Constructivism and International Institutions: Toward Conversations across Paradigms, in: Katznelson, Ira/Miller, Helen V. (Eds.): *Political Science. State of the Discipline*, New York, 597-623.
- Rittberger, Volker/Zangl, Bernhard* 2002: *Internationale Organisationen - Politik und Geschichte*, Wiesbaden.
- Sewell, James Patrick* 1966: *Functionalism and World Politics*, Princeton, New Jersey.
- Sharma, Shalendra D.* 1996: Building Effective International Environmental Regimes: The Case of the Global Environmental Facility, in: *The Journal of Environment Development* 5, 73-86.

- Snidal, Duncan* 2005: Rational Choice and International Relations, in: Carlsnaes, Walter/Risse, Thomas/Simmons, Beth A. (Ed.): Handbook of International Relations, London, 73-93.
- Stern, Nicholas* 2008: Key Elements of a Global Deal on Climate Change, London.
- Stern, Sir Nicholas* 2006: Stern Review: The Economics of Climate Change, London, in: http://www.hm-treasury.gov.uk/sternreview_index.htm; 26.08.2008.
- The World Bank* 2008a: Donor Nations Pledge over \$ 6.1 Billion to Climate Investment Funds, 26.09.2008), Washington D.C., in: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21916602~pagePK:34370~piPK:34424~theSitePK:4607,00.html>; 01.10.2008.
- The World Bank* 2008b: Strategic Climate Fund, 03.06.2008), Washington D.C., in: http://siteresources.worldbank.org/INTCC/Resources/Strategic_Climate_Fund_final.pdf#Strategic_Climate_Fund; 15.12.2008.
- The World Bank* 2008c: The Clean Technology Fund, 09.06.2008), Washington D.C., in: http://siteresources.worldbank.org/INTCC/Resources/Clean_Technology_Fund_paper_June_9_final.pdf; 15.12.2008.
- UNFCCC* 2007a: An Assessment of the Funding Necessary to Assist Developing Countries in Meeting their Commitments Relating to the Global Environment Facility Replenishment Cycle, (Subsidiary Body for Implementation 27th session, Bali, 3-11 December 2007).
- UNFCCC* 2007b: Investment and Financial Flows to Address Climate Change, Bonn.
- UNFCCC* 2008: Report of the Conference of the Parties on its Thirteenth Session, held in Bali from 3 to 15 December 2007, Bonn, in: <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf>; 26.08.2008.
- Watanabe, Rie/Arens, Cristof/Mersmann, Florian/Ott, Hermann E./Sterk, Wolfgang* 2008: The Bali Roadmap of Global Climate Policy - New Horizons and Old Pitfalls, in: Journal of European Environment & Planning Law 5: 2, 139-158.
- WEED* 2008: Weltbank untergräbt Klimaschutz. Neue Weltbank-Klimafonds gefährden Erfolg internationale Klimaverhandlungen, in: <http://www.weed-online.org/themen/1098291.html>; 01.10.2008.
- Zangl, Bernhard/Zürn, Michael* 2003: Frieden und Krieg, Frankfurt am Main.