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### Crisis and continuity of capitalist society-nature relationships: The imperial mode of living and the limits to environmental governance

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# **Crisis and continuity of capitalist society-nature relationships: The imperial mode of living and the limits to environmental governance**

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## **ABSTRACT**

This article aims to better understand the discrepancy between a relatively high level of awareness of the ecological crisis on the one hand, and insufficient political and social change on the other. This discrepancy causes a crisis of what we call the 'Rio model of politics'. We approach the problem from the perspective of the concept of 'societal nature relations' (*gesellschaftliche naturverhältnisse*), which can be situated in the framework of political ecology and, in this article, is combined with insights from regulation theory and critical state theory. The empirical analysis identifies fossilist patterns of production and consumption as the heart of the problem. These patterns are deeply rooted in everyday and institutional practices as well as societal orientations in the global North and imply a disproportionate claim on global resources, sinks and labour power. They thus form the basis of what we call the 'imperial mode of living' of the global North. With the rapid industrialisation of countries such as India and China, fossilist patterns of production and consumption are generalised. As a consequence, the ability of developed capitalism to fix its environmental contradictions through the externalisation of its socio-ecological costs is put into question. Geopolitical and economic tensions increase and result in a crisis of international environmental governance. Strategies like 'green economy' have to be understood as attempts to make the ecological contradictions of capitalism processable once again.

## **KEYWORDS**

Society nature relationships; regulation school; critical state theory; hegemony; environmental politics; green economy; imperial mode of living.

## 1. INTRODUCTION

Over the last few years, political discussions of the ecological crisis have changed in at least three significant ways. First, there seems to be a certain repoliticisation going on. Some key factors in this have been, alongside popular and often catastrophic representations (cf. Al Gore's 2006 movie, *An Inconvenient Truth*), the publication of the Stern Report (Stern, 2006) and the 4th report of the Intergovernmental Panel on Climate Change (IPCC, 2007), and the increasingly widespread realisation – no doubt partly in response to high oil prices in 2008 and 2012 – that the impending scarcity of oil and gas creates an urgent need to reconstruct the fossilistic energy base of modern societies. Second, the ecological crisis is seen as a 'multiple crisis', which is constituted by the interplay of different phenomena such as the degradation of natural livelihoods, poverty, hunger, rising energy prices and increased scarcity of energy as well as seemingly non-ecological phenomena like the current banking and financial crisis (NEF, 2008; Brand, 2009). Finally, more and more studies show that there is increasingly widespread knowledge of the multiple local, regional and global dimensions of the ecological crisis in a variety of fields such as climate change, biodiversity loss and water scarcity. At the same time, these realisations have hardly led to the formulation, let alone the implementation, of far-reaching policies (UN Secretary General, 2010; Pelletier, 2010; Park, Conca and Finger, 2008; MASR, 2005; Wissen, 2010).

In what follows, we want to develop a theoretical framework that will allow us to better understand this paradox: on the one hand, a relatively high level of awareness of the ecological crisis and a realisation of the interconnectedness of the different manifestations of the crisis, and on the other, insufficient social change. We locate our own work within the broad paradigm of political ecology (for an introduction, see Robbins, 2004; Peet and Watts, 2004; Peet, Robbins and Watts, 2011), which focuses on social power relations and struggles and the political economy of the socio-ecological crisis and its management. We also hope to encourage research in international environmental politics to look beyond the regime-theoretical approaches currently dominant in the field. To be sure, regime theory has added to our knowledge of the establishment and the functioning of international environmental politics (Young, Schroeder and King, 2008; Breitmeier, Young and Zürn, 2006; Oberthür and Gehring, 2006), and it has introduced the concepts of *regime interplays* and *regime complexes* in order to conceptualise and investigate the roles of other political institutions and steering processes in global environmental governance (Raustiala and Victor, 2004; Chambers, 2008). Over the last few years, a new regime-theoretical debate has analysed the ineffectiveness of international or multi-scalar politics in a number of policy fields. At the same time, the

approach remains functionalist in its explanation of how regimes emerge and, because of its focus on steering and governance, is largely limited to explicit forms of environmental politics.<sup>1</sup> Social conflicts around the definition of the socio-ecological crisis, questions of power and domination, and the political economy of the problems and their cultural base are largely or completely ignored. Accordingly, the state and the intergovernmental system are understood as more or less effective – and maybe even legitimate – steering institutions.

From a critical perspective, things look different. The international politico-institutional system is not seen in terms of solving seemingly given problems, in this case the ecological crisis which transcends the problem-solving capacities of nation-states. Instead, it is conceptualised as a condensation of those interests and forms of knowledge, modes of living, and orientations (e.g. towards economic growth, competitiveness, or industrial-fossilistic wealth) that are core contributors to the crisis. Starting from this basic assumption, we can develop an understanding of the paradox of the simultaneous awareness of the ecological crisis, on the one hand, and the insufficiency of the social and political ways of managing it, on the other.

However, we see the need to further develop critical approaches and to relate them more systematically to each other in order to cope with the mentioned paradox in a comprehensive way. Critical international political economy, for example, would benefit from integrating the notion of socionature as developed in radical geography (McCarthy, 2005; Swyngedouw, 2004) or by Foucauldian approaches to environmental issues (Luke, 2008, 2009) in order to overcome a dualistic understanding of the relationship between society and nature (Newell, 2008; Newell and Paterson, 2010).<sup>2</sup> In turn, political ecology, where the debate on the role of the state has begun just recently (see Robbins, 2008; Whitehead, Jones and Jones, 2007) and has not yet sufficiently addressed the international dimensions of the state, can benefit from materialist state theory.

Attempts to integrate various critical approaches, with the aim of understanding the ecological crisis and its societal regulation, have been undertaken in the framework of the concept of 'societal nature relations' (*Gesellschaftliche Naturverhältnisse (GNV)*), which is quite prominent in critical socio-ecological debates in Germany and Austria, but hardly known in the Anglophone world. The GNV concept is strongly influenced by Marx and the early critical theory of the Frankfurt School (in particular, Horkheimer and Adorno).<sup>3</sup> More recently, one strand of the GNV literature has taken up insights from the regulation approach and theories of state and hegemony as well as critical geography (Görg, 2003a; Brand *et al.*, 2008). In this article, we will first introduce the GNV concept and its recent extensions, focusing on the regulation approach and the Gramscian theory of hegemony. Second, we will discuss the current ecological crisis as

well as its politicisation and political management by the state. Our main argument will be that the discrepancy between the knowledge on and the management of the crisis is essentially due to the *imperial mode of living*. By this, we mean prevailing patterns of production and consumption that disproportionately rely on global labour power, resources and sinks.<sup>4</sup> The deep-rootedness of these patterns is reflected in societal relationships between forces and in everyday practices, particularly in the countries of the global North, and explains both the continuity and the crisis of prevailing society-nature relationships. However, since the imperial mode of living has been spreading to important countries of the global South, its contradictions intensify and struggles over the future shape of society-nature relationships gain importance.

## 2. CRISIS AND REGULATION OF SOCIETY-NATURE RELATIONSHIPS

### 2.1. The concept 'society-nature relationships'

The GNV concept starts from the assumption that the relationship between society and nature is not an external one. 'Nature' does indeed exist as a material-substantial environment, but it is always already shaped by society and is managed and symbolised in spatio-temporally different forms: '*nature*, too, taken abstractly, for itself – nature fixed in isolation from man – is *nothing* for man' (Marx, 1972 [1844]: 124, emphasis in the original; cf. Schmidt, 1971 [1962]). Society and nature are understood as 'different, distinguishable and internally differentiated poles of a dynamic, processual relation of mediation [*Vermittlungszusammenhang*]' (Jahn and Wehling, 1998: 82; Becker and Jahn, 2006).<sup>5</sup> Furthermore, it is crucial that the configuration of the *society-nature relationship* is constitutive of social and political domination (cf. Görg, 2003a; Brand and Görg, 2008; Brand *et al.*, 2008; as well as the introduction in Köhler and Wissen, 2010).

Conceptualising nature and society as simultaneously different *and* mutually constituted implies that nature cannot be understood as an 'external norm' or 'role model' for social practice. Rather, nature 'entails a field of potential effects and interrelations that can be socially configured, while at the same time escaping complete and comprehensive configuration and control. This is what lies at the base of the experience of the independence and autonomy of nature. What is crucial here is that this autonomy is precisely not separate from social perception and processing – in fact, the latter is what makes the former accessible in the first place' (Jahn and Wehling, 1998: 83; cf. Littig, 2000: ch. 2). Society-nature relationships are concrete material relationships structured by social processes of

production and consumption (management or 'metabolism') and hege- monically defined by social perceptions and interpretations, which, in turn, impose certain limits on these constructions. Furthermore, they de- velop dynamically, which is why it is crucial to focus on socio-ecological transformations. These, in contrast to concepts influenced by theories of de- velopment, evolution or modernisation, are not understood as linear and continuous processes, but as 'crisis-prone developments, ruptures and dis- continuities, that are accompanied by changes in social forms' (Kluge and Hummel, 2006: 266). Society-nature relationships, after all, are an integral part of all other social relations. The relationship between the individual, society and nature then becomes understandable as a relationship with material and cultural (cognitive, normative and symbolic) aspects, which is hegemonically constituted by social conflicts.

The concept refers not only to the *material-concrete* dimension of nat- ural facts and socially produced material-technical artefacts, but also to their *cultural-symbolic* dimension. The car, to use a common example, is of course much more than a passenger cabin on four wheels with a combus- tion engine; it is a social commodity whose development, production and use depend on relations of competition and cooperation, business- and trade-union interests, the organisation of production and circulation, tech- nology and infrastructure, and the necessary research and governmental policy support. It also symbolises certain ideas about status and progress, which are, in turn, shaped by class, social milieu and gender, and to which enormous commercial and media-interests, and thus economic power, are attached (cf. Paterson, 2007).

Christoph Görg (2003a, 2003b) emphasises the autonomy of nature and the limits to the social domination of nature in terms of Theodor W. Adorno's 'non-identity'. Nature cannot be produced at will, but has a certain autonomy, and its reproductive capacities can be undermined both locally and translocally (as already argued by Schmidt (1971 [1962]) in his seminal study). This notion is important for two reasons. First, it provides the GNV approach with a strong concept of nature's materiality, which is somewhat underestimated in approaches like Neil Smith's (1984) concept of the 'production of nature'. Second, it offers the possibility to link the GNV concept to more recent debates in critical geography that stress both the social production and the materiality of nature when they notice that 'created ecosystems, while intentionally and unintentionally produced by capitalism, possess causal powers of their own and take on agency in relation to the capitalist processes of which they are a medium and outcome. To put all this into Smith's language, nature may indeed be "produced" but produced nature, in turn, cannot be exploited indefinitely: it has a materiality which cannot be ignored' (Castree, 2000: 29; cf. Bakker and Bridge, 2006: 10; as well as the survey by Castree, 2008).

## 2.2. The regulation of society-nature relationships

The reason that (produced) nature's materiality is persistently ignored is grounded in the basic mechanisms of the capitalist mode of production. The latter's expansionary dynamic stands in contradiction to the reproduction of material-concrete, i.e. 'natural', livelihoods. In capitalism, the extent to which nature has been transformed and productive forces have developed has surpassed that of other modes of production. Consequently, capitalist production at a material level is highly dependent on nature and draws on its specific qualities in order to create endless need to be satisfied through the development of products and technologies. At the same time, and insofar as it follows the law of value, capitalist production abstracts from these dependencies, making it indifferent to the spatio-temporal particularities of nature. Put differently, capitalist production as a *labour* process is premised upon precisely those socio-ecological conditions which it continuously undermines as a *valorisation* (*Inwertsetzung*) process (cf. O'Connor, 1988; Burkett, 1999; Altvater, 2005; Peet, Robbins and Watts, 2011). The immanent limits of the capitalist mode of production do not lie in the reproductive necessities of human and non-human nature, but in crises of the valorisation process.<sup>6</sup> This is the source of both its creative *and* its destructive force vis-à-vis human beings and nature. 'Capitalist production,' Marx argues in a famous passage (1967 [1867]: 506–7), 'develops technology, and the combining together of various processes into a social whole, only by sapping the original sources of all wealth – the soil and the labourer.'

From a regulationist perspective, and this is the difference between many Marxist contributions to both political ecology and the ecological critique of political economy (Altvater, 2005), we argue that this fundamental contradiction can be managed institutionally by way of societal processes of normalisation and by 'historical chance discoveries' (Lipietz, 1988) of capitalist development. How this occurs – and this is our specific contribution to current attempts to ground the GNV concept in theories of capitalism and hegemony – can be understood with the help of regulation theory, which, though focusing initially only on the wage relation (Aglietta, 1979), has developed insights that can be fruitfully applied to society-nature relationships (Görg, 2003a; Wissen, 2011; Brand *et al.*, 2008). The *regulation of society-nature relationships*, or the ways in which structures of domination organise and shape the management of the ecological destructiveness that is inherent to the capitalist mode of production, has to be understood as closely related to patterns of social reproduction that are macroeconomic, institutional and deeply embedded in subjects. It takes place, firstly, via temporally- and spatially-varied strategies of capital valorisation. Environmental crisis phenomena can be the starting point for the development of new technologies by shifting the power relations between capital fractions



and creating capacities for crisis management without overcoming the fundamental ecological contradiction of capitalism. We analysed this for the valorisation of biodiversity in terms of 'post-Fordist society-nature relations' (Brand *et al.*, 2008). More recently, the debates on a 'green economy' may indicate the emergence of a new regime of accumulation, which creates economic opportunities for 'green' capital fractions (see below).

Secondly, the regulation of society-nature relationships takes place via institutions, norms, values, processes of subjectivation, and normalised practices that often bring to the fore new strategies of capital valorisation. Conceptions of (and ways of appropriating) nature are hegemonically produced and thus necessarily selective. Regulation may prevent destructive forms of appropriating nature from becoming a politically relevant problem. In this case, the destructive character of society-nature relationships remains latent and is seen as manageable and, therefore, acceptable and/or it remains limited to socially marginalised groups. Most of all, its costs are both spatially and temporally externalised.

The tendency of society-nature relationships to be crisis-prone is closely linked to other crisis dimensions. Society-nature relationships, thus, have to be understood as closely tied to social power relations, to relations of forces and 'obviousnesses' that are rooted in societal structures, and to the fundamentally crisis-prone nature of capitalist societies, without the former being reduced to the latter. 'Ecological problems', or rather the perception thereof, as well as socio-ecological demands and strategies thus form part of wider social conflicts; ecological problems and the 'ecological crisis' are, irrespective of their material core, socially constructed and contested. A politicisation of society-nature relationships occurs first and foremost during comprehensive crises of hegemony. It was thus no accident that the crisis of Fordism and the ecological crisis both originated in the 1970s. General forms of perceiving and appropriating nature – most of all, the belief in the possibility of an ever-more sophisticated domination of nature resulting from scientific-technical progress, and as a precondition of social progress – were called into question by new social movements and their opposition to Fordist risk-technologies such as nuclear power and were subsequently amplified for a broader public by intellectuals and the media. The current repoliticisation of the ecological crisis must be understood in the context of the functional and legitimisation crises of neoliberal politics and of the different attempts to develop post-neoliberal strategies and projects (Brand, 2009).

### 2.3. The role of state and hegemony

The GNV concept, of course, is not the only approach which has drawn on regulation theory in order to analyse changes in society-nature relationships. In contrast, the regulation approach has been applied, for example,

by critical geographers in order to investigate sustainability issues in urban and regional development (Gibbs and Jonas, 2000), to understand the socio-environmental contradictions posed by copper mining and processing (Bridge, 2000), to analyse the reorganisation of water supply in England and Wales (Bakker, 2003), and to distinguish phases in the development of capitalism according to the respective forms of appropriation of nature (Peet, Robbins and Watts, 2011). However, recent debates within the GNV concept go beyond this work in the sense that they attempt to more explicitly reflect society-nature relationships from the perspective of critical state and hegemony theory.

Since the mid-1990s, German-language debates have tried to give regulation theory a materialist state-theoretical grounding and extension (Esser, Görg and Hirsch, 1994; Hirsch, 1995; see also Jessop and Sum, 2006). Later, this extension was applied to environmental politics and the ecological crisis (Görg, 2003a; Brand and Görg, 2008). This is particularly important if one wants to understand the intensifying contradictions of environmental governance. A central assumption is that the state cannot be understood in its institutional materiality and discursive role, its functions and multifaceted policies, if it is not analysed as connected to socioeconomic and cultural and also socio-ecological relations, including norms of production and consumption, societal interests, hegemonic and marginal value orientations as well as power relations and the special role capital plays in modern societies and in the structuring of the dominant forms of the appropriation of nature. With Antonio Gramsci, we might say that the state functions as an 'educator', which – this is important with regard to the 'imperial mode of living' that we will investigate further below – aims to 'make certain habits and practices disappear, while seeking to spread others' (Gramsci, 1996 [1932–34]: 1548; cf. the recent German-language debates in Buckel and Fischer-Lescano, 2007; Hirsch, Kannankulam and Wissel, 2008; Ludwig, Sauer and Wöhl, 2009; Demirović, Adolphs and Karakayali, 2010). An overall function of the state is to be the contested political centre-stage of the organisation of social hegemony and the establishment of a dynamic mode of development. Dominant social forces intend to universalise their interests in society and to become hegemonic, i.e. to exercise domination via political, moral and intellectual leadership – especially promising and securing growth and progress by pursuing their accumulation strategies – and consensus through accepted institutions. Civil society is a sphere in which social consensus is decisively worked out through power-shaped discourses and practices (Mann, 2009; Thomas, 2009; Bieler and Morton, 2006).

As we have shown in the case of biodiversity politics (Brand *et al.*, 2008), the state serves to institutionally secure the multifaceted society-nature relationships. To be sure, capitalist valorisation of genetic resources is made possible to a significant extent by modern biotechnologies – it is

their development that allows for the production of human, plant and animal genomes as 'resources' in the first place. The legal certainty, however, which the companies of the global North's 'life sciences' sector require in their appropriation of the biological diversity of the global South, must be guaranteed by the state. This takes place not least through international governmental institutions, given the internationalisation of conflicts over the management of ecological problems and the institutional safeguarding of societal interests against the background of global corporate strategies and the consequences of the ecological crisis, which necessarily transcend national boundaries. But note that environmental politics are also played out on institutional terrains other than those specifically designed for them (e.g. the international environmental policy regimes – in the words of Ken Conca (1993: 309) – as 'explicit environmental politics'). Often, environmentally-relevant policy fields like trade policy ('implicit environmental politics', *ibid.*) are far more important since they create restrictions for explicit environmental politics. Vice versa, explicit environmental politics is not only concerned with environmental issues in a narrow sense. Instead, it is within the framework of international environmental agreements like the United Nations Framework Convention on Climate Change (UNFCCC) that struggles over the conditions of future industrial development are fought out. Thus, besides the implicit environmental politics of (international) economic or financial state apparatuses, there is also an implicit geopolitics and economics taking place on the terrain of environmental governance.

Whether a particular society-nature relationship becomes dominant or even hegemonic – in other words, by and large socially unquestioned – also depends on whether governmental institutions are or are not accepted as terrains for waging conflicts and for negotiating compromises with regard to access to natural resources. Unlike the institutions of the nation-state, which – at least in most countries of the global North – are also shaped by the struggles of workers' and new social movements, many international institutions are mainly the outcome of the power politics of dominant states and fractions of capital. The context of their emergence leads to a high degree of structural selectivity and a low degree of relative autonomy vis-à-vis dominant interests. As a result, their capacity to negotiate compromises, and to hegemonically generalise particular interests, is rather weakly developed (Wissen, 2009). In other words, the international institutions of neoliberal-imperial globalisation are both the outcome of strongly asymmetrical relations of forces and a medium through which this asymmetry unfolds its power effects. An analysis of the state and the international political system, therefore, has to take into account the role international institutions play in the complex reproduction of social relations and, thus, of the society-nature relationships. The (internationalised) state is more a manifestation of, than a solution to, the ecological crisis

(cf. Brand, Görg and Wissen, 2011) and, as will be shown later, it has itself entered a crisis of functionality and legitimation.<sup>7</sup>

### 3. THE IMPERIAL MODE OF LIVING AND THE CRISIS OF THE REGULATION OF SOCIETY-NATURE RELATIONS

#### 3.1. The crisis of the 'Rio-Model' of international environmental politics

In the wake of the crisis of Fordism, and in particular following the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro, a model of regulating society-nature relations emerged that mostly sought to get a grip on the consequences of the Fordist domination of nature through market mechanisms and technological means.<sup>8</sup> Climate change – according to the Kyoto Protocol, signed in 1997 and negotiated in the context of the UNFCCC, which was signed at the UNCED five years earlier and came into force in February 1994 – was to be stopped by, amongst other means, handing out tradable permits to pollute, the scarcity of which would induce an 'efficiency revolution' in the use of natural resources (Lohmann, 2010; Brunnengräber *et al.*, 2008). The Convention on Biological Diversity (CBD) – also a result of UNCED and binding international law since December 1993 – turned the commercial use of plant and animal genetic resources into the most important instrument of their protection. What remained (and still remains) to be regulated are the conditions of access to as well as a distribution of the benefits from the commercialisation of biological diversity.

The Rio model was criticised from the outset. The US – the long-time major emitter of CO<sub>2</sub> (and still the major emitter, if measured in per-capita emissions) – has ratified neither the Kyoto Protocol nor the CBD and views the 5 per cent emission reduction between 2008 and 2012 (compared with a 1990 baseline), to which the global North agreed in the Kyoto Protocol, as a competitive disadvantage vis-à-vis dynamic emerging markets. The European Union, in contrast, appears to be an important pillar of the Rio model: It has ratified both the Kyoto Protocol and the CBD and, above and beyond that, has set itself the goal of increasing energy efficiency by 20 per cent, reducing greenhouse gas emissions by 20 per cent vis-à-vis a 1990 baseline, and to increase the proportion of renewable energies in the energy mix by 20 per cent, all by 2020 (the so-called 20-20-20-strategy) (Pollak, Schubert and Slominski, 2010: 129–31). What is crucial from a socio-ecological perspective, however, is whether or not these policies do in fact contribute to reducing the EU's total material requirement.<sup>9</sup> The German think-tank, the Wuppertal Institute for Environment, Climate and Energy, has calculated that the EU's resource consumption has stagnated at a high

level since the mid-1980s. While resource extraction in Europe itself has declined as a result of structural economic transformations, the import component of the EU's resource consumption has increased from 15 to 20 tonnes, with the majority being imports from developing countries. In addition, the 'ecological backpack' of those imports is said to have grown and the Wuppertal Institute argues its average weight was five times that of the imported good.<sup>10</sup> These figures show that the EU is to a large extent externalising its environmental impact in the form of resource extraction and CO<sub>2</sub> emissions onto the global South (Sachs and Santarius, 2007: 55–66; cf. Martinez-Alier, 2006; UNEP, 2011a: ch. 4).

So far, the Rio model of regulating the ecological crisis has produced rather sobering results. The rapid erosion of biodiversity continues some 18 years after the CBD came into force (although there is considerable scientific uncertainty not only about the precise extent of the loss of biodiversity, but also about the total number of plant and animal species on earth (Görg, 2007)). The dramatic escalation of climate change was underlined by the fourth report from the IPCC (2007) and the Stern report (Stern, 2006). Concerning its ability to solve concrete problems, the Rio model seems to be in crisis. Add to this an institutional crisis, highlighted by the difficulty in agreeing on a follow-up deal to the Kyoto Protocol. In contrast to the first phase after Rio 1992, there has at least been some recent official acknowledgement of the problems of implementing effective environmental policies (cf. the UN's Millennium Ecosystem Assessment from 2005). In addition, the current economic crisis seems to be pushing socio-ecological dimensions and concerns off the top of the political and public agenda.

But the causes of the crisis of the Rio model – Park, Conca and Finger (2008) go so far as to speak of the 'death of Rio-environmentalism' – lie beyond the current conjuncture. In what follows, we will draw on the approaches introduced before in order to explain why environmental regimes are not at all, or only insufficiently, effective, in spite of scientific awareness of the anthropogenic character of the ecological crisis, an expanding awareness of the crisis, and the increasing discursive and institutional representation of ecological issues in governmental politics.

### **3.2. The imperial mode of living and the structural overburdening of international environmental politics**

The capitalist mode of production, as argued above, is expansive and geared towards increasing surplus value, production and consumption. This goes hand in hand with an extension of the capitalist (world) market and a capitalist valorisation of ever more areas of life. Science and technology play an important role in this, and increasing productivity constitutes a central dynamic. Regulation theory distinguishes between intensive and

extensive accumulation (Aglietta, 1979).<sup>11</sup> Intensive accumulation, which was dominant during Fordism, implied an organisation and/or intensification of labour processes that allowed for high rates of productivity increases. The overall size of the cake was growing, and the workers' share of this growing wealth was secured, especially in Western Europe and North America, by way of institutionalised class compromises and welfare state policies.

From the point of view of a theory of hegemony, it is important to stress that this intensive accumulation and the consequent restructuring of workers' mode of living – based on affordable, standardised mass consumption goods (food from supermarkets, cars or white goods) – generated a high level of social consensus. This was and still remains the basis of the global appeal of the 'Western lifestyle', the inverse of which has always been the consolidation of patriarchal gender relations as well as of exploitative society-nature relations that depend on using ever more (fossil) resources. More recently – beginning with the crisis of Fordism in the early 1970s and accelerated further by the processes of globalisation since 1989–90 – we can observe a tendency towards a more extensive regime of accumulation (cf. Sablowski, 2009: 120–2), which, in contrast to intensive accumulation, relies less on productivity increases than on lengthening the working day and on the penetration of capitalist labour relations into new social and geographic spaces (at the moment especially in the so-called 'emerging markets').

To be sure, the passage to a more extensive regime of accumulation has in no way meant a rupture with the fossilistic-Fordist mode of production and mode of living, which is in fact expanding powerfully in parts of the global South. The growing middle and upper classes in industrialising 'emerging markets' are adopting the lifestyles of the corresponding classes in the global North. All together, they constitute a 'transnational consumer class' that, according to the Wuppertal Institute (2008: 79–82), in 2000, already comprised some 1.7 billion human beings, more than a quarter of the world's population (cf. also Myers and Kent, 2004). A little more than half of this 'class' lives in the global North, but China and India alone make up for 20 per cent of it, a proportion that is likely to have grown since 2000.

Although 'emerging markets' are characterised by crass social inequalities, and although the consumption habits of the Chinese middle class still differ significantly from those of the American middle class, this is an extremely problematic development because the global North's mode of living cannot be continued, let alone generalised globally, without causing major political, socio-ecological and economic disturbance. Ecological crisis phenomena, like the erosion of biodiversity and climate change, have been caused by the spread of production and consumption patterns that fundamentally rely on unlimited access to resources, space, labour power

and sinks, which implies a globally unequal appropriation of nature. Exclusive access to resources, guaranteed by contract or through open violence, and the externalisation of the socio-ecological costs that using these resources entails, are the *conditio sine qua non* of the global North's mode of living, which we therefore call 'imperial'.

This has to be qualified in three respects (cf. Brand and Wissen, 2012). First, there have been environmentally imperial relationships between different territories before capitalism became the globally dominant mode of production or entered its Fordist phase, respectively. The unequal appropriation of nature is at least as old as the opposition between town and countryside and was a central feature of the era of colonialism in the sixteenth century, of liberal capitalism in the nineteenth century, and of imperialism between 1875 and 1914. However, what distinguishes the Fordist and post-Fordist imperial modes of living from their predecessors is that, with the generalisation of the wage relation, resource- and emissions-intensive consumption practices have become mass phenomena, i.e. they have become central elements of the reproduction not only of elites, but also of subaltern classes in the global North. As a consequence, their socio-ecological impact has increased and the environmental crisis has been aggravated, both of which will be further deepened by the current generalisation of 'fossilist' consumption practices in the upper and middle classes of large developing countries.

Second, the imperial mode of living is not socially neutral. In contrast, social inequality in the global North is an important aspect of the environmental crisis and of the ecological asymmetries in the North-South relationship. As UNDP pointed out recently, '[I]nequality is bad not just intrinsically but also for the environment' (UNDP, 2011: 28). People with high levels of education, relatively high incomes and high environmental consciousness have the highest per capita resource use, while classes with lower environmental consciousness, but also lower income, use fewer resources (Wuppertal Institute, 2008: 144–54).<sup>12</sup>

Third, in ecological terms, the rapid industrialisation of countries such as China, Brazil and India means that they no longer abstain from utilising 'their' share of global resources and sinks. They are also no longer willing to serve primarily as providers of the resources and labour power for the industrial development of the global North and of ecosystems like rainforests, which absorb the CO<sub>2</sub> emissions produced by Northern patterns of production and consumption (Wissen, 2010). Instead, they increasingly valorise the resources of their territories and of other developing countries for their own industrial development (see, for example, the current conflicts over Chinese rare earth metals as well as China's role in land-grabbing in Africa; cf. Bäuerle, Behr and Hütz-Adams, 2011; GRAIN, 2008). In doing so, they compete with capitalist countries from the global North whose development up to now has rested on their disproportionate

access to resources, sinks and labour power on a global scale secured by economic, political and military power. As a consequence, the less or differently developed spaces that industrial capitalism needs to externalise its socio-ecological costs and thus to fix its environmental contradictions are shrinking. Eco-imperial tensions about the externalization of ecological costs are thus growing and gaining geopolitical and geo-economic significance.

From an environmental perspective, this development has paradoxical effects: On the one hand, international environmental institutions such as the UNFCCC become more important because negotiations about emission reductions – including about ‘rights to pollute’ – also touch upon the question of who can continue on a resource-intensive development path and who has to leave it. The terrain of environmental politics is thus an arena in which the central problems of socioeconomic development are at stake. They are being negotiated under environmental terms of reference and in the context of a climate discourse that is itself ever more efficacious. On the other hand, it is also in this context that the reasons for the crisis of the Rio model can be found. The fossilistic patterns of production and consumption that are at least implicitly called into question by international environmental politics – the Kyoto Protocol’s provision to reduce CO<sub>2</sub> emissions restricts the unlimited access of industrial countries to the global sinks that they enjoyed up to the signing of the protocol – are deeply rooted in social relations of forces, popular common sense, and the everyday practices of people in the global North and increasingly in the global South as well as in the overarching orientation towards economic growth and competitiveness. They are embedded in state apparatuses and shape the perceptions and practices of state personnel and politicians. Whenever the latter haggle about some amount of emissions reductions and proudly return home announcing that they have negotiated a particularly low amount of reductions for ‘their’ country,<sup>13</sup> when they try to kick-start demand for cars with ‘cash for clunkers’ schemes, and when they subsidise industrial agriculture or construct coal-fired power plants and gas pipelines, they are defending those patterns of production and consumption that lie at the heart of the imperial mode of living.

The crisis of the regulation of society-nature relationships is thus also a crisis of the global North’s mode of living, which, although it cannot be generalised from an ecological point of view, is currently spreading across the globe. Against this background, environmental governance is on the one hand being upgraded: The agreements of the Rio model have become sites of geopolitical and geo-economic struggle; on the other hand, it is overburdened by managing the contradictions of the imperial mode of living, which have been intensified by the geopolitical and geo-economic shifts. The Rio institutions were shaped in the 1990s, when the developed capitalist countries had reached an unrivalled global power position. It



was the interests of these countries that shaped the international environmental governance architecture. The latter thus lacked relative autonomy from the relationships of forces that had brought them to the fore. At first sight, this was an advantage for the countries of the global North since it allowed them to determine the form and the content of international environmental politics. However, it turned into a disadvantage when the relationships of forces underlying the Rio institutions changed with the rise of countries such as China and India. In contrast to comparable national state apparatuses, the international environmental governance architecture did not possess the necessary institutional density and autonomy to mediate the socio-ecological contradictions intensified through the geopolitical and geo-economic shifts. This is the constellation which forms the basis of the crisis of environmental governance and explains the paradox as to why 'so little happens' although the respective knowledge and consciousness have increased significantly.

### 3.3. Recent developments: Strategies towards a 'green economy'

This crisis in the management of ecological problems makes the contradictions of capitalist society-nature relations all the more obvious. They are apparent, on the one hand, in the increasing competition for natural resources, especially for dwindling oil reserves (Altvater, 2005), but also for metals (Bäuerle, Behr and Hütz-Adams, 2011) and arable land that can be used for agriculture – that is, especially for the production of food and agrofuels (GRAIN, 2008; Hoering, 2009). On the other hand, there is increasing competition for CO<sub>2</sub> sinks; the more dynamic the 'emerging market' economies are, the more they insist on claiming and using their 'right to pollute' and the less willing they are to forego their proportional share of the global sinks. Environmental policy is bound to take place on this terrain of geopolitics and geo-economics precisely to the extent that environmental policy terrains are being blocked or at least affected by geopolitics and geo-economics. There is thus a partial shift from explicit towards implicit environmental (and also geo-) politics.

A possible outcome of this contradictory constellation are more openly imperialist relationships between Northern states and supranational entities like the EU on the one hand, and parts of the global South on the other (as well as among Northern states). To the extent that there is increasing competition for the earth's resources, sinks and labour power, national and supranational state apparatuses seem to be willing to support 'their' respective capitals more directly in order to strengthen their competitive position and to secure the resource base of their respective economies. Thus, the hegemony of the imperial mode of living in the countries of the global North and its spread to parts of the global South could paradoxically form the basis of non-hegemonic international relations.

However, against the background of the current crisis, in recent years, several studies were published that suggest that the economic and ecological crisis can be overcome by fostering a *green economy* (overview and critique in Brand, 2012). UNEP started in 2009 with its Green Economy Initiative. In 2011, it published the report, 'Towards a Green Economy', in which it stated: '[The] recent traction for a green economy concept has no doubt been aided by widespread disillusionment with our prevailing economic paradigm, a sense of fatigue emanating from the many concurrent crises and market failures experienced during the very first decade of the new millennium, including especially the financial and economic crisis of 2008. But at the same time, we have seen increasing evidence of a way forward, a new economic paradigm – one in which material wealth is not delivered perforce at the expense of growing environmental risks, ecological scarcities and social disparities' (UNEP, 2011b: 1).

The European Commission (EC) (2010) attempted to develop a plan for sustainable growth: the promotion of a resource-light, ecological and competitive economy. In a communication in September 2011, the EC considered it necessary to fundamentally transform the European economy within the time span of one generation. Reducing resource use and increasing resource efficiency are seen as key mechanisms for coping with environmental problems and resource shortages and at the same time strengthening European competitiveness (European Commission, 2011).

If, how and where strategies of a green economy might gain relevance remain open questions in addition to those regarding the features of 'climate capitalism' (Newell and Paterson, 2010). A crucial question is whether the concept of a green economy and related strategies develop not only politico-institutional coherence, but also an economic coherence. Will there be enough economic interests behind it – in research and development, production industries and the financial sector – to counter the 'brown industries' and related political forces? Or will there be compromises between the brown and the green industries and between capital and labour organisations that imply, in a sense, a 'green corporatism'? How exactly could a green economy thus fix the environmental contradictions of capitalism and what kinds of new socio-spatial exclusions will be created by this? From our perspective, the prospects of a green economy must be seen against the persistence of the imperial mode of living and growing geo-economic and geopolitical competition.

#### 4. CONCLUSION AND PROSPECTS

The aim of this contribution was to sketch a theoretical approach that allows us to describe and grasp transformations of society-nature relationships and to explain the discrepancy between our knowledge of

the ecological crisis and the inadequate means of its political management. We based our approach largely on the concept of society-nature relationships and a regulation theory enriched by hegemony and state-theoretical concepts. We showed that social domination is closely linked to the configuration of the society-nature relationships. We also argued that capitalist society-nature relationships are characterised by immanent contradictions – contradictions that may be temporarily stabilised in a limited space and time (as Fordist or post-Fordist society-nature relationships), but which will nevertheless continuously erupt in crises.

This allows us to gain a more comprehensive understanding of the ecological crisis, its politicisation and its management. So-called environmental problems, both on the local and global scales, are primarily grounded in *social* processes of exploitation, in particular property relations, and structures of power and class, as well as processes of subjectivisation. They largely determine the dominant perception and interpretation of material transformations and their implications for human beings' internal and external nature. Ecological problems and crises are thus part and parcel of social interests and conflicts. Processes of social restructuring also entail a transformation of society-nature relationships, which, to be sure, is not the same as 'overcoming' or indeed solving ecological problems, let alone the ecological crisis.

The complex societal conflicts surrounding the transformation of society-nature relationships have to be seen in the context of the transformation of other institutional forms. They are not necessarily motivated by environmental concerns, but may very well result from the restructuring of worldwide systems of production, distribution and consumption, itself triggered by concerns arising from competition and the compulsion of valorisation. In addition, different actors with their respective interests often relate in very different ways to the 'ecological crisis', interpret it differently, and accordingly make different proposals regarding its management, which they, in turn, seek to inscribe in state apparatuses and institutions. The restructuring of society-nature relationships, both in their material and their symbolic dimension, can thus be adequately understood only with reference to general structural transformations, different reference points and interests of societal actors, and specific forms of institutionalisation within the state.

We introduced the concept of 'imperial mode of living' in order to focus the dimension of the rootedness of capitalist-fossilist-industrialist society-nature relations in everyday and institutional practices as well as in hegemonic or at least dominant perceptions of 'attractive' living. The mode of living needs to be understood in close relation to capital's strategies, the deeply inscribed mode of production, and power-shaped settings of the norms of consumption.

The current crisis of the regulation of society-nature relationships is first and foremost a crisis of the spread of the global North's patterns of production and consumption, which, from an ecological perspective, cannot be generalised. As long as the global North was able to externalize the socio-ecological costs of its development model, the 'environmental fix' (Castree, 2008) of the latter was secured. Now that important countries of the global South are increasingly claiming their share of the global 'environmental space', this possibility of fixing an ecologically destructive and spatially exclusive mode of production diminishes. Capitalism needs a less-developed outside to manage not only its economic contradictions – this was the focus of the classical theory of imperialism – but also its ecological contradictions. The shrinking of this outside and the corresponding geopolitical and geo-economic shifts manifest in a crisis of function and legitimation of post-Fordist forms of problem management, especially of those that emerged around the Rio Conference on Environment and Development in 1992. It contributes to the emergence of new, sometimes highly exclusive and selective forms of problem management.

One of the important challenges is the close analysis of the latent and manifest conflicts over the capitalist regulation *or* democratic organisation of society-nature relationships. The key here is to link an analysis of deeply sedimented and normalised patterns of consumption and production to an investigation of the interests, strategies and forms of (international) politics. One concrete field of such an analysis might be the emerging strategies of a green economy, which might lead to a selective and power-shaped restructuring of capitalism.

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### NOTES

- 1 In section 2.3, we will look more closely at the difference between explicit and implicit environmental politics.
- 2 Within sociology and ecological economics, we also find an intense discussion, drawing on the theories of Anthony Giddens and Pierre Bourdieu, about unsustainable consumption practices as part of the fact that individuals are bearers of deeply rooted routine practices, which, in turn, are linked to competencies, meaning and material artefacts (Reckwitz, 2002; Shove *et al.*, 2007; surveys in Röpke, 2009; Spaargaren, 2011).
- 3 In contrast to most of the recent contributions in the tradition of critical theory, the early work of Alfred Schmidt (1971 [1962]) on the concept of nature in Marx's work was translated into English and has been discussed by

different scholars such as, for example, Neil Smith (1984). Smith criticises the work of Schmidt, and the Frankfurt School in general, for conceptualising the relationship between society and nature as dualistic, which, for Smith, is most prominently expressed in the term, 'domination of nature'. He introduces the concept, 'production of nature', in order to emphasise the social character of nature. As we see in Section 2.1, younger authors who have been inspired by early critical theory, particularly Christoph Görg (2003a), come very close to the production of nature concept, although there remains a difference concerning the conceptualisation of the materiality of nature. See also Biro (2011).

- 4 A sink refers to an ecosystem that is capable of absorbing emissions, such as forests or oceans in the case of CO<sub>2</sub>.
- 5 Authors' translation from German.
- 6 These valorisation crises arise in historically contingent ways. They can be crises of over-accumulation, occurring when capital does not find sufficient productive opportunities for valorisation, or when it takes on the form of fictitious or interest-bearing capital (e.g. in the form of stocks or mortgages and financial transactions derived from them) and generates financial bubbles that burst when people stop believing that their claims can be redeemed. They might also arise in the form of the 'underproduction of nature' (O'Connor, 1988). This occurs when the costs of the provision or repair of the natural basis of capitalist production and consumption increase to such a point that they affect the profitability of capital valorisation.
- 7 Here, we believe it is important to distinguish between *inter*- and *supra*-national forms of statehood. Both have gained importance in recent years and decades insofar as important state functions have been transferred to them. The difference between them, however, lies in the fact that international forms of statehood are primarily shaped by highly asymmetrical intergovernmental relationships, which are the cause of their stronger structural selectivity when compared to the nation-state, as well as of their institutional instability. In the case of the supranational statehood of, for example, the European Union, the intergovernmental elements are complemented and/or submerged by supranational elements that display a higher autonomy vis-à-vis shifts in the relations between states and between social forces. Furthermore, supranational state apparatuses, unlike international ones, have a clearly territorial reference point and, as a result, there is competition between different supranational entities. They have this in common with nation-states and it allows us to understand them as a re-scaled form of territorial statehood, something that is not possible in the case of international state apparatuses (for more details on this, cf. Wissen, 2011: ch. 4).
- 8 This reference to the Rio conference is not meant to suggest that environmental politics are conducted exclusively at the international level or indeed 'from above'. The Rio process is a type of institutional and discursive *dispositif* of a variety of environmental policies and politics that are emerging on all spatial scales.
- 9 'Total material requirement' refers to all the primary materials (with the exception of air and water) that a national economy needs to extract from nature in the course of a year (Sachs and Santarius, 2007: 61).
- 10 The 'ecological backpack' refers to (and calculates in terms of weight) the total amount of resources that have entered into a product. The ecological backpack gets bigger when the production of a resource necessary for a given product

- becomes more complicated, an example of which is increased debris from mining, or because it requires more energy.
- 11 This was complemented by distinctions between productive and financialised accumulation and between introverted and extroverted accumulation (the latter in order to understand the extractive economies of the global South, which are strongly oriented towards the world market (Becker, 2002)).
  - 12 For these reasons, we are also aware of the difficulties connected with the terms 'global North' and 'global South'. They neither take into account the increasing differentiation between peripheral and semi-peripheral countries nor the increasing socio-spatial inequalities within southern *and* northern countries. Moreover, the former socialist countries tend to remain outside of such a classification. Because of the lack of a convincing alternative, we nevertheless keep the two terms with 'global North' mainly referring to North America, Western Europe, Japan and a few other countries such as Australia, and 'global South' to all other countries. However, as far as the global South is concerned, we are particularly interested in the semi-peripheral, new consumer countries such as, for example, China, India, Brazil and South Africa.
  - 13 Cf., for example, an interview with Austria's former minister of the environment, Martin Bartenstein, in the *Standard* (25 November 2009), in which he says: 'Well, in the Kyoto-negotiations the EU as a whole agreed to an eight percent reduction. When it then came to dividing up this responsibility in the context of EU-Burden-Sharing I went to Brussels, bringing along the even more ambitious reductions, to which parliament and the government had agreed, i.e. 20 to 25 percent! They of course knew that in Brussels, and I had my work cut out for me, making sure that we got off with no more than minus 13 percent' (our translation).

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