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THE FINANCIALISATION OF FOOD, LAND, AND NATURE

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The Financialisation of Nature as Crisis Strategy¹

1. The financialisation of nature

In the course of the current crisis, financialisation has become a major issue in critical political economy². In general terms, it can be understood as “the increasing role of financial motives, financial markets, financial actors and financial institutions” (Epstein 2005: 3; on different definitions Heires/Nölke 2013)³. 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: 118, 123).

This article aims to contribute to the debate on the financialisation of nature from the perspective of political ecology and a Gramscian hegemony theory. In doing so, we address two shortcomings of the debate on financialisation. Firstly, it is often overlooked that processes of financialisation do not only have an investment and production dimension but also one of final realisation and 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 financialisation of nature in a more comprehensive way, we also have to analyse the societal effects of financialisation. Therefore, we argue that processes of the financialisation of nature imply a stabilising of the imperial mode of living and vice versa.

Secondly, in the financialisation literature we often find a conceptualisation of the state as the entity which creates the politico-legal framework for capital accumulation (Zeller 2008; Harvey 2003; cf. Heires/Nölke 2013: 262). This is certainly correct. However, the state cannot be reduced to this function. Instead, it has also to be understood as a *social rela-*

tion. State apparatuses are multiscalar terrains of conflict on which societal actors struggle for the generalisation of their interests and where these interests are simultaneously shaped. As far as the financialisation of nature is concerned, international state apparatuses like the World Bank and the IMF are of particular importance. They can serve as political facilitators for strategies of financialisation and contribute to organising the social consensus which their actual implementation requires.

Thirdly, and from a political ecology perspective, the financialisation of nature shapes societal nature relations and therefore societal relations 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 financialisation of nature is part of an emerging hegemonic project which we call *Green Capitalism*⁴. This project is possibly the most viable, potentially hegemonic outcome of capitalist attempts to deal with the current multiple crisis, especially with its economic, financial and ecological implications. By *multiple crisis* 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 by recent rises of food and energy prices. As we shall argue in the following, the financialisation 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 crisis can be dealt with not by questioning, but rather fostering the logic of capitalist globalisation.

We proceed as follows. In the second section of the paper we introduce our core theoretical concepts: the Gramscian concept of hegemony, which will allow us to understand financialisation as a passive revolution with profound implications for societal nature relations (cf. on the concept Görg 2011; Brand/Wissen 2014), and that of political ecology. The third section starts with a general outline of our understanding of financialisation. We proceed by analysing the financialisation of nature as one mode of

the passive revolution of post-Fordist restructuring. We discuss it as intrinsically linked to the universalising imperial mode of living at the end of the third section. In the fourth section, we turn to the tentative argument that the larger project of capitalist restructuring might take on the form of a Green Capitalism.

2. The *political* economy and ecology of financialisation

The concept of *hegemony* can be ascribed to Antonio Gramsci (PN 1: 101-102; all quotes from the German edition of the *Prison Notebooks*, our translations). 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 stabilised 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 universalise them, i.e. 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 ones⁵. There is also a “strategic-discursive moment in the ‘production of hegemony’” (Sum 2009: 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 PN 8: 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 devalorisation of capital and/or generate pressure to search for new spheres of capital valorisation. With Gramsci (PN 13: 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 relations 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 financialisation, 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 conceptualise the *political* economy of the financialisation 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: 159, translation UB/MW; cf. Jessop 2007; Aronowitz/Bratsis 2002; Hirsch 2005; Demirović 2011). Struggles and compromises of the past are inscribed into the state as laws, budgets, institutional practices, and orientations of state officials.

The state does not only “armor hegemony with force” (Gramsci PN 6: 783) but is crucial in giving interests and constellations of forces a certain durability, and in organising 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 reproduction⁶. 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: 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/Mahon 2009; Wissen et al. 2008 for more recent overviews), we have introduced the concept of the *internationalised 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 internationalised, i.e. transformed in such a way that institutions and actors (politicians and administrative personnel) internalise 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 in all spheres of social life (Hirsch 2005; Brand/Wissen 2012; Brand et al. 2011). This development and the materiality of the state is part of the contested politics of scale (Swyngedouw 1997; Wissen 2009, 2011).

The internationalised state plays an important role in the valorisation of nature. As we have shown elsewhere (Brand et al. 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 internationalisation. The latter thus can no longer be understood

without taking into account societal nature relations. Currently, geopolitical and geoeconomic conflicts are to a large extent fought out on environmental policy terrains. The most outstanding example of this is the conflict between the USA and China over emission reductions in the United Nations Framework Convention on Climate Change (UNFCCC) (Wissen 2010), the results of which will affect the possibilities of the opponents to further tread a fossilist development path. In conceptualising the (internationalised) 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/Bailey 1997: 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 institutionalisation 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 generalising perceptions of, nature and the environmental crisis, in turning particular perceptions into common sense and in marginalising, or transforming and selectively integrating, competing perceptions (cf. Mann 2009).

Processes of rescaling, such as the internationalisation 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 Agreement⁷ of the WTO. The latter is a product of a state rescaling: of an internationalisation of the state, which has been driven by powerful agroindustrial and pharmaceutical interests and has aimed to open up genetic resources to capitalist valorisation, thereby undermining the rights of those communities which, through their agricultural practices, have contributed to developing the very resources to be valorised (Brand et al. 2008). The internationalisation of the state is thus a medium and an outcome of a shift in societal relations with nature

and in the social relations of power and domination with which they are closely intertwined. As Swyngedouw (2004a: 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 sociophysical 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 internationalised state has also to be taken into account with respect to the financialisation of nature as a specific and recent form of its valorisation. As we will demonstrate in more detail below, financialisation was and is a process that is politically secured by powerful states such as the US, entities such as the EU and international state apparatuses such as the IMF, the World Bank, the WTO, and even the UNFCCC, with its ‘flexible’ market mechanisms to combat climate change. Financialisation 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 neoliberalised economic and political order, and to undermine the remaining democratic processes at the national scale.

3. The post-Fordist mode of development and the financialisation of nature

In this section, we will take a closer look at the origins and characteristics of financialisation in general, and the financialisation of nature in particular, as well as at the links between the latter and what we call the *imperial mode of living*.

3.1 Financialisation as passive revolution

After World War II, a temporally and spatially uneven globalisation 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 bread-winner model, auto-mobility, 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, i.e. (fossilist) production and consumption patterns which rely on a disproportionately high appropriation of labour force, resources and sinks on a global scale (Brand/Wissen 2012, 2013), 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 politicised 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 the 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, rationalisation, a reshaping of societal power relations, and a transnationalisation of the capitalist mode of production and living, the contradictions of globalised 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 industrialisation and proletarianisation, as in China, and the development of a globalised 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 societalisation.

Financialisation was and is an effect of strategies to restore profits and to deal with over-accumulation through privatisation, deregulation, a reor-

ganisation of the relationship between industrial and financial capital, the invention of new financial products, and the opening of new spheres of accumulation (Huffs Schmid 1999; Altvater 2005). Shares, mortgages, and consumer credits that create annual interest and dividends became more important. This process was justified by neoliberal 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.

Financialisation 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 maximising the shareholder value, i.e. the short-term return on investment has gained priority over long-term competitiveness. Often, industrial firms themselves have turned into financial actors, 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 et al. 2011).

Secondly, financialisation is characterised 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.

Thirdly and closely connected to this, a pervasion of ever more spheres of daily life by financial market products has taken place (Heires/Nölke 2013: 257f). 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 labor force during Fordism drove the accumulation of industrial capital, after Fordism it has driven the accumulation of financial capital” (Sablowski 2009: 125, our translation). The growing demand here has to do with stagnant wage incomes and the transformation of social security

systems, i.e. accumulation has been increasingly driven by credit and debts (Lapavistas 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’⁸ – 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 middle classes has benefitted from these developments. Concerning pensions, they have been forced to become part of the financialisation process.⁹

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 was widely accepted in the capitalist centres and became more and more attractive in industrialising countries. A certain restructuring of the economy, high productivity in the core branches, new products and an attractive digitalisation 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, realise 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 realisation 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 current economic crisis which began in the United States 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/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 crisis – such as rising food prices, increasing resource conflicts and the overexpansion of the capacity of global sinks to absorb CO₂ – suggest a growing scarcity of crucial commodities, or of resources and natural processes which could be turned into 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: 10). This is underlined by the spread of Northern production and consumption patterns to industrialising 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 CO₂. As we will argue in the following sub-section, financialisation intensifies the commodification and valorisation of nature.

3.2 The financialisation of nature as a crisis strategy

The private appropriation and marketisation of natural resources has long been a central component of capitalist societalisation, and was intensified during Fordism (Brand et al. 2008; Crosby 1972; Altvater 2006; 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 (Brand et al. 2008, Madsen et al. 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 2003: 286). In political ecology, this development has been described as “green grabbing”, i.e. “the appropriation of land and resources for environmental ends” (Fairhead 2012: 238; see also Peluso/Lund 2012).

Financialisation has become an increasingly important element of the appropriation of nature and a medium through which the valorisation paradigm has been implemented. The main strategy to combat climate change, for example, is to commodify the atmosphere; the dominant medium is financialisation, i.e. emission trading (Lohmann 2010; Brunnengräber 2006; Zeller 2010; Brand et al. 2013; Kill et al. 2010). Another example is the quite recent ‘rediscovery’ of land and agriculture. A few years ago, an OECD study estimated that between 10 and 25 billion USD were invested by the private financial sector in agricultural and farmland, a figure which was expected to grow sharply within the next years (HighQuest Partners 2010: 1). Christian Zeller (2010) argues that rent, i.e. income based on property rights and as part of the distribution of surplus value, has become a central means to valorise 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, given the foreseeable exhaustion of fossil resources, becomes increasingly dependent on renewable sources, the utilisation of which is more land consuming than that of fossil energy carriers (see below).

A further example of the financialisation 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 US in 2002 to \$200 billion in 2008, while the value of general commodity exchanges grew 500 per cent (Kerkhoffs et al. 2010: 6-7). After 2001 capital flew increasingly into commodity markets, especially oil but also food, and promoted their financialisation (Stiglitz Commission 2009).

These examples point to very diverse qualities of the financialisation of nature. The valorisation of the atmosphere as a means of coping with climate change does not induce an extended reproduction of capital.¹⁰ 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. The financialisation of land and that of agricultural goods is different. As Madeleine Fairbairn has recently argued, the financialisation of agriculture could be interpreted as a “return to the real” (Fairbairn 2014: 6): 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” (ibid.: 6), the exchange value and the use value of agricultural land in contrast to urban real estates can hardly be separated from each other. The current wave of investments into agriculture therefore could be understood as a financialisation which is not opposed to, but rather mediates extended reproduction and thus real accumulation: “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” (ibid.: 3). Looked at in this way, the valorisation of nature, in the form of its financialisation, 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” (Altwater 2005: 114, our translation). 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 et al. 2014). That means that the relation 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, nevertheless selective and socially exclusive hegemonic project called Green Capitalism. We will come back to this point in the last section.

The processes of financialisation are politically mediated. The political-legal conditions for the appropriation of nature and its partial financialisation – financialisation is not the exclusive form of nature appropriation – are created by the internationalised 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 (CSS). 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/Vadrot 2013; Vadrot 2014; McAfee 2012; Gómez-Baggethun/Ruiz-Pérez 2011). 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 the 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 stabilising or shaping certain developments and constellations, for instance in promoting nuclear or solar energy. Moreover, the internationalised 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.

3.3 Financialisation and the imperial mode of living

The literature on financialisation focuses primarily on the production side. However, in order to understand the dominant and contested

forms of the financialisation of nature, it is important to also consider the complementary forms of reproduction, since these are a decisive part of capital valorisation. Processes of financialisation of nature tend to stabilise 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 (Brand/Wissen 2012, 2013). They consist, as it was said, of further commodification and valorisation – 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 financialisation. The concept of an imperial mode of living does not refer only to lifestyles of different social milieus. It aims to recognise 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 the countries of the Global South. In recent years, the globally attractive imperial mode of living has been unevenly globalised. A large group of “new consumers” (Myers/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.

The imperial dimension – used as an analytical and not a moral term – implies that the everyday practices, including orientations and identities, of people rely disproportionately on resources and cheap labour from elsewhere and that the availability of commodities is organised through the world market, backed by military force and/or the asymmetric relations 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: 612) 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, i.e. the reproduction of the wage earners itself became a sphere of capital valorisation and they participated to greater or lesser extents in productivity increases. In the semi-periphery, parts of the urban middle classes joint this obviously attractive mode of living. This resource-intensive model is the main reason for many dimensions of the ecological crisis.

Since the 1990s the partial shift towards patterns of financialisation has played an increasing role in the reproduction of the imperial mode of living, i.e. 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 neoliberal pressure in the capitalist centres are reduced through enhanced access to globally-produced commodities traded in liberalised markets (which is a means of increasing relative surplus value). Again, 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 universalised in many countries of the Global South, where development in the sense of capitalist modernisation and 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 universalisation of the production and consumption patterns, form a part of post-Fordist growth constellations. At the same time, this universalisation creates resource and land-use conflicts, geopolitical tensions, intense capitalist competition, and ecological degradation.

Crucial in our context is, firstly, the fact that the universalisation of the imperial mode of living turns mineral and agricultural resources as well as sinks into increasingly scarce goods. Valorising them, i.e. 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 overaccumulation. 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 securitised mortgages on private housing which led to the crisis in 2008, they induce extended reproduction in areas as indispensable as nutrition (see Fairbairn's diagnosis of a "return to the real" as mentioned above). Secondly, the current efforts to 'green' the economy 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 (for example, biomass for fuels, copper for renewable energy and so on; see above). In other words, the greening of the economy, which is nothing else than the perpetuation of the imperial mode of living through its ecological modernisation, 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. Like the latter, it will make certain parts of nature increasingly scarce and thus attractive to a process of valorisation through financialisation.

A third link between financialisation and the imperial mode of living lies in the fact that, given the privatisation 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 above, social housing is replaced by mortgage loans and public old age insurance by private pension funds, then the everyday life of many people reproduction 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 financialisation of nature and, vice versa, the financialisation 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 internationalised state promote and secure these developments. Generally, policies and politics on the national scale are oriented towards them. In countries with strong resistance movements, like India or Brazil, opposing interests and perspectives are partially integrated, marginalised, 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 G8 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 neoliberalisation 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 WTO¹¹. This sectoralisation 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/Görg 2013).

In sum, the manifold processes of the financialisation of nature contribute to stabilising the imperial mode of living up to a certain extent, and vice versa. Even in the current crisis, the latter 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.

4. The financialisation of nature and the project of a Green Capitalism

We have addressed the financialisation of nature from a perspective informed by hegemony theory and political ecology. A crucial question to which we shall now turn 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. We risk a tentative answer by arguing that – beside a possible permanent crisis – under the existing conditions the project of a Green Capitalism has the highest potential of becoming hegemonic.

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”, i.e. it is transferred into a state-hegemonic phase (Gramsci PN I: III, PN 13: 1567)¹².

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 it is also a question of interests and values. Furthermore, it is a process of trial and error 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, 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 financialisation 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 on specific forms of energy and food production and consumption, on economic and political power relations, and 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 the analysis is to develop conceptual tools which might contribute to a better understanding of the concrete functioning and effects of financialisation, 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.

Our point to note at this stage is that when the elements outlined above get more or less stabilised and contribute to overcoming the current crisis, a new mode of development might emerge which we call Green Capitalism. At the level of political strategies and legitimation, such a project might be framed as a Green Economy. A driving force of such a Green Capitalist project would be the further valorisation 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 financialisation 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 crisis, namely the crisis of energy and resources (including food), offers an entry point to overcome another dimension, namely the economic crisis, through signaling a scarcity of important goods and natural resources which could be converted into commodities (for instance, land which could be used for food or biofuel production, or the potential of forests to absorb CO₂; cf. Koch 2012).

Such a project will evolve unevenly in space and time. In the medium term, it could be successful in countries like Germany and Austria, provided that a range of social forces gather in support of it. Such forces comprise, amongst others, the green factions of capital, sections of trade unions, and environmental and consumer associations, all of which also get articulated through political parties and are for the moment present in certain state apparatuses. Even in China and the USA, state anti-crisis policies indicate that interest in ecological modernisation is gaining strength. In Great Britain, the debate concerning the valorisation of nature is closely linked to the finance sector and to the issue of financial services, for example in the emissions trading sector.

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. The promotion of renewable energies competes (and also sometimes co-exists) with the use of fossil resources from 'unconventional' sources (fuel from deep-water oil fields or from tar sands, gas from induced hydraulic fracturing in deep underground

rock formations), which are accessible by means of technological advances and whose exploitation – due to rising energy prices – becomes more profitable. As Jonas Rest (2011: 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. Green-capitalist projects could be established in authoritarian variants, but also, as in countries such as Germany or Austria, in the form of a green corporatism that integrates the majority of the wage-earners and their representatives.

In sum, the valorisation and especially the financialisation 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 modernisation of the imperial mode of living – implicating in turn all the related conflicts and forms of marginalisation. 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.

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- 2 For an overview and a comparison of different critical approaches to financialization see Hein et al. (2014).
- 3 There is an intense debate if a finance-led regime of accumulation exists and what characteristics it has, e.g. which significance larger instabilities and lower growth rates compared to the Fordist constellation have, what role the state and private households play, etc. (Aglietta 2000; Stockhammer 2007; Redak 2009; Sablowski 2009). However, we do not deal with this discussion here.
- 4 Newell and Paterson (2010) introduced the concept of “Climate Capitalism” which points at similar developments.
- 5 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).
- 6 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 (Brand/Wissen 2012, 2013).
- 7 TRIPs stands 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 (GATT) and the General Agreement on Trade in Services (GATS).
- 8 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 US most people have owned shares indirectly in the pension system (Redak 2009).
- 9 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; Lapavistas (2014) addresses the role of the state in financialization; Beyer (2002) and Höpner/Krempel (2006) study the dissolution of the so-called “Deutschland AG” (“Germany Incorporated”), i.e. 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 20th 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.
- 10 “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 (1988 [1867]: chapter 22).
- 11 Interestingly, the political conflicts over the tectonic changes in the world economy and world politics are now partially fought out on environmental terrains like the

UNFCCC or the CBD, e.g. about the question of the right to pollute. This is the reason why the US has not yet accepted the Kyoto Protocol and the CBD. At the same time, these terrains cannot handle those conflicts because they do not have the means (and are not supposed to have them) to deal with profound geo-political and geo-economic shifts (Wissen 2010).

12 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.

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Abstracts

The financialisation of nature has been intensified during the current multiple crisis. It has gained importance given an ongoing over-accumulation, problems with the enhanced reproduction of capital, and the problems resulting from the financialisation of other sectors (such as housing). This article aims to contribute to the debate on the financialisation of nature from the perspective of political ecology and hegemony theory. We argue that the financialisation of nature (a) is part of a class strategy which attempts to overcome the current crisis in the sense of a passive revolution; (b) is politically mediated in a process in which the internationalised state plays an important role; and (c) is based on the imperial mode of living of the Global North, and thus shapes societal nature relations. The financialisation and commodification of nature is part of an emerging hegemonic project which we call Green Capitalism. 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.

Die gegenwärtige multiple Krise hat zu einer verstärkten Finanzialisierung von Natur geführt. Den Hintergrund bilden die Überakkumulation und die Probleme der erweiterten Reproduktion von Kapital sowie die Verwerfungen, die aus der Finanzialisierung anderer Bereiche (beispielsweise des Wohnungssektors) resultieren. Ziel des Beitrags ist es, aus der Perspektive der Politischen Ökologie und der Hegemonietheorie zur Debatte über die Finanzialisierung von Natur beizutragen. Wir begreifen Finanzialisierung (a) als Teil einer Klassenstrategie, die die Krise im Sinne einer passiven Revolution zu überwinden versucht, (b) als politisch vermittelten Prozess, in dem der internationalisierte Staat eine zentrale Rolle spielt, und (c) als Prozess, der auf der imperialen Lebensweise des Globalen Nordens basiert und entscheidend für die Gestaltung der gesellschaftlichen Naturverhältnisse ist. Die Finanzialisierung und Kommodifizierung von Natur sind Teil eines sich herausbildenden hegemonialen Projekts, das wir als grünen Kapitalismus bezeichnen und das hohe sozial-ökologische Kosten in Form von Enteignungen, Landnutzungskonflikten und der Zerstörung von Natur verursacht.

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