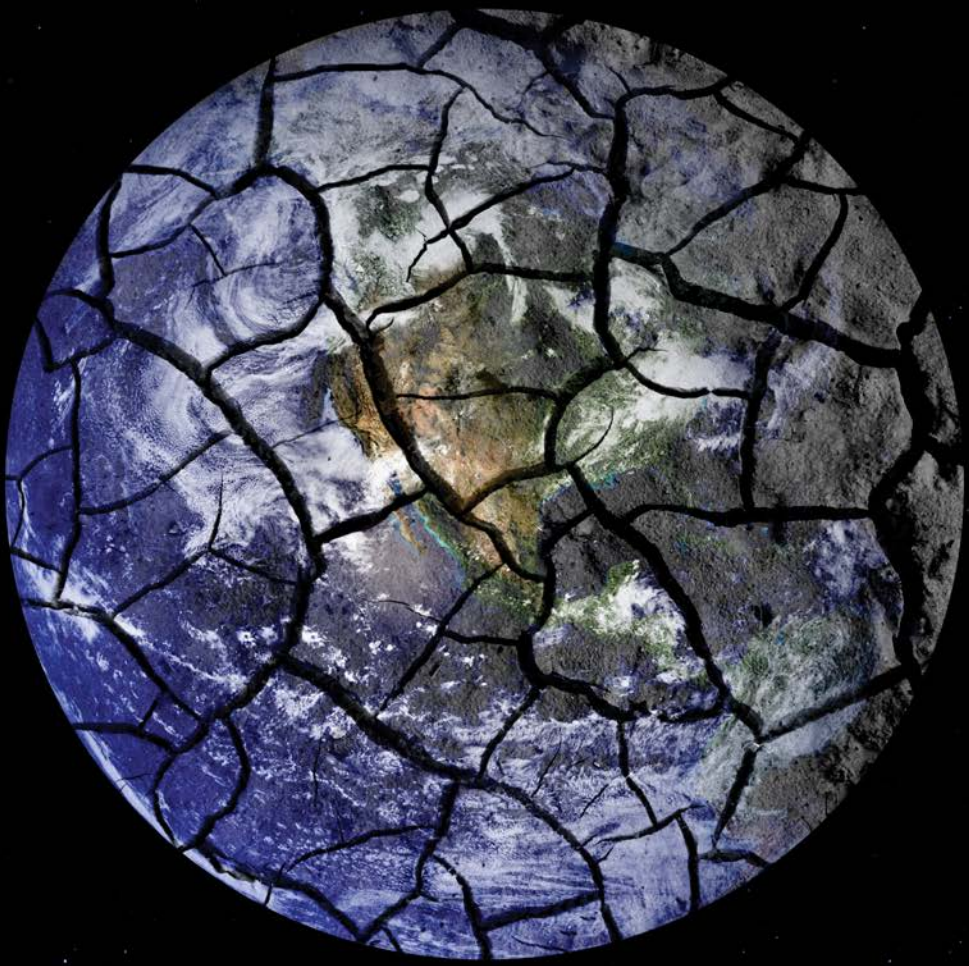
THE LIMITS TO CAPITALIST NATURE

THEORIZING AND OVERCOMING THE IMPERIAL MODE OF LIVING



ULRICH BRAND AND MARKUS WISSEN

The Limits to Capitalist Nature

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For Christoph Görg, friend, teacher and indispensable critical thinker

Contents

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Chapter 1

Theorizing the Imperial Mode of Living

An Introduction

In recent years, progressive forces in many parts of the world have been confronted with a new opponent: authoritarian populism. The rise of Trump in the United States, the UK Independence Party in the United Kingdom, Front National in France and the AfD (Alternative for Germany), the fundamentalist backlash against the Arab Spring as well as the apparent end of the cycle of progressive governments in Latin America signal that it is not simply a neo liberal capitalism anymore that the left has to fight. Instead, an even more dangerous enemy has emerged out of a conservative-neo liberal bloc that for a long time dominated the political, social and economic development of countries in the global North, and that now, in a situation of still unresolved multiple crises (of the economy, state finance, political representation, social reproduction, environment, including climate change, energy, food), does not seem capable anymore to cope with the contradictions that it itself has intensified.

The neo liberal business as usual, consisting in the subordination of ever more social spheres under the rule of the capitalist market and thereby worsening the living conditions of millions or even billions of people, is no longer considered as the normal way things have to go. We do not understand neo liberalism primarily as policy reforms (as the concept of the neo liberal Washington Consensus suggests; see Williamson 1990) but as profound societal transformation including the logics of power relations that are inscribed into relations of states, (world) markets and civil society, of class and gender structures, of subjectivities and societal nature relations. The neo liberal counter-revolution since the 1970s, for instance, was a shift not just in economic policies but also in societal class and power relations, of dominant logics (Harvey 2006; Plehwe, Walpen and Neunhöffer 2006; Springer, Birch and MacLeavy 2016).[1] The 'post-democratic' domestication of social

conflicts in many countries, through which neo liberalism managed to present itself as a quasi-natural order to which there is no alternative, does not seem to be viable anymore (Crouch 2004; Blühdorn 2013a,b). Instead, it is politicized in a reactionary manner that makes things even worse, particularly for those without the 'right to have rights' (Hannah Arendt 1994: 296), that is, the majority of refugees who fled their home countries in search for a better life or even for the purpose of their mere survival.

But what exactly is it that the authoritarian and neo liberal right has successfully addressed (Bruff 2016), where does it obtain its strength from and why has the left in many countries not been able to politicize the crisis since 2007/2008 in a progressive way? Responding to these questions is not only crucial in order to understand the fundamental transformations that the world is currently going through and the social forces that are struggling over the direction these transformations may take. But it is also important in a political-strategic sense, that is, as a precondition for progressive forces to regain momentum. This is to what the book at hand aims to contribute.

THE IMPERIAL MODE OF LIVING AND THE LIMITS TO CAPITALIST NATURE

We want to add to the existing literature, by introducing and further developing, the concept of the *imperial mode of living*. By this we aim to understand both the persistence and, at the same time, crisis-deepening patterns of production and consumption that are based on an – in principle – unlimited appropriation of the resources and labour capacity of both the global North and the global South and of a disproportionate claim to global sinks (like forests and oceans in the case of CO_2).

We argue that the increase of productivity and material prosperity in the capitalist centres depends on a world resource system and international division of labour that favours the global North and is rendered invisible through the imperial mode of living, so that the domination and power relations it implies are normalized. Since the beginning of industrial capitalism, the imperial mode of living gained certain stability and hegemony at the cost of environmental destruction and the exploitation of labour. Societal relations as well as societal nature relations were stabilized, especially during Fordism, *due* to its environmentally and socially unsustainable character (Schaffartzik et al. 2014). Manifold societal institutions, like the capitalist market and the capitalist state, assure a certain hegemony of destructive societal nature relations. Fordist forms of mass production and consumption, more or less functioning social compromises and stable welfare institutions have become strong and attractive orientations in societies of the global North.

Social hierarchies along class, gender and race were stabilized through uneven access to the means of living, a predominant understanding of well-being that focused on income and (status) consumption as well as respective subjectivities and criteria of 'success' (we elaborate this more systematically in Brand and Wissen 2017a). The 'post-Fordist' process of capitalist globalization is largely based on fossilist resources and energy regimes, too. And it reproduces itself through manifold hierarchies and forms of inclusion and exclusion (see Biesecker and Hofmeister 2010 for a feminist perspective). Furthermore, since the 1980s, the imperial mode of living has been increasingly spreading beyond the upper classes of the countries of the global South to the middle classes.[2] Whereas in the global North it has contributed to safeguarding social stability, for example by helping to keep the costs of the reproduction of labour power relatively low, it provides a hegemonic orientation of development in many societies of the global South.[3]

However, its persistence in the global North and its spread to the rapidly emerging countries of the global South have plunged global environmental politics into a severe crisis, fostering more openly (neo-)imperialist strategies of powerful national states and supranational entities with respect to natural resources and sinks. Regardless of apparent progresses like the adoption of the Sustainable Development Goals by the General Assembly of the United Nations in 2015 and the Paris Climate Agreement in the same year, capitalist competition and growth strategies have been intensified as a means to overcome the economic crisis. They are at the core of an increasing demand for what Jason Moore (2014) has called the 'four cheaps': labour power, food, energy, raw materials. Capital accumulation essentially rests on the availability of these cheaps, which however is increasingly difficult to guarantee to the same degree that ever more societies become dependent on it. In other words, due to the imperial mode of living and its global spread, societies seem to be approaching the *limits to capitalist nature*.

This does not necessarily mean that the imperial mode of living is leading into a great crash. The limits are not absolute. Instead, they can be shifted in time and space, and there are several ways to cope with the ecological contradictions of capitalism in more or less exclusive ways. One way is the authoritarian stabilization of the imperial mode of living. This is exactly what the social and political right promises to do and which contributes to explaining the latter's current rise. Authoritarian populism draws its strength not least from proclaiming that it is able to defend the (threatened) privileges of the middle and partially also of the working class – not by addressing the root causes of the (perceived) social decline, that is, the class struggle from above but by blaming those who (must) leave their home countries. Those who intend to migrate to countries of the global North do this precisely, because their living conditions have been destroyed by the imperial mode of living of the

global North. They simply cannot, or are not willing, to bear this anymore and, instead, they want to participate in the wealth the imperial mode of living has brought to large parts of the global North at the expense of the global South.

It is the promise to keep these people with their fears and desires beyond the borders of the developed capitalist countries and to exclusively stabilize a mode of living against the claims of those who are no longer willing to just bear the latter's cost that makes the right strong. And the right can make this promise in a much more credible way than 'normal' conservatives and neoliberals who have made people believe that there is no alternative to the social consequences of an unleashed capitalism and that everybody will be better off only in the long run.

As we will see in the following chapters, the authoritarian stabilization of the imperial mode of living is not the only strategy to cope with the multiple crises and to shift the limits to capitalist nature in an exclusive manner. Another one, on which we will put more emphasis in this book, is the selective ecological modernization of the imperial mode of living which may result in what can be called a *green capitalism* (Koch 2012; Newell 2012; Tanuro 2013; cf. chapter 4). It is similar to the authoritarian stabilization (and may indeed include authoritarian elements, too) as well as to its Fordist and post-Fordist predecessors, to the extent that it also depends on an external sphere from where it gets its resources and to which it can shift its socio-environmental costs. The resource base however is different, with fossil fuels playing a decreasing role and metals and biomass gaining importance. Capitalism – this is the idea behind our discussion of a possible green-capitalist formation – can cope with biophysical scarcities and environmental destruction by discovering and valorizing new resources, substituting old ones and opening up new territorial and social spaces for capital accumulation. This takes place in an exclusive manner, too. Our main argument is that the regulation of inner-societal and international relations as well as of societal nature relations – that is, the dealing with domination, contradictions and regular crises – occurs predominantly through the imperial mode of living.

We will argue throughout the book that the imperial mode of living has the effect of making the crisis more acute, just as it makes it processable in a socially and spatially limited dimension. The normality of the imperial mode of living acts as a filter to the awareness of the crisis and as a corridor for its management. At least in the global North, the ecological crisis is primarily perceived as an environmental problem and not as a comprehensive societal crisis. That promotes a certain form of public politicization that tends towards the catastrophic: the ecological crisis is a catastrophe caused by the fact that 'humankind' or 'human civilization' is ignoring its 'natural limits'. Such a perspective hides the root causes, that is, capitalist, imperial and patriarchal dynamics, of the crisis and related power relations by assumingly putting

everybody in the same place. And it represents nature as something 'out there' (e.g., climate, biodiversity, global fresh water) and opposed to social-economic and political relations.

ON THIS BOOK

The purpose of this book is to understand and assess the current crises, transformation processes, potential outcomes and new distortions in the form of a new capitalist formation, social forces struggling for dominance and hegemony as well as progressive alternatives. The *imperial mode of living* is our key concept in this respect. Theorizing it and applying it empirically implies to explore why and how the domination and the exploitation of labour power and nature within the global political economy and within societies work and are stabilized. The threat of inequality and the destruction of nature as a problem of capitalist development are diffused, especially by postponing negative preconditions and consequences into the future or externalizing them across space. This will be shown later in the book by drawing on various theoretical approaches, particularly on regulation theory (Lipietz 1988, cf. chapters 2 and 4 of this book), materialist state theory (Poulantzas 2002; Jessop 2007, chapter 3) and a Gramscian theory of hegemony (Buckel and Fischer-Lescano 2007, chapter 5), all of which are presented and applied in a political-ecological perspective (Görg 2011, cf. chapter 3 of this book).

Chapter 2 introduces the concept of the imperial mode of living and demonstrates how it helps to understand the persistence of resource- and energy-intensive everyday practices and their social and ecological consequences in a North-South context. Our principal theoretical point of reference is the regulation approach. We introduce those regulationist categories on which the imperial mode of living relies, mainly the norm of production and the norm of consumption. Drawing on the work particularly of Michel Aglietta (1979), we develop an understanding of the latter that goes beyond its mere treating in terms of its functionality or dysfunctionality for the creation of macroeconomic coherence, that is, we stress the 'relative autonomy' of the consumption sphere in the context of capital accumulation. Taking into account the imperial mode of living – also in historical perspective – thus helps to understand the concurrency of persistence and crisis of the neoliberal-imperial constellation as well as to identify the starting points for counter-hegemonic struggles.

Chapter 3 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' (in German: *gesellschaftliche Naturverhältnisse*), which can be situated in the framework of political ecology and, in this chapter, is combined with insights from Marx, regulation theory and critical state theory. We also develop the concept of the 'regulation of societal nature relations' and a more comprehensive understanding of the current crisis. 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 and the "mental infrastructures" (Welzer 2011) of people in the global North, and they imply a disproportionate claim on global resources, sinks and labour power. They form the basis of the imperial mode of living. With the rapid industrialization of countries such as India and China, fossilist patterns of production and consumption are generalized. As a consequence, the ability of developed capitalism to fix its environmental contradictions through the externalization 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 again.

In chapter 4, we argue that key capitalist actors, on the terrain created by social movements in an earlier stage, are refocusing production along the lines of various green economy proposals. By employing the regulation approach, particularly the regulationist category of a mode of development, this leads us to venture that at least in the global North these projects may result in a green capitalism that, like its Fordist predecessor, remains within a certain bandwidth maintained by various regulatory practices and as a result may come to define the coming epoch. However, a greening of the economy will, at the best, process but not overcome the contradictions and relationships of domination and exploitation inherent to capitalism. Since it does not imply a fundamental change of production and consumption patterns, a green capitalism, like its predecessors, will rely on an external sphere to which its socio-ecological costs can be shifted. It will thus have an exclusive character with benefits and costs divided unevenly along class, gender, race and North-South lines.

In chapter 5 we address the recent tendency of further valorizing and financializing nature as a driver and component of a possible green-capitalist formation (the chapter also highlights the difference between commodification and valorization). The valorization and financialization of nature has been intensified during the current multiple crises. It has gained importance given an ongoing over-accumulation, problems with the enhanced reproduction of capital and the problems resulting from the valorization and financialization of other sectors (such as housing). The chapter aims to contribute to the debate on the valorization of nature from the perspective of political ecology,

the Gramscian theory of hegemony and the critical theory of the (internationalized) state. We argue that the valorization and financialization of nature (1) is part of a class strategy which attempts to overcome the current crisis in the sense of a passive revolution, (2) is politically mediated in a process in which the internationalized state plays an important role and (3) is based on the imperial mode of living of the global North and thus shapes societal nature relations. The financialization and commodification of nature is part of an emerging green-capitalist hegemonic project. The social and ecological costs of such a project are high, as it is linked to massive dispossession, land-use conflicts and further ecological degradation.

Chapter 6 is the first of three subsequent chapters where we assess concepts and strategies that go beyond a mere ecological modernization of the imperial mode of living and that combine a fundamental critique of this mode with the perspective of overcoming it. The first of these concepts is socio-ecological transformation. Our discussion of it starts with the observation that transformation is the very mode of operation of capitalist societies. Capitalism's predominant logic is making profit, accumulating capital, expanding economic activities and thereby maintaining itself through permanent change. By following this logic, capitalism produces ever stronger and less controllable crises. The concept of socio-ecological transformation, as we understand it, breaks with this logic. It implies a new model of prosperity, other forms of alimentation, mobility, energy supply, communication, housing, clothing and so on. And it takes into account ecological restrictions with all related implications for the distribution of power and wealth.

A societal transformation of this depth cannot be achieved by market forces and technological solutions alone or even in principle. Instead, it requires a fundamental democratization of many spheres of social life, particularly of those which up to now have been dominated by economic decision-making driven by the aim to maximize profits. Chapter 7 addresses the issue of democratization as a driver of a fundamental socio-ecological transformation with respect to energy generation and provision. Starting from the observation by Timothy Mitchell (2011) that historically the democratization of Western societies has rested on the availability of cheap fossil energy and thus on environmental destruction, we try to identify the conditions under which democracy, social equality and ecological sustainability cannot only be reconciled but even become mutually constitutive. In other words, we will analyse to what extent the dismantling of social relations of power and domination via the democratization of production and reproduction is a key to develop more reflexive and equal societal nature relations.

The concluding chapter 8 discusses the political implications of transformation and democratization as a means to overcome the imperial mode of living. The question here is how alternatives could become viable and which

social forces, or alliances of forces, could bring them to the fore. We will particularly address the labour movement and the trade unions as its representatives, that is, actors who have been largely neglected in recent debates about degrowth and the commons. Their role is ambivalent: On the one hand, the perception that wealth increases require an (environmentally destructive) economic growth, since this is the only way to enhance the possibilities for distribution, is deeply anchored in trade union politics. On the other hand, recent studies have shown that there is a strong notion of moral economy (E. P. Thompson 1968) which has not been absorbed by processes of neo liberal subjectivation but, in contrast, could be a starting point to confront the latter as well as to question the imperial mode of living. A precondition for this, however, is that new links are drawn between production and reproduction, between the labour movement and other social movements and between the everyday experience of crisis and the attractiveness and viability of a progressive alternative that would not only overcome the imperial mode of living but also contribute to pushing back the authoritarian right.

Chapter 2

The Crisis of Global Environmental Politics and the Imperial Mode of Living

Neo liberal capitalism entered a severe crisis that has accelerated international power shifts towards some countries of the so-called semi-periphery, especially China, India and Brazil. These important changes are closely connected to the deepening of the ecological crisis and the 'crisis of crisis management' in global environmental politics. An expression hereof is international climate policy that is especially institutionalized in the United Nations Framework Convention on Climate Change (UNFCCC) and further developed through the annual Conference of the Parties (COPs). In 2009, the Copenhagen COP, that was supposed to agree on a succession treaty to the Kyoto Protocol from 1997, failed. The conferences that followed achieved little more than preventing the UNFCCC from being demolished as the principal terrain of international climate negotiations. It took until 2015 that a new climate agreement was concluded on the UN climate conference in Paris (COP 21). Although it entered into force as early as 2016, its material effects are far from clear. The agreement is contested by reactionary forces, particularly by the Trump administration in the United States that announced its retreat in 2017. Furthermore, its stipulations are rather vague. They do not provide for binding emission targets but rely mainly on the expected dynamic of individual countries' obligations, their disclosure and perpetual evaluation and the public pressure which may result from their non-fulfilling or from the achievements of other countries (cf. Ecologic Institute 2016).

Our interpretation of the ongoing problems of international climate politics is that the current power shifts take place in the context of a strong global compromise. And this compromise is not about effective politics to slow down climate change and its root causes but, on the contrary, the global compromise is about the further exploitation of natural resources and the overuse of global sinks as the basis of global capitalist development (Bauriedl 2015).

Behind this stands a global consensus about the attractiveness of modern capitalist everyday practices as documented by Myers and Kent (2004) in their study about the 'new consumers' of semi-peripheral countries and by Sachs and Santarius (2007) with their concept of a 'transnational consumer class'. A specific, albeit transformative, kind of state-capital relationship secures this constellation. Taking this into account opens the space for a more complex conceptualization of the relationship between state, capital and modes of living and, therefore, of the relationship between rupture and continuity in the current multiple crises.

We introduce what we call the *imperial mode of living*. This concept refers to dominant patterns of production, distribution and consumption that are deeply rooted in the everyday practices of the upper and middle classes of the global North and increasingly in the emerging countries of the global South.[1] This chapter is structured as follows: In the second section, we address the concept of mode of living and delimit it from the regulation theoretical concept of mode of development. Subsequently, in the third section, we analyse the character of the imperial mode of living of the global North. In the fourth section, we address the current crisis of international environmental policy and locate it in the context of contradictions accentuated by the tendency towards a generalization of the imperial mode of living and by the shifting of global power relations.

MODE OF LIVING, MODE OF DEVELOPMENT AND NORM OF CONSUMPTION

One central category of regulation theory is that of 'mode of development' (cf. chapter 4). It refers to the temporary coherence between the historical development of a norm of production and distribution on the one hand and a norm of consumption on the other (the regime of accumulation) which is safeguarded by a range of institutional forms that together constitute a mode of regulation.[2] Capitalist dynamics and capacity for hegemony are especially – albeit not exclusively – supported if a 'stable' regime of accumulation emerges in the sense of more or less calculable and incremental changes. From the point of view of regulation theory, the various segments of the production process – the production goods industry and the consumer goods industry – and the prevailing standards in this process must be more or less compatible with the conditions of final consumption.

The regulation theoretical concept of norm of consumption does not refer simply to the consumption of goods and services (given the continuation of subsistence production which, with considerable geographical differences and with highly unequal gender relations, provides an important contribution

to the reproduction of capitalist societies). It also refers to a dynamic mode of development, the material dimension of which structures social existence and relationships regarding, for example, food, housing and mobility; wage labour and other socially necessary work; recreation; the public sphere in the broad sense and the political sphere in the narrow sense; and also collectivity, familiarity and individuality.

Our concept of mode of living adopts the regulation theoretical concepts of modes of production and consumption. Moreover, it is informed by the mode of development concept. However, it differs from the latter inasmuch as it assigns greater weight to the micro-level of everyday practice and everyday knowledge. While these dimensions are also contained in the mode of development concept, regulation theorists themselves seldom elaborate upon them explicitly (for exceptions see Aglietta 1979; Candeias 2004, pp. 32–42, who refers to Bourdieu's concept of praxis and habitus; and Demirović 1992). By this it is meant that they are hardly raised as independent factors for the generalization of certain norms of consumption, or for the creation of the conditions of certain norms of production, but are rather seen primarily in terms of their functionality or dysfunctionality for the creation of macroeconomic coherence.[3] A notable exception is Michel Aglietta. For him, the emergence of a working-class mode of consumption, centred around standardized housing and automobile transport, was 'an essential condition of capitalist accumulation' (Aglietta 1979, p. 154) and an important factor for the generalization of wage labour in Fordism. Although it cannot be understood independently from the relations of production, Aglietta refuses to see consumption 'in a principally functional sense' (ibid., p. 157) and stresses cultural and ideological factors in shaping the Fordist mode of consumption. According to Mavroudeas (2003, p. 492), Aglietta thus has proposed 'some kind of "relative autonomy" of the consumption sphere'.

The important point for our argument is the assumption that in certain historical phases and in building on a coherence between norms of production and of consumption, a hegemonic – or in other words – broadly accepted and institutionally secured mode of living can emerge which is deeply rooted in the everyday practice of people and safeguarded by the state, and which is associated with certain concepts of progress: computers must be ever more powerful, food ever cheaper – regardless of the social or ecological conditions under which they are produced.[4]

Modes of production and consumption that become hegemonic in certain regions or countries can be generalized globally through 'capillary' processes, meaning in a broken manner and with considerable gaps in time and space. These processes are associated with concrete corporate strategies and interests in capital valorization, trade, investment and geopolitics; with purchasing power; and with concepts of an attractive mode of living that predominate

in the societies into which this mode diffuses by way of the world market. 'Generalization' does not mean that all people live alike but rather that certain deeply-rooted concepts of a 'good life' and of societal development are generated and reflected in the everyday life of a growing number of people, not only symbolically but also materially. The symbolic dimension is important because what is at issue is not only the coherence of the regime of accumulation but also the emergence and everyday practice of dynamics peculiar to this mode of living – which are of course not separate from the macroeconomic sphere. Furthermore, this process is not socially neutral but rather is transmitted via global inequalities and geographically specific class and gender relations and along ethnic or ethnicized lines. Certainly, as we will show below (cf. chapter 3), the management of social contradictions in the global North is facilitated by the externalization of ecological and social costs to the global South, which largely occur throughout the process of reproducing labour power (on the social implications of externalization, cf. Lessenich 2018). At the same time, however, the modes of consumption of the imperial mode of living betray a clearly class-specific aspect.

THE IMPERIAL CHARACTER OF THE MODE OF LIVING IN THE GLOBAL NORTH AND ITS GENERALIZATION

We can already speak of an 'imperial mode of living' starting with the era of colonialism in the sixteenth century and the liberal capitalist global system of the nineteenth century. However, during this period, it was limited to the upper classes, that is, it was not hegemonic in the sense of shaping the reproduction and the everyday practices of the majority of the population (on the imperial mode of living from a practice-theoretical perspective, cf. Jonas 2017). Only after the development of Fordism in the twentieth century did societal nature relations, and hence the mode of living, become widespread in the sense described earlier. The capitalist nature relations were rooted in the everyday practices of the majority of the population of the global North by means of the imperial mode of living.

The Taylorist revolution of organizing the labour process and the associated increase in productivity in the capitalist centres were one basis for the Fordist mode of development; the other one was the fact that the reproduction of the wage-dependent population was increasingly provided by commodities, examples being mobility by means of the automobile, the supply of industrially processed food and housing in the form of the construction and purchase of single-family homes. Growing productivity pushed down the cost of consumer goods and hence of the reproduction of labour power. Wage-dependent people had a share in the growing mass of surplus value via increased real wages provided by means of the Fordist class compromise.[5]

The mode of living of the global North is 'imperial' inasmuch it is based on a principally unlimited appropriation to resources, space, territories, labour capacity and sinks[6] elsewhere – secured politically, legally and/or by means of violence. The development of productivity and prosperity in the metropoles is based on a world resource system very favourable to the global North. The immense growth during the period of Fordism was dependent on the vast consumption of natural resources – particularly coal and, increasingly, oil – and of global pollutant sinks. The key factor was a permanent relative overabundance of cheap natural resources in the global raw materials and agricultural markets. The military and political dominance of the United States ensured the relative stabilization of global political conditions, which was reflected by the secure access to cheap resources (such as oil).

As a result of the crisis of Fordism, a contested process of restructuring since the 1980s has brought forth a post-Fordist mode of development. Fordism could primarily be seen as a form of intensive accumulation that permitted an increase in relative surplus value by means of the permanent intensification of the labour process and increases in labour productivity. During the 1980s, and especially since the 1990s, extensive forms of accumulation, such as the flexibilization and partial expansion of daily, weekly and annual work times and especially the global expansion of the number of wage-dependent people, became more important again (e.g., see Sablowski 2009; Arrighi 2007). In China, for example, the number of wage labourers has increased by several hundred millions in the past three decades. Liberal investment and trade policies and the deregulation of raw material and product markets by means of the expiration of price stability measures and the establishment of the World Trade Organization have contributed to this.

The restructuring of the international division of labour, the core of 'globalization', has succeeded in intensifying imperial access not only to the labour power capacities of the countries of the global South but also to their resources. Access to global resources and labour power has been restructured and intensified via the liberal world market. The fossilist models of consumption that characterized Fordism not only survived the crisis of Fordism unscathed but they have even been intensified (United Nations Environment Programme [UNEP] 2011a). For example, the worldwide stock of automobiles (cars, trucks, buses) doubled from 500 million to more than a billion between 1986 and 2010 (Sousanis 2011). Despite all the talk during the 1990s of the 'virtualization' of the economy, modern communications technologies are extremely resource intensive, not only with regard to the use of electric power but also in terms of the materials needed for their production, a large part of which come from the global South. Gains in energy and resource productivity often lower the costs of a product which leads to more consumption (the so-called rebound effect). Even though, the total demand for resources of the European Union (EU) has been stagnant at a fairly high level since the

mid-1980s, not only has the share of imported resources increased but so too has the 'ecological backpack'[7] included in the imports from the exporting countries of the global South (UNEP 2011a, p. 60; Dittrich 2010).

A third dimension of the imperial mode of living (besides labour power and resources) is the claim of the global North to the Earth's sinks which has caused the current worsening of the environmental crisis. The fossilist patterns of production and consumption prevailing in the global North, that is, the global North's 'disproportionate amount of the emissions due to industries, automobiles, and lifestyles' (Foster and Clark 2003, p. 194), have exceeded the absorption capacities of natural systems and is largely responsible for the concentration of CO_2 in the atmosphere and thus for climate change. Overall, these developments stand for an 'unequal ecological exchange'[8], thereby aggravating social and environmental consequences.

Our notion of the imperial mode of living is very close to what John Bellamy Foster and Brett Clark have termed 'ecological imperialism'. By this they mean

> the pillage of the resources of some countries by others and the transformation of whole ecosystems upon which states and nations depend; massive movements of population and labor that are interconnected with the extraction and transfer of resources; the exploitation of ecological vulnerabilities of societies to promote imperialist control; the dumping of ecological wastes in ways that widen the chasm between centre and periphery; and overall, the creation of a global "metabolic rift" that characterizes the relation of capitalism to the environment, and at the same time limits capitalist development.
>
> (Foster and Clark 2003, p. 187; cf. Altvater 1993)

We add to this perspective that of Gramscian theory of hegemony by asking how ecological imperialism is rooted in everyday practices and supported by state institutions and thus normalized in a way that its imperial character remains hidden. Thus, 'imperial mode of living' is a structural concept that has to be understood in the context of hegemony theory. It enables us to understand the hegemonic character of the current constellation in the sense of active or at least passive consensus and its broad resilience even in times of 'major crises'. The term thus goes beyond the classical and also more recent concepts of imperialism, which generally do not take modes of living into account (e.g., Lenin 1917/1963; Amin 1977; Hardt and Negri 2000; Harvey 2003).

An important aspect of the imperial mode of living is the reproduction of the workforce and the associated question of legitimacy. Access to cheap raw materials and labour power, as well as the possibility of using global sinks in a disproportionate way, contributes to keeping the costs of reproducing the Northern workforce relatively low. This is particularly important in times of severe economic crises. It contributes to explaining the fact that neo liberal

policies have not yet exhausted their legitimation potential in capitalist core countries, which is visible in the continued strength of conservative parties and the absence of major social protests of the workers and their trade unions. It was difficult to build alliances among them and social movements like Occupy or the Spanish Indignados.

The societal orientation towards material growth as well as the foundation of the tax-financed state, the institutionalized compromise between capital and labour, and the competition between capitalists and between particular societies are all based on a tendency to overexploit nature and to destroy the natural conditions of life (see on this van der Pijl 1997, as well as eco-Marxist approaches like those of Altvater 1993 and O'Connor 1988). At the same time, these factors lend capitalist dynamics and the societal and political compromise certain permanence and contribute to managing other crisis phenomena. That applies first of all to the over-accumulation of capital, which also characterizes the current economic crisis. This crisis phenomenon also seems to be managed by the fact that excess capital is being invested in 'nature' – meaning land, the cultivation of food and energy crops and the issuance of emissions certificates (Zeller 2010; cf. Dauvergne and Neville 2009). The expansion and selective ecological modernization of patterns of production and consumption (Jänicke 2008; Bemmann, Metzger, and von Detten 2014), upon which the imperial mode of living is based, thus becomes a means for managing problems of accumulation. The state has played a major role in constituting and stabilizing the imperial mode of living by not only externally securing access to strategic resources but also internally guaranteeing a certain living standard of the masses through social insurance systems and labour market regulations (Hirsch and Roth 1986, pp. 64–74). In general, the state functions as the contested political centre stage of the organization of hegemony and the establishment of a dynamic mode of living. Dominant social forces intend to universalize their interests in society and to become hegemonic, that is, to exercise domination via consensus, political, moral and intellectual leadership, and the discursive and institutional normalization of social and international power relations (Mann 2009; Bieler and Morton 2006). The ability to promise and secure growth and progress is particularly important in this respect. It provides the material basis of the imperial mode of living.

In the crisis of Fordism, the state and the capital-state nexus were restructured along a changing international division of labour. The constellation that resulted from this process has been described as the internationalized competition state (Cerny 1990; Hirsch 2003). Competitive corporatism was (to be) accepted by many trade unions; changing social structures and subjectivities in society are additional characteristics of this restructuring, the strategic core of which can be considered the neo liberalization of society – with flanking support from conservatives and social democrats.

The concept of the imperial mode of living runs the danger of supporting two misunderstandings. First, it could be interpreted as downplaying class issues and social inequalities, and their environmental implications, in the global North. However, this is not what the concept intends. Although workers in Northern countries benefit from unequal ecological exchange, this exchange is far from being 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 United Nations Development Programme (UNDP) has pointed out, 'inequality is bad not just intrinsically but also for the environment' (UNDP 2011, p. 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 and lower income use fewer resources (Wuppertal Institute for Climate, Environment and Energy 2008, pp. 144–54).

Second, characterizing Northern production and consumption patterns as 'imperial' may suggest a denial or underestimation of the fact that imperialism often involves open violence (on the relationship between neo liberalism and violence, cf. Springer 2016). This is contrary to our intention too. The increasingly violent character of the relationship between developed capitalist countries and other parts of the world after 9/11 has given rise to an important debate from which this article has strongly benefitted (see, e.g., Callinicos 2007; Harvey 2003; Panitch and Leys 2003). What we would like to stress, however, is that imperial relationships in international relations can be deeply rooted in a hegemonic mode of living in those countries from which imperial violence emanates. The concept of an 'imperial mode of living' is thus an attempt to explain imperial North-South relationships from the perspective of a theory of hegemony. It highlights the link between deeply rooted everyday practices, state and corporate strategies, the ecological crisis and international relations. As will be shown in the next section, it also sheds light on the contradictions that have more recently contributed to intensifying not only the environmental crisis but also the crisis of environmental politics.

THE CRISIS OF CRISIS MANAGEMENT AND GROWING ECOLOGICAL CONFLICTS

Since the 1990s, a political architecture for the management of the ecological crisis has emerged, the core of which are the 'Rio Institutions' and especially the UNFCCC and the Kyoto Protocol signed in 1997 under that Convention. These have been characterized by a central contradiction from the outset. On the one hand, they imply a managerial assault on the imperial mode of

living (on discourse and dominant practices of sustainable development, see Brand 2010). As stated earlier, the imperial mode of living presupposes disproportionate and principally unlimited access to the earth's sinks. The Kyoto Protocol and its current reformulation with the Paris Agreement from 2015 can thus be seen as a restriction of the imperial mode of living (however, weak and technocratic), since the Kyoto Protocol obliged the countries of the global North, and with the Paris Agreement all countries commit themselves to reduce their greenhouse gas emissions.

On the other hand, however, the imperial mode of living is deeply rooted in the societal relations between forces, in capital's strategies of valorization and in the everyday understanding and practices of the people of the global North as well as in their overarching orientation towards economic growth and competitiveness (Newell and Paterson 2010). It is embedded in state apparatuses and characterizes the patterns of perception and the actions of politicians. When state officials bargain over emission reduction quotas and then return home to proudly announce that they have achieved minimal reduction obligations for 'their' particular country and industry, when they attempt to boost demand for automobiles with 'cash-for-clunkers' premiums, when they subsidize industrial agriculture and coal-fired power plants and when they build gas pipelines, they are defending models of production and consumption upon which the imperial mode of living is based.

This contradiction between the defense of the imperial mode of living and the implicit questioning of it is characteristic for the international environmental policy architecture. It is therefore not surprising that the United States with a very strong 'brown industry' and its respective political influence, until recently the world's number one CO_2 emitter, has never ratified the Kyoto Protocol and that its current president has announced the country's retreat from the Paris Agreement.

In recent years, the marked contradiction in international environmental policy has come to a head. On the one hand, this is due to the fact that the ecological crisis has assumed a more prominent place on the political agenda as a result of the publication of the Stern Report (Stern 2006) and the Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC 2007, 2015). Perhaps even more important, however, are the implications of the geopolitical and geo-economic shifts. The Rio institutions were established in the 1990s, that is, at a time when the dominance of the global North appeared firmer than ever. The 'real-socialist' East had disappeared as a systemic alternative to capitalism shortly before, and many countries of the global South were suffering under the financial crises of the 1980s. The Rio institutions thus bore the signature of post–Cold War global relationships of power which were asymmetrically shaped in favour of the global North. The recent shift in these power relationships in favour

of 'contender states' (van der Pijl 2007), like China and India, has also affected the environmental policy architecture and the imperial mode of living upon which it is based. The extent of the shift is particularly apparent if current environmental policy is seen in the context of the current economic crisis since 2007 and if we compare this crisis to the financial crises of the 1990s. While the epicentre of the latter was located in the global South, and the global North in fact emerged from the crisis somewhat strengthened (cf. Harvey 2003; Panitch and Gindin 2003), the epicentre of the current crisis has been located in the United States and secondarily in Europe and Japan. By contrast, the emerging countries have been affected far less by the crisis, so that 'the centres of gravity in the world economy will shift even faster as a result of the crisis' (Boris and Schmalz 2009, p. 66). The fossilist growth path on which the rise of the emerging countries is ultimately taking place means that they will not be willing to do without 'their' share of global resources and sinks for much longer.

The material background of this political constellation is that in some countries, such as China, Brazil and India, we have seen the emergence of large upper and middle classes oriented towards 'Western' modes of living. (In some countries of Latin America, this phenomenon already emerged during the Fordist period.) A central dynamic in countries with so-called emerging economies, particularly India and China, is that the fossilist pattern of consumption and production of the global North is spreading. This tends to generalize a mode of living that, from an ecological perspective, cannot be generalized (Rockström et al. 2009; from a historical perspective, Krausmann et al. 2008).

The geopolitical and geo-economic shifts will therefore increasingly be articulated as ecological conflicts or eco-imperial tensions. This is at the same time the basis for a gain in significance of state apparatuses of international environmental policy, which are becoming the terrains on which the opportunities for fossilist development are being redistributed and upon which important geopolitical determinations are being made (Wissen 2010; Brand, Görg and Wissen 2011). It is, however, also the basis for their structural overburdening as the conflicts associated with such determinations threaten the very framework of the Rio Institutions (Newell 2008; Park, Conca and Finger 2008). The contradiction between implicitly calling the imperial mode of living into question and its deep societal rooting, which has from the outset characterized the political management of the ecological crisis, is thus becoming all the more acute as the global relations between the forces embedded in the institutions set up to manage the problem shift. That contradiction is articulated in resource conflicts and in the crisis of international environmental policy institutions, within which the struggle for the admission or limitation of fossilist development is taking place by way of the issuing of

'pollution rights'. Thus, at the same time the imperial mode of living makes the socio-economic dimensions of the current crisis able to be processed in a socially and spatially limited dimension, it sharpens both the environmental crisis and the crisis of environmental crisis management.

A possible outcome of this contradictory constellation is 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 and sinks 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 (see, e.g., the 'raw materials initiative' of the EU; European Commission 2011a; Küblböck 2016). 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 strengthen the non-hegemonic character of international relations.[9] What can be seen here is that the concept of an imperial mode of living reveals, and in part explains, an imperialist rearticulation of the relationship between state and capital in the context of multiple crises.

CONCLUSION

The imperial mode of living concept has a theoretical and a time-diagnostic dimension. Since the development of the capitalist world market, the living conditions in the capitalist centres or the global North have been based on the appropriation of the resources and the labour power of other regions. The hegemonic character of capitalist relations of production and living, the current rearticulation of the state-capital nexus and shifting international power relations cannot be explained without reference to this fact. The deep-rooted nature of the imperial mode of living includes the reproduction of structures in everyday life that contribute to aggravating the crisis of societal nature relations.

The imperial mode of living explains the congruence of continuity and crisis in capitalist nature relations. It is imperial because it is based on a principally unlimited appropriation of the resources and labour capacity of both the global North and the global South as well as on a disproportionate claim to global sinks. Its expansion to the rapidly emerging countries of the global South has plunged government management of the ecological crisis into a crisis of its own, fostering more openly imperialist strategies of powerful national states and supranational entities. The effectiveness of the imperial mode of living can, on the one hand, be explained by the reduction in the

cost of reproducing labour power and, on the other hand, it is hegemonically reproduced not only by means of societal institutions but also in the micro-structures of daily life.

The political and scientific added value of the concept 'imperial mode of living' is, in our view, the following: First, it permits a time-diagnostic explanation for the fact that a socio-ecological transformation is being hampered or blocked not only by powerful economic and political interest groups and the state-capital nexus in a more general way but also by the fact that the determining factors of the ecological crisis are rooted in prevailing political, economic and cultural everyday structures. The concept of the imperial mode of living therefore shields us from overly high expectations of state and intergovernmental policies with regard to the fundamental transformation of societal nature relations since the ruling societal relations (of forces) and dominant orientations cannot be overcome by government policies alone. This is shown, for example, by the progressive governments in Latin America, which have hardly developed any alternatives to world market–oriented 'extractivism', that is, the prioritized mining of raw materials and the cultivation of agricultural products, all for sale on the world market (Gudynas 2009; Svampa 2012; Brand, Dietz and Lang 2016). As a result of their social struggles, they want improved distribution, that is, a bigger slice of the world market pie, but they do not question either the pie itself or the conditions under which it is baked. The maintenance of the neo-extractivist development model enhanced the financial basis of the state and enabled governments to pursue distributional policies without changing profoundly social power relations and the role of transnational capital. However, these asymmetrical social compromises are realized at the cost of nature and those parts of the population – often indigenous peoples – who live in the areas of destruction. In the current situation of falling commodity prices governments tend to intensify resource extraction.

Second, the concept of the imperial mode of living dampens overly high expectations of good arguments, rational public discourse or the enlightened self-interest 'of humankind'. For these often fall either between the cracks in the perception patterns of deeply rooted orientations or are selectively integrated by them with the result that certain patterns of consumption and production are reinforced rather than being called into question – precisely through their partial modernization. The whole debate about a 'green economy' and 'green growth' (UNEP 2011b; OECD 2011; Brand 2012a) needs to be understood against this background.

Third, the concept of the imperial mode of living sheds light on the preconditions, starting points and forms of an emancipatory politicization of the socio-ecological crisis. For us, it appears important to resist ecological catastrophism, which is itself an instrument for the reinforcement of those

relations that engender the imagined catastrophe (Swyngedouw 2010). That does not mean closing our eyes to the well-founded scenarios of such bodies as the IPCC, the analyses of UNEP or broadly discussed studies like those of Rockström et al. (2009). But even if time is pressing, in particular with regard to the possible attainment of climatic tipping points (such as the thawing of the permafrost soils, which implies that huge quantities of the aggressive greenhouse gas methane would be set free), it is important to hold fast to the complicated and contradictory project of emancipation and to resist authoritarian and technocratic forms of crisis management.

A key factor in this context from the perspective of political ecology is to overcome the dichotomization of society and nature, which is widespread even within progressive societal and political circles and which emerges in the political arena as a playing off of the ecological and social issues against one another. The tendency to proclaim ecology as a secondary contradiction is especially apparent in the current economic crisis within which ecological catastrophism ('we don't have much more time') and ignorance towards ecological issues ('we don't have any time for that right now') have entered into an unholy alliance.

At the same time, however, there are clear signs that the ecological question is being politicized as a social question – and vice versa. One aspect of this is the fact that social movements put forth the concept of 'climate justice', according to which climate change is not a socially neutral future catastrophe but rather a social and global issue of distribution. That includes a discussion of the term 'sufficiency' and the proposals and practices associated with it. A global movement for climate justice has emerged within the past few years (Chatterton, Featherstone, and Routledge 2013; Rootes and Sotirakopoulos 2013).

Politically, we see a central challenge in formulating goals and demands in such a way that they permit concrete intervention and at the same time call into question the existing rules of the game. This can best be achieved if social conflicts are linked back to everyday practice, for which there is a large number of socio-ecological starting points (e.g., in the areas of mobility, food or energy consumption). It is here that the concept of the imperial mode of living has a particularly sensitizing effect: If central determining factors of the ecological crisis and the predominant destructive patterns of its management are rooted in societal relations of forces and in everyday practices, then this too is an important locus of counter-hegemonic struggle.

Chapter 3

Crisis and Continuity of Capitalist Societal Nature Relations

Over the past few years, political discussions of the ecological crisis have changed in at least three significant ways. First, there seems to be a certain re-politicization 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 Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC 2007, 2015), the debate around the Sustainable Development Goals (SDGs) and the increasingly widespread realization that there is a need to overcome the fossilist energy base of modern societies. Second, the ecological crisis is seen in the context of multiple crises, which are constituted by the interplay of different phenomena such as the degradation of natural livelihoods, poverty, hunger, the future of energy provision as well as seemingly non-ecological phenomena like the economic crisis since 2007. 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 (cf. Kütting and Lipschutz 2009). At the same time, these realizations have hardly led to the formulation, let alone the implementation, of far-reaching policies.

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 realization of the interconnectedness of 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, 2011; Perreault, McCarthy and Bridge 2015; Bryant 2015; Görg et al. 2017), which focuses on social power relations and struggles within 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 Stokke 2011; Hackmann 2016), and has introduced the concepts of *regime interplays* and *regime complexes* in order to conceptualize and investigate the roles of other political institutions and steering processes in global environmental governance (Raustiala and Victor 2004; Chambers 2008). Over the past 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.[1] 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 conceptualized as a condensation of those interests and forms of knowledge, modes of living and orientations (e.g., towards economic growth, competitiveness or industrial-fossilist 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 to each other more systematically 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 socio-nature as developed in radical geography (McCarthy 2005; Swyngedouw 2004b) 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 and Paterson 2010).[2] In turn, political ecology, where the debate on the role of the state has only recently begun (see Robbins 2008; Whitehead, Jones and Jones 2007; Robertson 2015; Jessop 2017) and has not yet sufficiently addressed the international dimensions of the state, can benefit from materialist state theory (Aronowitz and Bratsis 2002; Hirsch 2005; Jessop 2007; Ludwig, Sauer and Wöhl 2009).

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' (SNR; in German: *gesellschaftliche Naturverhältnisse*), which is quite prominent in critical socio-ecological debates in Germany and Austria but hardly known in the Anglophone world. The SNR concept is strongly influenced by Marx and the early critical theory of the Frankfurt School (in particular Horkheimer and Adorno).[3] More recently, one strand of the SNR 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; Wissen 2011). In this section, we will first introduce the SNR 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 politicization 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. 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.

THE CONCEPT 'SOCIETAL NATURE RELATIONS' (SNR)

The SNR 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 symbolized in spatio-temporally different forms: '*Nature*, too, taken abstractly, for itself – nature fixed in isolation from man – is *nothing* for man' (Marx 1972 [1844], p. 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, p. 82; Becker and Jahn 2006). Furthermore, it is crucial that the configuration of societal nature relations is constitutive of social and political domination (cf. Görg 2003a, 2011; Brand and Görg 2008; Brand et al. 2008; Köhler and Wissen 2010).

Conceptualizing 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, p. 83; cf. Littig 2000, chapter 2). Societal nature relations are materially structured by social processes of production and consumption (management or 'metabolism') and hegemonically defined by social perceptions and interpretations. Furthermore, they develop dynamically, which is why it is crucial to focus on socio-ecological transformations. These, in contrast to concepts influenced by theories of development, evolution or modernization, are not understood as linear and continuous processes, but as 'crisis-prone developments, ruptures and discontinuities, that are accompanied by changes in social forms' (Kluge and Hummel 2006, p. 266). Societal nature relations, after all, are an integral part of all other social relations and are hegemonically constituted by social conflicts and compromises.

The concept refers not only to the *material-concrete* dimension of natural 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 combustion engine; it is a social commodity whose development, production and use depends on relations of competition and cooperation, business- and trade-union interests, the organization of production and circulation, technology and infrastructure and the necessary research and governmental policy support. It also symbolizes 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, 2011) emphasizes 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 SNR 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 SNR 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, p. 29; cf. Bakker and Bridge 2006, p. 10; as well as the survey by Castree 2008)

THE REGULATION OF SOCIETAL NATURE RELATIONS

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, that is, '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 an 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 *valorization* (in German: *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 valorization process.[4] 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 [1887], pp. 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 normalization and by 'historical chance discoveries' (Lipietz 1988) of capitalist development.[5] How this occurs – and this is our specific contribution to current attempts to ground the SNR concept in theories of capitalism and hegemony – can be understood with the help of regulation theory, which, though focusing initially mainly on the wage relation (Aglietta 1979), has developed insights that can be fruitfully applied to societal nature relations (Görg 2003a; Wissen 2011; Brand et al. 2008). The *regulation of societal*

nature relations, that is, the ways in which structures of domination organize 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, first, via temporally and spatially varied strategies of capital valorization. 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 valorization of biodiversity in terms of 'post-Fordist societal 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.

Second, the regulation of societal nature relations takes place via institutions, norms, values, processes of subjectivation and normalized practices that often bring to the fore new strategies of capital valorization. Conceptions of (and ways of appropriating) nature are hegemonically produced and are thus necessarily selective. Regulation may prevent destructive forms of appropriating nature from becoming a politically relevant problem. In this case, the destructive character of societal nature relations remains latent and is seen as manageable and therefore acceptable, and/or it remains limited to socially marginalized groups. Most of all, its costs are both spatially and temporally externalized. This is the core of what we call a possibly emerging 'green-capitalist' mode of development (cf. chapter 4).

The tendency of societal nature relations to be crisis-prone is closely linked to other crisis dimensions. Societal nature relations thus have to be understood as closely tied to social power relations, to relations of forces and 'obviousnesses' that are rooted in social 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 politicization of societal nature relations 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 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 re-politicization of the ecological crisis during the past ten years must be understood in the context of the functional and legitimation crises of neo liberal politics and of the different attempts to develop post-neo liberal strategies and projects (Brand 2009).

THE ROLE OF THE STATE AND HEGEMONY

The SNR concept of course is not the only approach which has drawn on regulation theory in order to analyse changes in societal nature relations. 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 reorganization 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 SNR concept go beyond this work in a sense that they attempt to more explicitly reflect societal nature relations 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 1997; 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 multi-faceted policies, if it is not analysed as connected to not only socio-economic and cultural but 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 aims to 'make certain habits and practices disappear, while seeking to spread others' (Gramsci 1996 [1932–1934], p. 1548; cf. the 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 organization of social hegemony and the establishment of a dynamic mode of development. Dominant social forces

intend to universalize their interests in society and to become hegemonic, that is, 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; Bieler, Bruff and Morton 2015; on cultural political economy, cf. Sum and Jessop 2013).

As we have shown in the case of biodiversity politics (Brand et al. 2008) the state serves to institutionally secure the multifaceted societal nature relations. To be sure, capitalist valorization 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 internationalization 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, p. 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, beside 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 societal nature relation 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 generalize particular interests is rather weakly developed (Wissen 2009). In other words, the international institutions of neo liberal-imperial globalization 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 societal nature relations. The (internationalized) state is more a manifestation of than a solution to the ecological crisis (cf. Brand, Görg and Wissen 2011), and, as will be shown in the next section, it has itself entered a crisis of functionality and of legitimation.[6]

THE IMPERIAL MODE OF LIVING AND THE CRISIS OF THE REGULATION OF SOCIETAL NATURE RELATIONS

In the wake of the crisis of Fordism, and in particular following the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, a model of regulating societal relations with nature emerged that mostly sought to get a grip on the consequences of the Fordist domination of nature through market mechanisms and technological means.[7] 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, 2016; 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 commercialization of biological diversity.

The Rio model was criticized from the outset. The United States has ratified neither the Kyoto Protocol nor the CBD and has viewed 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 (EU), 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, pp. 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.[8] The German think tank 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 tons, 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 that its average weight was five times that of the imported good. These figures show that the EU is to a large extent externalizing its environmental impact in the form of resource extraction and CO_2 emissions onto the global South (Sachs and Santarius 2007, pp. 55–66; cf. Martínez-Alier 2006; UNEP 2011a, chapter 4; Wiedmann et al. 2013).

So far, the Rio model of regulating the ecological crisis has produced rather sobering results. The rapid erosion of biodiversity continues some eighteen 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 and Fifth Assessment Reports from the IPCC (2007, 2015) and the Stern Report (Stern 2006). Concerning its ability to solve concrete problems, the Rio model seems to be in crisis. 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 and in chapter 2 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.

The capitalist mode of production, as argued earlier, 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 valorization of ever more areas of life. The growing middle and upper classes in industrializing 'emerging markets' are adopting the mode of living of the corresponding classes in the global North. All together they constitute a 'transnational consumer class' that, according to the Wuppertal Institute (2008, pp. 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 characterized by large 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 generalized 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 which 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 externalization 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. 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 mode of living from its predecessors is that, with the generalization of the wage relation, resource- and emissions-intensive consumption practices have become mass phenomena, that is, 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, which will both be further deepened by the current generalization of 'fossilist' consumption practices in the upper and middle classes of large developing countries.

Second, as already pointed out in chapter 2, 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.

Third, in ecological terms, the rapid industrialization of countries like China, Brazil and India means that they no longer abstain from utilizing 'their' share of global resources and sinks. They are also no longer willing to serve primarily as providers of the resources and the labour power for the industrial development of the global North and of ecosystems like rainforests, which absorb the CO_2 emissions produced by Northern patterns of production and consumption (Wissen 2010). Instead, they increasingly valorize the resources of their territories and of other developing countries for their own industrial development (see, e.g., 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 externalize 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 (cf. chapter 2). The crisis of the regulation of societal nature relations is thus also a crisis of the global North's mode of living, which, although it cannot be generalized from an ecological point of view, is currently spreading across the globe.

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 2012a). 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, p. 1).

The European Commission (2010) attempted to develop a plan for sustainable growth: the promotion of a resource-light, ecological and competitive

economy. In a communication from September 2011, the European Commission 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 2011b).

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 organizations 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.

CONCLUSION AND PROSPECTS

The aim of this chapter was to sketch a theoretical approach that allows us to describe and grasp transformations of societal nature relations 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 societal nature relations – referring to political ecology and close to social ecology (Görg et al. 2017) – and a regulation theory enriched by hegemony and state-theoretical concepts. We showed that social domination is closely linked to the domination of nature. We also argued that capitalist societal nature relations are characterized by immanent contradictions – contradictions that may be temporarily stabilized in a limited space and time (as Fordist or post-Fordist societal nature relations) but which will nevertheless continuously erupt in crises.

Therefore, from a perspective of political ecology, it is decisive that in public and political debates as well as in many (social) scientific approaches the social character of the crisis – its constituent connection with societal relations of power and domination, with specific forms and strategies of capital and the state as well as its unequal impacts, both socially and globally – is hidden. That promotes technocratic, market appropriate and technology-based

solution strategies ranging from emissions trading through the production of more energy-efficient automobiles all the way to geo-engineering. What is fundamentally at issue is the permanence, by means of transformation, of the capitalist nature relations, which appears not as such but rather as a reflection of the unchangeable law of human behaviour with regard to the subjugation of nature. This trick of omission then permits the predominant patterns of such mediation to be naturalized, so that alternatives become either unimaginable or imaginable only within the established framework.

A political ecology perspective allows us to gain a more comprehensive understanding of the ecological crisis, its politicization and its management. So-called environmental problems, both at 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 subjectivation. These 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 societal nature relations, 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 societal nature relations 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 valorization. In addition, competing 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 societal nature relations, 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 institutionalization within the state.

The current crisis of the regulation of societal nature relations 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 generalized. 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 increasingly claim their share in the global 'environmental space', this possibility to fix 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 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 organization of societal nature relations (see chapter 7). The key here is to link an analysis of deeply sedimented and normalized 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 could lead to a selective and power-shaped restructuring of capitalism. We turn to this field in chapter 4.

Chapter 4

Strategies of a Green Economy, Contours of a Green Capitalism

The main actors who have recently re-politicized the ecological crisis in the global North are not primarily social movements but state apparatuses, scientific institutions and private companies. Certainly, their various initiatives have been undertaken on the ground prepared by the arguments of social movements. By concentrating on warnings of a scarcity of resources and sinks they have however also contributed to shifting the terms of the debate. Scarcities are considered new economic opportunities; electric automobility, agro fuels and other renewable energy sources are seen as promising fields for business.

This is not just a matter of environmental policy, or the growth of an eco-industry. Far from representing an isolated sub section of society, the re-politicization of the ecological crisis reveals a comprehensive quest to reorient the existing production and consumption patterns in their entirety, in the context of a transformation towards a *green economy*. The green economy, coupled with the call to halt the degradation of the natural basis of life by eco-capitalist modernization, constitutes a conceptual and political field in its own right. Like the theme of 'sustainable development' twenty years ago, green economy has become a norm for what is politically possible and plausible; at the same time, as in the case of sustainable development, it works to either obscure alternatives or make them seem unviable and irrational.

In this chapter, we will argue that the various strategies pursued under the green economy umbrella are in the process of establishing what may develop into a new capitalist formation that might replace the crisis-ridden post-Fordist neoliberal one. For this eventual formation we propose the label of *green capitalism* (Kaufmann and Müller 2009; Wallis 2010; Koch 2012; Newell 2012; Tanuro 2013).

The question, then, is how the processes of change set in motion by green economy strategies and potentially leading to a green capitalism, can be understood and explained. Which strategies are politically, economically and culturally feasible, and under which conditions can they be expected to be successful? We are primarily interested in those processes that may result from a profound mutation that redefines socio-economic, cultural and political practices, structures and power relations but which in its unfolding will necessarily remain highly uneven, both temporally and spatially. Furthermore, we aim to assess these developments from a socio-ecological and radical democratic viewpoint.

Our theoretical frame is again critical political economy – regulation theory, Gramscian hegemony and historical-materialist state theory – supplemented by political ecology. The premise is that such a broad theoretical perspective will allow us to address the problems associated with this issue most effectively. Initial research along these lines has analysed the extent to which a green project is feasible and whether a 'green power bloc' and forms of 'green corporatism' are being established (Kaufmann and Müller 2009; Haas and Sander 2013). Drawing on this work we seek to understand the current dynamics of social and socio-ecological transformation in their contradictory socio-economic, political, cultural and subjective conditions which will have to be stabilized for a certain period of time to make the project viable (on the debate about socio-ecological transformation, cf. Brand and Wissen 2017c; Brand 2016a). By 'stabilization' we do not mean a static economy and society but the dialectics of constructive and destructive capitalist dynamics which take place under more or less stable conditions. In order to be stable, a green capitalism has to be 'functional' in a socio-economic, politico-cultural and biophysical sense. That means that the norms of production and consumption on which it is based are shaped in a way that avoids crises of over-accumulation, overproduction or underconsumption and succeeds in externalizing socio-economic costs through spatial, material and/or sectoral displacement. A green capitalism must be brought into accordance with people's modes of living – their practices at the work place and elsewhere, aspirations and norms – and be safeguarded by the state. In addition, the formal, money-mediated and 'market-shaped' areas of production and reproduction need to be harmonized with other mechanisms and sectors of social (re)production. Finally, it is important to ensure the prevention, the effective management or the spatio-temporal displacement of manifest socio-ecological crisis.

By examining the green economy as a *strategy* (or series of strategies) pursued by relevant social actors and green capitalism as a potentially hegemonic capitalist *project* (see also Brand 2012b; Wissen 2012), we take up the debate concerning the relationship between critical political economy – we

refer especially to regulation theory – and political ecology. The regulationist debate has raised the question if the five structural features of a mode of regulation – the wage relation, the form of competition, the monetary constraint, the state form and the form in which a given national economy is integrated into the world market (Becker 2002, p. 102, referring to Boyer 1990, p. 37ff.; Desai 2015) – should be complemented by a sixth, namely the so-called ecological constraint (see Becker and Raza 2000; Raza 2003; and critically Görg 2003c). Rather than contributing to this debate we are interested in the analytical potential of the regulation approach regarding socio-ecological transformation. Our assumption is that its focus on the spatially and temporally variegated concretizations of the capitalist mode of production and the intermediate categories (mode of regulation, regime of accumulation) with which these concretizations are analysed, make regulation theory particularly adequate for an investigation of capitalism's ecological contradictions and their management.

In the following section we will take a critical look at the concept of the green economy. We then analyse the contours of a green capitalism as a possible (albeit not necessary) new capitalist formation. Given the highly dynamic development we are currently confronted with, our considerations will necessarily be preliminary and have more the character of a research programme than of an empirically sound analysis.

GREEN CAPITALISM AS A NEW MODE OF CAPITALIST DEVELOPMENT? – THEORETICAL CONSIDERATIONS

As already stated, our approach to critical political economy is based on regulation theory, which we propose to enhance by materialist state theory and Gramsci's theory of hegemony (cf. also chapter 2). Combined with insights of political ecology (cf. in more detail chapter 3) this will serve to guide our understanding of the current quest for a green capitalism and more specifically, for the assessment of its social, ecological, economic and democratic implications. Moreover, we will show that political practices fostering a green economy form part of a much more complex process of regulation. We argue that the contradictions of capitalism, which manifest themselves in various social conflicts, can be regulated over a certain period of time in a way that is favourable for capital accumulation. This does not mean that social conflicts disappear but that the terrains on which they are fought out are accepted by the relevant social forces. If this is the case, social struggles do not necessarily threaten capital accumulation. Instead, they can become a facilitator of it. An example would be collective bargaining as an important component of the wage relation during Fordism: It was

a terrain of conflict on which capital and labour negotiated the conditions of the use of labour power, and they did so in a way that in many Northern countries workers' wages increased in line with labour productivity so that a demand for Fordist consumer durables was created. The result was a coherence between the norm of consumption and the norm of production that constitutes a regime of accumulation. Thus, as Alain Lipietz has stated, regulation of a social relation is 'the way in which this relation is reproduced despite and through its conflictual and contradictory character' (Lipietz 1988, p. 11).

A *mode of regulation*, then, refers to the institutional embeddedness of macro-economic coherence. It can be defined as the 'totality of institutional forms, networks, explicit and implicit norms that all guarantee the compatibility of modes of conduct within the framework of a regime of accumulation, corresponding to social conditions as well as transcending their conflictual properties' (Lipietz 1988, p. 24). Achieving a relative permanence of social conditions and their development in line with the requirements of capital accumulation also means stabilizing the expectations of individual and collective (e.g., trade unionist) everyday practices. Here an important role is played by social discourse and knowledge (Demirović 1992). A more or less stable mode of development allows for the formation of a historic bloc that implies the (contested) reproduction of everyday, socio-economic, technological, political and cultural conditions, as well as class, gender and race relations and societal nature relations (Davies 2015).

In contrast to mainstream approaches to the environmental crisis, our usage of the regulation approach focuses less on subjects as 'humanity', 'the environment', 'environmental space', 'planetary boundaries' or overexploited resources and sinks but more on the *social relations* that mediate the relations between humans and nature. It also sheds light on how these relations are reproduced and transformed in a complex manner, through social forms of division of labour, production and consumption, as well as gender relations and racialized social relations, subjectivities and political conditions. Thus, the social forms of the appropriation of nature, that is, the ways in which basic social needs, such as food and housing, mobility, communication, health and reproduction are satisfied materially and symbolically, become understandable (cf. Becker, Hummel and Jahn 2011; Görg 2003a).

Regulation theory helps to understand how capitalist societies can organize the appropriation of nature in production and reproduction in a way that makes their inherent ecological contradictions temporarily manageable. Regulating the contradictory societal nature relations does not mean to overcome the destructive appropriation of nature and the suppression of social domination. It can mean however that the destruction of nature does not become a threat to capitalist development as a whole, given that its negative environmental implications are externalized in space and time.

An example is climate change: Notwithstanding scientific uncertainties, its consequences from the perspective of the global North will mainly be felt in the future and affect vulnerable places (in the global South; cf. the contributions in Bauriedl 2015). Resource scarcity on the other hand can foster new forms of valorizing nature. Thus, periods of increasing oil prices may give rise to the extraction of so-called unconventional fossil fuels from tar sands or natural gas deposits contained in deep shale rock by hydraulic fracturing or to land grabbing with the purpose of growing agrofuels (Wissen 2015; Plank and Plank 2013). It would therefore be premature to conclude from biophysical scarcities on a danger for the continuation of capitalism (cf. chapter 3). Under capitalist conditions, scarcities and related problems can be managed through a mix of domination and repression, through the valorization of new spheres of nature and through spatial and temporary externalization. Protest against the environmentally destructive power of capitalism can be, and have in fact been, neutralized through the development of environmental technologies or the formal institutionalization of environmental policy in state apparatuses at the national, supranational and international level. The result may be 'a reflexively broken strategy of dominating nature' (Görg 2003b, p. 130, 2011).

STRATEGIES OF A GREEN ECONOMY

In a series of influential programmatic concepts and especially at the 'Rio+20' Conference on Sustainable Development in June 2012 in the Brazilian metropolis, the green economy has been proclaimed as an approach to overcome the multiple crises of the present period. In spite of their differences concerning the proposed instruments and envisaged protagonists of the transformation process, the concepts agree that the green economy constitutes a social, ecological and economic win-win situation. Thus, the United Nations Environment Programme (UNEP), besides opportunities for environmental improvements and economic growth, stresses the possibility of poverty reduction and achieving greater equity between the global North and the global South. Growth can be reconciled with environmental and social objectives: 'The greening of economies is not generally a drag on growth but rather a new engine of growth; . . . it is a net generator of decent jobs, and . . . it is also a vital strategy for the elimination of persistent poverty' (UNEP 2011b, p. 3). The Organization for Economic Co-operation and Development (OECD 2011) in turn considers the greening of the economy a 'double strategy of innovation and crisis prevention' (Jänicke 2011, p. 5). And a study conducted for the German Federal Environment Ministry emphasizes that because of induced investments (e.g., in the construction sector), an ambitious climate policy would even give rise to a higher growth rate than a policy of business-as-usual (Jaeger et al. 2011).

These proposals closely correspond with *ecological modernization* theory (Huber 2011; Mol, Sonnenfeld and Spaargaren 2009) – and imply similar problems. First, like ecological modernization theory, the green economy concepts presuppose a strong political steering capacity of the state, or of governance. In the Green Growth Strategy of the OECD (2011, p. 10) for example, we find the statement that 'good economic policy lies at the heart of any strategy for green growth'. Often, the importance of international cooperation through multilateral environmental agreements such as the Kyoto Protocol of the United Nations Framework Convention on Climate Change is emphasized (see UNEP 2011b, p. 33.). What is missing however, is a reflection on the systematic limits of the state's steering capacity and on the current crisis of multilateral environmental policy (Wissen 2010). Even the German federal government's Scientific Advisory Council on Global Environmental Change (WBGU), which at first sight appears to be less state-centred and acknowledges a crisis of global governance, stresses the role of an active state and of the international community of states in setting the course of a transformation (WBGU 2011).

Second, the social content of the problems and crises to be managed is hardly understood. On a descriptive level, the problems include the earth's threatened natural systems, such as soils, subterranean natural resources, the atmosphere and the oceans. The argument is that they are overexploited and exhausted. And the reason for this is seen in certain 'mega-trends' like urbanization (WBGU 2011). What is not addressed are the social relations and structures that underlie these megatrends.

As Rainer Rilling rightly concludes, the WBGU wishes 'to change capitalism – but only half: its industrialism and its energetic basis shall be in the centre, but not its political economy' (Rilling 2011, p. 16). Likewise twenty years ago, Elmar Altvater, in his critique of a study by the Wuppertal Institute for Climate, Environment and Energy entitled *Sustainable Germany*, wondered 'whether it is admissible to talk about ecological sustainability and remain silent about capitalism; to call for an ecological revolution – because the reduction scenarios require exactly that – and to leave nearly everything as it is, politically, economically and socially' (Altvater 1996, p. 84).

It is these blind spots where the key to an understanding of the green economy debate and its socio-economic and political reorientations can be found (critical perspectives on green-economic strategies in Brand 2012b; Wissen 2012; Spash 2012; Salleh 2012; Fatheuer, Fuhr and Unmüßig 2015; Brand and Lang 2015). The green economy strategy provides a corridor for the ongoing search for new capitalist accumulation strategies. As such it could become a component of a *passive revolution* in a Gramscian sense, that is, a transformation towards a green capitalism from above, induced by the dominant social forces. Moreover, the debate about a green economy has, as

Edgardo Lander (2011, p. 1) puts it, 'a tranquilizing dispositive' in order to silence doubt and criticisms.

From what has been argued so far, the strengthening of green economy strategies, the possible development towards a green capitalism and the assessment of its social, ecological, economic and democratic political implications can be put in perspective. In particular, our analysis keeps us from an inappropriate, voluntaristic optimism regarding the possibilities of intentional political steering. Instead, political steering, or regulatory political practices, are seen within the context of an overarching process of *regulation* that can be understood as a complex way of processing social contradictions. Regulation implies the contingent and the non-intentional. That does not mean that intentional steering does not take place. However, it is embedded in social power relations and structures. And without taking these into account, the specific contents, forms and consequences of intentional policies cannot be understood.

SUSTAINABLE DEVELOPMENT AND GREEN ECONOMY: PARALLELS AND DIFFERENCES

Before we turn to our argument that strategies of a green economy probably fail to reach their proclaimed goals but, at the same time, contribute to partial modernizing of capitalism, we would like to look at some interesting details between the upcoming debate on sustainable development in the 1990s and recent ones on a green economy – the latter can be seen as update of sustainable development in times of crisis of neo-liberal globalization.

Some important parallels exist between the debate at the beginning of the 1990s and today. One important global development was overlooked at the beginning of the 1990s: The growing role of military conflict in the world that, at least in part, is driven by resource competition. Only sixteen months before Rio, the second gulf war took place, but this was not at all an issue in Rio. The militarization of world politics has deepened since then. Another aspect that was downplayed around 1992 was the intensification of neo-liberal globalization with an enormous increase in the use of resources and sinks. The Uruguay Round of the General Agreement on Tariffs and Trade headed towards the consolidation of neo-liberal globalization (and the foundation of the World Trade Organization in 1995) – but those developments were not included in the Rio deliberations.

Second, the proposals to promote sustainable development and a green economy demand strong regulatory frameworks. This is an important precondition of an alternative path. However, it needs to be seen that the existing regulatory frameworks mainly promote unsustainable production and

consumption practices. Economic and political strategies focus on the cheap and stable availability of resources. In the case of a conflict, the ministry of environment usually loses against the ministry of finance or of economy where unsustainable economic interests are represented. The same is the case at the international level: Financial and economic policies are usually more powerful than those of sustainability. Up to now, the plea for an adequate regulatory framework seems a bit voluntaristic and blind against dominant power relations. Moreover, in the current crisis, regulatory frameworks tend to develop in an authoritarian direction to secure access to resources for particular countries or regions.

Third, both strategies are oriented at economic growth. What was already the explicit goal of sustainable development strategies – to promote 'green growth' – became even more important since 2008 and the beginning of the crisis. The very rationale of the green economy is to reconcile economic and ecological issues. And, indeed, we can observe that public policies are heavily concerned with the maintenance of economic growth and employment. However, environmental issues are not at the forefront of these strategies. Economic and mainly unsustainable growth in capitalist societies secures not only profits for the owners of assets and jobs for wage earners, but it also constitutes the tax basis of the state. We saw in 2008/2009 that crisis strategies did *not* go hand in hand with the profound reorientation of production and consumption patterns. However, a severe conflict exists due to the fact that business as usual does not function and that the crisis of crisis management becomes increasingly obvious.

However, there is also an important difference that narrows the prospects of far-reaching green economy strategies even further. With the emergence of countries like China, India and Brazil as strong and self-conscious economies, we observe in fact new geopolitical rivalries for scarce resources. The Chinese government, for example, prohibited the export of certain rare minerals last year in order to use them for production processes in China. The European Commission refers explicitly to growing resource competition, too. Other countries have been pushed into the new-old strategy of resource extractivism. In most countries in Latin America, this seems to be the only viable development strategy to alleviate poverty. Today, most economic dynamics in Mexico take place in the mining sector. Resource extractivism is the other side of the coin for a resource-intensive economy in industrialized and industrializing countries – and it is the other side of the green economy since precious metals for high-tech products also come from countries of the global South (see chapter 2).

These are some background elements of a possibly new emerging mode of development in some countries.

CONTOURS OF A GREEN CAPITALISM

Regulation theory allows not only for an ex post analysis of social conditions and dynamics, more or less coherent modes of development and crises, but also for assessing the possibility of an institutionalization of social processes and conflicts, that is, identifying potential historical chance discoveries. For this purpose, strategies, concrete actions and (changing) structures have to be taken into account. This is less a matter of forecastings or scenarios (e.g., Raskin Electris and Rosen 2010) than of an enquiry into the conditions of the feasibility of a particular mode of development.

In order to understand the possibility of a green capitalism as an emerging mode of development, we must look more closely at the current structures and developments and, more precisely, at the crisis of the post-Fordist, neo-liberal formation of capitalism. From a regulationist perspective, the exact definition of this formation has always been controversial. There is however a consensus on the significance of neo liberal power constellations and institutions designed along neo liberal lines such as central banks pursuing a monetarist monetary policy (cf. contributions in Springer, Birch and MacLeavy 2016; Scherrer 2014). Likewise the central position of financial capital as a main characteristic of the post-Fordist accumulation regime has been generally acknowledged (see Sablowski 2009). With regard to the physical-material dimensions, we are concerned with the emergence of post-Fordist societal nature relations (cf. chapter 3) which may allow for an appropriation of nature without its large-scale destruction (the utilization of the genetic information of plants, for example, requires their protection) but which are superimposed by a continuity and even expansion of resource-intensive, fossil-fuel-based, Fordist patterns of production and consumption (e.g., in areas like automobility and industrial agriculture).

Precisely these components of a post-Fordist neo liberal order, the finance-led regime of accumulation and the resource-intensive patterns of production and consumption, have got into a deep crisis. From the point of view of regulation theory, the recent financial crunch is a crisis of overaccumulation. And the crisis of production and consumption patterns manifests itself in the complex of problems related to resource supply and environmental sinks. It is further intensified by the rise of the newly industrializing nations.

These specifics of the crisis are important for an understanding of the green economy. On the one hand, they constitute the starting point of a search process for a new capitalist formation. On the other hand, they orientate this process into the direction of an intensified valorization of nature and an economization of ecological crisis management which both may open up new – albeit socially and spatially exclusive – growth potentials.

The green economy strategy suggests that the valorization of nature can be a significant constituent of crisis management and thus contribute to generating a new capitalist formation, for the very reason that it is located at the intersection of various crisis phenomena. These phenomena seem to interact in a way that particularly one dimension of the ecological crisis, the resource and energy issue, might be a starting point for overcoming the economic crisis, since it creates investment opportunities that could absorb over-accumulated capital (e.g., through investing it into the production of food and agrofuels, cf. chapter 5). Furthermore, the valorization of sinks, like rainforests, through emissions trading to contain climate change may create scarcity and new profit opportunities (Cooper 2010; Kill, Ozinga, Pavett and Wainwright 2010; Fairhead, Leach and Scoones 2012; Newell 2012; Brand, Lötzer, Müller and Popp 2013). This development is made even more salient by the rapid spread of Northern production and consumption patterns amongst the middle and upper classes in countries such as China or India. As a result, the demand for fossil fuels, biomass, metals and emission sinks is increasing considerably (UNEP 2011a; cf. the recent debate about resource extractivism as a new-old development model in many countries of the global South; Gudynas 2009; Burchardt and Dietz 2014; Svampa 2015; Machado Aráoz 2015). From this perspective, the aforementioned search process, in which the green economy strategy plays an important role, turns out as constitutive moments of a newly emerging capitalist formation that we refer to as *green capitalism*. The quest for a new regime of accumulation based on societal nature relations of a new type takes place in a situation in which the old formation, the neo liberal finance-dominated capitalism, is in a deep and multiple crisis (New Economics Foundation 2008).

We have already mentioned the significance of single, non-simultaneous social formations existing next to each other. Especially in countries like Germany and Austria, green-capitalist development models might be carried forward in the medium term, particularly in spheres like power generation and food production, provided that a range of social forces converge in support of this project, for which there is some evidence. These forces comprise, amongst others, 'green fractions' of capital, parts of the trade unions in the service sector and environmental and consumer associations. They are represented by political parties and manage to inscribe their interests in state apparatuses, thereby facilitating compromises and the consent of workers and trade unions. In China, state anti-crisis policies indicate that the interests backing ecological modernization strategies are increasing (UNEP 2013; Huan 2008); in the United States, where Donald Trump attempts to withdraw the modest environmental measures of the Obama administration, there is a strong dynamic, for example, towards renewable energies on the level of the federal states; in Great Britain, to give a last example, the green economy debate is closely linked to the finance sector and to financial services, for

example, in emissions trading (Carbon Tracker Initiative 2012; on emissions trading in general, see Kill et al. 2010).

Measured against the requirements formulated in the strategy papers cited earlier, the current green-economic strategies are limited. They face the resistance from 'brown' capital fractions and a fossilist 'normality' that is very obvious in the hegemonic automobility. Particularly in the energy sector, different strategies are pursued along different lines of conflict (Wissen 2016). Thus, the promotion of renewable energies competes, sometimes also co exists, with the use of fossil fuels from 'unconventional' sources, that is, deepwater oil, tar sands and oil and gas from deep-rock formations that are extracted via hydraulic fracturing. Furthermore, the protagonists of a green economy diverge in the assessment of the desirability of electric automobility vis-à-vis the expansion of public transport, the viability of agrofuels or the future interrelation between centralized and decentralized forms of energy supply.

A possible *project* green capitalism will therefore not only be shaped by *strategies* of a green economy, but it will also depend on the spatially differentiated power relations between 'green' and 'brown' fractions of capital, as well as on the degree to which fossil fuel consumption patterns remain hegemonic in popular common sense and everyday life practices. Additionally, the future relationship between finance and industrial capital will be important for a possible green-capitalist regime of accumulation. Here, one could imagine the creation of ever new financial instruments for coping with the environmental crisis that do not imply expanded reproduction. Emissions trading and comparable climate policy instruments, which mean little more than investments in hot air, are an example for this. If this became the dominant trend, there would rather be a greening of the old finance-dominated regime of accumulation than the emergence of a green capitalism.

On the other hand, we have been facing an increasing significance not only of efficiency-enhancing innovations in industrial production and of new energy-saving commodities but also of investments in the agriculture, biomass and food sectors. Madeleine Fairbairn (2014) has called this development a 'return to the real'. It might result in a constellation in which financial capital facilitates real accumulation rather than, as it used to be the case in a finance-dominated regime of accumulation, constraining it: 'The current wave of farmland investment deviates from the norm of financialization; many investors acquire farmland as part of a productive agricultural operation, and the trend is bolstered by broader discourses that stress the use value of farmland. . . . The discourses and investor rationales that characterize the current turn to farmland investing evince disillusionment with accumulation via financial channels and a desire, albeit partial and perhaps temporary, to return to the real economy' (Fairbairn 2014, pp. 779, 784).

At present, it is hardly possible to fully assess the importance of these investments (see also chapter 5). However, if societies in their attempt to cope with climate change continued to draw increasingly on renewable instead of fossil resources, as it used to be the case in pre-industrial times (Haberl et al. 2016), then investments in land would be a forward-looking strategy. The valorization of nature – or as Thomas Fatheuer (2014) put it by further developing the famous term of Daily and Ellison (2002): 'the new economy of nature' – would then become a fundamental axis of ecological and economic crisis management within the framework of a green-capitalist project. It would however also induce, or strengthen, conflicts about 'land grabbing' and 'green grabbing' and the enclosures as well as the marginalization of local communities associated with these strategies (Fairhead, Leach and Scoones 2012; Peluso and Lund 2012).

There are further questions that have to be taken into account. The viability of a project as a mode of development depends not only on technological and economic factors or economic policy but also on social power relations and the multiple practices of everyday life, including the division of labour within the sphere of wage labour and between this and the sphere of reproduction. Green-capitalist projects might also be established in authoritarian varieties against the interests of ordinary people, or, as in countries such as Germany or Austria, in the form of a green corporatism that seeks to integrate the majority of the wage earners and their interest groups. Within such a green corporatism people would pursue their narrow economic interests (in terms of profits, income and economic growth); they would consider 'green innovations' as key to growth, prosperity and jobs, and, in doing so, they would reproduce relations of domination and subordination.

As noted earlier, such a development may be understood in terms of Gramsci's concept of passive revolution (Gramsci 1996 [1932–1934]; cf. Candeias 2011; Sassoon 2001; Jang and Gray 2015; cf. chapter 5 of this book for more details). Passive revolution implies that the way in which crises are settled must not jeopardize the fundamental preconditions of the capitalist mode of production and the power relations on which it is based. This conformity is ensured (abstracting from local and temporal specificities) either by the co-optation or conversion of key political personalities or groups belonging to the leadership of the subordinated class and/or by the marginalization of the forces which deliberately resist the dominant development or oppose them for other reasons. A successful passive revolution may lead to a modernization of the capitalist mode of production as part of a new hegemonic project. The green economy strategy and the green-capitalist project can be seen in this light. A passive revolution is not automatically followed by social progress. Instead, modernization can be partial and selective and will not necessarily result in an improvement of living conditions for the majority.

The enforcement of a pattern allowing the elements of a green capitalism to be brought into some sort of stable social structure is itself a conflictive process. Clearly the role of the state, the political dimension and the question of hegemony are prominently involved here, given that the issues and the various forms of conflict management are broadly accepted by the different actors. In the process, the power relations in which 'green' actors, or the increasingly green orientations of 'traditional' actors, are involved are being stabilized in a variety of ways by making them compatible with capitalist imperatives such as economic growth and competitiveness. Simultaneously these complex relations are restructured to ensure compatibility with the possibilities of distribution of enterprises and state institutions. All this is to be accomplished through a selective management of the ecological crisis, which is what makes it possible to remain within the parameters of the capitalist mode of production in the first place.

What is underestimated in regulation theory is the necessity and mechanisms of externalizing the social and environmental costs of the imperial mode of living. 'Dirty industries' are relocated to other countries, waste is shipped to Eastern Europe and to Africa, CO_2 of the global North is absorbed by the rainforests in the global South, cheap and overexploited wage labour enables material well-being in the capitalist centres and for the upper and middle classes in the global South. The concept of the 'externalization shadow' of a certain way of life (Biesecker, Wichterich and von Winterfeld 2012), of externalization as a principle of capitalist social formations and of the 'externalization society' (Lessenich 2018) shed light on this crucial dimension of the reproduction of capitalist societies.

Due to the increasing attractiveness and global spread of the imperial mode of living, the future viability of the reproduction via externalization is by no means guaranteed. The imperial mode of living is generalized through specific class, gender and race relations. Its spatial spread thus is profoundly uneven. It points however to the shared and deeply rooted ideas of what constitutes a 'good life'. Besides geographical differences, for example, between the global South and the global North, there also exist various social disparities within individual societies.

The generalization of the imperial mode of living does not contradict the possibility of a green-capitalist project. It shows however that such a project will necessarily be exclusive in social and spatial terms. Even if a green capitalism increased resource efficiency and reduced the pressure on ecosystems, an absolute decoupling of economic growth from resource use and environmental impact is improbable (see UNEP 2011a; Haberl, Fischer-Kowalski, Krausmann and Winiwarter 2011; Jackson 2009; Wiedmann et al. 2013). In addition, its exclusive character implies that it permanently will have to be safeguarded by rule or by force against the claims of newly industrializing societies.

CONCLUSION

Our analysis of green economy strategies and the possible contours of a green capitalism leaves many questions open. However, it was not the purpose of this chapter to provide a sound empirical analysis. Rather, we wanted to show that strategies, even if they fail to achieve their own aims (in particular the substantial transformation of the energy and resource base of society in the case of green economy strategies), may have a significant social impact through the combination of intended and unintended consequences for which regulation theory sensitizes us.

From a critical social science perspective, the democratic content of transformation strategies is crucial. Hence we may ask (and we will further elaborate on this in chapter 7) which democratic forms exist to control the access to, and the use of, natural resources; which struggles have been and are still necessary to put them into practice and to which conflicts will they lead; how can they be institutionalized and protected against regressive tendencies; what are the requirements for a comprehensive democratic structuring of societal nature relations; to what extent are concrete green economy strategies beneficial and to what extent are they counterproductive; which problems and contradictions, struggles and experiences, proposals and practices do already point to post-capitalist ways of socialization, that is, different socio-economic and cultural forms of (re)production and related forms of politics.

The challenge persists to further assess the socio-ecological dimensions of the demands raised by various protest movements, insurgencies and struggles worldwide, as well as the transformation processes they have set in motion, or which may emerge as they develop further. In some countries in Latin America, such as Bolivia and Ecuador, socio-ecological questions are clearly on the agenda even if governments tend to push for further resource extractivism. This must be taken into account when we reflect on the concrete forms of an emerging green-capitalist mode of development. Before we turn more systematically to questions of alternatives in chapters 6, 7 and 8, we elaborate on one crucial dimension that secures and deepens the imperial mode of living, that is, the further valorization and financialization of nature.

Chapter 5

The Valorization and Financialization of Nature as Crisis Strategy

In the course of the current crisis, financialization has become a major issue in critical political economy.[1] In general terms, it can be understood as 'the increasing role of financial motives, financial markets, financial actors and financial institutions' (Epstein 2005, p. 3; for different definitions, see Heires and Nölke 2013).[2] It takes place when a growing portion of capital is not invested any longer as productive capital but rather takes the form of interest-bearing or fictitious capital that claims a part of the surplus value produced in the circuit of industrial capital (Sablowski 2009, pp. 118, 123).

This chapter aims to contribute to the debate on the financialization of nature from the perspective of political ecology and a Gramscian hegemony theory. In doing so, we address three shortcomings of the debate on financialization. First, it is often overlooked that processes of financialization do not only have an investment and production dimension but also one of final realization of profit out of the investment and, therefore, one of consumption. This cannot be reduced to macroeconomic demand but has to be understood as a hegemonic imperial mode of living with economic as well as political and cultural implications. In order to understand the dynamics of the financialization of nature in a more comprehensive way, we also have to analyse the societal effects of financialization. Therefore, we argue that processes of the financialization of nature imply a stabilizing of the imperial mode of living and vice versa.

Second, in the financialization literature we often find a conceptualization of the state as the entity which creates the politico-legal framework for capital accumulation (e.g., Zeller 2008; Stockhammer 2007; Harvey 2003; cf. Heires and Nölke 2013, p. 262; Redak and Henry 2013; Kader and Schwarzer 2015; on linking financialization with the everyday, cf. Gago 2015). This is certainly

correct. However, the state cannot be reduced to this function. Instead, it has also to be understood as a *social relation*. State apparatuses are multiscalar terrains of conflict on which societal actors struggle for the generalization of their interests and where these interests are simultaneously shaped. As far as the financialization of nature is concerned, international state apparatuses like the World Bank and the IMF are of importance. They can serve as political facilitators for strategies of financialization and contribute to organizing the social consensus which their actual implementation requires.

Third, and from a political ecology perspective, the financialization of nature shapes societal nature relations and therefore societal relationships of forces. Societal and political struggles, their condensation within the various state apparatuses and the politico-institutional securing of those power constellations give particular societal nature relations a certain durability and make the development of alternatives more difficult.

Our argument is that the financialization of nature is part of an emerging green capitalism and of a 'new economy of nature' (Fatheuer 2014; cf. also Dempsey 2016). As already discussed in chapter 4, this formation is a viable, potentially hegemonic outcome of capitalist attempts to deal with the current multiple crises, especially with its economic, financial and ecological implications. By multiple crises we mean the concurrence and interaction of several crisis phenomena (and of the modes to cope with them): the financial and economic crisis, the environmental crisis and the crisis of reproduction which has been intensified, for instance, by rises of food and energy prices and by the cutback of the welfare state (see chapters 1 and 3). As we shall argue in the following, the financialization of nature within a project of green capitalism results not least from the close relationship between these crisis phenomena. It promises to cope with both the economic and the environmental crisis by opening new fields of accumulation, articulating dominant forces and integrating relevant subaltern ones. In doing so, it suggests that the multiple crises can be dealt with not by questioning but rather by fostering the logic of capitalist globalization.

We proceed as follows. In the next section we introduce our core theoretical concepts: the Gramscian concept of hegemony, which will allow us to understand financialization as a passive revolution with profound implications for societal nature relations (cf. on the concept Görg 2011; chapter 3 of this book) and core assumptions of political ecology. Subsequently, we outline our understanding of financialization. We proceed by analyzing the further valorization as well as the financialization of nature as one mode of the passive revolution of post-Fordist restructuring and discuss it as intrinsically linked to the imperial mode of living. In the concluding section, we reflect on the role of financialization in the emergence of a green capitalism.

By valorization we mean the commodification (of labour power, nature, physical and social infrastructures) for the sake of surplus value production

and of accumulation. Stressing the latter is important since the mere production and exchange of commodities do not sufficiently grasp capitalist societal relations (with nature). It does also take place in non-capitalist societies (cf. Görg 2004). We are aware that the financialization is only one instrument to valorize nature. At the turn of the century, a more dynamic financialization was expected in a sense that financial market actors put more investment and political efforts into these sectors. So far, this did not take place, and currently we observe rather a stabilization of introduced forms like emission trading. However, powerful economic and political actors are likely to push in the future for favorable conditions to valorize nature for financial motives and by financial market actors. In the field of land acquisition (*land grabbing*) financial market actors still play an important role.

THE *POLITICAL* ECONOMY AND ECOLOGY OF FINANCIALIZATION

The concept of *hegemony* can be ascribed to Antonio Gramsci (1991a [1929–1930], pp. 102–111). It refers to a form of bourgeois domination in which elements of open force retreat behind consensus-based ones. Our understanding of consensus is rather broad: We speak of an actively lived consensus when the subalterns are part of explicit compromises. Consensus can also be passive in the sense that compromises are weaker, and structural force is greater. Under bourgeois-capitalist conditions, hegemony implies a dynamic model of growth and accepted hierarchies within the ruling classes, vis-à-vis other forces and among the masses, as well as the capacity and willingness to make compromises as the basis of class domination. Contradictory social relations maintain a certain durability and are stabilized through state and public policies at different scales. These are some core elements of the *structural* dimension of hegemony.

Its *strategic* dimension consists of the ability of the dominant classes or class factions and related forces to pursue their interests, norms and ideas successfully and to universalize them, that is, to influence the orientations and practices of other actors in such a way that these other actors adopt the interests, norms and ideas of the dominant social forces as their own ones.[3] There is also a 'strategic-discursive moment in the "production of hegemony"' (Sum 2009, p. 185) through the making of subjectivities, identities and selective 'economic imaginaries' by concrete actors and other social mechanisms.

Besides hegemony, Antonio Gramsci introduced the concept of *passive revolution* (Gramsci 1993 [1931–1932], p. 966) in order to explain how the precarious forms of domination are, in times of crisis, restructured from above. The passive element refers to the fact that the interests of the subaltern

are partially acknowledged, that they are kept away from power, made politically passive and 'their' intellectuals are integrated into a hegemonic constellation.

We do not read Gramsci's concept of hegemony in the sense that at one point there is hegemony and at another not. 'Hegemony' is rather a perspective of consensus-based domination which implies the use of violence as well as the existence of crises. A historic bloc or mode of development essentially rests upon a more or less successful functioning coordination among different fields of (re)production, consumption, political life, subjectivities and so on.

Crises are an integral part of capitalist dynamics and development and have different causes and trajectories. In a situation of over-accumulation, crises might lead to the partial revalorization of capital and/or generate pressure to search for new spheres of capital valorization. With Gramsci (1996 [1932–1934], p. 1557) and critical political economy – particularly regulation theory (Aglietta 1979; Boyer 1990; Atzmüller et al. 2013) – we can distinguish between, on the one hand, conjunctural crises leading only to minor adjustments within the historic bloc or the mode of development and, on the other hand, organic or structural crises which question the hitherto broadly accepted and viable forms of economic, political and cultural reproduction of social relations in the form of a dynamic growth regime.

Conjunctural crises do not lead to a fundamental questioning of existing relationships of forces and are – despite all conflicts, problems and even the death of many people – manageable for the hegemonic forces. In the case of a structural crisis it is different: Problems and contradictions as well as contestation and opposition can no longer be dealt with through limited accommodations but require a more profound restructuring. Social as well as political forces develop strategies to restructure the contradictions and forms of accumulation and growth. The crisis of Fordism, which became manifest in the early 1970s and gave rise to financialization, can be understood as a structural crisis.

In addition to the concepts of hegemony, passive revolution and crisis, a sophisticated understanding of the state helps to adequately conceptualize the *political* economy of the financialization of nature. According to historical-materialist state theory, the state can be understood as a relation of social forces, 'or more precisely the material condensation of such a relation among classes and class factions, which is expressed in the state in a necessarily specific form' (Poulantzas 2002, p. 159; cf. Jessop 2007; Aronowitz and Bratsis 2002; Hirsch 2005; Demirović 2011a). Struggles and compromises of the past are inscribed into the state as laws, budgets, institutional practices and orientations of state officials.

The state secures not only 'hegemony armoured with force' (Gramsci 1992 [1930–1932], p. 783), but it is also crucial in giving interests and constellations of forces a certain durability and in organizing compromises, alliances and possible hegemony. It gives the relation of forces a particular form

and is part of social struggles, the social division of labour and capitalist as well as non-capitalist relations of power, production and reproduction.[4] The state defines the multiple terrains of struggles in the relations of production, through the education process, the roles assigned to individuals and so on. The state thus is a central terrain or 'strategic field' (Poulantzas 2002, p. 168) in which manifold conflicts and the creation of consensus take place.

Drawing on the insights of Poulantzas and state theorists like Hirsch (2005) and Jessop (2007) as well as on the scale debate in radical geography (see Keil and Mahon 2009; Wissen, Heeg and Röttger 2008), we have introduced the concept of the *internationalized state*. With it we want to highlight the fact that the national state is only one, albeit an important, scale of condensation of social relations of power and domination and that social forces and the relations among them also inscribe themselves into state apparatuses at the local, regional and international scale. Furthermore, the national state apparatuses themselves are internationalized, that is, transformed in such a way that institutions and actors (politicians and administrative personnel) internalize the – always socially produced – constraints of the world market and are oriented to the creation of 'international competitiveness', not only in the economic realm but also in all spheres of social life (Hirsch 2005; Brand, Görg and Wissen 2011). This development and the materiality of the state is part of the contested politics of scale (Swyngedouw 1997; Wissen 2009, 2011).

The internationalized state plays an important role in the valorization of nature. As we have shown elsewhere (Brand, Görg, Hirsch and Wissen 2008), it is the terrain on which struggles for the access to natural resources are battled out. In turn, these struggles contribute to shaping the state and the process of its internationalization. The latter thus can no longer be understood without taking into account societal nature relations.

In conceptualizing the (internationalized) state from an environmental perspective, we draw heavily on political ecology, particularly on the insight that social power and domination essentially rest on the ability to control the access to natural resources and sinks as well as the distribution of resources (Bryant and Bailey 1997, pp. 38–47). Accordingly, the state – which in political ecology has been addressed by authors like Bryant and Bailey (1997, chapter 3), Neumann (2004), Robbins (2008), Scott (1998) and Whitehead, Jones and Jones (2007) – can be understood as an institutionalization of the dominant forms of, and social compromises over, the appropriation of nature. Furthermore, and at this point Gramsci comes in again, the state plays an important role in accumulating knowledge about and generalizing perceptions of nature and the environmental crisis, in turning particular perceptions into common sense and in marginalizing, or transforming and selectively integrating, competing perceptions (cf. Mann 2009).

Processes of rescaling, such as the internationalization of the state, are important in this respect. They transform the conditions of access to natural

resources and sinks. For example, it makes a difference whether the loss of biodiversity is understood as a problem of the livelihood of local indigenous communities which can be solved by strengthening the latter's territorial rights, or whether it is considered a global issue to be dealt with in the framework of a tight regime of private intellectual property rights, as has been provided by the TRIPs Agreement[5] of the World Trade Organization (WTO). The latter is a product of a state rescaling: of an internationalization of the state, which has been driven by powerful agro-industrial and pharmaceutical interests and has aimed to open up genetic resources to capitalist valorization, thereby undermining the rights of those communities which, through their agricultural practices, have contributed to developing the very resources to be valorized (Brand et al. 2008). The internationalization of the state is thus a medium and an outcome of a shift in societal nature relations and in the social relations of power and domination with which they are closely intertwined. As Swyngedouw (2004a, p. 132) puts it, 'nature and environmental transformation are . . . integral parts of the social and material production of scale. More importantly, scalar reconfigurations also produce new socio-physical ecological scales that shape in important ways who will have access to what kind of nature, and the particular trajectories of environmental change'.

The crucial role of the internationalized state has also to be taken into account with respect to the financialization of nature as a specific and recent form of its valorization. As we will demonstrate in this chapter, financialization was and is a process that is politically secured by powerful states such as the United States, entities such as the European Union (EU) and international state apparatuses such as the International Monetary Fund (IMF), the World Bank, the WTO and even the United Nations Framework Convention on Climate Change (UNFCCC), with its 'flexible' market mechanisms that should combat climate change. Financialization is part of a 'global constitutionalism' (Gill 2003), namely, the tendency to create a capitalist politico-legal framework at the international level, to (self-)discipline national governments under the neo liberalized economic and political order and to undermine the remaining democratic processes at the national scale.

THE POST-FORDIST MODE OF DEVELOPMENT AND THE FINANCIALIZATION OF NATURE

In this section, we will take a closer look at the origins and characteristics of financialization in general and the financialization of nature in particular as well as at the links between the latter and the imperial mode of living (for the broader debate on the 'neo liberalization of nature', cf. the overviews of Castree 2008 and Bakker 2015).

Financialization as passive revolution

After World War II, a temporally and spatially uneven globalization of a specific regime of accumulation and its mode of regulation took place (Aglietta 1979; Boyer 1990; Lipietz 1987). Since the Fordist mode of development largely rested on opening up internal markets, wages were seen not only as a cost but also as an important demand factor, and trade unions managed to link wage increases to rises in productivity. Attractive forms of living centred around the male breadwinner model, automobility, processed and cheap food, the consumption of meat as an indicator of wealth and the use of electronic equipment. The imperial mode of living of the global North has its root causes here. The Fordist mode of development also shaped subjectivities and gender relations. Moreover, national economies were cushioned through an 'embedded liberalism' (Ruggie 1982), that is, open markets with certain regulations. The financial sector, in particular, was strongly regulated, not at the least due to the experiences of the crisis of 1929, and subordinated to the circuit of industrial capital.

Fordist accumulation strategies came into crisis in the 1970s when profit rates declined and class conflicts intensified in many parts of the world. The ecological destructiveness of the Fordist mode of development was politicized by scientists, environmental movements and, in some cases, by concerned bureaucrats. In the capitalist centres, the Fordist class compromise was dismissed from above, while in many peripheral countries (particularly in Latin America) military dictatorships took over state power. The orientation towards the world market was one strategy to overcome the crisis, albeit with limited success. Despite new technologies, gains in productivity, rationalization, a reshaping of societal power relations and a transnationalization of the capitalist mode of production and living, the contradictions of globalized capitalism impeded the emergence of a more or less coherent new mode of development. In the capitalist centres profit rates did indeed rise again, and some regions of the global South experienced rapid economic growth. This happened due to industrialization and proletarianization, as in China, and the development of a globalized service economy, as in India. However, in the 1980s and 1990s, a new regime of accumulation, based on the absorption of over-accumulated capital by international financial markets, emerged and periodically resulted in severe crises, which, up to the beginning of the new century, mainly affected Southern countries. Instability and crises became central features of post-Fordist societalization.

Financialization was and is an effect of strategies to restore profits and to deal with over-accumulation through privatization, deregulation, a reorganization of the relationship between industrial and financial capital, the invention of new financial products and the opening of new spheres of accumulation

(Huffschmid 1999; Altvater 2005). Shares, mortgages and consumer credits that create annual interest and dividends became more important. This process was justified by neo liberal think tanks, media, politicians and others. They argued for the drawback of the state against the background of the crisis of public finance, promised high returns on investments in assets or pension funds and the participation of large parts of the population in the finance-led accumulation regime.

Financialization implied a profound transformation of various societal relations. First, a shift in the power relations between industrial and financial capital has occurred. Corporations have been restructured with the aim of maximizing the shareholder value, that is, the short-term return on investment has gained priority over long-term competitiveness. Often, industrial firms themselves have turned into financial actors, with their profits from financial activities exceeding their profits from industrial production. They have thus become more independent from bank credits, because they finance themselves directly via financial markets (Kaltenbrunner, Annina, Newman and Painceira 2011).

Second, financialization is characterized by a massive expansion of financial investment through the creation and proliferation of complex financial instruments, particularly derivatives of all kind which, up to a certain extent, are decoupled from the real economy. Banks have shifted their activities from giving loans to firms to the intermediation of transactions on financial markets (investment banking) and to the mediation of shares, mortgages, consumer credits or private pensions to private households.

Third, and closely connected to this, a pervasion of ever more spheres of daily life by financial market products has taken place (Heires and Nölke 2013, p. 257; Gago 2015). For example, wage cuts have been partially compensated for by consumer credits, social housing has been partially replaced by mortgage loans and public retirement provisions have been cut in favour of private pension funds. As Thomas Sablowski put it, '[w]hereas the reproduction of the labour force during Fordism drove the accumulation of industrial capital, after Fordism it has driven the accumulation of financial capital' (Sablowski 2009, p. 125). The growing demand here has to do with stagnant wage incomes and the transformation of social security systems, that is, accumulation has been increasingly driven by credit and debts (Lapavitsas 2010). In that sense, financialization is also a form by which to restructure the life of large parts of the subaltern classes (Redak 2009). Even if 'people's capitalism'[6] – in the sense that large parts of the population hold shares and gain from the expanding financial sector – is a myth, a certain proportion of the middles classes has benefitted from these developments. Concerning pensions, they have been forced to become part of the financialization process.[7]

A passive revolution thus seemed to be successful in the 1990s. The transnational mode of production and – mediated through this – a changing mode of living were widely accepted in the capitalist centres and became more and more attractive in early-industrialized countries. A certain restructuring of the

economy, high productivity in the core branches, new products and an attractive digitalization of everyday life, as well as world market-mediated access to relatively cheap products from other countries, were important factors. Crises took place in parts of the semi-periphery (East Asia, Russia, Brazil), and even the burst of the dot.com bubble and the Enron scandal at the turn of the century were seen as accidents. Capital moved to other sectors, for instance, real estate. Again, at first glance this had positive effects for parts of the subaltern classes who could, for example, realize their dream of a family home.

The problem of finance-dominated accumulation was that neither industrial production nor private households could satisfy the profit claims of financial capital, which thus developed into a bubble. When this became clear, that is, when doubts concerning the realization of the accumulated profit claims became stronger and stronger, the financial bubble burst. Since 2000, the bursting of at least two bubbles resulted in major economic crises: the crisis of the so-called new economy in 2001 and the economic crisis which began in the United States in 2007 as a crisis of subprime mortgage loans given to people who – under different conditions – would have benefitted from social housing. What began as a real estate crisis quickly developed into a financial and economic crisis, particularly in the global North, then into a state debt crisis and finally into a currency crisis of the Euro (Demirović and Sablowski 2013).

As a consequence of the crisis, capital is looking for new and securer investment opportunities. And it is here where nature comes into play. Various components of the multiple crises – such as rising food prices, the shrinking availability of fertile land, increasing resource conflicts and the overexpansion of the capacity of global sinks to absorb CO_2 – suggest a growing scarcity of crucial commodities, or of resources and natural processes which could be turned into (fictitious) commodities. Against this background, commodifying the respective parts of nature (e.g., forests) or investing money into land and agricultural and mining activities seems to guarantee secure profits in the short as well as in the long run. As a fund manager noted: 'The single best recession hedge of the next 10 or 15 years is an investment in farmland. . . . Demand is going up very strongly on a global basis' (quoted by Zeller 2010). This is underlined by the spread of Northern production and consumption patterns to industrializing countries of the global South like India and China – a development which strengthens the demand for fossil energy, biomass and metals, as well as for sinks to absorb CO_2. As we will argue in the next subsection, financialization intensifies the valorization of nature.

The financialization of nature as a crisis strategy

The private appropriation and marketization of natural resources has long been a central component of capitalist societalization, and was intensified during Fordism (Brand et al. 2008; Crosby 1972; Altvater 2006; and

Kloppenburg 1988 speaks of the 'primitive accumulation of plant genetic resources'). However, since the 1980s, as part of post-Fordist restructuring, new technological methods and new patterns of production emerged. Plants, animals, microorganisms and especially their genetic codes ('the green gold of the genes') became an input for the so-called life science industry due to new forms of scientific knowledge, technological developments and economic interests (Madsen, Carroll and Moore Brands 2010). Water and its delivery were subjected to capitalist strategies (Köhler 2008; Swyngedouw 2004b). In sum, a 'valorization paradigm' (Brand et al. 2008) emerged in which nature became (allegedly) protected through its capitalist commodification, and the conservation of nature became an 'inherent element of its valorization' (Görg 2003a, p. 286). In political ecology, this development has been described as 'green land grabbing', that is, 'the appropriation of land and resources for environmental ends' (Fairhead, Leach and Scoones 2012, p. 238; see also Peluso and Lund 2012).

Financialization has become an increasingly important element of the appropriation of nature and a medium through which the valorization paradigm has been implemented. The main strategy to combat climate change, for example, is to commodify the atmosphere; the dominant medium is financialization, that is, emission trading or the conservation of biodiversity as a business for investors (Lohmann 2010; Brunnengräber 2006; Zeller 2010; Brand et al. 2013; Kill et al. 2010; Tricarico 2012; Fatheuer 2014; Kill 2015; Heuwieser 2015; Rackwitz 2015). Another example is the 'rediscovery' of land and agriculture. A few years ago, an Organisation for Economic Co-operation and Development study estimated that between $10 billion and $25 billion were invested by the private financial sector in agriculture and farmland, a figure which was expected to grow sharply within the next years (HighQuest Partners 2010, p. 1). Christian Zeller (2010) argues that rent, that is, income based on property rights and as part of the distribution of surplus value, has become a central means to valorize natural resources and social processes. The control of territory and the related real or expected land rent seems to be an important mechanism of dealing with the crisis of over-accumulation and of securing the supply of raw materials – especially precious metals – and of agricultural goods in a growing world economy. Investment in land can also lead to an enhancement of the long-term conditions for capital accumulation. This applies particularly to a situation where energy provision becomes increasingly dependent on renewable sources, the utilization of which is more land-consuming than that of fossil energy carriers.

A further example of the financialization of nature can be found in the markets for agricultural commodities. Since 2002, so-called non-traditional speculators with exclusive financial interests have entered significantly into the commodity markets and led to a growth in commodity investment instruments from $15 billion in 2002 to $200 billion in 2008, while the value of

general commodity exchanges grew 500 per cent (Kerckhoffs, van Os and Vander Stichele 2010, pp. 6–7). After 2001 capital flew increasingly into commodity markets, especially oil but also food, and promoted their financialization (Stiglitz Commission 2009).

These examples point to very diverse qualities of the financialization of nature. The valorization of the atmosphere as a means of coping with climate change does not induce an extended reproduction of capital.[8] Instead, it creates a new financial market segment which is only loosely coupled to the sphere of production and could thus easily develop into a new bubble.[9] The financialization of land and that of agricultural goods is different. Investors are indeed interested in the exchange value of agricultural land and against the background of climate change, energy crisis and an increasing meat consumption in developing countries speculate for price increases. However, 'given that the property itself acts as an essential substrate for the value-producing economic activity, rather than just the location for those activities' (Fairbairn 2014, p. 782), the exchange value and the use value of agricultural land in contrast to urban real estates can hardly be separated from each other. As already seen in chapter 4, the current wave of investments into agriculture therefore could be understood as a financialization which is not opposed to but rather *mediates* extended reproduction and thus real accumulation. Looked at in this way, the valorization of nature, in the form of its financialization, would not simply be an extension of the influence of finance capital to new spheres, with the well-known problem 'that the profit rates of real capital do not suffice to satisfy the monetary claims' (Altvater 2005, p. 114). Instead, there is evidence that these processes are durable and that similar developments will prevail in areas like mining, where important resources for 'green' technologies are extracted (copper and rare earth metals for renewable energy infrastructure, lithium for electro-automobility etc.; cf. Exner, Lauk and Zittel 2014). That means that the relationship between industrial and finance capital could be transformed in such a way that both the problem of over-accumulation and the ecological crisis would be processed in the framework of a new but nevertheless selective and socially exclusive hegemonic project called green capitalism.

The processes of financialization are politically mediated. The political-legal conditions for the appropriation of nature and its partial financialization – financialization is not the exclusive form of nature appropriation – are created by the internationalized state and comprise, among other things, the development and enforcement of investment and trade rules at various scales, the denomination of land as cultivable farm land, the development and securing of intellectual property rights, the promotion of public or private infrastructure investment, the facilitating of access to financial means, the creation of terrains of dispute settlement among private and state actors, the facilitation of bioprospecting and the funding of research into technologies like carbon sequestration and storage. Recent developments within the international state

apparatus Convention on Biological Diversity (CBD) and related political bodies show that it is a contested terrain for the introduction of the concept of '(payment for) ecosystem services' and for the tendency to look at nature relative to its monetary value (Brand and Vadrot 2013; Vadrot 2014; McAfee 2012; Gómez-Baggethun and Ruiz-Pérez 2011; Heuwieser 2015). This takes place through the acknowledgement of specific problem framings and solutions as viable and rational, the acknowledgement of certain interests as legitimate and others as not.

At the national level in particular, the monopoly of legitimate coercion is the precondition for implementing rules and stabilizing particular societal relations of forces and dominant orientations or discourses. For instance, Alain Deneault and William Sacher (2010) call the Canadian state a 'mining state', because one of its main rationales is to secure the interests of the powerful mining industry within Canada. Beyond this, the Canadian state and its legal systems protect international mining corporations. When they are legally accused of harming social or ecological standards in Canada or in other countries, the court cases take place in Ontario, where the important stock exchange for the mining industry is located. Usually, the mining companies win the legal contest.

In moments of political or economic crisis or in light of changing power relations and discourses, the state intervenes in stabilizing or shaping certain developments and constellations, for instance, in promoting nuclear or solar energy. Moreover, the internationalized state apparatuses at the national as well as at the international scale contribute to dealing with problems and with the partial integration of critique. Finally, the state guarantees planning security for the development of new markets, for example, via regulations to mix a certain percentage of agrofuels into gasoline.

Financialization and the imperial mode of living

The literature on financialization focuses primarily on the production side. However, in order to understand the dominant and contested forms of the financialization of nature, it is important to also consider the complementary forms of reproduction, since these are a decisive part of capital valorization. Processes of financialization of nature tend to stabilize the imperial mode of living and vice versa. Of course, they cannot explain in functionalist ways phenomena like land grabbing, with their own dynamics and uncertainties, but they influence dominant developments in important and often underestimated ways.

We propose the concept of an imperial mode of living in order to understand the hegemonic forms of the appropriation of nature. They consist, as it was said, of further commodification and valorization – of which financialization is part – as a strategy and as a more or less successful passive

revolution. The capitalistically produced commodities and social relations need to be accepted and practically lived by the people who reproduce themselves materially and symbolically through these commodities. At the same time, these social relations and commodities are increasingly shaped by financialization. The concept of an imperial mode of living does not refer only to lifestyles of different social milieus. It aims to recognize the dominant patterns of production, distribution and consumption as well as discourses and related orientations of 'a good life' in the global North and, increasingly, in some countries of the global South. In recent years, the globally attractive imperial mode of living has been unevenly globalized. A large group of 'new consumers' (Myers and Kent 2004) has emerged in countries like China, India and Brazil: consumers who integrate the consumption of meat, automobility and electronic apparatuses into their everyday lives (including their "mental infrastructures", Welzer 2013).

The *imperial dimension* – used as an analytical and not a moral term – implies that everyday practices, including orientations and identities, of people rely disproportionately on resources and cheap labour from elsewhere, and that the availability of commodities is organized through the world market, backed by military force and/or the asymmetric relationships of forces as they have been inscribed in international institutions. The concrete production conditions of the consumed commodities are usually not visible (cf. Dauvergne 2010). For example, as far as agricultural products are concerned, McMichael (2010, p. 612, 2012) speaks of 'food from nowhere'. This is a phenomenon as old as colonialism and the capitalist world market. However, it was not before the Fordist phase of capitalist development that the imperial mode of living became a decisive and hegemonic mode of reproduction, not only for the upper classes of Northern societies but also for the masses of wage earners. It led to a predominantly intensive regime of accumulation, that is, the reproduction of the wage earners itself became a sphere of capital valorization, and they participated to greater or lesser extents in productivity increases. In the semi-periphery, parts of the urban middle classes joined this obviously attractive mode of living. This resource-intensive model is the main reason for many dimensions of the ecological crisis.

As Tim di Muzio has pointed out in his book on 'carbon capitalism' (di Muzio 2015), fossil fuels are particularly important in this respect. They do not only fuel mobility, enable suburban lifestyles and enhance the spatial scope of people but also constitute an often invisible component of the reproduction of everyday life in areas like water and food.

> What many do not realize is that . . . Westernized diets are saturated in fossil fuels at every step of the supply chain. By one estimate, the modern food system absorbs about ten calories of fossil fuel energy for every calorie of food

> energy created . . . Thus, an important dimension of carbon capitalism is the fact that many citizens are essentially eating fossil fuels as part of their social reproduction.
>
> (ibid., p. 155)

Since the 1990s the partial shift towards patterns of financialization has played an increasing role in the reproduction of the imperial mode of living, that is, the appropriation of labour and nature from elsewhere. The Fordist appropriation of nature was intensified. In the current crisis it constitutes an important element of societal consensus. This is due to the fact that the costs of the reproduction of wage earners, which are under neo liberal pressure, in the capitalist centres are reduced through enhanced access to globally produced commodities traded in liberalized markets (which is a means of increasing relative surplus value). This process occurs along structuring lines of class, gender and ethnicity but, and this is our point, it is broadly accepted, and its deepening is a crucial strategy of dealing with the current crisis. Furthermore, it is asymmetrically universalized in many countries of the global South, where development in the sense of capitalist modernization and a more or less selective world market integration is broadly accepted by elites and urban middle classes. The industrial-capitalist appropriation of nature and its commodification, as well as the universalization of the production and consumption patterns, form a part of post-Fordist growth constellations. At the same time, this universalization creates resource and land-use conflicts, geopolitical tensions, intense capitalist competition and ecological degradation.

Crucial in our context is, first, the fact that the universalization of the imperial mode of living tends to turn mineral and agricultural resources as well as sinks into increasingly scarce goods. Valorizing them, that is, enhancing mining activities under capitalist conditions and turning commons or supposedly uncultivated land into capitalist commodities becomes a more and more attractive business. This applies not only for mining and agricultural capital but also for financial capital in search of new investment opportunities in a crisis of over-accumulation. Investments in nature may not provide for the highest but possibly for quite durable and secure rates of return to capital, since, in contrast to the trade in securitized mortgages on private housing which led to the crisis in 2007, they induce extended reproduction in areas as indispensable as nutrition (see Fairbairn's diagnosis of a 'return to the real' as mentioned earlier).

Second, the current efforts to 'green' the economy (cf. chapter 4) mean that the resource dependence of the prevailing patterns of production and consumption shift from fossil to other mineral, as well as to agricultural resources (e.g., biomass for fuels, copper for renewable energy and so on). In other words, the greening of the economy, which is nothing else than the perpetuation of the imperial mode of living through its ecological modernization,

will strengthen the demand for natural resources, a demand which has already been rising due to the spread of 'Northern' production and consumption patterns to the global South. This will make certain parts of nature increasingly scarce and thus attractive to a process of valorization through financialization.

A third link between financialization and the imperial mode of living lies in the fact that, given the privatization of more and more spheres of everyday life, people in the global North have become increasingly dependent on financial markets. If, for example, as we have seen earlier, social housing is replaced by mortgage loans and public retirement provisions by private pension funds, then the everyday life of many people becomes, to a large part, structurally linked to developments on the financial markets. If at the same time financial capital is increasingly directed to natural resources, the maintenance of the prevailing production and consumption patterns becomes a driver of the financialization of nature and, vice versa, the financialization of nature turns into a precondition of the maintenance of those very patterns which are at the heart of the imperial mode of living (cf. Dellheim 2014).

Most apparatuses of the internationalized state promote and secure these developments. Generally, policies and politics on the national scale are also oriented towards them. In countries with strong resistance movements, like India (Kothari 2014), opposing interests and perspectives are partially integrated, marginalized or suppressed. On the international scale, state apparatuses like the EU, the WTO and its sub-agreements, the IMF and the World Bank, and networks like the G7 or the G20 are driving those developments. Moreover, they are also important terrains on which to deal with conflicts among governments or with the critics of capital and their associations, NGOs or social movements.

Weaker apparatuses like the UNFCCC or the CBD are partially in line with neo liberalization through their practice of developing market-based instruments and thus contributing to the constitution of new fields of capital accumulation. If contentious regulations and discourses prevail or are agreed upon on these terrains, they normally do not have the power to intervene in the competences of stronger international state apparatuses like the WTO. This sectoralization of politics into national and international policy fields is one mode of political domination, since it secures the incremental character of politics compatible with dominant or hegemonic social relations (Brand and Görg 2013).

In sum, the manifold processes of the valorization and financialization of nature contribute to stabilizing the imperial mode of living up to a certain extent, and vice versa. Elements of nature are seen as resources to be further extracted and exploited to make profit out of them or to earn money through trading emission certificates. Even in the current crisis, the imperial mode of living is not questioned but deepened and expanded, and it is this

deepening and expansion which may contribute to managing the economic and the ecological crisis.

THE FINANCIALIZATION OF NATURE AND THE PROJECT OF A GREEN CAPITALISM

We have addressed the financialization of nature from a perspective informed by critical state and hegemony theory, critical political economy as well as political ecology. A crucial question is how this process links to current societal developments. It is too early to give a definite answer as to how the current crisis, which has persisted since 2007/2008, and the strategies to overcome it might develop. Nevertheless, as we have argued in chapter 4, the project of a green capitalism has a high potential of becoming hegemonic. Drawing on Gramsci's concept of hegemony as outlined earlier, we shall now analyse the role that financialization may play in this respect.

In Gramsci's sense and at the strategic level, dominant societal actors need to overcome narrow and short-term economic-corporative class interests and become able to formulate compromises and alliances, as well as to initiate an ethical-political phase, where other actors can also pursue their interests, values and identities. Dominant forces form a power bloc, within which the relevant subaltern forces are integrated. If this project proves economically, politically and culturally viable, it is 'armored with force', that is, it is transferred into a state-hegemonic phase (Gramsci 1991a [1929–1930], pp. 102–111 and 1996 [1932–1934], p. 1567).[10]

In such a phase, progressive capitalist forces and alliances – in the sense of developing capitalism dynamically against the context of prevailing problems and challenges – are able to constitute themselves and to find and formulate a common ground by overcoming their narrow interests. This is not a question of reasonable policy papers but of manifold internal and public discussions about problems and the potential to deal with them and is also a question of interests and values. Furthermore, it is a process of trial and error of strategies, the (non-)acknowledgement of other actors and the creation of alliances which gain durability. Finally, it is a struggle to 'become state' through laws and regulations and the strengthening of certain state apparatuses, subsidies, tax exemptions and so on. In a hegemonic constellation, conflicts are fought out in rule-guided ways; political institutions are accepted as terrains of conflict. The use of open force is not absent, but it is justified as part of a larger and viable project.

The dominant forms of the appropriation of nature in general, and by means of its financialization in particular, lead to a deepening and spatial expansion of the fossilist-capitalist mode of development and its expression as the

imperial mode of production and living. As we saw, it makes sense, from a Gramscian perspective, to consider two dimensions of hegemony: a structural and a strategic one. The first one is the dominant mode of production and living which relies, for instance, on specific forms of energy and food production and consumption, on economic and political power relations and on strategic-selective institutions which tend to promote specific interests more than others. The strategic dimension deals with the question of the extent to which political projects are capable of integrating (both in symbolic and in material terms) a broad range of societal actors into the task of solving the current multiple crises. A multi-scalar perspective on hegemony reveals on which spatial scales and with respect to which territorial units a particular project becomes hegemonic, or is contested; it helps to understand better which concrete forms the respective struggles take. The aim of this chapter is to develop conceptual tools which might contribute to a better understanding of the concrete functioning and effects of financialization, the crisis-driven transformations of societal nature relations, their political regulation and their social, economic and ecological implications. We know that much further research on this is necessary (cf. Lohman 2010; Tricarico 2012; Kill 2015; Fatheuer 2014; Dempsey 2016).

Our point to note at this stage is that when the elements outlined in this chapter and in chapter 4 get more or less stabilized and contribute to overcoming the current crisis, a green-capitalist mode of development might emerge. At the level of political strategies and legitimation, such a project is driven by concepts and policies of a green economy. A crucial component of a green-capitalist project would be the further valorization of nature as an important constituent of crisis management, for the very reason that it is located at the interface of various crisis phenomena. The current manifestations of the financialization of nature can be understood in such a context. These phenomena evidently interact in such a way that one dimension in particular of the multiple crises, namely, the crisis of energy and resources (including food), offers approaches to overcome another dimension, namely, the economic crisis, through signaling a scarcity of important goods and natural resources which could be converted into commodities (cf. Koch 2012).

Concerning different sectors and their role in green capitalism, particularly in the energy sector, competing strategies and countervailing tendencies exist along different lines of conflict. As Jonas Rest (2011, pp. 83–116) has shown, the large energy corporations are highly path-dependent, and there is no evidence of any major strategy to profoundly change the business model. Furthermore, financial market actors continue to rely on fossil fuels and the fossilist industry. Despite diverging interests among different capital factions, power relations related to fossil fuels and their material condensations within the state apparatuses remain intact – the ‘green industries’ are, even in a country like Germany with its rapid growth of renewable energy, quite weak, and

the effects of emission trading are rather small. Finally, not all the elements of a green capitalism guarantee an extended reproduction. Emission trading, for example, produces nothing more than investments in hot air. If a green capitalism gains feasibility in the sense of a new hegemonic project, it will do so as the articulation of elements of a green economy with those of fossilist capitalism. The concrete forms of this articulation will vary according to different national contexts. They will depend not only on technological and economic factors and economic policy but also on institutions and on societal power relations, as well as on daily life practices, such as the forms of division of labour along multiple lines, and in particular the dominant separation between the formal production sector and that of reproduction.

In sum, the valorization and especially the financialization of nature could become a fundamental axis of ecological and economic crisis management within the framework of a green-capitalist project and of an ecological modernization of the imperial mode of living – implicating in turn all the related conflicts and forms of marginalization. The latter is a tendency which applies to all forms of capitalist development. In spite of the claims of a win-win situation raised by the proponents of a green economy, it will also apply for the project of a green capitalism. Moreover, these processes are politically contested, and it is still an open question if they will be viable in economic terms. Currently, the "conventional" forms of overusing and destroying nature and manifold forms of the valorization of nature (e.g., through land grabbing) seem to predominate "new" financialized forms like REDD (Reducing Emissions from Deforestation and Degradation (REDD)). Nevertheless, the overall dynamic of the valorization of nature is still strong and it rather destroys than conserves or sustainably uses nature. Therefore, a more profound socio-ecological transformation is necessary that questions the logics of valorization and capitalist accumulation.

Chapter 6

Socio-Ecological Transformation as the Horizon of a Practical Critique of the Imperial Mode of Living

THE LOGICS OF TRANSFORMATION

When considering the project of a socio-ecological transformation and trying to fathom contemporary prerequisites for this, we should begin by emphasizing one issue in particular because this is often overlooked in the current debate on socio-ecological or sustainability transformation(s): there is an inherent logic of transformation within bourgeois-capitalist society itself. Marx and Engels expressed it thus:

> [T]he bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy profaned, and man is at last compelled to face with sober senses his real conditions of life and his relations with his kind. The need of a constantly expanding market for its products chases the bourgeoisie over the entire surface of the globe. It must nestle everywhere, settle everywhere, establish connections everywhere. The bourgeoisie has, through its exploitation of the world market, given a cosmopolitan character to production and consumption in every country.
>
> (Marx and Engels 1998, p. 243; cf. Demirović 2014)

While the bourgeoisie – and through the evolving power of the workers' movement through struggles and compromises with labour – was constantly

remaking society, one justification of the economic and political actions was a better future. Rainer Rilling (2014, p. 42) points at this: In capitalism, we are dealing with 'a society, which like no other has built (and has had to build!) access to futures into its own ways of operating, patterns of activity, reflection and politics, the continual transformation of which is an essential prerequisite for its existence'. In other words, the issue does not concern whether to say 'Yes' or 'No' to change but rather concerns the logic of change or transformation. This allows for an important question and clarification of any understanding of transformation to be made. What kind of transformation predominates? The dominant logic is that of profit-making, the accumulation of capital and of expansionary economic activities. This accompanies the problems we have already identified: the exploitation to the point of over-utilization of human labour, which often leads to work intensification and even to burnout and the destruction of the natural environment. However, despite this built-in mode of transformation at the level of imaginaries we can observe that futures are mainly seen as negative and undesirable: billions of people living in misery, environmental destruction, climate change, resource conflicts, flight and forced migration, increasing authoritarianism and violence (cf. Horn 2018 on the societal construction of "future as catastrophe").

This is the point at which the concept of transformation towards sustainability attains its meaning, even if this remains implicit in many of the contributions to the debate thus far (WBGU 2011; UNEP 2011a; Park et al. 2012; Leach et al. 2012; Kates, Travis and Wilbanks 2012; Hackmann and St. Clair 2012; critical perspectives in Brie 2014; Jonas 2016; Brand 2016b; Görg et al. 2017): At the one hand, the dominant logic of change, the permanent self-revolutionizing of bourgeois society, becomes a problem, as it creates ever more pronounced and ever more uncontrollable crises. At the other hand, it points at the necessity to imagine liveable futures.

The debate refers, with increasing frequency, to Karl Polanyi's term, the 'great transformation', which delineated the transition to industrial capitalism during the nineteenth century in his book *The Great Transformation*, published in 1944. According to the Austrian economic historian, the previously dominant moral and largely local economy was 'disembedded' from a rapidly growing rate of production and the creation of national markets, particularly labour markets, through the use of complex machines. The 'self-regulating market' was elevated during the nineteenth century to the status of a utopia, so that pricing mechanisms and profit interests might assert themselves with as little hindrance as possible. This disengagement of the capitalist market from the societal relationships formerly in place was a comprehensive political, economic and cultural process.

> Economic history reveals that the emergence of national markets was not the result of the gradual and spontaneous emancipation of the economic sphere from governmental control. On the contrary, the market has been the outcome of a

> conscious and often violent intervention on the part of the government which imposed the market organization on society for non-economic ends.
>
> (Polanyi 2001 [1944], p. 258; recent interpretations by Dale 2016; Brie 2015)

Labour and nature – alongside money – are treated as commodities in the context of the capitalist mode of production. Yet different preconditions for their generation apply, since they are not produced as commodities for the capitalist market but have their own specific modes of production: They are a part of complex biophysical dynamics and – in the case of labour – social relationships too, such as growing up or reproduction outside the hours of paid working time. Thus it is 'fictitious commodities' that are at issue here. And therefore, as Polanyi continues on from Marx, capital, which insists upon the valorization of nature and labour, has a tendency to undermine the foundations of labour and nature. The dynamic at work in the process of developing capitalism consisted not least of the 'conflict between the market and the elementary requirements of an organized social life' (Polanyi 2001 [1944], p. 257). Here Polanyi introduces the 'double movement' concept, since there have always been expressions of resistance in reaction to the subordination of social life under capitalist market conditions.

The 'elementary requirements' in the current debate on transformation towards sustainability are first and foremost but not exclusively those concerning the reproduction of the biophysical basis of existence. It is argued that we should at this point consider a transformation of the energy regime, moving away from fossil energy and towards renewable energy sources. In the predominant concepts of socio-ecological transformation, like the one by the German Advisory Council on Global Change (WBGU 2011), the evidence of climate change, dwindling resources and increasing conflicts suggests that the post-fossil era must now be ushered in. In societal terms, a change of values towards sustainability is seen as already underway, 'pioneers of change' – a term that refers collectively to all actors developing the social and technological innovations needed for the post-fossil era – are considered necessary (WBGU 2011, p. 255). A 'creative state' (in German: *gestaltender Staat*) and 'transformative governance' (ibid., pp. 215–16) are envisaged to create and implement a suitable political framework. Questions of the valorization of labour power and those of societal domination are largely absent in the transformation debate.

Let's focus for a moment on the role of politics as understood in recent debates about socio-ecological transformation. It is defined with exemplary clarity in an article by Nalau and Handmer (2015). They pose the question in the title as to whether 'transformation [is] a viable policy alternative' and assume the existence of a new type of problem (such as climate change, heat waves or disaster risks), which is characterized by a high level of complexity. 'Transformation has recently emerged as a suggested approach to manage

change in societies given the increasing complexity of policy problems. . . . Well-planned and facilitated transformation calls for a careful consideration of what exactly needs to be changed and how' (ibid., p. 355). Correspondingly, specific policies require 'new regulatory frameworks'. As is the case for most contributions to the transformation debate, they do not question the existing *forms* of politics. The capitalist state, albeit in a reformed manner, is considered part of the solution rather than part of the problem. The state is not understood as an important terrain on which a socially and environmentally destructive dynamic unfolds. Neither is the permanently unfolding transformation defined at the start, which is in many respects not sustainable, addressed in the dominant approaches. Concepts and management approaches of this kind are characterized by exactly the 'paradoxical relationship between environmental apocalyptic thought on the one hand, and institutional status quo on the other', identified by Lövbrand et al. (2015, p. 214; cf. also Horn 2018) in respect of the anthropocene discourse. Following Swyngedouw (2010, p. 225), it is referred to as a post-political configuration: 'a socio-political arrangement that replaces ideological contestation and struggles by techno-managerial planning'.

Only a few contributions to the debate interpret transformation as a movement that transcends capitalism, that is, as a development moving away from a society where the core areas of social life are subordinated to the principles of profit and economic growth and in which many social activities are organized as wage labour and around the – often destructive – valorization of elements of nature. This would be a transformation in which not only the financial markets but also the economic and political power of capital would be weakened and eventually overcome in terms of its structural dominance of society. It would furthermore do justice to Polanyi who was in no sense merely the theorist of the double movement, that is, a process of dis-embedding and re-embedding, as he is often understood today. As Michael Brie (2015, p. 27) has demonstrated,

> '[t]he concentration of the reception of *The Great Transformation* on its depiction of the so-called double movement in the 19th century obstructs the view onto Polanyi's actual message – that is, the collapse of precisely this double movement in the first third of the 20th century' Polanyi expected little from a social protection movement based on a market society at his time. For him, it was a part of the problem, closely linked to fascism' (ibid., p. 28). In the 1930s and the 1940s, according to Brie, the capitalist market society for Polanyi had reached a stage in which freedom could only be defended through a *socialist* transformation.
>
> (ibid., p. 29)

In a certain sense, analogies can be drawn between the current situation and the time in which Polanyi wrote *The Great Transformation*. As the analysis of the previous chapters reveal, there are many arguments supporting the notion that the profound crisis of societal nature relations can be addressed only socially and

spatially in a highly selective manner under the conditions of capitalism. A green capitalism is conceivable. It will however not be capable of stopping the formative powers that have given rise to the socio-ecological crisis but only of modernizing them in an ecological and a highly selective manner. The fundamental problem linked to the capitalist societal nature relations can be made manageable for a part of the world – mediated through class, gender and race relations – while the socio-ecological costs, which even a green capitalism produces, are externalized in both spatial and social terms. Therefore, at stake is an understanding of transformation as a process that points the way to a society beyond capitalism.

STRATEGIES AND SUBJECTS OF TRANSFORMATION

Radical socio-ecological transformation transcending capitalism is not a political demand. It is far more a critical and analytical perspective, which can provide strategic guidance without downplaying the existing dominant logics of transformation and related structures of power and domination. Its radicalism is not provided by the terminology but in the strategic surplus of concrete 'entry point projects', that is, in the fact that the concrete changes, which these projects aim for or already produce, fundamentally challenge existing social orders, for example, challenging the private ownership of key social infrastructures through the campaign for energy democracy, or calling for social control over the means and conditions for food production via the concept of 'food sovereignty'. Dieter Klein (2013) refers to this as the 'double transformation', which resembles the concepts of 'radical reformism' of Joachim Hirsch (1990) and the 'real utopias' of Erik Olin Wright (2010). These concepts make clear that the focus must lie with strengthening progressive dimensions under conditions of capitalism while also keeping in mind a more comprehensive notion of transformation. These two dimensions of a double transformation should not be understood as consecutive elements. Within the hard-won developments towards a 'post-neo liberal' and progressive capitalism – in other words, a configuration in which, among other things, stronger boundaries are placed upon capital, political and economic power is more clearly contained, questions of justice become more relevant and socio-ecological and distributive policies from the top-down have a role to play – elements of a post-capitalist formation based on solidarity and comprehensive ecological sustainability are already beginning to appear and should be strengthened.

A progressive and emancipatory project defines itself in light of the multiple crises not through political minutiae but via a model that provides a new foundation for societies, to create and secure different forms of prosperity and a good living *for all* – and not dolce vita for a few people. Only thus can the progressive sociopolitical spectrum regain the initiative and gain credibility and the power to shape changes. There needs to be public debate around

assumed certainties and challenges to these. Societal and political hegemony requires also a material core, as Antonio Gramsci formulated it. Yet it is equally and particularly a question of what social relations are both liveable and attractive for human society, since 'though hegemony is ethical-political, it must also be economic, must necessarily be based on the decisive function exercised by the leading group in the decisive nucleus of economic activity' (Gramsci 1996 [1932–1934], p. 1567).

Moreover, transformation is a question of spatial scale and emancipatory politics of scale. Emancipatory socio-ecological transformation at local levels or that of the nation state must be conceived, embedded and executed globally, while taking account of an issue that is central to the reproduction of the imperial mode of living and also to strategies to create a socio-ecological mode of living based on solidarity: On what basis are they to be developed (e.g., the production of batteries with lithium from Bolivia extracted under miserable working conditions), and what consequences do transformation processes in agriculture and food production have on manufacturers elsewhere? International political and economic relations need to be transformed if regions and people are to be protected from a dependence on the demand for and the price volatility of particular products. The global market today is in itself a highly asymmetrical power structure that plays a decisive role in supporting the imperial mode of living.

We now turn to some reflections on the subjects of transformation. What can convince people of the need for social change, and how can a collective will develop with regard to an alternative mode of production and living, based on solidarity? The actors and practices creating transformation from a socio-ecological perspective are by no means predetermined. At a general level, it involves the formulation of an alternative 'world view' in the spirit of Gramsci:

> Each human being . . . participates in a particular conception of the world, has a conscious line of moral conduct and therefore contributes to sustain a conception of the world or to modify it, that is, to bring into being new modes of thought.
>
> (Gramsci 1996 [1932–1934], p. 1531)

Alternatives are created through processes and conflicts, through the experiences of other ways of living and the organization of society as well as through the debates and practices that are pursued around these themes. They generally do not arise through the self-identification of the actors and processes that drive such changes as 'transformational' but rather through, for example, resistance to large-scale and infrastructure projects or the further extraction and distribution of coal, criticisms of factory farming practices and widespread rejection of meat-eating (or at least of industrially produced meat products), in the radically different daily practices of individuals and collectives.

As we have seen, these transformational and socio-ecological actors and their actions face the concrete challenge of keeping sight of the structural transformations and ruptures, preparing for them, implementing changes, progressing those already in existence and securing such developments. Transformational action has no need to defend itself against reform policies but locates them rather in relation to a comprehensive and anchoring horizon. This is an aspect that is often lacking from current sociopolitical debates and one that makes an emancipatory take of the transformation debate, as we have mentioned, precisely so important.

Thus the question of the subjective preconditions for a double transformation or a radical reformist approach is a decisive one (Graefe 2016 asks this for a degrowth perspective). To what extent does evidence suggest that the dominance over decades or even hegemony of the subjectivities and societal power relationships shaped by neo liberalism is being transformed? To what extent do the multiple crises produce resistance in everyday life? What could or should be the starting points for strategies of transformation?

The answers to such questions are sobering and not in light of the renewed impetus currently experienced by right-wing movements across Europe and beyond. In recent contributions to democratic political theory too, the stabilizing moments within current arrangements are judged to be stronger than the transformational opportunities. Thus, for example, Ingolfur Blühdorn (2013a, 2013b, 2017) writes of a 'post-democratic paradox': The advancing process of modernization appears on the one hand to allow the erosion of the norm of the autonomous subject and with this the foundations of liberal democracy. On the other hand, it appears to inflate 'the demands of the individual for freedom, self-determination, self-realization and centrality to an ever more disproportionate degree' (2013a, p. 162). The democratic form that corresponds to this situation is, according to Blühdorn, the 'simulative democracy'. In this form, political action is merely simulated or staged through elections, the creeds of politicians or in individualized and sporadic forms of participation.

In contrast to other concepts of post-democracy, particularly that of Colin Crouch (2004), this is not only the result of powerful economic interests and a hollowing-out of democratic political institutions. Instead, the forms of communication and action of a simulative democracy are addressed 'precisely to the contradictory requirements of post-democratic citizens and institutions' (Blühdorn 2013a, p. 181) and are therefore 'willingly drawn upon by the most diverse of societal actors' (ibid., p. 180). A silent consensus predominates 'between those who carry out deceptions, and those who are impacted by them' (ibid., p. 183). Simulative democracy and its characteristic 'post-democratic participation' are therefore the forms that most effectively address societal contradictions: 'Post-democratic participation implies significant inclusion in the politics of exclusion, coopted participation in the politics of

marginalization, and the democratization of the politics of increasing inequality' (ibid., p. 203).

Blühdorn's considerations allow for important insights into how the contradictions that are sharpened by the ecological crisis are addressed. In relation to this crisis, the post-democratic paradox is expressed through the contradiction 'between the rational insight into the fundamental unsustainability of existing social relations and the unshakeable determination to defend them' (ibid., p. 251). According to Blühdorn, this contradictory position is articulated through 'simulation discourses' such as the narratives of ecological modernization, the green new deal or sustainable consumption, which makes it possible to adhere to the principles of social and environmental sustainability, without 'having to relinquish the fixation on values, lifestyles and structures of unsustainability' (ibid., p. 251).

The problem with Blühdorn's approach is, however, on the one hand, the modernization-theoretical foundation: Post-democratic subjectivity is understood as the result of social modernization, yet is not analysed in the context of the social power relations shaped by neo liberalism. On the other hand, Blühdorn's primary focus lies with 'citizens', that is, individuals, rather than with the social relations that constitute them. He largely avoids making any analysis of the multiple crises currently unfolding, the contradictions they highlight, and their penetration of the everyday lives of ever-growing numbers of people. Yet precisely such an analysis would reveal subjective dispositions and starting points for a socio-ecological transformation, which remain invisible within modernization theory's diagnosis of a post-democratic paradox.

This may be illustrated by a key aspect of capitalist social structures: the imperative for economic growth. Economic growth expands the distribution options available to state and socio-economic actors as well as their interest associations. The historical struggles of the labour movement have led to a situation in which the growth and income distribution have become starkly politicized. Other aspects, by contrast, have been marginalized and politicized only partly and at a later date: for example, gender justice, the environmental impacts of growth and its international (imperial) preconditions, that is, the fact that people in other countries must work and live under less advantageous conditions and contribute through international trade to the wealth in prosperous countries.

In conditions of multiple crises, cracks begin to appear in this configuration. Growth itself becomes a destabilizing factor, particularly in the conditions created by financial market capitalism. The permanent growth in the production of goods and services, particularly short-lived goods, creates instability (Muraca 2013). The competition for resources increases; climate change creates many uncertainties including the infamous 'tipping points' for

local or regional climates or the thawing of permafrost soils, through which unimaginable volumes of methane gas are set to be released.

More recent crisis analyses from the point of view of (labour) sociology show that these developments also have an impact at the subjective level. Thus Stephan Lessenich points to the fact that currently 'even among "completely normal" people in "completely normal" – capitalist – working conditions' a 'feeling of disquiet' has become widespread, 'that the existing production conditions – with all their damaging consequences, and with the glaring inequalities they produce – are "unsustainable", in the truest sense of the word, i.e. ultimately impossible to maintain' (Lessenich 2014, p. 567).

The research by Klaus Dörre, Anja Happ, Hajo Holst and Ingo Matuschek on how workers conceive society (Dörre et al. 2013a) confirms this finding. On the one hand, they have found out that the unease with which people regard social developments is superseded with a strong and enmeshed connection to the company for which they work, which also explains a readiness to undertake exceptional rationalization and flexible working practices in times of crisis. In this respect, a dichotomy exists between a high identification with the company and critical awareness of society (Dörre, Happ and Matuschek 2013b, p. 13). On the other hand, this dichotomy is at least partly deconstructed by the dominant experience of wage-earners in the current crisis, that is, the burdensome intensification of work. The experience at the workplace is not necessarily any longer a counterweight to the unease created by the social imperatives of competition and growth and their social and environmental impacts but may even strengthen it and create situations in which that unease becomes better understandable (Dörre et al. 2013a; cf. Kronauer 2014, p. 442–43). In this sense, there are signs that the multiple crises – albeit in a way that is still barely perceptible in political terms – are translating into everyday experiences and that the receptive spaces for demands for democratization – in opposition to the pessimistic assumptions of left-liberal post-democracy theory – become evident (see chapter 7).

BUILDING BRIDGES FOR TRANSFORMATION

Subsequent to this, we must consider whether current and diverse conflicts might contribute to realize an attractive, just and ecologically sustainable mode of production and living, i.e. a new model of prosperity, through the rejection of elitist and technocratic impositions. Such a solidary mode of production and living would be the core of an emancipatory socio-ecological transformation that is critical to diverse forms of domination. In concrete terms, we argue for a threefold bridge-building approach that links experiences, actors and areas of life with one another.

First, a transformation perspective is required that combines together the experiences described and that helps turn an unease that is still politically disoriented into a democratizing energy. In the words of Hans Thie, this involves developing guiding principles, which place everyday experiences within a wider context and 'formulate a depth of engagement that is appropriate to the age of environmentalism' (Thie 2013, p. 63). Guiding concepts could be time prosperity, moderating demands for resource use under the header of "resource fairness" (Pichler et al. 2016) and no longer taking for granted products that are supplied so cheaply on the world markets. Frigga Haug (2011/2014) has defined this succinctly as the 'Four-in-One' perspective: At its heart lies – beside good, meaningful and relatively short waga labour – the care for oneself, for others and for society as a whole as well as for the natural basis of life. These are elements that were formulated through feminist debate and that have taken shape through numerous concrete initiatives (Bauriedl and Wichterich 2013; Gibson-Graham 2006; Biesecker and Hofmeister 2010; Salleh 2017). This would link everyday experiences and an alternative social model grounded in radical democracy.

Second, this involves relating the experiences of different sectors to one another. Crisis analyses based on labour sociology show that the current configuration could start to disintegrate precisely at the point where its most significant hegemonic stabilization has so far been found. Inasmuch as demands for deceleration and use value–oriented production as well as for the democratization of the economy as a prerequisite for achieving this occur as a result, this is potentially a key approach for achieving emancipatory socio-ecological transformation. This would also provide connectivity with other conflicts, relating to energy democracy, food sovereignty, the solidary economy or degrowth, in which capitalism's insistence on growth and its consequences are criticized 'from the outside', and an attempt to overcome them can be made, and in which trade union actors have so far played almost no role at all (Martínez-Alier, Pascual, Vivien and Zaccai 2010; Muraca 2013; Asara, Profumi and Kallis 2013; some aspects of Latin American debates in Lang and Mokrani 2013; Acosta and Brand 2017). Linking these approaches from the outside with a 'dynamic from "inside", from the internal sphere of the capitalist economy' (Lessenich 2014, p. 567) would enable new connective arrangements between unions and socio-ecological movements.

The third challenge would involve coupling production and reproduction. Here, the connective link is found in use value–oriented production. Mike Cooley referred to this many years ago, when he stated that workers are beginning

> for the first time, to understand their dual function in society – as direct producers and as end users. Until now, it was organized . . . in a way that one might have imagined that there were a people working in factories and offices – and a completely different people, living and consuming in homes and communities. The workers

> themselves become now gradually aware that their daily work should produce things that are truly useful products for the time in which they live and consume.
> (*PROKLA* editorial board 1980)

This perspective is also important in our times. What is needed is 'to tear down the invisible wall that exists between workers as workers in workplaces and workers as citizens outside their workplaces' (Räthzel and Uzzell 2011, p. 1221), to problematize the divisions between production and reproduction, to overcome the asymmetry in the power relations between producers and consumers (Stieß and Hayn 2006), to focus awareness on a division of labour in a socially comprehensive and not merely company-oriented sense and thereby to conceptualize and politicize both the hierarchies in gender relations and those in production together. The requirement thus is a comprehensive democratization of production, reproduction and of societal nature relations (on the role of trade unions in this process, see Barca 2012; Räthzel and Uzzell 2013; Sweeney 2014).

PROGRESSIVE POLITICS AND TRANSFORMATION AS FUTURING

A political-strategic consequence follows from this: To redirect the powerful logics described here towards an emancipatory socio-ecological transformation requires – beside changing everyday and institutional practices – a 'transformative Left' (cf. also Brie 2013; Strohschneider 2014) that not only has a better conception of distribution but is also capable of intervening in the forms and practices of social production. The issue of private property of the means of production is widely acknowledged to constitute the very foundation of capitalist social structures and associated forms of the production of wealth and poverty, domination and subjugation – without suggesting that all forms of societal domination should be reduced to a question of private property ownership and without denying that also public property might imply problems like the concentration of power.

In this context, socio-ecological conflicts undertaken in pursuit of a socio-ecological transformation may be regarded as necessary. What is required is a 'spirit of separation' (Gramsci 1991b [1929–1933], p. 374), which Gramsci himself related to the 'protagonist class' and its allies and which today clearly needs expanding: away from the capitalist, patriarchal, racist and imperial modes of production and living and also from the power structures and relations, assumptions and dominant subjectification that support them. The struggles against precarization and in favour of beneficial working practices, for autonomous living and quality of life, urban gardening, solidarity economies, the commons movement and energy cooperatives, are all direct responses

to this challenge. Ever greater numbers of people are fighting back against the impositions of current politics and giving expression to a long-held desire to live and work differently: in ways that are social, ecological and shared.

Most of these struggles have not yet reached capitalist core sectors like car production in the global North. The corporatist structure between capital and labour is still largely intact. It is strongly backed by state support, since governments consider these sectors' competitiveness crucial for social cohesion and economic development. But even this might change. The diesel emissions scandal in Germany and the development of electric automobiles or of autonomously driving cars signal that the automobile sector is amidst a fundamental transformation. The latter's rationale is to perpetuate individual automobility through its ecological modernization. Given that this strategy implies a loss of many traditional car producer jobs and will rather shift than overcome the environmental pressure caused by automobility, it might not be viable for socio-ecological reasons in the mean and long run. Ruptures in the corporatist structure might pave the way for fundamental transformation of this and other capitalist core sectors that can draw on earlier experiences of democratic conversion (Röttger and Wissen 2017).

Overall, this is about initiating, strengthening and defending socio-ecological transformations through a range of initiatives in parties and state structures, in associations and unions, companies, progressive businesses, non-governmental organizationss, social movements and among the wider public. In national debates across Germany, the concept of 'crossover' is used to set in motion a process that can bring together forces within and outside parliamentary institutions (cf. the brief overview of more recent approaches in Strohschneider 2014). At the same time, the strengths of extra-parliamentary progressive movements should be acknowledged; in that they are better placed not only to criticize detrimental relations but also to question the rules of the game associated with these. We can see this in the case of abandoning nuclear power in Germany. It is only thanks to the protest movements that a clear rejection of this form of energy generation became established in public opinion in Germany as a whole and led to state action.[1]

The union strategist and board member of the German metalworkers' union IG Metall, Hans-Jürgen Urban, coined the term 'mosaic left' for this phenomenon several years earlier (2012). It is assumed that modern societies have differentiated themselves in terms of their varied fields of activity and conflict areas to develop their own actors, power relations and structures, operational logics and discourses. Nevertheless, these 'fields' (Pierre Bourdieu 1993) remain more or less strongly shaped by capitalism.

This involves the creation of a heterogeneous collective actor, encompassing diverse political and social organizations, initiative and movements,

which retain their own identity, yet can work together on common progressive projects to regulate or even replace capitalism.

> [A] politically effective mosaic left requires specific self-awareness with cooperative appropriately strategic guidelines to be present among the various actors. . . . [P]otential mosaic actors need to assess the conception of their specific roles and political visions in terms of their usefulness for the mosaic left and reconsider these where necessary.
>
> (Urban 2012, pp. 170–71; cf. Candeias 2010)

At the same time, this confers an important role upon intellectuals engaged in criticizing capitalism, to identify transformative projects, provide them with support and foster their strategic development. There is after all no master plan for socio-ecological transformation. Instead, such a transformation will emerge in fits and starts, with advances and setbacks, full of contradictions and learning processes.

CONCLUSION

Achieving a broad understanding of change such as this brings us to a further core element of emancipatory politics: the democratization of society in the sense of a collective discussion and decision-making about common concerns together with transparent forms of representation. Who is able to participate in decisions about societal concerns – and in what form? Democracy in an era of multiple crises also means that people should see themselves again as carrying responsibility for society and thus also for the relationship between society and nature, in the form of an 'active participation in practical life, as constructor, organizer' (Gramsci 1996 [1932–1934], pp. 1531–32).

A democratic process of socio-ecological transformation, however, also relies upon the 'intellectual and moral competence of those entitled to participate in decision-making' (Marti 2006, p. 22). The question of who possesses the resources of knowledge and power required to either promote or hinder important social developments remains a significant one. How are relevant and powerful interests contained and their material resources that often result in influence and wealth relativized? What roles are played here by institutionalized science, the diverse forms of knowledge generation, or critical social theory? These are questions that need to be addressed by the transformative left.

Coming back to an argument we introduced at the very beginning of this chapter, The term 'socio-ecological transformation' has a time component, which is strikingly characterized by Tom Strohschneider.

> Those on the left must be better prepared than before to understand more about possible futures and at an earlier point in their development to implement their own imperatives, guidelines, etc. and to formulate attractive utopias from these. Otherwise, the making of future will take place without their involvement.
> (Strohschneider 2014, p. 88; similarly Zelik 2011; Thie 2013)

The German scholar and member of Rosa Luxemburg Foundation, Rainer Rilling, argues that the debate about futures, visions and pathways itself is a terrain of contestation (cf. also Horn 2018). How to think possible and desirable futures today, to integrate them into strategies and contest, to shed particular light on the actual in the sense of Ernst Bloch's 'real utopia', to indicate possible directions and criteria of change and foster a sense of the possible and to mobilize to approach those futures? In this context, Rilling (2014, p. 25) has identified 'transformation as futuring', since futures are indeed shaped and interpreted (e.g., through scenarios) by powerful actors, are thereby realized and become the object of (non-)decisions and (in)action. Futuring does not focus on possible futures but asks how those imagined futures are integrated in current societies. The current discussions on precaution, prevention, resilience, transformation, transition management and others 'hide the attempted colonization of an absent future continent, an annexation of and dominion over futures and events, which must first be updated' (ibid., p. 32). Conceptions of time (relations) and their control by power structures are of key importance here, to establish more or less clear guidelines for the future: for example, not only in the design of energy systems – with the impacts of today's investments stretching over decades and centuries ahead, the justification for war as 'preemptive' against 'global terrorism' – but also across the many resistance movements and alternatives with regard to different arrangements of working time.

In current attempts to hinder problematic, that is, authoritarian and destructive dynamics, and to foster emancipatory ones and to enable processes for a liveable and just future, the questions of democracy are crucial.

Chapter 7

Towards the Democratization of Societal Nature Relations

On first sight, democracy and ecology appear to be polar opposites, since reflexivity in societal nature relations would seem hard to reconcile with more equality and political participation. Indeed, the opposite seems true: There is an environmental cost to pay for democratization. With the establishment of social rights, resulting from the struggles of workers' movements from the late nineteenth century onwards, patterns of consumption with high levels of resource use and emissions diffused from the upper to the middle and lower classes. Meat consumption increased rapidly, particularly during the decades following World War II (WWII), and motorized transport, originally the privilege of elites, became a mass phenomenon (Sachs 1984).

Conversely, however, there are reasons for suggesting that it is precisely the existence of social inequality that has deepened the environmental crisis and that greater equality is associated with increased environmental protection. Thus, Wilkinson and Pickett have shown that environmental awareness and the efforts made in terms of environmental protection are greater in those countries with greater equality of income distribution than in those with greater income disparity. They suggest that this is caused by status competition, which increases along with social inequality and is expressed through the phenomenon of consumerism (cf. Wilkinson and Pickett 2010; Wright 2010).

If democratization, understood as the extension of social and political rights, is able to increase both the destructive and the reflexive qualities of societal nature relations, this begs the question of *what conditions* give rise to either one or the other of these cases. This question shall be examined in this chapter. We would like to show that historical democratization processes brought considerable political and social achievements, but very often the social compromises related to them implied and still imply more destructive

and domination-shaped societal nature relations. The project of radical democratization aims at the enhancement of political and social rights and, at the same time, more reflexive and less destructive societal nature relations.

The focus of our considerations here lies with the implications for democratic politics of the transformation of energy regimes, as constituted by the predominance of a particular energy source and the respective infrastructures of energy supply. We begin with a discussion of Timothy Mitchell's concept of *carbon democracy* (Mitchell 2011), that is, the form of democracy that is promoted by a coal-based and later oil-based energy regime. Following on from this, we examine the democratic potentials of a renewable energy regime, the fundamental features of which became visible through the crisis of the carbon democracy. Our central argument is that this crisis transforms the conditions for social conflicts and reveals democratic potentials that could not be found in the fossilist energy regime. Realizing these potentials in the sense of overcoming the imperial mode of living, however, requires the transformation of subjectivities and social power relations.

DEMOCRATIZATION VERSUS THE ENVIRONMENT: THE *CARBON DEMOCRACY*

In his book *Carbon Democracy* Timothy Mitchell highlights the fact that the present scope of political and social rights achieved in the global North is closely linked to the increase in economic significance of coal, the combustion of which for energetic purposes is a central cause of air pollution and climate change. Mitchell shows that the power of mine and transport workers, who extracted the coal and distributed it from large, centralized deposits, increased in proportion to the scale of coal's importance as an energy source. The capacity of these workers to interrupt the supply of coal to societies, as a strategic raw material, added weight to their social and political demands. Society and its elites became vulnerable as a result. The workers' structural power increased with their capability to disrupt production and distribution at key points and thereby to withhold products and services necessary for the reproduction of society.

Mitchell sees an important starting point for democratization here:

> A century ago, the widespread use of coal gave workers a new power. The movement of unprecedented quantities of fuel along the fixed, narrow channels that led from the coal mine, along railway tracks and canals, to factories and power stations created vulnerable points of passage where a labour strike could paralyse an entire energy system. Weakened by this novel power, governments in the West conceded demands to give votes to all citizens, impose new taxes on the rich, and provide healthcare, insurance against industrial injury and

> unemployment, retirement pensions, and other basic improvements to human welfare. Democratic claims for a more egalitarian collective life were advanced through the flow and interruption of supplies of coal.
>
> (Mitchell 2011, p. 236)

At first sight, it seems as though the transition from coal to oil weakened this close connection between fossil fuels and democracy, since the extraction and transportation of oil require more capital investment than coal and also rely upon a network of industrial site pipelines and tanker fleets, which is far less vulnerable to workers' struggles than the centralized infrastructure of coal production and distribution (ibid.). A closer view however reveals that – and this aspect has been neglected by Mitchell – in terms of democratic politics oil represents not only a setback but also a qualitative transformation: If coal had expanded the *structural power* of workers, the apparently limitless availability of cheap oil had revolutionized their *mode of living*. This is significant for democratic politics for two reasons: First, as the 'energy available per dollar earned' (Huber 2013, p. 180) increased, so too did the free time and the mobility of wage earners, thereby improving the spatio-temporal conditions for political participation. Second, the material reproduction of the *demos* now became increasingly dependent on access to cheap oil.

> Petroleum was not only the material basis for countless products themselves (e.g., plastics, clothing, and medicine), but also its centrality as transportation fuel ensured that even if products were not made with petroleum, they were distributed and consumed via petroleum-based modes of mobility.
>
> (ibid., p. 180–81)

Thus, the transition to oil as the most important source of energy created a link between democracy and ecology, which differed in important ways from the link based on coal. The economic reliance of society upon coal was associated with shifts of power in the spheres of production and circulation. The material characteristics of coal created in these spheres entry points for successful struggles for social and political rights. The workers' mode of living was hardly transformed by coal as a source of energy. Instead, it remained semi-subsistent until the second half of the twentieth century. It was precisely this that changed when oil replaced coal as the central source of energy. With oil, the fossil energy regime and capitalist production forms entered the capillaries of workers' everyday life. The source of energy was no longer a lever for the enforcement of rights, the usage of which was essentially independent of its material properties. It was far more the case that a constitutive link developed between energy source, capitalist forms of production, everyday life and democracy. Participation and the material reproduction of workers became coupled with an oil-based energy regime and the capitalist production

of goods for everyday life fuelled by this regime. As a result, production and consumption patterns that were extremely environmentally destructive became the norm in societies of the global North and inscribed themselves into political institutions through elections and other forms of participation (e.g., trade unions).

It is important to emphasize that the connection between the energy regime and democracy is not a causal relationship. A dominant energy source and the infrastructures for its use do not simply bring with them a form of governance that is adequate to their requirements. It is far more the case that they become interconnected with social, political, cultural and economic processes, which are related to the energetic and infrastructural processes at work (in that they facilitate each other's existence) yet cannot be reduced to these. The relationship between an energy regime and a specific form of democracy is not a necessity but rather a 'chance discovery' (cf. chapter 3) or the result of an intersection in which changes within mutually overdetermining spheres produce a movement into the same direction (Sieferle 1982, pp. 30, 56).

A key point for our argument on democracy and democratization is the following: *Carbon democracy* is an extremely limited form of democracy. On the one hand, it is based on unequal gender relations. The oil-based energy regime enabled the development of spatial and settlement structures that allowed little possibility of waged and reproductive work being fairly distributed on the basis of gender equality. Suburban single-family homes can only be accessed by means of private transport and, because of their monofunctionality, turn the combination of waged and reproductive work into a spatio-temporal challenge that is very difficult to cope with. They thus encourage and establish traditional forms of division of labour, which assign to the man the function of wage-earning 'breadwinner' and to the woman the function of the care worker (cf. Spitzner 2004, chapter 3). Gender democracy is specifically contradicted by the spatial structures of a fossil energy regime.

On the other hand, oil-based democracy is founded upon undemocratic North-South relations. This is equally true for the extraction of oil (resource side) and for the environmental consequences of its combustion (sink side). In terms of extraction, Mitchell shows how the cooperation between capitalist states and companies in the global North and conservative Islamic movements and governments in the global South provided each with access to oil reserves and enabled both together to suppress democratic aspirations where these arose (Mitchell 2011, chapter 8). Meanwhile, although the sinks, which absorb the CO_2 produced through the combustion of oil and other fossil fuels, are located mostly in the Southern hemisphere, they are mainly utilized by the global North or in some cases over-utilized – as indicated by global warming.[1] The fossil fuel-based production and consumption patterns of the global North rely, among other things, on the North's disproportionate use of resources, sinks and labour power, that is, they constitute the core of the

imperial mode of living. Safeguarding the latter cannot therefore easily be achieved by democratic means but relies largely on military force, unequal economic relationships and/or institutionalized coercion (especially in the form of trade agreements).

Since the final third of the twentieth century, that is, since decolonization had largely been completed, governments and liberation movements in the global South have again and again politicized the unequal appropriation of nature. Development needs were articulated not least as demands for the control of resources; in recent times, amid the evidence of climate change, the focus has also centred on the question of who is entitled to emit CO_2 and on what scale, and who may make use of the global sinks. Governments in the global South point to the still relatively low per capita emission levels of their countries and to the aggregated CO_2 emissions from 200 years of industrial capitalism in the global North. They insist that both measures should be accounted for in the design of new global climate agreements (a critical perspective in Moreno, Speich Chassé, Fuhr and Sachs 2015). This demand has a strong democratic content, as did the development demands of the global South that were increasingly articulated in the context of the United Nations Conference for Trade and Development in the 1960s and 1970s: It is about equality in the utilization of resources and sinks. Similar to the development debate of the 1970s, the current North-South conflict over the distribution of rights to emit CO_2 appears to confirm the irreconcilability of democratization and ecology. It is no accident that environmental problems at the beginning of the 1970s were modelled on a global scale for the first time (Meadows, Meadows, Randers and Behrens 1972), and it is also no accident that the debates about 'planetary boundaries' (Rockström et al. 2009) and the 'great acceleration' of global resources and sink use after WWII (Steffen 2004; Steffen et al. 2011; cf. Schaffartzik et al. 2014) take place at a time in which the spatial spread of fossilist production and consumption patterns is threatening to exceed the 'limits to growth' not only in terms of resource use but also of sink utilization. Democracy in the form of equality in the use of resources and sinks appears to be synonymous with an equality of over-utilization.

DEMOCRATIZATION AND ECOLOGY IN THE CRISIS OF FOSSILISM

Given the diverse crises of recent years, to what extent does this configuration exhibit fault lines, that is, to what degree is the interconnection between democratization and environmental destruction loosening in the context of the resource and sink-related crisis of the oil-based energy regime, or even transforming into its opposite? The important insight provided by Mitchell is

that the energetic basis of a society either opens up or shuts down opportunities for shaping social and political relations without however determining these relationships. The erosion of the fossil energy regime and the advance of renewable energies in many regions of the world therefore need to be thoroughly investigated to identify to what extent they are altering the conditions for emancipatory movements and enabling the relationship between ecology and democracy to be redefined. This does, however, not mean contrasting the current situation with worthy democratic ideals but rather, in the words of Marx, identifying 'the elements of a new society' and 'setting free something that has already developed in the womb of a collapsing bourgeois society' (Marx 1962 [1871], p. 343).

In this context, clarity is needed regarding the extent to which the oil-based energy regime is in decline, if at all, since this assumption is challenged by two observations. The first of these relates to the physical materiality of this energy regime. Given the low price of oil and the non-conventional extraction methods during this boom, fossilism shows no signs of being currently under threat, indeed to the contrary, it appears to be undergoing a revival. Two arguments counter this suggestion. The first counter-argument relates to climate change. Even if the oil supply to the global North and the rapidly industrializing global South were to be secured for the coming decades, the combustion of oil would push climate change to the point beyond which it would be self-reinforcing and possibly entirely beyond the control of humans (IPCC 2015). The second counter-argument is the foreseeable recovery of the price of oil; during the year 2017 there seems to be a stabilization at around $50 per barrel after the very sharp breakdown at the beginning of 2015 and another one in January 2016. The fact that there was a decrease in the price at all was only in part due to the exploitation of non-conventional oil reserves in the United States. In September 2014, oil extraction was around 3 per cent above the figure for the previous year. This cannot explain a price slump of between 20 and 30 per cent, which springs rather from speculation over possible falls in prices (Arzt 2014). The actual potential of these non-conventional oil reserves is still unclear. At the same time, demand for oil is growing[2] and the energy investment required is increasing in relation to the energy gained, in the case of both conventional and non-conventional forms of oil production (Zittel 2012). In other words, from the bio physical perspective, many factors point towards the limits of fossilism.

The second objection is based on the institutional dimension of the oil-based energy regime and its hegemonic embeddedness in the perceptions and practices of everyday life. The bio physical crisis does not necessarily produce an immediate institutional crisis, or a crisis of hegemony. The extent to which such a crisis emerges is far more closely related to a question of economic developments, social conflicts and scientific representations. There

are currently many indications that the carbon democracy possesses considerable powers of persistence. In the United States, for example, governmental attempts to protect against climate change have been successfully blocked by the Senate for many years, leading the former president Obama to pursue a reduction in CO_2 emissions by regulatory means, via the Environmental Protection Agency (cf. Kirchner 2014). In the European Union (EU), fossilist interests have managed to obstruct the realization of ambitious climate and energy policy goals (Geden and Fischer 2014). And in Germany, the revisions of the Renewable Energies Acts (EEG) 2014 and 2016/2017 restricted the decentralized expansion of solar and wind power capacities in favour of large-scale centralized structures, particularly in the form of *offshore* wind parks (Mahnke 2014; Nestle, Morris and Brunsch 2016). At the same time, 2014 saw so-called Special Utility Vehicles, with their intensive consumption of resources and emissions, enjoying the highest rates of increases for new automobile sales in Germany. For instance, in 2014 around 3 million new cars were licensed in Germany, 17.4 per cent of them were off-road cars and SUVs (more than small cars); for one sold car with electric engine came thirty-six sold SUVs in the same year (BMVI 2015; Stremmel 2015).

From a short- to medium-term perspective, the persistent power of the carbon democracy could thus lead to a situation in which fossilist patterns of production and consumption are secured (on an increasingly authoritarian basis, cf. chapter 1) in the global North, despite and indeed precisely due to their selective environmental modernization. This would result in a green capitalism, in which elements of a 'grey' and a 'green' economy, depending on the respective nationally and regionally divergent power relations between the capital factions involved, would combine (cf. Haas and Sander 2013; see also chapter 4). Internationally, a form of green capitalism could develop concomitantly with a partial readjustment of North-South relations, inasmuch as countries of the global South gain in geopolitical and economic influence on the basis of their access to agricultural or mineral raw materials or potentially also to the capacity to refine these (see, e.g., Brazil and also Indonesia, Malaysia and Singapore in the case of agrofuels; e.g., Brad, Schaffartzik, Pichler and Plank 2015).

Nonetheless, this would not overcome the problem of a highly unequal appropriation of nature. Even in the case of its environmentally modernized form, the imperial mode of living would remain reliant on a disproportionate use of resources, sinks and labour power on a global scale. That dependence would at best align itself with the specific needs of the 'green' segments of this new capitalist formation. Coercive elements in the relationship with the countries of the global South would thus in no way diminish. It is no accident that a document by the European Commission speaks of an 'active raw material diplomacy' (European Commission 2011a, p. 16), through which the EU intends to strengthen its economic interests.

The question is, however, whether a green capitalism or a carbon democracy that has been selectively modernized in environmental terms can be more than a transitional formation, whose socio-environmental contradictions could result in an institutional and hegemony crisis for the oil-based energy regime. The global spread of fossilist production and consumption patterns in the course of the economic and political rise of Southern countries suggests that precisely this development should be expected. In this context, the availability of cheap oil and other raw materials and the consumption patterns built upon these in areas such as nutrition, mobility or housing as patterns of mass consumption could become increasingly precarious, with the carbon democracy accordingly revealing itself also in the countries of the global North to be what it always was in the North-South relations: a *carbon oligarchy*. Having been for a long time the prerequisite for social participation and increasing prosperity, carbon democracy will become the obstacle to this at the very point at which it attains global generalization. Its success, in the sense of its global attractiveness and generalization, undermines its own conditions of existence, even in the context in which it has so far enjoyed the most success: in the countries of the global North. This contradiction may in the long term undermine the selective modernization of the carbon democracy in the framework of a green-capitalist formation that appears in the short and medium term to be viable, correspondingly leading to a physical-material crisis for the oil-based energy regime that will result in an institutional and hegemonic crisis.

It is important here to note that the contours of a renewable energy regime and its supporting organizations are already clearly identifiable. They are the product and driver of the crisis of the oil-based energy regime and at the same time point to a future beyond this. They are visible in the form of energy cooperatives, transition towns or energy regions, which reorganize energy supply on the basis of solar-, wind- or biomass-based energy and thereby reduce the influence of nuclear-fossilist large-scale suppliers. In Germany, this development is so far advanced and acknowledged as such that these companies are now facing an existential crisis. Their strategy for dealing with this crisis consists of jumping on the bandwagon of renewable energies, after having missed out on their launch phase, and steering them in the direction of a green capitalism. As the above-mentioned EEG amendment shows, they have been successful thus far. This, however, does little to change the fact – and here Mitchell's argument carries weight – that renewable energies have altered the conditions for social conflicts and opened up new democratic options.

Solar and wind energy are characterized by the fact that they are in principle cost-free, unlimited and universally available.[3] In contrast, the geographic concentration of fossil energies in limited reserves gave impetus to a centralized energy sector under the control of large companies. As we have

seen, this structure had important democratic implications: In a coal-based energy regime, it increased the structural power of the workforce, which was able to use this in order to obtain certain social and political rights. With the transition from coal to oil as the most important form of energy, a symbiosis developed between expanded social and political rights for the industrial workforce on the one hand and environmentally destructive production and consumption patterns on the other. A fundamental process of democratization did not take place, neither did it not prove possible to make democracy the starting point for reflexive societal nature relations. One reason for this lay with the materiality or 'the inherent requirements of the chosen energy sources', which took the form among others of a 'decoupling of the locations of energy production and the locations of energy consumption' (Scheer 2012, pp. 42, 43; cf. Altvater 1993, 2005).

Renewable energies also allow this spatial decoupling. In contrast to fossil energy sources, however, they do not require it. And it is precisely on the point of this specific materiality of the 'renewables' that current key energy conflicts are igniting: Should the expansion of renewable energies proceed in a decentralized fashion or, on the contrary, in the form of large centralized structures such as offshore wind parks or desert power projects, which are so capital-intensive that they can only be developed by large energy firms? How this highly conflictive constellation will conclude remains unclear. The remarkable aspect, however, is that it is taking place at all. It reveals that in the crisis of the fossilist energy regime and given the ascent of the 'renewables' options emerge, which did not exist before. They could turn the potential for environmental destruction associated with democratization under the conditions of an oil-based energy regime into its opposite.

ENERGY DEMOCRACY

The demand for 'energy democracy' is an important aspect of the debate currently taking place and forms the political focal point of numerous initiatives in different places and at different spatial scales (Kunze and Becker 2014). In contrast to the oil-based energy regime, democracy in these disputes is understood not as (spatially and socially exclusive) equality at a too high level of resource and sink utilization but rather as the key to dismantling the domination of nature that has become institutionalized in the carbon democracy. If all those who are affected by the consequences of decisions are included in the decision-making process, there is a greater likelihood that the results will be more reflexive and less destructive and domination-shaped in both social and environmental terms. The institutionalization of democratic procedures of this kind would be facilitated not least by the 'tendency towards decentralization'

(Sieferle 1982, p. 175) that is inherent to renewables and opens up the possibility of harmonizing the spatial arrangements of energy production with those of energy consumption. This cannot prevent environmental mistakes, but it does make them less likely, since the costs of such errors

> are carried by all. Since all are aware of this, they would be rather more inclined to try and hinder decisions that impact upon the environment, both nearby and far away.
>
> (Demirović 2012, p. 70, cf. Dietz 2011)

Political ecology has confirmed this relationship through numerous case studies focusing on the global South (see Robbins 2004). Environmental destruction in the interests of supposed socio-economic progress, as a crucial insight suggests, does not strengthen social and political participation by the majority but rather obstructs it and sharpens asymmetries in gender relations. Conversely, democratic forms of resource control represent the key to a more reflexive treatment of nature. The concept of the *environmentalism of the poor* (Martinez Alier 2002) puts this co-constitutive relationship between equality, democracy and ecology in a nutshell terminologically.[4]

Given the entirely different energetic circumstances of the global North, an increasing domination of nature was for a long time not the opposite to but rather a precondition for limiting the dominance of the ruling classes. This, however, functioned as such only because the socio-ecological costs of this relationship could be transferred via the imperial mode of production and living to the global South. As we have seen, this condition is in the process of being eroded. The environmental crisis is increasingly revealing its class-related character in the global North too (rendered visible, e.g., by the boom in sales of SUVs on the one hand and energy poverty on the other). It is becoming ever clearer that prosperity and quality of life for many no longer depend upon perpetuating the carbon democracy but rather upon vanquishing it. Meanwhile, the approaches of a decentralized energy regime based on sun, wind and biomass as well as the promotion of energy democracy have led to the emergence not only of new democratic options but also of concepts like “energy democracy” or “carbon justice” that will help to orientate the struggles arising from these.

Against this background, we consider radical democratization necessary, as an end in itself as well as a means to pursue new social alliances and patterns of production and consumption. As the recent rise of the extreme right in many parts of the global North has shown, liberal democracy is in severe crisis. The societies of the global North, particularly, are at a crossroads: Either they turn right on a path of exclusive and authoritarian stabilization of the imperial mode of living – this is what, for example, a fortress Europe

against migrants and refugees or Donald Trump stand for – or they turn left and begin to fundamentally transform their patterns of production, consumption and living. For this, a radicalization of democracy – that is, its expansion to the economic centres of social power from which it has been excluded up to now – is indispensable. Creating linkages among emancipatory demands and struggles and to convince progressive but not per se environmentally sensitive actors like trade unions to become part of an emancipatory socio-ecological transformation and the making of a good living for all and not at the cost of nature is a prerequisite we are dealing with in the final chapter of this book.

Chapter 8

Overcoming the Imperial Mode of Living

Political and Strategic Implications

The minimal social unrest in capitalist core countries, since the crisis starting in 2008 rests essentially on the fact that, in contrast to many countries of Southern and Eastern Europe and the global South, the reproduction of the subaltern classes was never seriously put into doubt. The imperial mode of living is the main reason why the capitalist core countries benefit from an unjust international order that guarantees them unlimited access to nature and labour power cheaper than that in the global North, on a world scale. It structures societal relations of production, consumption, class as well as gendered and racialized relations, the state and the dominant (international) division of labour. The imperial mode of living reproduces social inequality and, at the same time, has common characteristics for members of societies in countries of the global North and for growing middle classes in countries with so-called emerging economies. The crucial contradiction is that in times of globalizing capitalism the imperial mode of living means for parts of humanity a 'good living' at the cost of others, that is, it restricts the possibilities of a decent life for many others – and it cannot be generalized in space and time.

As we saw throughout the book, the imperial mode of living is inscribed into the institutions and everyday practices of an asymmetric geopolitical order and is backed by the economic, ideological and military force of the countries of the global North. In that sense, the term relates structural and everyday dimensions of social life. It has strong lock-in effects and path dependencies that hinder socio-ecological transformations. Within society, the imperial mode of living is rooted in the contradiction between capital and labour and simultaneously constitutes a central mechanism for social compromising. It links people of different parts of the world in unequal ways. And it connects the biophysical conditions within particular regions given

the restless search for exploiting nature and to throw its elements as 'natural resources' onto the world market.

It is not that people in the capitalist core countries consciously welcome the subordination of their colleagues from the global South and the over-exploitation of nature elsewhere. Rather, for the vast majority it is the necessity of selling their labour power on the market and to make their living from day to day which forces Northern wage earners into the imperial mode of living and at the same time enables them to benefit from it: through cheap raw materials and pre-products from Southern countries that are transformed or refined in Northern factories, through communication and transport infrastructure that facilitates production and mobility in the global North which would not be possible without the resources of the global South and the cheap labour which extracts them and through commodities such as food and clothes whose low prices facilitate satisfaction of basic needs in the global North through over-exploitation of nature and workers in the global South. In that sense, the imperial mode of living is for many individuals – and also for collective actors – a potential enhancement of their reach of action and, at the same time, poses restrictions for alternative actions.

Until the first half of the twentieth century, the imperial mode of living was restricted largely to the luxury consumption of the upper and upper middle classes. Large parts of the population were involved only at the margins, for example, through consumption of sugar from European colonies which provided the overexploited labourers of the nineteenth and early twentieth century with energy.

Things began to change with the Fordist class compromise after World War II. Owing to workers' struggles – that were related to other social movements like the women's movement – and their increasing structural and organizational power, a dynamically developing economy and the coupling of wages to increased labour productivity enabled large parts of the Northern working class to buy and consume products in a variety and at a magnitude never known before. The basic compromise between labour and capital rested – and still rests – on the willingness of labour to accept its subordination to capital under the condition that labour participates in the increase in material welfare enabled by a growing capitalist economy. Welfare increases, however, imply access to, and extraction of, resources. They produce emissions that have to be absorbed by natural sinks (such as forests or oceans in the case of CO_2), and they involve the exploitation of labour power elsewhere. The imperial mode of living was consequently generalized in the global North. TV sets, cars, industrially processed food, refrigerators, washing machines entered and shaped the everyday life of working and middle class households. They facilitated the reproduction of the wage earners at once as they perpetuated, or even strengthened, patriarchal gender relations and a neo colonial

world order. Without the resources, sinks and labour power of the global South, the production of Fordist durable consumer goods would have been impossible.

In the course of globalization – that is, the new international division of labour based on a high-tech revolution and shifting power relations – the imperial mode of living deepened in the global North and spread to the global South where a growing middle class has adopted the consumption patterns of its Northern counterpart. The dramatic socio-environmental consequences can be observed in the pollution of cities like Beijing and in rising eco-imperial tensions.

As we have also shown in several chapters, the imperial mode of living rests not only on capitalist accumulation and expansion, on particular forms of subjectivities and social hierarchies – and concurrently reproduces them – but also on an external sphere: on non-capitalist or less developed territories that can be appropriated and valorized and to which the socio-environmental costs of unsustainable patterns of production and consumption can be shifted. Its global spread implies that ever more of society becomes dependent on such external spheres. The land grabbing in Africa, Asia and Latin America, the conflicts over deep-sea resources and the struggle over emission quotas in international climate policy are examples of the tensions that arise from a globalized imperial mode of living. They threaten to increase over-exploitation of workers and nature, forced migration and the danger of military conflict.

In the remaining of this chapter and book we would like to criticize again on 'false alternatives' (see chapter 4) and point at some dilemmas of an emancipatory socio-ecological transformation. In line with what was written in chapters 6 and 7, we furthermore add some aspects that seem important to us to overcome the imperial mode of living.

FALSE ALTERNATIVES AND DILEMMAS FOR EMANCIPATORY ALTERNATIVES

As shown in this book, proposals like that for a green economy run the danger to form part of 'false alternatives'. Alternative strategies must not be reduced to CO_2 concentrations, solar-energy subsidies and large-scale technologies. More is involved. It is a question of how the concrete relations of people and of society to nature are shaped. Today this all too often takes an unsolidary and nature-destroying form. If this is to change fundamentally then social relations must be changed in the direction of a solidary and really sustainable mode of production and living. Such a change will be possible only if there are socially secured employment opportunities in which socially meaningful products are produced and if paid labour is not the only content of life ('live

in order to work') – paid labour must not only secure income but also be meaningful.

Another danger for emancipatory politics is to prioritize ecological questions, especially due to the pressing threat of climate change, over others. This raises the question of the extent to which the many conflicts and projects exist side by side or whether individual aspects may be put into first place. The latter occurs in wide swathes of the liberal transformation debate (see chapter 6), where ecological questions are prioritized over a more comprehensive critique of power and domination as well as the perspective of emancipation. However, this is not easy for progressive forces either.

> Experiences and social struggles have taught the emancipation movements that in the context of modern bourgeois societies, it is always one power that appears as a singular form of the universal and assumes the right to represent the emancipatory goals of all other powers. This is because the consequence of concentrating all emancipatory efforts into one particular theme is that others will be downgraded and one theme, one area for action, one emancipatory practice will be privileged in a one-sided manner and to the detriment of all others. One perspective then becomes dominant and tends to usurp the place of others.
>
> (Demirović 2011b, p. 527)

In contrast to this, it is of central importance that the unique logic of the manifold aspects of domination – ranging from class and gender-specific hierarchies, racialized and international boundaries, domination-based relationships with nature or the tensions between the urban and the rural – and their accompanying conflicts and struggles should be acknowledged and the relationships between them identified. This represents a core element of emancipation. Specific movements and conflicts for as well as areas of emancipation

> can only contribute to their own emancipation if they also contribute to freedom in other areas. None of the emancipation movements can achieve success for themselves alone without achieving universality in order to reach and to question the entirety and contradictory unity of the societal division of labour and relationships of domination.
>
> (Demirović 2011b, p. 542)

To make this important aspect of emancipation more concrete: There is no privileged role of workers' struggles within the sphere of formal production, albeit the conflicts and achievements here are important. But they often pursue a logic that is in tension with other claims. Trade unions, for instance, still think that they rely heavily on economic growth because they assume that social compromises and distribution is to be easier achieved when the capitalist growth machinery works. However, we know quite well that the

orientation to economic growth also causes social and ecological problems and hinders through its dogma of competitiveness the building of international solidarity – and that feminist and ecological struggles question the orientation at growth and formal wage labour. The perspective of a good living needs to transform the trust in growth and the focus on the formal market economy as well as on the political, economic and cultural mechanisms that are based on and lead to the capitalist growth imperative and a neglect on other forms of labour (Felli 2014; Stevis 2011).

Another dilemma for emancipatory perspectives and struggles is that the imperial mode of living and its inclusive and exclusive, its productive and destructive as well as its externalizing effects largely function on the basis of global capitalist competition and the fact that global capitalism is also organized within nation states. Beside 'vertical' struggles – especially among classes – within nation states, there are also compromises, often against the background of a 'national popular' orientation. When these compromises function and other conditions apply, dynamic growth models might emerge. There is a strong experience of capitalist development in Western countries after WWII of such strong social compromises. As we said, they were full of inequalities within and between classes; the post-War social contract was highly gendered and mainly on the backs of migrants. However, many people felt integrated and had experiences of growing wealth and social security.

A precondition for an overcoming of the imperial mode of living is – beside this 'vertical' perspective – a more 'horizontal' one, that is, that more dynamic capitalist economic development and related material wealth is possible because some economies are more competitive than others and that they have a more or less functioning capitalist growth model with certain mechanism of distribution, rights for the subaltern classes and mechanisms of imperial externalization. The international division of labour puts some regions in Latin America, Africa or like Russia in the position of a resource supplier. Others have the function of the 'global factory' like in China or Germany. And others offer cheap services with millions of people in call centres like in India. The dilemma is the relative consensus-building effect of a better position of a national economy within the global division of labour and the need to overcome this highly uneven, exclusive and destructive constellation.

This aspect is of utmost importance because what seems to happen with the current tendency of an authoritarian stabilizing of the imperial mode of living is that the politics to externalize the latter's negative preconditions and consequences gain more strength: the exploitation of natural resources at any cost, the further exploitation and even enslavement of humans, the keeping out of those who need to flee or wish to migrate away from their countries due to unliveable conditions, to name a few.

Currently, the political struggles over this kind of externalization materializes in restrictive European refugee politics, in the weakening of international

climate change politics and in free-trade agreements between the great powers and poor as well as weak countries.

OVERCOMING THE IMPERIAL MODE OF LIVING

Despite an ongoing dominance of neo liberalism and its increasing authoritarian orientation, there are manifold resistances (see Horn 2014 for an overview) and widespread resentments with its implications of social polarization, nature's destruction, growing insecurity and violence.

The challenge for alternative approaches in the global North and South is to develop concrete proposals that might unite around comprehensive horizons like a socio-ecological transformation or, in more popular terms, a good living for all (see chapter 6 and the first sections of this chapter). What is needed are patterns of production and consumption and manifold social relations linked to them that no longer rest on the destruction of nature and exploitation of labour power. The dogma of national competitiveness has to be replaced by the pursuit of international solidarity.

We call this a 'solidary mode of living' – always including the side of production (cf. Brand and Wissen 2017a, chapter 8).

At a rather general level of emancipation, this is quite clear. The visionary and strategic dimensions of a just, free and truly sustainable society should be linked to the (always ambiguous) project of enlightenment, that is, the contested realization of autonomy and self-determination; of freedom and justice; of forms of work, production and consumption, which are neither based on nor stabilize societal domination. The question of a democratic shaping of society and societal nature relations seems to be crucial. This implies not only the democratic control of resources but also of the manifold processes of production and consumption. Good living and well-being for all not at the cost of nature does not mean to have a society where everything is controlled and everybody lives alike. Not at all. Emancipatory forms to live together mean to create the *conditions* to live her or his own individuality which implies societal liberty, justice and a democratic shaping of societies.

Proposals for a socio-ecological transformation towards a solidary mode of living do not intend to develop a master plan but recognize that more and more people start to create alternatives: community gardens, barter groups, car sharing, reuse and recycle initiatives (cf. KNOE et al. 2017). Erik Olin Wright calls those initiatives 'interstitial transformation' (2010, chapter 10; in contrast to Wright, we would give civil society much more weight in transformation processes). There is resistance against large infrastructure projects; there are movements for food sovereignty and energy democracy as well as for the right to the city. There is the concept of the 'prosumer', that is, the merger of producers and consumers. There

are lots of experiences to learn from, among them is the One Million Climate Jobs Campaign (Campaign against Climate Change 2014).

Hans Thie (2013) argues that we can already identify principles of a deeply restructured society in those processes and experiences: cooperation instead of competition, the orientation to and practices of equity, more economic planning.

The common denominator of many initiatives is a use value–oriented approach. Production and consumption should not be driven by the objective of maximizing profits; the structural imperative to perpetually create new needs as soon as the means to satisfy them have been developed has to be overcome; efforts should be directed to democratically negotiate what and how much is necessary for a good living for all in line with the reproductive requirements of nature and constantly posing the question what might *not* be needed. In capitalist core countries, one step in this direction would be a trade union strategy that places more emphasis on reducing working time and promoting industrial conversion in line with principles of "just transition".

The challenge is to discover, systematize and strengthen those initiatives, to make links, to understand their strengths and weaknesses, their post-capitalist and emancipatory potential. It is worth to look at these small reforms. These smaller and bigger initiatives can contribute to a new understanding of prosperity and quality of life. Within the process of emancipatory socio-ecological transformations many initiatives might become increasingly aware that the changes induced by them should be put into a larger context and need the state's recognition and adequate legal frameworks. In order to get out of a niche and to make particular alternatives more relevant, they possibly need to confront powerful actors which defend their current position.

It is also an issue of mutual learning, transforming subjectivities and experimentally performing alternatives. As Räthzel and Uzzell (2011, p. 1221) have put it with respect to labour and its political representation:

> Unions need to reinvent themselves as social movements, not only responsible for the working conditions of their members, but for their general living conditions as well'. Therefore it is necessary 'to tear down the invisible wall that exists between workers as workers in workplaces and workers as citizens outside their workplaces.
>
> (ibid.)

In a Gramscian term (Gramsci 1991a [1929–1930], p. 111 and 1996 [1932–1934], pp. 1560, 1567), the political and social challenge is to assure that emancipatory societal and political actors overcome their own and others' narrow 'economist-corporatist' interests in favour of 'political-ethic' ones. That means to be ready for compromises and for developing a common emancipatory project. This might lead to a 'hegemonic and state' phase where

alternative projects are secured with the strategic financial, legal, physical and epistemic resources of the state.

What has to be emphasized are the different forms of socio-economic (re) production and changing *practices*, that is, the fact that people just *do* things differently. An increasing amount of young people in Western Europe do not eat any longer meat, in a city like Vienna more than half of the households do *not* have any longer a car, the everyday division of labour and the relationships between the formal economy and other forms of the production of well-being are changing. Brangsch (2015) argues that those changing practices or habits – and their enabling by respective framework conditions and societal discourses or even narratives of a good living – as well as the unlearning of others are at the centre of an emancipatory socio-ecological transformation. The discussion of a 'good living' for all, as it is currently so productively being led in Latin America, offers many stimuli here (Gudynas 2011; Acosta 2013; Lang and Mokrani 2013; Moreno 2014; Svampa 2016).

This also applies to the degrowth debate that is currently gaining strength in Europe (Martínez-Alier, Pascual, Vivien and Zaccai 2010; Kallis 2011; D'Alisa, Demaria and Kallis 2015; Adler and Schachtschneider 2017, KNOE et al. 2017). Its central argument is that the orientation towards economic growth as the crucial point of reference of economic policy and as an indicator of prosperity and quality of life no longer holds. Degrowth is

> a multi-faceted political project that aspires to mobilize support for a change of direction, at the macro-level of economic and political institutions, and at the micro-level of personal values and aspirations. Income and material comfort is to be reduced for many along the way, but the goal is that this is not experienced as welfare loss.
>
> (Kallis 2011, p. 878)

Only if the capitalist growth compulsion and profit logic cease to be dominant does the path open to a world in which people shape their own living conditions and social relations and their relation to nature according to democratic, solidary and truly sustainable standards. Normative principles, such as cooperation and social justice, are being re-introduced, while social movements are seen as the major subjects of change.

The degrowth perspective – and here we would like to conclude – articulates with the proposal of care and solidary forms of societal forms of reproduction (Tronto 2013; Netzwerk Vorsorgendes Wirtschaften 2013; Aguiar 2010). It makes the point that not profits, productivity and power but the caring for oneself, for others, for societies and nature should be the central reference of thinking and action. The German activist scholar Gabriele Winker calls for a 'care revolution' (Winker 2015), that is, that priority should be put on the

well-being of people, use values and the ecological reproduction of nature. It implies a reorganization of the societal and international division of labour. This is today the site of power and domination along the lines of class, gender, race, along manual and intellectual work, within and between nation states. Emancipation means also concrete form of divisions of labour that do not reproduce hierarchies and domination (Wichterich 2016).

Such sometimes very concrete and 'single-issue' and sometimes more comprehensive counter-hegemonic perspectives and struggles criticize or bear the potential of overcoming the imperial mode of living towards a more solidary one. And we must not forget that transformation occurs often unexpectedly (Wright 2010) and that emancipatory strategies and experiences should be aware that this could happen and that in those moments the existence of 'real utopias' is important.

In the year 2028, when we look back to what happened ten years ago, we might (hopefully) say: The election of Donald Trump as president of the United States at the end of 2016 and his polarising and socially and environmentally destructive politics were the start of a turning moment. For some time the move towards right-wing and authoritarian forces and politics in Asia, Europe and the Americas endured but then social movements, progressive elites and critical intellectuals started to organize and respond. Then, the Gramscian moment 'that the old is dying and the new cannot be born: in this interregnum, morbid phenomena of the most varied kind come to pass' (Gramsci 1991b [1929–1933], p. 354; Candeias 2011) proofed to be less and less true. Initiatives were realized to regulate the world market in order to leave space for local and regional alternatives, to phase out fossil fuels and weaken the powerful fossil fuel industry, to strengthen serious public debates about current problems and alternatives that are attractive for ordinary people and ecologically sustainable. Political and economy perspectives for people in many impoverished countries improved as the concrete living conditions did. 'Freedom' was not any longer equated with the interest of powerful groups. Instead, it was broadly accepted that the guarantee of freedom for everybody means to set democratically negotiated limits. Democratization was increasingly understood as a broad process that enhances the space of action 'from below' for weaker actors (Novy 2017). The free movement of people was enabled after years of segregation, and particularly the rights of environmental refugees were acknowledged. The limits to capitalist nature were overcome, the imperial mode of living was questioned in many fields and at multiple scales, and concrete utopias of a good living for all started to become realized.

Notes

1. THEORIZING THE IMPERIAL MODE OF LIVING: AN INTRODUCTION

1 However, neo liberalism was never a homogeneous or coherent world view, strategy or practice; it has always been contradictory. It was articulated with openly violent means (especially through military dictatorships), with conservative or social democratic strategies and social forces. And it changed over time. This is the reason why some scholars prefer the term *neo liberalization* (Castree 2008; Brenner, Peck and Theodore 2010) in order to indicate, according to specific conjunctures, the differentiated forms of implementing neo liberal policies.

2 Intentionally, we do use the notion 'imperial mode of living' in singular despite the enormous plurality of its manifestation. We want to link structural conditions with everyday actions and to indicate that this mode of living is a constraint and, at the same time, enables people's living.

3 Compare with I.L.A. Kollektiv (2017) that shows the functioning of the imperial mode of living in the fields of digitalization, care, money and finance, knowledge and education, alimentation and agriculture, mobility.

2. THE CRISIS OF GLOBAL ENVIRONMENTAL POLITICS AND THE IMPERIAL MODE OF LIVING

1 We are aware of the difficulties connected with the terms 'global North' and 'global South'. They take into account neither the increasing differentiation between peripheral and semi-peripheral countries nor the increasing socio-spatial inequalities within Southern *and* Northern countries. Furthermore, they raise the question of how to classify the former socialist countries. Because of the lack of a convincing alternative we nevertheless keep the two terms, with 'global North' mainly referring to North

America, Western Europe, Israel, Japan, Australia and New Zealand 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, including among others China, India and Indonesia in Asia; Brazil, Argentina and Venezuela in Latin America; South Africa in Africa; and Russia, Poland and Ukraine in Eastern Europe. See the list in Myers and Kent (2004, p. 17).

2 For an introduction and an overview of regulation theory, see Boyer and Saillard (2002); for a more recent critical discussion, see Jessop and Sum (2006).

3 Compare with the critique of the regulation approach by Thomas Barfuss (2002, p. 30): 'The concept of regulation presumes as the point of access a level of abstraction which does not permit singular phenomena from film, advertising, literature or everyday culture to enter into the overall picture without referring them to a specific regime of accumulation in an overly generalistic manner'.

4 Our argument here is informed by contributions to (global) political ecology (Forsyth 2003; Peet et al. 2011; Perreault, McCarthy and Bridge 2015) that draw on Gramsci (Mann 2009; Levy and Newell 2005) and Foucault (Luke 1999; Goldman 2004) and by the praxis theoretical work of practice theorists like Røpke (2009) and Shove and Walker (2010). Further theoretical references are in Brand and Wissen (2017c).

5 Compare with the investigation of the *innere Landnahme* (internal land-taking), that is, the generalization of wage labour and the expansion of industrially fabricated mass consumer goods into the traditional sector of West European countries after World War II, by Burkart Lutz (1989, pp. 210–28). However, Lutz did not address the ecological implications of this process.

6 A *sink* refers to an ecosystem that is capable of absorbing emissions, such as forests or oceans in the case of CO_2.

7 The 'ecological backpack' refers to the total volume of resources which enter into a product, minus the actual volume of that product (cf. Sachs and Santarius 2007, p. 55).

8 'Unequal ecological exchange' refers to a situation where a country 'constantly imports a higher volume of energy, raw materials and (indirectly) land area than it exports' (Sachs and Santarius 2007, p. 64; cf. Roberts and Parks 2007).

9 This will only be slightly mitigated by a possible transition to a 'green economy' as it is propagated by a rising number of political actors and factions of capital (Brand and Wissen 2011; Brand 2012a) since the production of green technologies in the global North also requires the import of increasingly scarce resources from the global South (UNEP 2011a).

3. CRISIS AND CONTINUITY OF CAPITALIST SOCIETAL NATURE RELATIONS

1 In the next section 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, Watson, Hand and Ingram 2007; surveys in Røpke 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 conceptualizing the relationship between society and nature as dualistic, which for Smith is most prominently expressed in the term 'domination of nature'. Smith introduces the concept 'production of nature' in order to emphasize the social character of nature. As we will see in the following, 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 conceptualization of the materiality of nature. See also Biro (2011).

4 These valorization crises arise in historically contingent ways. They can be crises of overaccumulation, occurring when capital does not find sufficient productive opportunities for valorization, 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 valorization.

5 This is the term Lipietz (1988) uses for a mode of regulation in order to emphasize its non-necessary character.

6 Here we think 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 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, and as a result, there is competition between different supranational entities. This they have in common with nation states, and it allows us to understand them as a rescaled form of territorial statehood, something that is not possible in the case of international state apparatuses (for more detail on this, cf. Wissen 2011, chapter 4).

7 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 at all spatial scales.

8 'Total material requirement' refers to all the primarymaterials (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, p. 61).

5. THE VALORIZATION AND FINANCIALIZATION OF NATURE AS CRISIS STRATEGY

1 For an overview and a comparison of different critical approaches to financialization, see Hein et al. (2014); on developments in the European Union, see Bieling (2013).

2 For a discussion about the contours of a finance-led regime of accumulation, see Aglietta (2000), Stockhammer (2007) and Sablowski (2009).

3 The distinction between a structural and a strategic dimension of hegemony is not explicitly made by Gramsci. Nevertheless, both dimensions can be detected in his theory, the structural one being overemphasized (cf. Opratko 2012).

4 Gramsci and Poulantzas focused on the class character of the state, but their conceptualization can be enhanced to other relations like gender (Ludwig et al. 2009) or societal nature relations.

5 TRIPs stand for Trade-Related Aspects of Intellectual Property Rights. The TRIPs Agreement is one of the three pillars of the WTO. The other two are the General Agreement on Tariffs and Trade and the General Agreement on Trade in Services.

6 Some scholars detected a 'mass investment culture' (Harmes 2001) or 'investor subjects' (Langley 2007) in the sense that a large portion of the population forms an active part of financialization. One indicator is that prior to the crisis, a large portion (50 per cent) of private households in the US-owned shares. In Germany and Austria, however, it has never been more than 20 per cent. And even in the United States most people have owned shares indirectly in the pension system (Redak 2009).

7 For more detailed considerations on these and further aspects of financialization, see Windolf (2005) who explains the implications of different forms of corporate financing, namely, loans and shares, on a company's strategy and on the prevailing mode of capitalist development; Kädtler (2012) and Müller (2012) analyse the contested internalization of the rationality of financial markets in the performance of industrial companies; Lapavitsas (2014) addresses the role of the state in financialization; Beyer (2002) and Höpner and Krempel (2006) study the dissolution of the so-called Deutschland AG ('Germany Incorporated'), that is, the close interrelationship between industrial and finance capital, trade unions and the state which had characterized the 'coordinated market economy' in Germany in the second half of the twentieth century. This came to an end within a few years under the increasing influence of global financial markets and the transformation of social and political relations of forces associated with it.

8 'Extended reproduction' means that, in contrast to 'simple reproduction', the surplus value is not entirely consumed unproductively by the capitalist but at least

partially invested in order to enhance the productive capacity. In other words, the surplus value is converted back into capital, which means that capital accumulation takes place. See Marx (1967 [1887], chapter 22).

9 Camila Moreno et al. (2015) introduced the concept of 'carbon metrics' as a possible project to convert CO_2 into one of the major accounting measures for future capitalism.

10 Of course, the three phases do not take place consecutively, and the state, for instance, is highly involved in the formation of interests, values and identities. But it is useful as an analytical distinction.

6. SOCIO-ECOLOGICAL TRANSFORMATION AS THE HORIZON OF A PRACTICAL CRITIQUE OF THE IMPERIAL MODE OF LIVING

1 This does not mean that the progressive results of movement struggles are immune against being coopted by ecological modernization strategies and becoming part of a green-capitalist mode of development (cf. chapter 4). Nevertheless, such struggles are important since they may imply an utopian potential that transcends the existing societal imperatives and orientations in favour of a more radical socio-ecological transformations.

7. TOWARDS THE DEMOCRATIZATION OF SOCIETAL NATURE RELATIONS

1 The measurement tool for this is the per capita emissions of CO_2, which in the countries of the global North remain significantly above those of the countries in the global South (although the trend is now for both to converge). See IEA (2014, p. 84ff.).

2 According to Haberl et al. (2011), two-thirds of the world's human population are currently experiencing or might experience in a not so far future a transition from agrarian to industrialized societies.

3 However, for many renewable energy forms, particularly solar energy transformed into biomass, the land question and the related question of enclosure and exclusivity of access are of decisive importance and have ignited numerous conflicts. See on this Backhouse (2016), Dietz et al. (2015), Brad et al. (2015) and *The Journal of Peasant Studies*, Vol. 39 No. 3–4 (2012).

4 Very similar insights are obtained through institutional economics, which in the debate on the *tragedy of the commons* thesis of Garrett Hardin (1968) identified the conditions according to which commons can be sustainably managed. These conditions include the autonomy of producers and the fact that their existence is dependent upon environmentally intact commons (Ostrom 2000).

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About the Authors

Ulrich Brand is a Professor of International Politics at the University of Vienna.

Markus Wissen is a Professor of Social Sciences at Berlin School of Economics and Law. Their work focuses on societal nature relations, political ecology, critical political economy and critical social theory.