

New Research in
Global Political Economy



Anil
Shah

Destructive Creation

Analyzing Contemporary Socio-
Ecological Conflicts as Frontiers of
Capitalist Development

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The day capitalism is forced to tolerate non-capitalist societies in its midst and to acknowledge limits in its quest for domination, the day it is forced to recognise that its supply of raw material will not be endless is the day when change will come. If there is any hope for the world at all, it does not live in climate change conference rooms or in cities with tall buildings. It lives low down on the ground, with its arms around the people who go to battle every day to protect their forests, their mountains and their rivers because they know that the forests, the mountains and the rivers protect them.

The first step towards reimagining a world gone terribly wrong would be to stop the annihilation of those who have a different imagination—an imagination that is outside of capitalism as well as communism. An imagination which has an altogether different understanding of what constitutes happiness and fulfilment. To gain this philosophical space, it is necessary to concede some physical space for the survival of those who may look like the keepers of our past, but who may really be the guides to our future. To do this, we have to ask our rulers: Can you leave the water in the rivers? The trees in the forest? Can you leave the bauxite in the mountain?

If they say they cannot, then perhaps they should stop preaching morality to the victims of their wars.

—Arundathi Roy (2010)

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List of Abbreviations

CDM	Clean Development Mechanism
COPINH	Civic Council of Popular and Indigenous Organizations of Honduras
CSR	Corporate Social Responsibility
EJA	Environmental Justice Atlas
EJOLT	Environmental Justice Organization and Liabilities
GMO	Genetically Modified Organism
GPE	Global Political Economy/Ecology
NGO	Non-Governmental Organization
IFC	International Finance Corporation
IMF	International Monetary Fund
IPE	International Political Economy
PES	Payment for Ecosystem Services
TNC	Transnational Corporation
UN	United Nations
UNDP	United Nations Development Program
UNFT	United Nations Interagency Framework Team for Preventive Action

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Abstract

This thesis proposes a new theoretical framework to analyze contemporary socio-ecological conflicts from the perspective of Global Political Ecology. Building on 1636 cases from the Environmental Justice Atlas (EJA), these conflicts are understood as incompatible value struggles around material livelihoods between transnational corporations (TNCs) and local communities. Marx's notion of primitive accumulation is re-conceptualized by including criticisms from feminist and ecological scholars, and by broadening the concept from the perspectives of Gramscian hegemony and French regulation theory. Accordingly, primitive accumulation is understood as *class struggle from above* which is fought on the terrain of the integral state. Complementary to Schumpeter's famous notion of Creative Destruction, it is suggested to frame and analyze current socio-ecological struggles as processes of Destructive Creation. While the former stresses intense competition between capitalist corporations and brings the importance of innovation to the foreground, the latter highlights the complementary forceful and imperial extra-economic moments necessary for sustained capital accumulation. Socio-ecological struggles are thus interpreted as frontier-making processes in capitalist development, dividing capitalist and non-capitalist modes of production.

Acknowledgements

This thesis is my own work, and yet it is not. Numerous people, conversations, events, books, and much more have shaped my understanding and interests in recent years, both in historical materialism and socio-ecological research. To name all would be impossible. But if it were not for some of the following, my master's studies and eventually this thesis would probably have taken a very different trajectory.

First of all, I would like to thank Verónica Romanowski, Joaquín Bernaldez and Sonja Buckel for exposing me to Marx's concept of primitive accumulation in their respective seminars. The concept immediately struck me as more than just a historical metaphor. I instantly thought of its usefulness to contextualize and to understand North-South inequalities in terms of access to and use of land, water, and other natural resources. Thus, I started to read many re-conceptualizations of primitive accumulation, many of them crucially inspiring this work. If it were not for an internship with the Berlin-based NGO PowerShift and the German Working Group on Raw Materials (AK Rohstoffe), my interest in socio-ecological conflicts, particularly mining projects, would not have been as thorough.

Moreover, the master's program *Global Political Economy* offered a great intellectual and social atmosphere to learn and develop my own ideas together with fellow students and teachers. I have made use of many of the theoretical inspirations, especially influences from regulation and hegemony theory, which certainly derive from the setup of the program. A reading circle on Marx's *Capital* was a crucial part of this atmosphere. Thus, I would like to thank Norma, Jannis, Anne and Stefan for lengthy discussions on the commodity form, the labor theory of value, ecological dimensions of capital, and much more. These *Breakfasts with Marx* surely helped me to clarify some of my arguments and to unravel Marxian dialectical thinking.

I would also like to thank Christoph Scherrer and Christoph Görg for supervising the thesis and for supporting my initial ideas despite some reservations with regard to the scope of the thesis. Their critical questions and remarks on the outline and preliminary chapters of the thesis were much appreciated. Also, I feel indebted to Sam, Anne, Ina and Norma for their proof-reading and valuable commenting on parts of this work. For the working paper version of this thesis Alexander Gallas, Rima Schmauch and Amanda Schimunek made valuable comments and corrections.

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1. Introduction: 'Projects of Mass Destruction'

On March 3, 2016, Berta Cáceres was shot dead in front of her house in La Esperanza, Honduras. As a relentless mobilizer, educator and cofounder of the Civic Council of Popular and Indigenous Organizations of Honduras (COPINH), Cáceres was a powerful leader in the indigenous fight for territorial integrity, women's rights, and resisting corporate claims to the commons. In 2015, she was awarded the prestigious Goldman Environmental Prize for her role in opposing the Agua Zarca dam, one of Central America's biggest hydro power projects.¹ The Honduran government and the private energy company Desarrollos Energéticos, SA (DESA), are determined to realize the project despite violations of the right to prior, free and informed consultation of the indigenous Lenca people (COPINH 2016). The latter fear displacement from their territory and dispossession from access to the Gualcarque river basin by the dam project, "destroying the natural riverbed that is a sacred place for the Lenca people, destroying unique ecosystems, biodiversity, fauna, agricultural production, food and natural medicines, and forest" (COPINH 2016).² The Agua Zarca dam project was initially backed by Sinohydro, one of the world's largest construction companies, the World Bank's private sector arm, the International Finance Corporation (IFC), and other large financial and construction companies like the Central American Bank for Economic Integration, the Dutch Development Bank, the Finnish Fund for Industrial Cooperation and the German company Voith-Hydro (Siemens).³ As such, the struggle over the Agua Zarca dam, mainly fought between *private corporations* backed by state power and the *affected communities*, is a prime example of contemporary socio-ecological conflict.

Socio-ecological struggles similar to the intensifying situation in Honduras are ongoing all over the world. In March 2016, for example, hundreds of environmental, cultural and political activists marched against a coal-based power plant near the Sunderbans in Bangladesh, the world's largest mangrove forests (Hindustan Times 2016).

¹ For a more detailed account of the case, see Environmental Justice Atlas: <https://ejatlas.org/conflict/proyecto-hidroelectrico-agua-zarca-honduras>.

² The Goldman Prize jury found COPINH's activities of vital importance in the context of an increasingly authoritarian regime in Honduras, which was re-implemented after a coup d'état in 2009. Since then, "30 percent of the country's land was earmarked for mining concessions, creating a demand for cheap energy to power future mining operations" (Goldman Prize 2016).

³ After the militarization of the conflict between the local community and DESA as well as massive human rights violations against the protesters including the murder of COPINH activist Tomás García, Sinohydro and the IFC withdrew from their contracts. Following the murder of Berta Cáceres in early March 2016, and Nelson García, who was shot two weeks later, other international investors have also considered withdrawing from the project (Bosshard 2016).

Professor Anu Muhammad, member secretary of the National Committee to Protect Oil, Gas, Mineral Resources, Power and Ports, commented on the venture in an interview: “It is a project of mass destruction” (FirstPost 2016). Following this statement, one can observe a number of ‘projects of mass destruction’ throughout the globe. The *Environmental Justice Atlas* (EJA) represents the most comprehensive collection of such projects and related conflicts, currently encompassing more than 1700 cases globally. These occur in 120 countries and involve disputes between private corporations and civil society groups around such diverse projects as mining operations, the creation of carbon markets, and toxic waste management in the context of the shipbreaking industry (Hill 2015; The Oakland Institute 2014; Demaria 2010). To put it in the words of environmental activist Sunita Narain:

“It would not be wrong to say that virtually all infrastructure and industrial projects — from mining to thermal and hydel and nuclear power to cement or steel — are under attack today from local communities who fear loss of livelihoods. [...] They know that when the land is mined and trees are cut, their water source dries up or they lose grazing and agricultural fields. They know they are poor. But they are saying, loudly and as clearly as they can, what we call development will only make them poorer“ (Narain 2011).

What is characteristic of all these development projects is that they fundamentally affect the very basic living conditions and livelihood opportunities of the resident population. To paraphrase Arundathi Roy’s introductory quote, civil society resistance against such projects is best understood as an *everyday battle* of communities “to protect their forests, their mountains and their rivers” (Roy 2010) from corporate aspirations of valorization.⁴

In analyzing the strategies of activists in 126 environmental conflict cases in 78 different countries, Langholz et al. (2013) come to the following conclusion: “Disputes over minerals, forests, wildlife, water, and other natural resources continue to rise in frequency and intensity across much of the world. Few scholars have described specific approaches to addressing these disputes, and none have done so systematically across multiple locations with a uniform nomenclature”. This is not to say that analyses and reporting on many of these cases is lacking. On the contrary, research on *specific cases* is tremendous and includes contributions from ecological economics, political ecology, and anthropology (Gerber et al. 2009; Martinez-Alier et al. 2009; Escobar 2006), as well as a number of NGO studies (ESCR-Net & IHRC 2013; FacingFinance 2014; Kirsch & Moore 2016; Urgewald

⁴ For a detailed account of valorization, see Görg (2004).

& FIAN 2013) and popular articles from journalists (Roy 1999; Klein 2011).⁵ However, what seems astounding is the absence of grand narratives which systematically combine the organic evolution of socio-ecological struggles and broader dynamics of the global political economy, while taking both processes seriously.⁶

This thesis investigates contemporary socio-ecological conflicts as value struggles around people's material livelihoods. More precisely, it is an attempt to develop a historical materialist theory of these conflicts. As such, the primary research interest is directed towards the question of *how to conceptually understand* contemporary socio-ecological conflicts from a critical GPE perspective.⁷ Putting emphasis on the conceptual understanding, this thesis is in large part a theoretical project that attempts to develop a novel framework to understand these struggles. Nonetheless, it builds on empirical data from the EJA, relevant case studies, and existing literature.

The argument will be developed in four major steps. After briefly reflecting on the selection of data, chapter 3 will develop empirical characteristics of contemporary socio-ecological conflicts based on data from the *Environmental Justice Atlas* (Temper et al. 2015b). This section will thus substantiate the assumption that these struggles share common ground. In particular, it will focus on how these conflicts are defined, where they occur, what they revolve around, and who the conflicting parties are. Based on these insights, chapter 4 will map the existing literature on the subject matter, focusing on theoretical arguments that attempt to explain the relation between socio-ecological struggles and the global political economy. Although particular emphasis will be placed on critical approaches from political economy and political ecology, literature from development, institutional and environmental economics is also incorporated. This rather detailed review of concurring approaches first and foremost serves as a foundation for the evolving argument. Thus, blind spots in various research strands are outlined and summarized into a distinct research gap. Subsequently, chapter 5 will conceptualize a new perspective on these struggles which is mainly informed by an eco-feminist re-writing of Marx's notion of primitive accumulation, while consequently employing regulation and hegemony theory. Against this background, it will be argued that contemporary socio-ecological conflicts are best understood as frontier-making processes of capitalist development, co-producing its further trajectory. As such, they are the complementary epiphany to processes of Creative Destruction, thus Destructive

⁵ A more detailed review of academic literature on these conflicts will be presented in chapter 4.

⁶ To take both dimensions seriously implies not reducing either to the inherent dynamics of the other.

⁷ Global Political Ecology (GPE) as employed in this thesis is best understood as a productive link between a critical International Political Economy (IPE) and essential thematic and methodological insights from Political Ecology. For an introduction, see also Peet et al. (2011).

Creation. Finally, chapter 6 will synthesize the developed theoretical framework of Destructive Creation, with both the empirical insights from chapter 3 and specific case studies. In this context, it will be suggested that the structuring and reproduction of value-relations is at the heart of socio-ecological struggles. This chapter does not primarily intend to formulate empirical conclusions on how to manage these conflicts, but rather emphasizes the necessity of understanding the complex interrelations between local expressions of resistance and global dynamics of power. The overall aim of this thesis is to introduce an original historical materialist approach to analyzing ongoing socio-ecological conflicts.

2. Methodological Remarks

The prime objective of this thesis is to develop a novel critical perspective on socio-ecological conflicts. Despite the fact that this undertaking is in large part a theoretical exercise, the following chapter will outline some stylized empirical facts about these contemporary struggles. It thereby draws on data from the *Environmental Justice Atlas*, which emerged from a joint research project conducted by 23 academic organizations, think-tanks and activist organizations striving for environmental justice. It is one of the main outcomes of EJOLT (Environmental Justice Organisations, Liabilities and Trade), an FP7 project supported by the European Commission from 2011 to 2015 (Temper et al. 2015a).

Overall, the Atlas contained 1636 registered conflicts in November 2015, which are referenced for all percentages and absolute numbers mentioned below. Of course, these cases are neither a comprehensive collection nor are they free from bias. They do, however, present the most comprehensive open source database on socio-ecological conflicts on a global scale. Recently, many researchers and activists have mapped such conflicts to make them visible and to create more attention for the everyday battles around people's livelihoods, mostly in the Global South. For specific countries or regions and for various types of conflicts (like deforestation or land grabbing), other impressive mapping projects do exist, especially in Latin America and South Asia. Zhouri (2014), for example, explains the process of mapping more than 500 ongoing environmental conflicts in the Brazilian state of Minas Gerais alone. Moreover, these ambitions are not limited to the regional or country level. The Land Matrix, which was launched in 2012, is the largest online public database on global land deals. To date, it has collected more than one thousand large-scale land deals⁸ which have been concluded since the year 2000. These cases add up to a total amount of 38 million hectares, an area larger than the size of Germany.⁹ Yet none of these valuable projects combine a systematic overview of *various types* of socio-ecological struggles (revolving around land, water, forests, and/or pollution) at the *global level*.

Despite its unique status, the EJA contains some flaws, the two most important of which are described in the following. First, since the database is the outcome of a joint research project, it primarily draws on the knowledge and previous work of this epistemic community and their related networks. With 23 organizations from all over the world and

⁸ Referring to contracts for land acquisition involving more than 200 hectares.

⁹ See: <http://landmatrix.org/en/about/>

many more supporting the project's ambition, the amount of gathered data is already quite impressive. However, like the case of Minas Gerais in Brazil shows, the total number of socio-ecological conflicts worldwide is very likely to go far beyond the number presented, especially considering that more than 500 cases were already mapped in *one* Brazilian state.¹⁰ Second, all of the mapping projects which have emerged so far come from an active civil society encompassing universities and research institutes as well as social and environmental movements and non-governmental organizations. For obvious reasons, the conditions, strength and leeway for civil society to operate is distributed unevenly and depends in large part on the respective constitution of the state and its mode of governance. This may explain, for example, why the number of conflicts in China are rather few given the crucial role the Chinese economy plays in resource extraction and trading. It could be that civil society resistance is less frequent due to high fragmentation and weak organizational structures as well as repressive state responses. Or, it may be that a number of existing socio-ecological conflicts are simply not made visible due to lack of documentation and analysis.¹¹

The prime objective of this thesis is to develop a critical theory of contemporary socio-ecological conflicts. For this purpose, the EJA provides fruitful ground, not so much as empirical analysis itself, but as an *empirical guide* that shows what these conflicts revolve around and who the conflicting parties are. The following chapter is thus best understood as a meta-analysis of the database in order to outline some distinct though stylized facts which will be synthesized with the theoretical framework in chapter 6.

¹⁰ Of course, the methodology and definition between different maps also has to be taken into account here.

¹¹ A combination of both or other reasons may also play a role. However, these hypothetical arguments are only to show the limits of the selected database.

3. Mapping Contemporary Socio-Ecological Conflicts

This chapter will outline the general characteristics of contemporary socio-ecological conflicts. It intends to build a preliminary empirical basis for the following conceptual developments. First, the term ‘socio-ecological conflict’ as used in this thesis will be defined. Thereupon, the geography and taxonomy of contemporary socio-ecological struggles will be explored by using data from the Environmental Justice Atlas. Moreover, the antagonistic relation between conflicting social groups will be elaborated before summarizing key characteristics of these conflicts in the context of the global economy.

3.1 Why Socio-Ecological and Why Conflict/Struggle?

Conflicts over access to and use of natural resources are as diverse as they are multiple. While the notion of climate or resource wars has recently gained much attention from public intellectuals and journalists (Klare 2012; Parenti 2011; Welzer 2012), the present thesis rather focuses on conflicts as struggles. It therefore does not deal with the wide body of literature that analyzes the relation between armed conflicts and financing these through raw materials, like the frequently cited “conflict minerals” (Olsson 2007; Le Billon 2001). In contrast to the focus on wars or armed conflicts, which usually assume a key role for at least two armed groups and nation-states, conflicts highlight the potential involvement of civil society actors *and* private corporations. The focus thus lies on conflictual social relations with an inherent ecological dimension. Since this chapter draws on data from the EJA, the definition of what constitutes conflict is built on the project’s underlying categories and ideas of analysis. Accordingly,

“[s]ocio-environmental conflicts are defined as mobilizations by local communities, social movements, which might also include support of national or international networks against particular economic activities, infrastructure construction or waste disposal/pollution whereby environmental impacts are a key element of their grievances” (Temper et al. 2015a).

In contrast to many other definitions of conflict, the focus lies on: (1) local communities and related social networks as leading actors (and not nation-states); (2) the role of economic activities and respective legislation, such as mining operations and related concessions. Yet this role is not exclusively limited to an economic perspective, for example, on the development of economic variables like growth rates or per capita income;

it is rather focused on the *embeddedness* of these activities within social and ecological relations, and (3) the antagonistic relation between mobilizing groups of resistance and drivers of such economic activities.

More specifically, the referenced database includes socio-ecological conflicts that meet three criteria. First, socio-ecological conflicts must revolve around economic activity or legislation with actual or potential negative environmental and social outcomes. These include effects on socio-cultural traditions and forms of knowledge, impacts on health, and environmental impacts such as loss of biodiversity or desertification. Second, a claim by a social group (e.g. environmental justice organization) has to be advanced that such harm occurred or is likely to occur as a result of the disputed activity. Moreover, this social group has to be involved in mobilizing. And third, one or more media stories reporting on this issue have to exist in order to provide witness to the above mentioned claims.

Generally speaking, conflicts contain a divergence of interests, needs and goals which are potentially incompatible and involve at least two different groups of actors (see e.g. Bob & Bronkhorst 2011, p.10). The way conflicts are understood in this thesis thus always incorporates both *corporate claims on natural resources* and *movements of resistance*.¹² While the notion of conflict highlights the potentially violent dimension of the incompatibility of interests and related claims, the perspective of these processes as struggles emphasizes the social class dimension. This is to say that the interests and alliances of the conflicting parties are associated with their status in the socio-economic relations of production and power. For the purpose of this thesis, conflict and struggle are used interchangeably because both words essentially grasp important dimensions, while not being mutually exclusive by definition.

Socio-ecological conflicts vary in degrees of intensity, like the scale of mobilization or the occurrence and forms of violence. The analyzed database thus separates conflicts into four different groups. While a small number of struggles are categorized as latent (6%) and do not show visible mobilization, almost 20% involve at least some local organizing. The majority of conflicts, however, are classified as either medium (44%) or high (30%) in intensity, including visible or even mass mobilization, violence, arrests, and widespread knowledge and debate about the events.¹³ For specific struggles like water management

¹² Depending on the perspective one takes, socio-ecological conflicts represent claims by corporate entities on definite 'natures', such as raw materials and land, while other social groups mobilize resistance against such claims.

¹³ These shares represent the average of all 1636 registered conflicts in November 2015.

conflicts and raw materials extraction, the share of medium and high intensity conflicts is even higher and adds up to around 80% combined (Temper et al. 2015b, p.272).

The increase or increasing visibility of socio-ecological conflicts is certainly linked to two long-term and interconnected phenomena. On the one hand, the global material throughput in the form of raw material consumption has increased rapidly in the second half of the twentieth century, and is expected to grow further in the near future (see e.g. Krausmann et al. 2009). Between 1980 and 2010, the combined annual consumption of biomass, minerals, fossil fuels and metals more than doubled from below 40 billion tons to 80 billion tons (Ax et al. 2014). If the current production and consumption of raw materials continues at the present pace, it is likely that by 2050 the combined annual raw material consumption will increase by another 100 billion tons annually to 180 billion tons (Ax et al. 2014). This rapid increase, although geographically and socially uneven, is already leading to “an expansion of the commodity frontiers, with extractive projects now reaching the last untouched places on earth” while simultaneously creating “new terrains of conflict and resistance” (Temper et al. 2015b, p.257).¹⁴ On the other hand, the changing global ecology, in large part as an effect of the disputed activities, is pervading people’s daily lives more and more. Entire communities, particularly in the Global South, are threatened by the effects of climate warming, changing monsoon seasons, droughts and the salination of soil, desertification, and more frequent occurrence of extreme weather events. These phenomena all result in radical changes in living conditions for millions. Before investigating the potential causes and explanations for the emergence and meaning of these conflicts, the following sections will map the geography, taxonomy, and typical actors involved.

3.2 The Uneven Geography of Socio-Ecological Conflicts

Socio-ecological conflicts have become a global phenomenon. Despite regional differences, it is increasingly difficult to argue that such conflicts are merely scattered local expressions. Table 1 shows the occurrence of socio-ecological struggles globally by continent. Except for Australia and Oceania, with only 12 currently mapped conflicts, these conflicts occur worldwide. Moreover, because they are essentially linked to economic activities by definition, we can conclude that socio-ecological struggles are a feature of the contemporary world economy. This insight has profound implications for a theorization of

¹⁴ The term ‘commodity frontier’ can be understood as a complementary concept to ‘commodity chains’. Yet while the latter focuses on tracking a commodity all the way through different production processes, the former highlights the newly valorized commodities for (global) production. This concept will be explored in chapter 5.2 in more detail.

these conflicts (see chapter 4.6). To determine the relation between the two, however, remains a task for later chapters.

Table 1: Geography of Socio-Ecological Conflicts, 2015, by Continent

	The Americas North America	Latin America	Europe	Africa	Asia	Australia & Oceania	Total
n	88	490	285	280	469	12	1636
%	5.4	30	17.4	17.1	28.7	0.7	100

Source: *Environmental Justice Atlas 2015*, own illustration

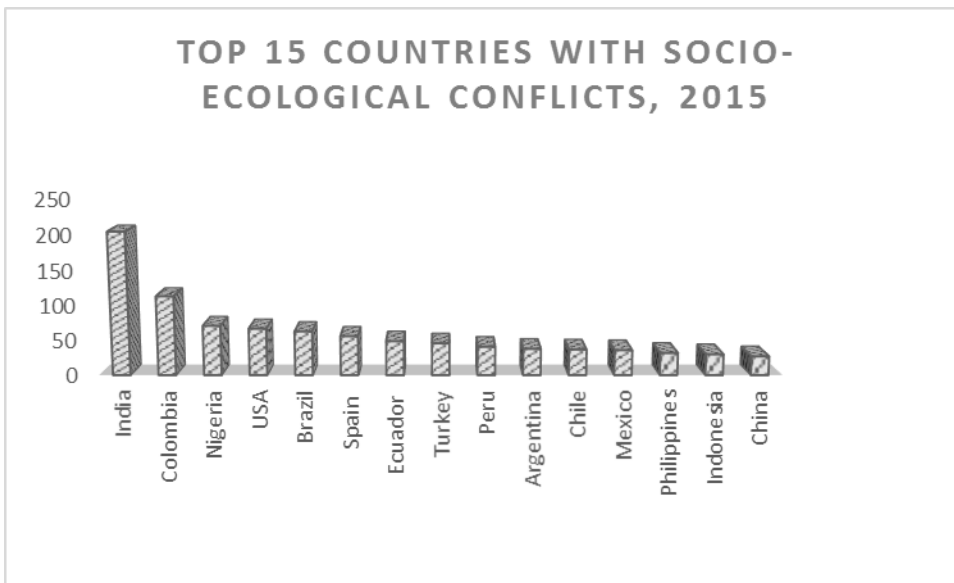
Table 1 also shows the unevenness of current socio-ecological struggles, with around three quarters concentrated in Latin America, Africa and Asia. Almost 60% of documented conflicts occur in Asia or Latin America. Since the majority of the world population lives in these regions, one could argue that it seems only logical for socio-ecological conflicts to occur more frequently there on an absolute scale. Yet net consumption of biomass and raw materials, for example, depends largely on levels of income and wealth rather than population. Despite a shift in global production¹⁵ towards the Global South since the 1990s (in particular to Brazil, India and China), levels of income between the North and South have barely adjusted (Arrighi et al. 2003). This also holds true for the use of global materials (Krausmann et al. 2009), particularly for raw materials. In 2010, only 6% of metals were mined from Europe and North America, while 76% were extracted in four countries: Australia, China, India, and Brazil (Schaffartzik et al. 2016). Accordingly, related pressures on the distribution of land, access to water, and the burdens of pollution are highly uneven on a global scale.

Increasing pressures through growth in extraction and pollution could imply a higher likelihood for socio-ecological conflicts. This hypothesis can be confirmed (at least preliminary and in part), when looking not only at the uneven distribution of struggles by continent, but also by country. Graph 1 indicates that more than 900 conflicts are concentrated among the top 15 countries. In other words, more than half of the documented socio-ecological struggles in the database are concentrated in only 15 countries, although they generally occur in 120 countries in total. India is by far leading the list with 204 mapped conflicts, and is one of the top four producers of raw materials in the world (see

¹⁵ de-industrialization in the Global North

above). Thus, one in eight contemporary socio-ecological conflicts occurs in India. Other Asian hubs are Turkey (46), the Philippines (32) and Indonesia (30). The condensation of socio-ecological conflicts in Latin America is also quite visible from this graph. Colombia, Brazil, Ecuador, Peru, Argentina, Chile and Mexico are all among the top 15 countries with a combined total of 377, which is roughly one quarter of the socio-ecological struggles worldwide.

Figure 1: Top 15 Countries with Socio-Ecological Conflicts, 2015



Despite a clear dominance of these conflicts in the Global South, particularly Latin America and South(east) Asia, the data also indicates that socio-ecological struggles are dispersed globally with the USA (67) and Spain (56) as hubs in the Global North. However, one has to note that a number of very different conflicts are grouped into the general category of socio-ecological conflict. This is why the following section will give a more detailed account of their diverse dimensions.

3.3 A Taxonomy of Socio-Ecological Conflicts

Table 2 shows the broad dimensions that contemporary socio-ecological conflicts can take. Conflicts in the table are classified according to basic elements such as land, water, metals/minerals, energy commodities, foodstuffs and biofuels. Conflicts related to infrastructure and waste are grouped in the category 'Others'. What the table clearly shows is that socio-ecological conflicts are currently prevalent in all these fields. This is perhaps

not surprising¹⁶ given the fact that these basic commodities are the ultimate essence of the expanding “imperial mode of living” (Brand & Wissen 2013) for a global consumer class. Despite the widespread character of socio-ecological struggles, it can be observed that the exploration, exploitation, and processing of metals and minerals as well as related tailings seem to spark a higher number of conflicts than other categories. This can in part be explained by the extremely thorough transformation of local landscapes into mining regions. Huge areas and mining pits can eventually lead to displacement of local populations, massive consumption of water supplies, and highly toxic emissions and tailings that can infect or affect local and regional populations through ground or drinking water (see also Moody 2007; Klare 2012; Schaffartzik et al. 2016). This is also often the case for other extractive industries, like the energy sector.

Moreover, conflicts over land, water and forests revolve around the very basic livelihoods on which a large part of the world population directly depends. These conflicts are thus also referred to as conflicts of *distribution* (see also chapter 4.4; chapter 6.2). Understood in a broad sense and encompassing all kinds of infrastructure, tourism facilities, and toxic waste treatment, the final dimension of development projects is less linked to access to and control over certain natural resources, and more to a certain *mode of development* which will be dealt with in the course of this thesis.

¹⁶ I will return to the relevance of this concept in chapter 6.

Table 2: Types of Socio-Ecological Conflicts, by Commodity Form, 2015

	Commodity Form	Types/Contents of Conflict	n*
Land	land	land acquisition conflicts	470
Water	water	water access rights and entitlements, dams and water distribution, wetlands and coastal zone management; aquaculture and fisheries; water treatment and sanitation (sewage)	672
Metals/ Minerals	gold, coal, copper, silver, uranium, iron ore, sand, gravel, zinc, cement, rare metals, steel, aluminum/bauxite, etc.	exploration, extraction, tailings, processing and refineries	924
Energy	crude oil, natural gas, electricity	oil and gas refining, gas flaring, nuclear power plant, thermal power plant, windmills	533
Foodstuffs and Biofuels	palm oil, sugar, fish, eucalyptus, fruit and vegetables, corn/maize, rice, soybeans, ethanol, wheat, jatropha live animals, meat, shrimp, coffee	intensive food production (monoculture and livestock), agro-fuels and biomass energy plants, agro-toxics, GMOs, bio-piracy and bio-prospection	364
Forest and Vege- tation	forest, pine, charcoal, carbon offsets, cellulose, cotton, cut flowers	deforestation, plantation conflict, establishment of reserves/national parks, REDD/CDM	464
Other (Infrastruc- ture, Waste, etc.)	industrial/electronic/domestic municipal waste, tourism services, transport and production infrastructure	transport infrastructure networks (roads, railways, hydro ways, canals and pipelines), urban development conflicts, tourism facilities (ski resorts, hotels, marinas), ports and airport projects, landfills, toxic waste treatment, uncontrolled dumpsites, pollution related to transport (spills, dust, emissions)	781
*The number of cases refers to the aggregated number of cases of different types of conflicts. Since many conflicts are comprised of more than one type (or even more than one commodity), the total number of conflicts adds up to more than 1636, which is the total number of mapped conflicts in the database.			

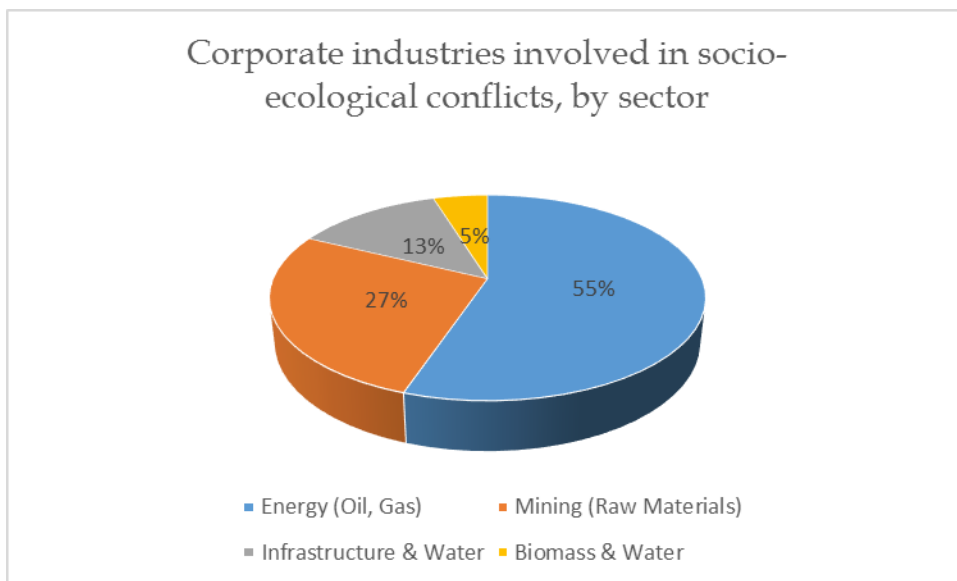
Source: *Environmental Justice Atlas*, own illustration.

3.4 Mapping Antagonistic Actors

It has already been mentioned that socio-ecological conflicts involve economic activity including respective legislation, and resistance and mobilization against the former. This section will summarize some main characteristics of these antagonistic social groups. Graph 2 shows the share of corporate industry sectors involved in contemporary socio-ecological struggles. Once more, the extractive industries including both energy and raw materials clearly dominate the global landscape of these struggles.

The leading companies in each respective sector are almost invariably to be found. Corporations involved in energy struggles (predominantly concerning oil and natural gas), for example, constitute a large share of the biggest companies in the global energy sector.¹⁷ Almost half of the 25 biggest energy corporations are involved in close to 150 conflicts worldwide. Royal Dutch Shell and Nigerian National Petroleum Corporation head the list of conflicting companies, followed by other multinationals like Chevron, ExxonMobil, Total, Petrobras, Lukoil, Statoil, the Eni group, Petronas and Sonatrach.

Figure 2: Corporate Industries Involved in Socio-Ecological Conflicts, by Sector



Source: *Environmental Justice Atlas 2015*, own illustration

When looking at the mining sector, an even more concentrated picture emerges. In general, the mining sector is famous for highly concentrated market segments. For example, BHP Billiton, Rio Tinto and Vale SA dominate global iron ore production and control around

¹⁷ Big is defined by the combined volume of daily oil and natural gas production, in barrels. Numbers are based on Forbes, 2015.

70% of related trade (Eich & Leonhardt 2013, p.107). The list of corporations most frequently involved in socio-ecological struggles reflects this dominance.

The five largest global mining companies¹⁸, Glencore Xtrata, BHP Billiton, Rio Tinto, Vale SA, and Anglo American, are all heavily involved in ongoing socio-ecological struggles. These top five or one of their respective subsidiaries are currently engaged in at least 96 contemporary struggles over land acquisition, air pollution, and/or toxic waste. Other big players in the global mining industry like Barrick Gold, Newmont Mining, Vattenfall, Vedanta, Tata, Southern Peru Copper Corporation, and Drummond, are also involved in several incidents.

The general observation that multinational corporations dominating their respective sector are involved in socio-ecological conflicts also holds true for other fields, such as struggles around water (privatization), intensive food production and bio-piracy, large-scale infrastructure projects, manufacturing, and related toxic landfills or air pollution. Once again, the involved corporations mirror a list of the world's largest and most influential companies including multinationals like Monsanto, Cargill, Coco-Cola, the Standard Fruit Company, Siemens, Tata Steel, Reliance, and Toshiba.

In sum, we can deduce that it is mostly transnational corporations (TNC) involved in socio-ecological conflicts worldwide.¹⁹ This is particularly the case for the extractive industries (oil, gas, and mining), around which most of the conflicts revolve. These companies most frequently dominate their respective sectors, often in both production and trade. The above mentioned claim that socio-ecological conflicts are a feature of the global economy has thus gained credibility through this brief analysis. In fact, the leading TNCs in their respective sectors are best understood as forerunners for trends in global production. More specifically, the numbers show that conflicts are linked to the profitable activities of the largest corporations in the world. Although this involvement might seem limited to industrial production, investigative reports suggest that contemporary financial institutions like banks and insurance companies are increasingly relevant in realizing these “dirty profits” (FacingFinance 2014).

It was already mentioned that socio-ecological conflicts always involve a corporate claim on the one hand and civil society resistance on the other. Having summarized some general facts related to corporate claims, it is also necessary to include some remarks on the

¹⁸ Measured in annual revenue, 2013.

¹⁹ In some cases, the involvement of state companies is also visible, like the Nigerian National Petroleum Corporation or the partly nationalized Petrobras. However, despite their (partial) state character, they are exposed to considerable influence from the private sector.

features of resistance, i.e. the mobilizing groups. Generally, those affected most by related projects (economic activities and respective legislation) are at the forefront of mobilizing and resisting. This is usually local communities and local environmental justice organizations or other social movements (87.8%).²⁰

In many cases local governments or political parties (39.4%) and international environmental justice organizations (30.3%) are also at the edge of mobilization, as well as other civil society actors like local scientists/professionals (37.9%) and trade unions (12.5%). In at least one in five cases, women are spearheading the mobilizations and essentially shaping these struggles. These insights also link with other empirical research on the matter (see e.g. Wichterich & Charkiewicz 2012).

The people resisting are usually farmers or fishermen/women. In some cases they are landless, and in every other case they belong to indigenous groups or traditional communities who are racially discriminated against. This is particularly the case for the extractive industries, which find profitable conditions for raw materials in remote forests and mountain regions, many of which have not been fully discovered and exploited by corporate capital until very recently. These insights also fit into a general trend in global governance. Sawyer & Gomez (2012) state that “despite the burgeoning number of international charters, state constitutions, and national laws across the world that assert and protect the rights of indigenous peoples, the majority of indigenous peoples find themselves increasingly subjected to discrimination, exploitation, dispossession, and racism.”

A recent analysis of 346 cases from the EJA (linked to mining projects) has summed up a number of very similar general characteristics. Most frequently, local peasant and indigenous/traditional communities are the mobilizing groups, often in collaboration with local environmental justice organizations and/or other social movements (Özkaynak et al. 2015, p.19). Almost invariably, land dispossession, loss of livelihood, displacement and related violations of human rights are at the heart of these conflicts, while long-term effects include corruption and co-optation, as well as decreasing levels of self-governance and loss of traditional knowledge and practices (Özkaynak et al. 2015, p.27; see also Zhouri 2014).

²⁰ Since it is possible and frequent that a number of different social groups are involved in resistance at the same time, the presented figures (percentage) each represent a share of 100%, and thus add up to more than 100% when combined.

4. Contending Theories of Socio-Ecological Conflicts

This chapter will outline the context of debates and main arguments that try to explain contemporary socio-ecological conflicts. It intends to map the diverse research traditions, while also identifying blind spots. Whereas the first two sections of this chapter will mostly present arguments and theories from mainstream research in development economics, international relations and environmental economics, the latter three will outline critical approaches that also build on insights from sociology, political ecology and critical political economy. The final section will highlight a research gap and outline some preliminary ideas which will be further developed in chapter 5.

4.1 Abundance or Scarcity? The Resource Curse and the Return of Malthus

The availability of natural resources like oil, minerals, and water, is geographically highly uneven. While some regions hold almost exclusive access to resources, as is the case for rare earth elements in China (Aston 2010), other regions are fully dependent on imports, like the European Union.²¹ Although a high availability of natural resources may, at first sight, seem beneficial for social and economic development, a quite established body of theories argues that *abundance* of such natural resources may lead to higher risk of social unrest and lagging economic growth (Frankel 2012; Sachs & Warner 1997; Ross 1999). The so-called *resource curse* becomes effective mainly through two channels. First, an abundance of natural resources may lead countries to focus exclusively on primary commodity exports, as is frequently the case for oil or precious metals. This export dependency, however, can lead to higher value of a country's currency and thus undermine the competitiveness of other economic sectors. The effect is a vicious cycle that deepens export dependency while the diversification of the economy and domestic development are neglected, a phenomenon that is frequently referred to as the *Dutch disease*. Second, a process closely linked to the first is unproductive rent seeking by local elites, which impedes economic development and which is closely linked with natural resource conflicts (cf. Omeje 2008, for a critical approach). Rent seeking usually fosters inequality among local or regional elites and the majority of the population, which is often dependent on these resources, and thus sparks potential conflict. There is a broad literature base on "misled governing" of resource-rich countries, particularly focusing on adequate taxing and

²¹ The European Union (EU) is highly dependent on the import of metals, minerals, oil and gas. In order to secure access to cheap resources on the world markets, the European Commission (EC) launched the Raw Materials Initiative (RMI) in 2008 (European Commission 2008).

control of resource revenues (see e.g. Collier & Venables 2011).²² Most frequently, the inadequate governance structures are defined by a lack of transparency and high levels of corruption.

From this perspective, socio-ecological conflicts are mostly contextualized in the nexus “natural resource rents, social conflict, and economic growth” (Olsson 2007, p.268). These theories, which are particularly dominant in development economics, assume that a country’s endowment with abundant natural resources potentially implies “a proclivity for armed conflict” (Frankel 2012). At the same time, low levels of income and lacking economic growth aggravate power disparities between elites and the majority population, and thereby define favorable conditions for conflict. According to this line of thought, social conflicts arise from low per capita income, troubling economic growth, and dependence on primary commodities. Particularly, dependency on primary commodity exports is said to considerably increase the likelihood of civil war, while private corporations often support rebel groups in order to gain mining concessions once they have taken power (Collier 2010, p.38).

In general, there is a strong focus on social conflict in these approaches, defined as civil war, armed struggle or inter-state war (Collier & Hoeffler 2004; Diehl 1998; Le Billon 2012). However, the notion of socio-ecological conflicts as struggles between civil society actors *and* private corporations, as employed in this work, is highly neglected. This is also reflected in the conclusions that these approaches advance. Though many scholars agree that private economic interests play a role, they have hardly been analyzed in a systematic way. Moreover, the solutions to these conflicts mostly focus on adequate resource management and the implementation of good governance, but remain rather silent about the role of private corporations or substantial claims on these resources advanced by civil society actors.

The inverted argument, stressing resource *scarcity* and not abundance as the key factor for socio-ecological conflicts, has also gained widespread attention in recent decades. Much of this line of argumentation is based, either implicitly or explicitly, on Malthus’ famous work: *An Essay on the Principle of the Population*. In essence, Malthus argues that in the long-run the growth of the world population is rising faster than land productivity, and hence of food production. With a rising world population, the absolute amount of food needed is also increasing, stressing the limited availability of land and potentially other

²² See e.g. Gauthier and Zeufack (2011) for the case of oil in Cameroon; Fuentes (2011) for the case of copper in Chile, and Ajakaiye et al. (2011) for an analysis of oil revenues in Nigeria.

natural resources. In other words, a natural scarcity of means of subsistence, i.e. land, is intensified over time through a natural growth in the world population.

Since the 1980s, Malthusian reasoning has regained recognition, especially among neo-realist scholars in international relations. They linked scarcity of resources to population growth and violent conflict.²³ At the close of the Cold War, this new field of environmental security experienced burgeoning popularity. Just around the time Malthus assumed the population growth to be more than fifty times larger than actual agricultural production, Thomas Homer-Dixon prominently re-introduced a similar argumentation. Homer-Dixon's famous research starts from the observation that the world population is likely to increase to more than 9 billion by 2040, while the scarcity of renewable resources is also likely to increase. "The total area of high-quality agricultural land will drop, as will the extent of forests and the number of species they sustain" (Homer-Dixon 1994, p.5). He thus continues to ask whether such 'environmental scarcities' could precipitate violent civil or international conflict. In this context, he claims that his team's research "shows that environmental scarcities are already contributing to violent conflicts in many parts of the developing world [...]" which "are probably the early signs of an upsurge of violence in the coming decades that will be induced or aggravated by scarcity" (Homer-Dixon 1994).

The research group assumes that violence will most likely play out on a sub-national level and poor societies will be affected most because "they are less able to buffer themselves from environmental scarcities and the social crises they cause" (Homer-Dixon 1994, p.6). The main drivers behind environmental scarcities are climate change, population growth (due to declining per capita availability) and unequal distribution of resources in the hands of a few people. These three factors not only lead to increased environmental scarcity, but as a consequence also to a decline in economic productivity, and potentially push for migration movements, a weakening of state (institutions), and a variety of conflicts like ethnic conflicts, coup d'états, and deprivation conflicts (Homer-Dixon 1994, p.31). Ultimately, different forms of scarcity lead to intensified local competition, mostly in poor communities over "overused resources" (Bob & Bronkhorst 2011, p.13).

This line of reasoning follows Malthus' dystopian outlook. A breakdown of civilization seems likely, because the various stresses (particularly population growth and scarcity of energy/resources) are individually threatening to social stability, but in convergence pose a

²³ The line of argumentation presented here is of course only simplified and exemplary. However, many of these arguments were picked up and made popular by conservative journalists, perhaps most prominently by Robert Kaplan (Kaplan 1994), and are used by contemporary academics advising governments, like John Beddington (Sample 2009).

great threat. The good news is, and this is where the return of Malthus is enriched with a Schumpeterian euphoria, that with breakdown comes the opportunity for renewal of technologies, institutions, and societies in the absence of a rigid bureaucracy (Homer-Dixon 2006).²⁴ This exemplary line of argumentation is neither considered outdated nor limited to a small group of researchers. It can be found in numerous current publications by think-tanks and reports by international institutions, even the United Nations and the European Union (Population Institute 2009; UNFT 2012).²⁵ An analysis of 134 reports related to the land rush in Africa after 2007, which were published by international institutions²⁶, came to the conclusion that the majority of these reports employ the notion of *absolute scarcity* in one form or another (Scoones et al. 2014).

In essence, both the *resource curse* and the *environmental security* approach share common ground. While the former mostly focuses on resource abundance with respect to non-renewable resources (especially oil and gas), the latter usually stresses resource scarcity with reference to renewable resources. Both approaches argue that “societies confronted with specific environmental circumstances—scarcity or abundance—have a higher risk of being affected by violent conflicts” (Le Billon 2001, p.564). They thereby imply a quasi-environmental determinism, while unable to explain the non-occurrence of these issues for resource-rich countries in the Global North, for example in Norway. Moreover, this approach has been criticized as “highly disciplinary, technocratic, and overly rationalist [...] with decidedly authoritarian tendencies” (McCarthy & Prudham 2004, p.278). These critiques link with other studies, which analyze scarcity as a strategy by certain interest groups, usually supported by neoclassical economists, to justify property rights regimes, ongoing appropriation and dispossession of resources (Mehta 2001; Scoones et al. 2014). This is not to say that real scarcities might and in some cases do exist, but rather to emphasize *how* scarcity is constructed for political means, and used to justify certain economic activities, policies and legislation.

On a methodological level, this approach seems problematic because both perspectives “fail to take into account the socially constructed nature of resources, and in so doing, fail to explain why an abundance or scarcity of valuable resources is not a necessary or sufficient factor of conflict” (Le Billon 2001). In focusing too narrowly on scarcity and population

²⁴ An extremely popular version of the ‘collapse of civilization’ theory due to current ‘stresses’, is proposed by Jared Diamond’s *Collapse* (Diamond 2005).

²⁵ The referenced report, for example, was prepared by the United Nations Interagency Framework Team for Preventive Action (UNFT), which coordinated a partnership project between the UN and the EU: ‘Preventing and Managing Land and Natural Resources Conflict’.

²⁶ These institutions include, for example, the World Bank and FAO, African regional policy makers, private investors, and agribusinesses.

pressures, this line of reasoning also fails to grasp “the underlying economic and political causes of environmental degradation and violence, including the role of private companies” (Hartmann 1998, p.113). This is particularly troubling, since the socio-ecological conflicts analyzed in this paper are all linked to economic activities, and thus to private corporations.

4.2 What About the Market? Ecological Modernization Theories

Alongside the debates on abundance and scarcity as major underlying factors for socio-ecological conflicts, another notion is particularly strong among scholars, international institutions and policy-makers. This group of arguments can be described as ecological modernization theories. In brief, these approaches draw on some of the already mentioned arguments (like local corruption of rent seeking elites), but generally add a strong notion of lacking economic development in the so-called developing countries. This line of thought is usually taken from research in development, new institutional and environmental economics. Paramount to these arguments is a lack of markets, i.e. the implementation and securing of private property rights and the institutionalization of market instruments.

A large part of the contemporary arguments is based on two intertwined notions from neoclassical economics. One is Garret Hardin’s extremely influential notion of the “tragedy of the commons” (Hardin 1968). In this short paper in the prestigious journal *Science*, Hardin argues that common ownership of natural resources, whether land, forests or water, always creates incentives and distribution arrangements that inevitably result in environmental degradation and resource depletion.²⁷ Though not a major concern for Hardin himself, his arguments have also been used to manage local conflicts around natural resources. The other influential notion was introduced by Nobel-prize²⁸ winning economist Ronald Coase. According to his *Coase Theorem*, problems of environmental destruction like pollution, as well as conflicts over natural resources essentially derive from a lack of clear-cut private ownership and an absence of a related “market in property rights”, i.e. trading in emission certificates (Coase 1960). In other words, the problem is negative external effects that are produced. Yet the good news is that these externalities can become internalized through the creation of new markets. In principle, every aspect of life can be enclosed from this perspective, while arguing in favor of environmental conservation. Since environmental destruction is to a great extent caused by a lack of defined property rights

²⁷ For a critical review on how Hardin uses the term ‘commons’ and how it is used by most commons-researchers and activists, see De Angelis 2006, p.58.

²⁸ Despite the fact that economists and the public usually talk about a ‘Nobel prize in economics’, the prize referred to is not granted by the Nobel prize committee, but by the Royal Swedish Academy of Science.

(Heltberg 2002), the creation of private property rights and markets are on the side of environmental conservation.

Scholars in this tradition assume that socio-ecological conflicts in the Global South mainly occur because they are “the only way left to them to determine who “owns” which field, or who has what rights to graze animals, or who should control the revenue from the mineral wealth under people’s feet” (Boudreaux 2006, p.68). Ownership, in this context, is understood in a very narrow sense as private property rights. Similar to the arguments mentioned in the previous section, this approach is also represented in the official documents of international organizations such as the UN:

“The incentive for rent capture is fuelled by weak property rights over natural resources. Without a strong legal framework for the protection of property rights, there are no natural or legal owners of resources before they undergo production [...] Conflict is, therefore, likely to arise over property rights” (UNIFTPA 2011, p.15,19).

This quote from a joint report of the United Nations Development Program (UNDP) and the EU shows that arguments from all of the perspectives presented above often mingle in official documents and take different emphasis, usually depending on the institutions and related interests that manage to universalize their positions.

Contrary to the stated intentions, this approach rather deepens exploitative relations, as its fundamental drive is the universality of the monetary form that subsumes everything and makes different qualitative properties interchangeable, as commodities. Ultimately, only that which is made visible to the economic eye will be treasured in decision-making, thereby threatening other forms of relating to nature, e.g. through social, cultural and spiritual values (Kill 2015, p.9). This is why full internalization of externalities will remain an illusion. Moreover, the implicit notion of history employed by this perspective is linear, if not completely absent. Well-established links between colonialism, extractive industries, and development are fully neglected (see e.g. Esteva 2010; Escobar 1995).

4.3 (Neo-) Extractivism and the Role of the State

Although the extraction of natural resources has existed for thousands of years, the naissance of capitalist modernity triggered *Extractivism* as a new mode of development around 500 years ago (Acosta 2013, p.62). Many critical scholars have argued that the colonization of the Global South and related plunder of resources and labor power (in the form of slavery) were a necessary precondition for the emergence of the modern world

economy. While the extraction of natural resources has existed in different civilizations, the term Extractivism tries to grasp the geographically and socially uneven process of appropriation of nature in the context of modern capitalism. After all, it is not only the extraction of these resources that is important, but also their unprocessed export to other geographical regions which in turn processes these raw materials into high-value products. Extractivism not only refers to minerals and oil, but also to other sectors like the growing number of agribusinesses and necessary water infrastructures. The new boom in monocultures like soy beans, is, for example, closely linked to the heavily industrialized meat industries of the world economy. The same is true for the expansion of palm oil production for the world markets (Pichler 2014).

Many of these economic production and trading structures have remained in place in a post-colonial context or have at least kept a similar form. Thanks to an increasing international demand for raw materials, particularly since the end of the 20th century, resource-dependent development is gaining momentum in Latin America and the Global South in general (Burchardt & Dietz 2014). Related economic policies in recent decades have been interpreted as strategies of reprimarization. This process highlights the growing share of primary commodities²⁹ in relation to other exports that has recently occurred, especially for many Latin American countries (Jäger & Leuboldt 2014). In many cases, this shift was related to a greater role of the state (i.e. by capturing gains through increased control or taxation of resources), while progressive governments tried to align the promotion of Extractivism and social development.³⁰ Furthermore, the so-called Neo-Extractivist turn of Latin American governments has gained political legitimacy through state-led programs to reduce poverty, increase social participation, diversify local economies and guarantee political stability (Burchardt & Dietz 2014, p.470). Building on but going beyond the above mentioned approaches of the resource curse and rent-seeking, this line of thought has put particular emphasis on an analysis of the nation-state in facilitating (Neo-) Extractivism in the context of a liberalized world economy. In contrast to ecological modernization theories, not only is the externalization of social and environmental costs taken into account, but also internalized benefits in the form of state subsidies like an appropriate transport infrastructure for large-scale mining or access to cheap water. In doing so, this line of thought has put emphasis on detrimental ecological and social effects such as gigantic holes, operation with toxins, the production of toxic waste, and pollution in (ground) water.

²⁹ e.g. agribusiness for the case of Brazil, oil in the case of Venezuela and copper in the case of Chile.

³⁰ This refers, for example, to poverty reduction schemes.

According to scholars, the environmental destruction caused by large-scale mining, agro-industrial plantations, and oil exploitation tends to undermine local community consensus to such a mode of development. This is why the latest phase of Extractivism “is accompanied by an explosion of socio-environmental conflicts linked to the disputes over land and common goods” (Svampa 2013, p.120). In contrast to the approaches presented above, the link between the mode of modern development and socio-ecological conflicts between local communities and transnational corporations is made very explicit. This argument also contextualizes the high number of socio-ecological conflicts over ‘development projects’ (see chapter 3.3). After all, the social appropriation of nature is conceptualized as a process, which involves uneven positions of power and diverging actor interests (Burchardt & Dietz 2014, p.479). Particularly large-scale projects run by multinational corporations, whether in mining, oil or agribusiness, create divisions in communities, violate community and human rights, and are therefore paralleled by an increase in crime, violence, and land trafficking (Acosta 2013, p.71). Moreover, such community fragmentation serves to establish ‘extractive enclaves’ that are integrated into global markets, but not local production chains (Svampa 2013, p.119). In essence, the rising international demand for raw materials increases the likelihood of socio-ecological conflicts, while “the damage done by extractivism precedes conflict” (Burchardt & Dietz 2014, p.479). Corporations have substantial material interests which are often in line with the preferred mode of development used by the respective government. This is why forms of repression and violence against resistance is often unleashed by extractivist enterprises, but backed by state powers (Acosta 2013, p.77).

The outlook of this approach also differs significantly from the previous ones. Scholars and policy makers that make use of insights from (Neo-) Extractivism do not usually engage in debates on good governance or transparent resource management. Instead, they criticize the notion of modern development from earlier approaches altogether (Gudynas 2009). The focus is rather directed towards the design and implementation of strategies that will eventually lead to a post-extractivist economy, i.e. one that is not dependent on the excessive production and export of raw materials. At the same time, such a mode of development should leave room for diverse and locally informed concepts of development (Permanent Working Group on Alternatives to Development 2013).

4.4 Political Ecology and 'the Environmentalism of the Poor'

Socio-ecological conflicts are neither limited to extractive industries in Latin America, nor to strategies of state institutions to restructure their economies in a post-neoliberal context. Thus, it is necessary to look at another critical approach which was heavily inspired by political ecology and ecological economics: the thesis of the 'Environmentalism of the Poor'. This thesis has emerged as a critique of the academic Eurocentrism that usually defines environmentalism as an anti- or post-materialist project of bourgeois society segments in the Global North (Martinez-Alier 2002). In contrast, Ramachandra Guha and Joan Martinez-Alier have argued that the 'Environmentalism of the Poor' is very different. In essence, a new tide of global environmentalism in the Global South has been observed since the 1980s and 1990s, arising "from social conflicts on environmental entitlements, on the burdens of pollution, on the sharing of uncertain environmental crisis, on the loss of access to natural resources and environmental services"(Martinez-Alier 2003). They suggest that these conflicts mostly arise due to a "lopsided, iniquitous and environmentally destructive process of development" (Guha & Martinez-Alier 1997).

In contrast to the popular Eurocentric thesis that environmentalism in general is linked to a post-materialist ideology, this line of thought argues for the reverse. Because social conflicts are analyzed against a backdrop of physical deterioration and natural resource crises, the 'Environmentalism of the Poor' is essentially material in form (Guha & Martinez-Alier 1997). In other words, it is a struggle for material livelihoods.³¹ Yet these struggles are not exclusively material, but also discursive. This is because language matters, especially valuation language and forms of representation (Martinez-Alier et al. 2010; Nixon 2011). After all, these struggles not only consist of claims like "the land is ours", but also often involve more fundamental questions regarding society-nature relations such as "what are the trees for?" (Martinez-Alier 2003). This research tradition is thus linked to a critical inquiry of power relations (e.g. who has the power to impose particular languages of valuation?) that emphasizes the political nature of human and extra-human natures; thus, political ecology (Martinez-Alier 2003; Peet et al. 2011).

From this perspective, socio-ecological conflicts are driven by the consumption of energy and raw materials. Industrial capitalism uses ever more materials and energy, and produces ever more waste on a global level. It thereby advances into *commodity frontiers*, "undermining the conditions of livelihood and existence not only of future generations but also of contemporary peripheral peoples, who complain accordingly" (Martinez-Alier 2007,

³¹ Because "the throughput of energy and materials in the world economy has never been so large as today, [w]e are certainly not in a 'post-material' age" (Martinez-Alier 2003, p.167).

p.273). With both accelerating climate change and growing consumption of raw materials to feed the world economy, it seems likely that socio-ecological conflicts are both increasing in number and intensifying in quality. In this context, questions related to different forms of inequality³², distribution, social domination and justice are paramount:

“These conflicts usually arise from structural inequalities of income and power. Dimensions of environmental justice include distribution over the burdens of pollution and access to environmental resources the right to participate in decision-making and the recognition of alternate world-views and understanding of development. The action repertoires may include formal claim-making, petitions, meetings, demonstrations, boycotts, strikes, legal actions, civil disobedience, collective violence, international campaigns and other action forms. In the act of claiming redistributions, these conflicts are often part of, or lead to larger gender, class, caste and ethnic struggles” (Temper et al. 2015a).

Often socio-ecological conflicts are referred to as “environmental distribution conflicts” in order to highlight “the social, spatial and temporal asymmetries or inequalities in the use by humans of environmental resources and services, i.e. in the depletion of natural resources (including the loss of biodiversity) and in the burdens of pollution” (Guha & Martinez-Alier 1997, p.31). In empirical analyses, different types of such environmental distribution conflicts are distinguished: resource extraction; biomass; water; waste disposal; and cross-cutting categories of transport and infrastructure (Martinez-Alier et al. 2009). Because this line of thought places much emphasis on inequalities, socio-ecological conflicts can be interpreted as struggles for environmental justice, which are often articulated with other struggles for social justice (see also quote above). In this context, socio-ecological conflicts can be seen as manifestations of a new kind of class conflict, which is not fought exclusively in the cultivated field or in the factory, but which is “waged over gifts of nature such as forests and water, gifts that are coveted by all but increasingly monopolised by a few” (Guha & Martinez-Alier 1997, p.5).

In contrast to the ‘gospel of eco-efficiency’ that primarily aims at internalizing externalities through the market mechanism, these scholars frame external effects as cost-shifting successes by private entities.³³ In doing so, the strategic character of enclosures becomes obvious (see chapter 5). Moreover, this line of thinking also departs from the literature on

³² This approach, for example, distinguishes between ‘ecosystem people’ (mainly to be found in the Global South), who live off their own resources, and ‘ecological trespassers’, mostly from the Global North, who live off the resources and territories of other peoples (Martinez-Alier 2007, p.285).

³³ In doing so, they follow the concept of ‘cost-shifting successes’ of the pioneering ecological economist William Kapp.

(Neo-) Extractivism in an important way. Instead of focusing on state institutions and related dynamics, the ‘Environmentalism of the Poor’ approach places emphasis on a close study of affected communities and civil society actors, and their forms of organizing resistance. In this regard, it is quite similar to other approaches in political ecology, like “liberation ecologies” (Peet & Watts 1996).

The outlook is also broader, mostly because there is not such a strong focus on Latin America, and links well with central claims of other approaches from political ecology. Ultimately, a social transformation is necessary which challenges and changes “our whole way of life” both in the North, and the South in different ways (Peet et al. 2011, p.41). Debates about social transformation and the notion of socio-metabolic regimes have gained widespread attention in this context (Haberl et al. 2011; Fischer-Kowalski 2011).

4.5 Eco-Marxism and the Metabolic Rift

Yet another critical theory pertinent to socio-ecological conflicts has evolved since the 1990s, both as a critique of lacking class analyses in ecological thinking, and the absence of ecological writings in Marxism. The so-called eco-Marxists attempted to unify radical Red and Green thinking in academia, mostly inspired by such new alliances in the ‘new social movements’ (see e.g. Burkett 1996; O’Connor 1988). Subsequently, scholars re-read Marx in the light of the ecological dimensions of capital reproduction, and argued that Marx offers some quite innovative starting points to analyze the interlinkages between evolving ecological crises and capital accumulation.

Despite Marx’s writings on nature-society relations and his general emphasis on the need to approach social theory from a holistic and relational perspective, many of his writings and arguments have been interpreted as deterministic and anti-ecological. In contrast, eco-Marxists argue that this confusion has developed from a failure to take into account Marx’s perspective when writing. In attempting to reconstruct the (re) production of capitalism in his time, he took the standpoint of capital, which is a standpoint alienated from nature. From this point of view, society and nature *appear* to be distinct entities in capitalism, but cannot actually be separated. On a methodological level, this corresponds with the modern binary between nature and society. After all, this distinction made possible the ruthless exploitation of nature in the first place. In contrast to this frequent distinction, Marx highlighted that humans are related to nature as to their own bodies, “with which he [she] must remain in continuous interchange if he [she] is not to die”(Marx 1932, p.31).

Thus there is a metabolism, understood as the exchange of matter between society and nature in every form of production in human history (Foster & Burkett 2000; Mahnkopf 2013). However, just as humans under capitalist production are alienated from their bodies, they are alienated from nature, too. It is in this context that Marx evoked the notion of a ‘metabolic rift’, representing an imbalance between the natural and economic cycle, which is deepening with the expansion of capital accumulation (Clark & Foster 2009; Foster et al. 2011). This alienation is not simply an alienation in spirit, as emphasized by many ecological thinkers, but by a social-material separation between the inorganic conditions of human existence and the active existence of human beings, a separation that is fully realized only within bourgeois society (Foster & Burkett 2000, p.417). To fully understand capitalism, it is thus “necessary to grasp its dual alienation of nature and labor, the extreme separation of the mass of the population from the natural, inorganic conditions of their being” (Foster & Burkett 2000, p.416). For eco-Marxists this not only represents a theoretical problem, but also a political one. A critique of contemporary societies that takes the nature/society binary for granted is likely to miss essential links between socio-economic and ecological crises (Mahnkopf 2013, p.17).

Moreover, eco-Marxists have extensively reflected on the relation between the ecology and the labor theory of value. Many critiques have argued that Marx’s value theory is anti-ecological, since it ascribes value only to labor, but not to nature. However, this distinction is constituted by the *social form* of capital, which quantitatively “only ascribes value to nature insofar as its appropriation requires human labor”, and thus abstracts from the material process necessary for the formation and (re) production of capital (Burkett 1996, p.333). From this perspective, value becomes the basis for an integrative analysis of both labor exploitation based on class relations, and the ecologically degrading character of this mode of production (Burkett 1996; O’Connor 1997). The critique does not value nature in the form of market prices, like ecological modernization theories suggest, and is therefore only an expression of the alienated society-nature relations within capitalist societies. In other words, although nature is the material basis for any wealth produced in human history (use value), it is not the source of wealth defined in terms of exchange value (O’Connor 1997, p.3).

Central to many eco-Marxist perspectives is an extension of existing crisis theories. While Marxists usually refer to the ‘first contradiction’ between capital and labor, James O’Connor has introduced the notion of a ‘second contradiction’ between expanded capital accumulation and its eroding conditions. He thus criticizes Marx for his neglect of the

external barriers to capital accumulation, such as the health and well-being of workers and communities as well as limited resources and spatial constraints (O'Connor 1997, p.3). From this perspective, the overproduction of capital, i.e. the realization problem, is not the only source of capitalist crises. There might also be an underproduction of capital, or declining quality in the conditions of production necessary for the formation of capital (O'Connor 1997, p.161). Over time, capital accumulation undermines its own conditions of reproduction, and is thus ultimately confronted with 'limits of nature' (Altvater 2011; Altvater 2007). In other words, capitalism is quite literally digging its own grave, both because of the capital-labor contradiction, and the contradiction of appropriation and reproduction of nature. Taking up the famous notion of "planetary boundaries" (Rockström et al. 2009), many thinkers argue that these boundaries simultaneously represent limits to capitalism (cf. Mahnkopf 2013; Foster et al. 2011).

Against this backdrop, socio-ecological conflicts emerge as a result of: the exploitation of natural resources for the sake of profit generation; their degradation by a growing quantity of pollutants; and related human-made scarcities that lead to conflicts over access to these resources (Altvater 2007). In addition to the previously mentioned inequalities in the access to nature in the 'Environmentalism of the Poor' approach, this tradition argues that they can only be understood "if social class contradictions and the production of inequality in the course of capital accumulation are taken into account" (Altvater 2007). In sum, these conflicts can only be understood through an analysis of key moments in capitalist dynamics: the institutionalization of private property, the appropriation of nature, the exploitation of labor and dispossession (Altvater 2011, p.50). From this perspective it is imperative to overcome the capitalist structuring of society and society-nature relations, and move towards a vision of eco-socialism (Löwy 2005).

4.6 Critical Appreciation and Research Gap

When reviewing these concurring theories in the light of some brief characteristics of contemporary socio-ecological conflicts (chapter 3), it becomes clear that mainstream approaches are inappropriate to understand the global political economy of these struggles. The literature on the resource curse and Neo-Malthusian works tend towards a certain environmental determinism, either focusing on abundance or scarcity of natural resources as a main obstacle. In addition, they lack any sophisticated conceptualization of the political, social and cultural dynamics of these conflicts. Most visibly, this is reflected in the rarely mentioned role of power relations between and within civil society and private

transnational corporations. Modernization theories seem to have a mechanical understanding of the economy through normatively privileging an abstract market concept, i.e. private property rights. Moreover, this family of approaches focuses too little on how to *understand* contemporary socio-ecological conflicts, and rather on how to *solve* the problem, which takes their assumptions about what the problem consists of for granted.

In contrast, critical approaches offer various interesting starting points for analyzing contemporary socio-ecological conflicts. While (Neo-) Extractivist research has shown the vital role of the state in facilitating a resource-based model of development and hence a backing of corporate claims on nature by the state, the 'Environmentalism of the Poor' thesis has shed light on the motivation and context of civil society resistance against these claims. Moreover, eco-Marxists have emphasized the essential role of global capital accumulation in the livelihoods of the people, and the reproduction of the world economy more generally. The present work aims to contribute to a critical theory of socio-ecological conflicts that is contextualized between these three critical approaches. However, in order to provide productive links to these research traditions, a critical reflection on blind spots is necessary.

(Neo-) Extractivism certainly provides a useful middle-range approach to analyze the role of the state, particularly in the Latin American context of the past two decades. Yet at the same time this approach focuses strongly on state institutions and policies, and therefore loses sight of connections with both local dynamics of resistance and the broader dynamics of the global capital circuit. The literature in the tradition of political ecology and the 'Environmentalism of the Poor' thesis have certainly provided the most thorough and elaborated empirical analyses of socio-ecological conflicts to date. However, in explaining the broader context of these conflicts, these approaches only emphasize the growing global consumption of raw materials. In other words, with increasing material throughput and demand for raw materials on the world markets, the pressure to appropriate ever more nature is enhanced, too. Yet the increasing global consumption of raw materials is only a black box, hiding the actually existing economic and extra-economic dynamics that constitute the former. An explicit link between these struggles and a theory of capitalist development is therefore absent (see also Raza 2003, p.160). Finally, eco-Marxists have started to link ecological destruction to the reproduction of global capitalism, but have generally paid little attention to specific struggles in the context of global capitalism. Moreover, this line of thinking is criticized from within the paradigm for repeating the mistakes of orthodox Marxists in underestimating the survivability of capitalism, even in

presence of crises. In this context, David Harvey has criticized the notion of natural limits to capital as too simplistic. In contrast, he argues that capital will not decline due to barriers in nature, but rather as an effect of internal contradictions, i.e. economic, political, institutional and ideological failings (Harvey 2014, p.257). Likewise, regulation theorists have pointed to the fact that even fundamental contradictions in capital “can be managed institutionally by way of societal processes of normalisation and by ‘historical chance discoveries’” (Brand & Wissen 2013, p.692).

Many of the theories presented above agree on the fact that an incompatibility of values (with reference to society-nature relations) lies at the heart of contemporary socio-ecological conflicts. Despite very different analyses, assumptions, and envisioned perspectives, all of these traditions also agree on the necessity of socio-ecological and politico-cultural “new values and norms” (see e.g. Grin et al. 2010). Yet although valuation of nature is certainly key to the constitution of socio-ecological conflicts, such *value struggles* are hardly ever analyzed theoretically in a systematic manner. This thesis therefore attempts to present a preliminary theoretical framework to understand socio-ecological conflicts as value struggles, which fulfills the following criteria.

First, taking up the proposition of Martinez-Alier and Guha (1997), socio-ecological conflicts need to be understood as material conflicts around people’s livelihoods. At the same time, non-material aspects such as valuation are co-constitutive for these struggles. Any theory of contemporary socio-ecological conflicts thus has to incorporate both moments in a coherent manner.

Second, insights from empirical studies reveal that socio-ecological struggles are best understood as glocal phenomena. The local occurrence of economic activity and resistance is as important as the global context of commodity prices, corporate control, and transnational solidarity networks. Against this backdrop, I suggest understanding these conflicts as an essential part of capitalist development. Thus, the following conceptualization of social-ecological struggles will be integrated into a theory of capitalist development.

Third, as was shown in chapter 3, contemporary socio-ecological conflicts are struggles between private corporations and civil society actors. In this chapter it was argued that an explicit theory of socio-ecological conflicts that systematically analyzes the diverging interests between private corporations and civil society resistance is missing in the existing literature, whether mainstream or critical and regardless of the disciplines. Thus, an

adequate theory of these struggles needs to have explicit concepts of these two crucial groups of actors and their role in society.

Fourth, it is widely acknowledged that these conflicts are over-determined, meaning that mono-causal explanations are certainly not adequate and the respective economic, political, cultural and ecological contexts have to be taken into account. Socio-ecological conflicts certainly have lasting effects on different scales of the economy (local, national, global). However, these conflicts are not fought in economic terms (i.e. monetary compensation), but in other arenas. Generally speaking, extra-economic dynamics matter for the functioning of the economy. An appropriate political economy of contemporary socio-ecological conflicts would thus have to include the essential importance of other arenas for the continued reproduction of global capitalism, like the state.

Fifth, these conflicts are social conflicts with an inherently ecological dimension. That is to say that they represent struggles between different social groups with diverging interests on whether and how to appropriate extra-human natures. An analysis of both social class relations and society-nature relations is thus crucial. Put differently, these conflicts revolve around the very basic structuring of social and society-nature relations. From this point of view, it also becomes evident that socio-ecological conflicts have existed throughout different civilizations. However, social and society-nature relations and thus socio-ecological conflicts have a specific form in capitalist societies, including features that are specific to capitalist social formations and conjunctures.

Finally, a general trend in (mainstream) research can be identified that places much emphasis either on the proper management of natural resources in order to prevent further struggles, or on amelioration in order to compensate communities for their losses. In contrast to this perspective, a critical approach should not simply focus on the potentially negative *effects*, but rather on evaluating the *contestation* of ongoing large-scale projects as such. After all, politicization through contestation offers new perspectives for alternative developments, while challenging the ones that are taken for granted in society.

These five criteria will guide the development of a critical theory of contemporary socio-ecological conflicts in the following chapter. As mentioned above, the critical concepts provide particularly fruitful ground for further work, and should thus be kept in mind when reading the next chapter.

5. A New Perspective: Destructive Creation

This chapter aims at developing a novel theoretical framework to understand contemporary socio-ecological conflicts as part of capitalist development. It will do so in six major steps. First, an eco-feminist perspective on capital as a socio-ecological relation will be presented. Thereupon, Marx's notion of primitive accumulation and Luxemburg's theory of the dual character of capital accumulation will be re-conceptualized by using both current literature and insights from regulation theory. Sections three and four will then clarify the role of extra-economic dynamics in the process of capitalist development, particularly emphasizing the role of the state and hegemony and the discursive production of abstract social natures. Thereafter, section five will review the concepts with regard to Marxian value and crisis theory, while highlighting the role of primitive accumulation in the age of neoliberalism. Finally, main aspects will be summarized into an overarching framework in section six, introducing the notion of Destructive Creation.

5.1 Capital as a Socio-Ecological Relation

This section will develop a definition of capital as a socio-ecological relation. It will thus first clarify the ambiguous term capital in a differentiated way by introducing three different faces of capital. First, capital as a social relation; second, capital as a 'thing' in a specific process; and third, capital as a social class. Thereupon, eco-feminist and eco-Marxist critiques will be outlined and incorporated into the concept, to make it useful for the present analysis.

5.1.1 The Many Faces of Capital

Capital as an analytical reference seems to be omnipresent, not only in critical analyses. However, the notion underlying this frequently mentioned term seems to be vaguely defined and is often used arbitrarily. In (neoclassical) economics, for example, capital usually represents various production factors such as machinery, or is simply equated with money. Likewise, mainstream environmentalists are increasingly using the term 'natural capital' to generally refer to 'the environment' or specifically to 'environmental services' (see also chapter 4.2). Such a use of the term capital is not wrong per se, but seems problematic because it *a priori* privileges substances. Yet simply equating it with machinery, environmental properties or other 'things' does not explain much. As Marx put it:

“A cotton-spinning machine is a machine for spinning cotton. Only under certain conditions does it become capital. Torn away from these conditions, it is as little capital as gold by itself is money, or as sugar is the price of sugar” (Marx 1884, p.28).

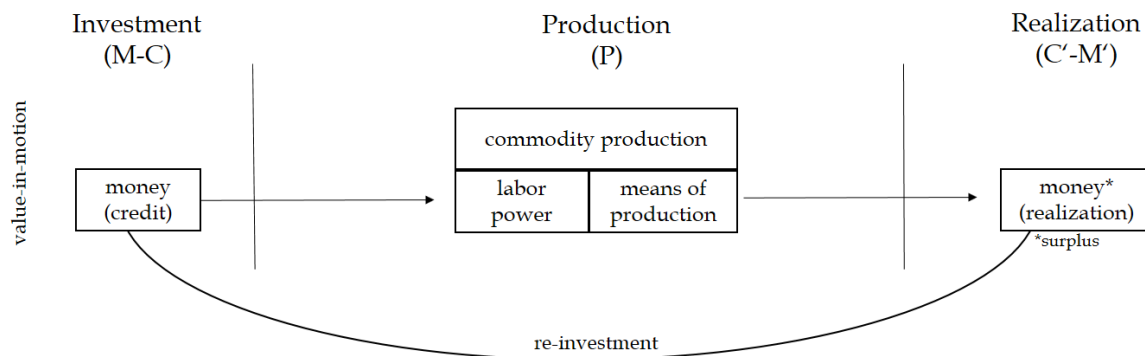
What seems problematic is therefore not so much the fact that capital has diffused into various areas of social life and academic analyses as an analytical term, but rather that it is frequently used without a proper definition. This critique is not only articulated towards liberal scholars. Poststructuralists have also criticized Marxian scholars for starting from an analysis of a pre-given material economy where capital is both a powerful agent and a totalized system, without explaining what capital really *is* (cf. de Goede 2003, p.80).³⁴ An in-depth understanding of what capital actually *is*, how it is *constituted*, and what it *presupposes* is thus necessary for the present work. In doing so I will primarily build on Marx’s elaborations and recent contributions from Marxian scholars.

Marx’s aforementioned quote already hints at the fact that capital can only be understood in a *relational* sense, not as a property inherent in certain things. In analyzing the transformation of money into capital, Marx highlights that capital is a peculiar social *form* of commodity production and exchange, a form that abstracts from a commodity’s use value. Whereas normal commodity exchange is intermediated by money (C-M-C), capital represents an economic form of exchange that is inverted (M-C-M), thus “buying in order to sell” (Marx 1887, p.108). While the former is primarily motivated by satisfying basic needs through the production and exchange of *use* values, the latter is essentially motivated to increase the *exchange* value of the produced commodities, which then translates into a higher quantity of the initially invested money (see Figure 3). This form is not limited to the sphere of circulation (commodity exchange), but also implies investment in commodity production, which aims at realizing a higher price than both the initially invested money and the costs of production (Marx 1887, p.108). In this context, capital represents a dominant social relation within a novel mode of production that emerged in the world economy during the sixteenth century (Moore 2010a; Moore 2010b).³⁵

³⁴ Ironically, Marieke de Goede criticizes historical materialist scholars for not being able to explain what capital really *is*, while only postulating very generally that capital “seems to be discursively constituted and contested” (de Goede 2003, p.85). In appropriating Latour’s work, she proposes looking at “finance and capital as a network of centers of calculation” (de Goede 2003, p.93), which, contrary to her intentions, is a very narrow and tentatively economistic definition.

³⁵ As Marx put it: “The modern history of capital dates from the creation in the 16th century of a world-embracing commerce and a world-embracing market” (Marx 1887, p.104). A more detailed account of *how* capital arose in the world economy will be presented in the following section.

Figure 3: Abstract Circuit of Capital



Source: Own illustration, inspired by Marx (1887).

It is crucial to acknowledge that both the sphere of production and the sphere of circulation are equally important in generating *and* realizing surplus value. Due to competition between various initial investors (now capitalists) to realize the surplus, at least a share if not all of the profits need to be reinvested. The continuity of this process is both production and reproduction of capital, which inevitably leads to an accumulation of the latter (Marx 1887, p.400ff.). The fundamental difference between money as such and *money as capital* is that in the former, money is used as an instrument to exchange commodities, while the latter suggests a theoretically infinite circular flow of money, in which commodities are only means to accumulate more money, and then capital (Marx 1887, p.106). Capital can therefore be described as “money which begets money“ (Marx 1887, p.108) as a social relation, in which money is perpetually sent in search of more money (see also Harvey 2010, p.40).³⁶ In this sense, it is not necessarily wrong to equate money with capital (like most economists do), because this is the most general form capital takes. However, not much is explained by simply equating capital with one of its form(s).

What is distinct about this perspective is that it emphasizes *relations* rather than *substances*. Money, profit, and value all existed long before the modern capitalist era commenced, and yet they take a novel role as ‘value in process’, or as ‘money which begets money’ in a ‘restless never-ending process of profit-making’ (Marx 1887, p.107). When taking capital as a process seriously, this also implies that capital (as a social relation) can *assume* various forms in society, including material forms. In this sense, capital *can be* machinery in a specific context, just as much as paper money or coins can be. But, machinery or paper

³⁶ Marx emphasizes that apart from producing commodities and surplus value, perpetual reproduction also reproduces the capital relation itself, meaning the separation between laborer and labor conditions, which again condition each other (Marx 1971: 603f).

money are never capital *per se*. Only in specific relations do ‘things’ become part of the ‘never-ending process of profit-making.’

This relational character of capital is strongly linked with its second key characteristic: its social character. As a form of commodity production and exchange, capital represents a definite social relation (*Verhältnis*). After all, “[c]apital is [...] a social relation of production” (Marx 1884, p.29, own emphasis). Speaking of capital thus never only implies a mere economic process. Following Lipietz (1988), a social relation (*Verhältnis*) is understood as a regularity in social practices that are temporarily stabilized in a given society.³⁷ In other words, a social relation is neither random nor voluntarist, but is best understood as an institutionalized habit. In using this understanding, I attempt to circumvent a structuralist reading of Marx’s *Capital*, while at the same time emphasizing the complex relation *between* structures and agencies. The social nature of capital becomes most obvious when looking at the explicit presupposition of its existence, namely the “[...] existence of a class which possesses nothing but the ability to work” (Marx 1884, p.30).³⁸ This class is constitutive of the capital-relation because labor power is a peculiar commodity, the use value (applying labor power) of which is the source of (exchange) value. In other words, labor power in capitalist commodity production creates the surplus on the initial monetary investment. Apart from paying the laborer and covering other costs of production, e.g. related to the means of production, this surplus is the capitalist’s profit, which needs to be at least partly reinvested in order to stay competitive. This means that the ‘working class’ is one of an antagonistic social relation, finding its counterpart in the capitalist class (the owners of the means of production understood in a broad sense). What becomes obvious is that capital can have many faces. It is a novel social relation (of production) that has emerged with modernity. Yet capital appears as a ‘thing’ within a specific process. And ultimately, capital also points to a social class in society, namely the owners of the means of production. The latter point is important to recognize to prevent a functionalist reading of capital’s reproduction, which as a real structure always also involves agency. In differentiating and reflecting upon these various ‘faces of capital’, it is important not to confuse its manifold expressions, and not to lose the analytical strength of the concept. Aside from these explicit presuppositions, there are two essential ‘invisible

³⁷ “In a myriad of daily social acts, to speak of social relations is to point up the *regularity* of certain social practices” (Lipietz 1988, p.11).

³⁸ Again, the condition for such a social structuring is the ‘double free wage laborer’ who is free in the sense of owning labor power, and thus being able to sell it in the labor market. Yet, at the same time the laborers are also free of any (or enough) means of production to sustain themselves (otherwise they would not be forced to offer their labor power in the market). A more detailed account of the historic development will be covered in the following section.

presuppositions' for capital to exist which are largely neglected in current GPE analysis, namely social reproduction and the role of non-human natures.³⁹

5.1.2 Capital's Invisible Presuppositions

Labor power and means of production (i.e. land, raw materials, and machinery) presuppose both the reproduction of labor power or the reproduction of the laborer, and the appropriation of non-human natures, which are both preconditions for most commodities.⁴⁰ In highlighting these two 'invisible presupposition' this thesis does not aim to simply add 'gender' or 'ecology' to the capital circuit, but rather to show how the two are intrinsically and intractably linked to the very basic processes of today's world economy. In other words, it defines capital as a socio-ecological relation. Moreover, this section is part of a two-step argument. In presenting an argument for why capital theoretically depends on these 'invisible presuppositions', the following section will historically reconstruct this dependency.

For a theoretical justification of capital's incompleteness, Polanyi's notion of fictitious commodities offers a promising starting point. Accordingly, money, labor power and land⁴¹ are fictitious. Despite their constitutive role for capitalist commodity production, these commodities cannot be produced for the market exclusively, because their very essence (human activity, nature, and purchasing power) is not produced for sale (Polanyi 1944, p.72). In other words, it is impossible to produce 'capital's essential ingredients' under capitalist conditions. This is why Jessop (2001) argues that capital is a precarious social relation. The capital circuit presented above implies a crucial role for non-human natures, because means of production always rest on raw materials like land. Commodity production and the labor process depend as much on means of production as they depend on the mere existence of labor power. Yet the ecological dimension of capital (not *capitalism*) is often overlooked, even by critical scholars. The reproduction of life (not just human life) is a necessary condition for capital reproduction. This might sound self-evident, yet this elementary insight is crucial to understanding the ecological dimension of capital. Marx

³⁹ The term non-human nature is used to refer to living matter. In contrast to concepts like 'the environment' or 'the ecology', it highlights the common ground between human and non-human natures which are both part of the ecosystem at large.

⁴⁰ Most, but not all, because services can be and increasingly are commodities in modern capitalist economies. However, today's massive material infrastructure of houses, railroads and motorways, large and small-scale machinery and technology, all essentially depends on the appropriation of nature, and is in turn the prerequisite for the service sector.

⁴¹ I will apply a rather broad reading of the term 'land' as all kinds of non-human natures.

highlights this point in a striking metaphor as a footnote, while explaining the labor process:

“It appears paradoxical to assert that uncaught fish [...] are a means of production in the fishing industry. But hitherto no one has discovered the art of catching fish in waters that contain none” (Marx 1887, p.138).

Although it seems problematic to talk about fish as a means of production,⁴² because they are not the *means* through which a commodity is produced, it is inevitably true that fish are a necessary *condition* for commodity production in the fishing industry. The same logic applies to the fertility of land or climate conditions for agriculture (and productivity), and there are many more examples. This is why eco-Marxists have pointed to the crucial role of capital’s *conditions of production* for sustained capital accumulation on a worldwide scale (O’Connor 1997; McCarthy 2004). Moreover, the labor process itself has an intrinsic ecological dimension. In order to create use values, labor in all civilizations is foremost an “activity that appropriates particular nature-given materials to particular human want” (Marx 1887, p.31). In capitalist relations it does so under very specific circumstances, in a particular *social form*. The labor process is also thus always a regulation of the metabolism between humans and non-human natures.⁴³ A commodity’s (use) value emerges through the coalescence of labor and matter. As Marx put it:

“We see, then, that labour is not the only source of material wealth, of use values produced by labour [...], labour is its father and the earth its mother” (Marx 1887, p.31).

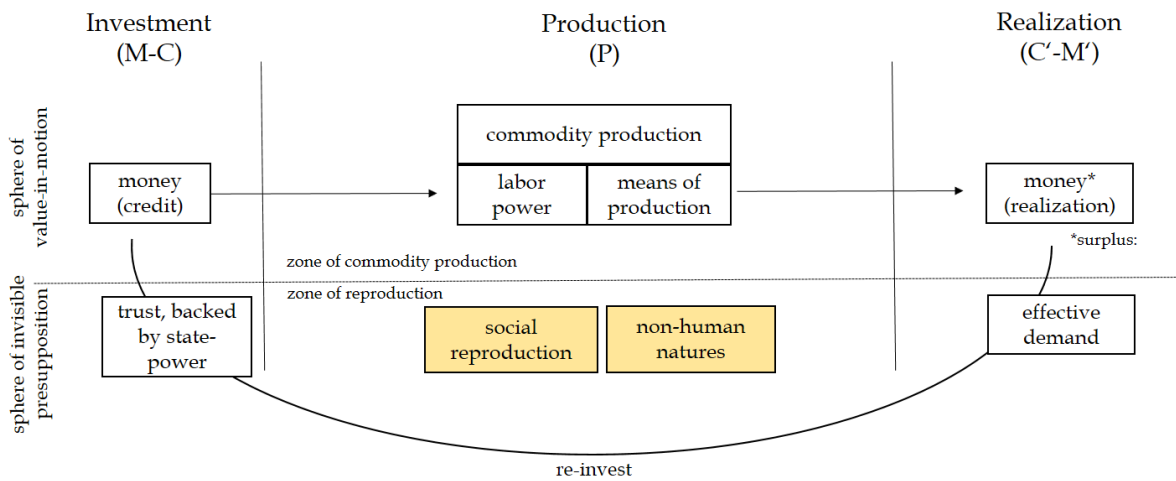
Furthermore, there is an ecological condition for the existence of the working class in capitalist societies, because “precisely from the fact that labor depends on nature it follows that the man who possesses no other property than his labor power must, in all conditions of society and culture, be the slave of other men who have made themselves the owners of the material conditions of labor” (Marx 1970). These points are important, because many contemporary ecological writings emphasize the environmental *consequences* of ‘the economy’ or ‘capital accumulation’, but forget about the ecological *presupposition* of the latter. Against this background, capital accumulation is not simply understood as a social process with environmental consequences, but rather as “a way of bundling human and extra-human natures” (Moore 2015, p.40). Similar to surplus appropriated from labor, one

⁴² For a critique, see Cohen 2000.

⁴³ A more detailed account of what regulation means in this context will be presented in the following section.

could also talk of a surplus appropriated from non-human natures, because “from the standpoint of ‘labor in nature’ [...] natural fertility is directly value producing in that it determines the amount of necessary labor time and thus directly affects the availability of surplus labor time” (Araghi 2009, p.121). However, it is important to remember that capital does not value non-human natures as such, but “only ascribes value to nature insofar as its appropriation requires human labor” (Burkett 1996, p.333).⁴⁴ This contradiction will be discussed further in the course of this chapter. Prior to this, however, the second ‘invisible presupposition’ needs to be uncovered.

Figure 4: Abstract Circuit of Capital and Invisible Presuppositions



Source: Own illustration; inspiration from Karl Marx, Maria Mies, and Jason W. Moore.

Just as capital is premised on a class that has nothing but its own labor power to sell, it is also based on the segregation of society, on a social group that reproduces labor power and community relations. Feminist scholars have long highlighted that wage labor is not the only productive work in society in the sense of maintaining the economy. After all, labor power and commodity production are unthinkable without corresponding regimes of social reproduction. In this context, social reproduction represents the totality of ‘invisible work’ such as biological reproduction, reproduction of labor power and a variety of “institutions, processes, and social relations associated with the creation and maintenance of communities” (Bakker & Gill 2003, pp.17–18). Despite its constitutive character for the successful reproduction of capital on an expanded scale, this type of work, which is mostly performed by women, is unpaid but subsidizes patriarchy and private profit (Elson 2005). Often their share of working hours is even higher than that of ‘free’ wage laborers, while

⁴⁴ The point of valuation from an eco-Marxist perspective was elaborated in chapter 4.5.

their work remains ‘invisible’. Maria Mies argues that this separation of the capitalist economy into visible and invisible spheres was constitutive from its inception (Mies 1986, p.27).⁴⁵ The productivity of the housewife is thus the prerequisite for the productivity of the male wage laborer.⁴⁶ This is why their work is not outside of surplus production, but the actual basis on which capital accumulation can flourish (Mies 1986, p.47; see also LeBaron 2010, p.908). Visualizing this complex web of interrelations (see Figure 4) is necessary in order to demystify

“the complete mystification of the capitalist mode of production, the conversion of social relations into things, the direct coalescence of the material production relations with their historical and social determination. It is an enchanted, perverted, topsy-turvy world, in which Monsieur le Capital and Madame la Terre do their ghost-walking as social characters and at the same time directly as mere things” (Marx 1894, Chapter 48).

Only from this perspective can we see that capital *is* a precarious socio-ecological relation. But if these two invisible moments were, from the birth of capital until today, as constitutive to capital’s successful reproduction as was claimed, then how can one explain its persistent (socio-economic) invisibility?

5.2 The Dual Character of Capitalist Accumulation

Capital accumulation is often conceptualized as a self-sustaining (though contradictory) economic process, even in many critical theories. In contrast, this section will show its proneness to conflict by employing a re-reading of Marx’s concept of primitive accumulation. It thereby places emphasis on the extra-economic means necessary to sustain the circuit of capital, both theoretically and historically, by employing a consequent perspective from regulation theory. Moreover, the uneven development of this process will be stressed.

5.2.1 Critique of Capital Accumulation as an Economic Process

It has already been mentioned that capital is ‘constitutively incomplete’ in the sense of depending on non-capitalist re/production of its very basic inputs, particularly labor power and non-human natures. It thus depends on permanent ‘regulation’, not understood as political regulation, but as *regulation of a social relation* which is best defined as “the way

⁴⁵ We will learn more about the history of capitalism and its colonial and patriarchal roots in the following section.

⁴⁶ This is not an essentialist argument, but a historical one.

in which this relation is reproduced despite and through its conflictual and contradictory character” (Lipietz 1988, p.11). Placing emphasis on the contingent and unintended forms of development, the concept of regulation is best understood in the context of societal power relations (Brand & Wissen 2013, p.137). From this perspective, capital can never evolve into a ‘totalized system’ although it inherits a ‘totalizing drive’ (cf. De Angelis 2004). First, because it is constitutively dependent on fictitious commodities and the re/production of its own conditions (Jessop 2001). And second, because there are always social forces that act as limits on it, whether conceptualized as class struggles in Marxian terms or as a ‘double movement’ by Polanyian scholars (De Angelis 2004, p.61). In turn, such a perspective also implies that capital as a social relation does not exist prior to its regulation, but capital gains its specific mode *through* continuous regulation in various spatio-temporal contexts (Jessop 2003, p.90). Moreover, from the perspective of political ecology, regulation does not simply refer to social relations but also to society-nature relations (Görg 2003b), which are in constant flux and mediated through social power relations “via institutions, norms, values, processes of subjectivation, and normalized practices that often bring to the fore new strategies of capital valorization”(Brand & Wissen 2013, p.693).⁴⁷

The regulation of capital clearly shows that there has to be an ‘outside’ to capital, which secures its successful continuous reproduction. Such an outside can be a place, as famously conceptualized by Rosa Luxemburg, *or* other social relations (Parenti 2015, p.833). In this context, it is important to make a distinction between capital as a social relation, the capitalist mode of production, and *capitalism* as a society within which capital is the hegemonic mode of production, i.e. the predominant mode to provide for people’s livelihoods.⁴⁸ Hegemony here refers to a relation of dominance “expressing itself through difference” (Sanyal 2007, p.6) and highlighting both the institutionalized coercive and violent moments through which it is maintained, *and* the consensual aspects, above all reflected in people’s social practices. Conversely, this means that capital is dominant within capitalism, but not exclusive. Rather, multiple other modes of production can and do exist in various social formations around the globe, and capital and non-capital are an integral part of a complex hegemonic order (Sanyal 2007). After all, capital is a social form that evolves *through* society, while the two constantly shape and transform one another:

⁴⁷ We will return to this subject in more detail in sections 5.4 and 5.5.

⁴⁸ It is important to make this distinction explicit, because many critical scholars conflate the terms capital and capitalism, which can lead to ambiguous and imprecise conclusions. Moreover, Marx’s analysis was directed towards capital and capitalist development, and can hardly be read as a comprehensive treatise on capitalism.

“capitalist development is incomprehensible without referring to its social and institutional embeddedness (with all that this implies for close linkages between economic and other activities), to the forms of social as well as economic regularization (or normalization) of profit-seeking actions in a capitalist economy, and to the ways in which resistance to such embeddedness and regularization are managed” (Jessop 1997, p.563).

To embed the reproduction of capital into definite social, cultural, political, and ecological relations is to make visible capital’s ‘invisible presuppositions’. It is only against this background that we can understand the various social power relations that articulate with capital *within* capitalism. Perhaps most important in this context are the different forms of patriarchy, (post-) colonial rule and the notion of humanity’s domination over nature.⁴⁹ The distinction made above between visible and invisible spheres in relation to the abstract circuit of capital can thus help in understanding the reconfiguration of social relations of re/production (LeBaron 2010, p.869). To do so is to move towards what eco-feminists have called ‘embodied materialism’ (Salleh 2001). The interrelation of various power relations and relations of exploitation that are not merely economic in form, reveals that there is no capitalism ‘in purity’. Rather, critical inquiries should start from the perspective of ‘dirty capitalism’ (Buckel 2015). Moreover, the embedded perspective breaks with the politically problematic implications of the ‘capital-logic framework’ (capital as automatic subject), because it can make visible existing contestations that challenge capital’s totalizing drive. To do so is to regain the capacity to act in contrast to a frequently proclaimed state of powerlessness (De Angelis 2004, p.61).

Against this background, some of the controversy among critical scholars has been resolved, such as the question of whether capital is a process *or* a thing. As described above, capital is certainly a “restless never-ending process of profit-making” (Marx 1887, p.107). As such, capital is always value in motion. However, at the same time, capital (or more precisely capital’s continuous reproduction) is also a social relation which is constituted by myriad social practices. Thus, capital is also a project of certain social groups to materialize their interests, a systematic strategy of individual or groups of capitalists (see also 5.1.1). If one looks at the previously mentioned large-scale projects (whether the exploration or extraction of raw materials, land acquisition, coastal zone enclosures or landfills), the strategic character of corporate activity and its prime objective

⁴⁹ Of course this thesis cannot and does not aspire to present a comprehensive analysis of the articulation of various social power relations. What it does intend to show is the importance of including these perspectives in a critical inquiry of today’s political economy, by suggesting ways to systematically integrate them into a theoretical framework.

become obvious. Such projects allow individual capitalists to create profits and enhance competitiveness within their branches, while on a larger scale they merge around facilitating the global capital circuit. This micro/macro distinction is important in not confusing individual strategies on a micro-level with actual outcomes on the macro-level. Certainly, private corporations are not primarily interested in smoothing an abstract circuit of capital on a global scale, but are rather concerned with their competitive advantage vis-à-vis other corporations. From a theoretical macro-perspective, however, it *seems* as if ‘individual actions’ ultimately aggregate to facilitate global capital accumulation, though in a contradictory and uneven way.⁵⁰ Analyzing capitalist formations from this perspective thus also implies that the frontiers between capital and its outside are not simply pre-given or invariable, but are actually constantly re/manufactured through strategic processes of segregation (Biesecker & von Winterfeld 2014).

5.2.2 The Relevance of Continuous Primitive Accumulation

It should now be evident that capital *as such* (without a socio-ecological context) does not exist, either theoretically or historically. Rather, capital can only be understood in progress as a relentless though contradictory and conflictual movement (Alnasser 2003, p.135). This becomes most obvious when looking at the history of capital’s emergence and its subsequent hegemony. Most liberal narratives, from Adam Smith to modern economics textbooks, emphasize the self-interested individuals engaged in acts of exchange, the frugal mercantile businessman and the entrepreneurial genius, which in a miraculous mixture eventually led to the rise of modern capitalism. Central to this story is the concentration of quantitative wealth in the hands of early capitalists, based on a “natural inclination to ‘truck, barter and exchange’” (Wood 2002, p.11). This was facilitated by trading relations and thus ‘free’ markets, a more diversified division of labor and, above all, savings which accumulate as initial (money) capital (cf. Perelman 2001; Wood 2002). In contrast to this “idyllic myth” of modern development, Marx outlined a rather different story of the ‘primitive accumulation of capital’, emphasizing *extra-economic* moments by arguing that “conquest, enslavement, robbery, murder, briefly force, play the great part” (Marx 1887, p.507). This “slow process evolving through many centuries” (Marx 1887, p.528) is crucial because it creates the very conditions upon which the capital circuit outlined above can flourish. In this context, numerous current contributions have suggested that primitive accumulation does not simply provide the historic background for capital to arise, but is

⁵⁰ Of course, this process is prone to crisis, a theme that will be further elaborated in chapter 5.5.

rather a constant feature of its development, a logical requirement to temporarily fix capital's precariousness (Bonefeld 2001; Perelman 2002; De Angelis 2006). As Marx's outline of the capital circuit was read in the previous section from a feminist, regulationist and ecological point of view, the process of primitive accumulation will be re-read here accordingly.

At the heart of primitive accumulation are various processes of segregation, most obviously the polarization of the market for commodities; in Marx's words the "fundamental conditions for capitalist production" (Marx 1887, p.508). While owners of money, means of production and subsistence are needed on the one hand, free laborers⁵¹ willing to offer their labor power in the market are needed on the other. In other words, 'divorcing the producer from the means of production' is capital's most precious prerequisite.⁵² This polarization also includes the very creation of masses of wage laborers, which eventually enter human history as a new social class: the working class. Historically, this polarization was institutionalized primarily through several waves of dispossessing the majority of people from their means of subsistence (mostly access to a common pool of resources), while transforming the latter into modern private property. Although this process 'freed' laborers from their means of subsistence, it did not force them to work as wage laborers in agricultural production. Many of the dispossessed turned into 'beggars, robbers, and vagabonds', and were subordinated under wage labor relations by brutal state legislation and enforcement (Marx 1887 Chapter 28). Only this brute state force disciplined deviant behavior and drove laborers into the "dull compulsion of economic relations" which were no longer characterized by explicit violence because the working class "by education, tradition, habit, looks upon the conditions of that mode of production as self-evident laws of Nature" (Marx 1887, p.523).

Looking at these processes from the perspective of 'the sphere of invisible presuppositions', primitive accumulation not only represents a fundamental restructuring of the relations of production (i.e. through the introduction of modern private property, and the conversion of most people into wage laborers), but also of relations of reproduction. It thus involves more segregation processes than the usually mentioned capital-labor distinction. It was discussed above that the 'new regime of wage laborers' was paralleled by the processes of 'housewifization and colonization' (Mies 1986; von Werlhof 2000). Colonial rule offered a

⁵¹ In this context Marx talks about the 'double free wage laborer' who has to be free in the sense of possessing the liberty to offer labor power (i.e. in contrast to feudal ownership of serfs), and free from sufficient means of subsistence, which is why laborers are forced to sell their labor power (Marx 1887, p.523)

⁵² "The expropriation of the agricultural producer, of the peasant, from the soil, is the basis of the whole process" (Marx 1887, p.508).

massive pool of cheap labor power and the appropriation of vast new spheres of non-human natures:

“The discovery of gold and silver in America, the extirpation, enslavement and entombment in mines of the aboriginal population, the beginning of the conquest and looting of the East Indies, the turning of Africa into a warren for the commercial hunting of black-skins, signalled the rosy dawn of the era of capitalist production” (Marx 1887, p.533).

In this context, several historical studies have shown that parallel to what Marx describes as primitive accumulation through the enclosures of commons in Britain, a number of conflicts over the restructuring of social relations of re/production took place throughout the world, wherever modernity entered people’s life-worlds in the form of capitalist dynamics.⁵³ Forced labor (i.e. slavery under colonial rule) has to be understood not as a pre-capitalist mode of (commodity) production, but as capitalist appropriation of surplus labor outside a formal wage-labor relation (Alnasser 2004, p.47).⁵⁴ Appropriation thus refers to the identification, channeling and securing of unpaid work/energy outside the commodity system into the circuit of capital (Moore 2015, p.17).⁵⁵ Thus, primitive accumulation is much more than a simple story of the emergence of capitalism in Western Europe. In fact, it offers a starting point to analyze the various colonial, imperial, and patriarchal segregation of social and society-nature relations in the service of continuous capital accumulation.

Feminists, for example, have argued that a corresponding ‘inner colonization’ took place with the creation of the bourgeois family. This is where it becomes clear that the subordination of women, “the heretic, the healer, the disobedient wife, the women who dared to live alone, the obeha [sic] women who poisoned the master’s food and inspired the slaves to revolt” (Federici 2004, p.11), was as essential a moment of restructuring the social relations of re/production as the creation of the ‘free’ wage laborer. While the latter was

⁵³ See, for example, Luxemburg (2003) for an analysis of colonial policy in British India, the eventual introduction of opium into China, and the suppression of indigenous populations in South Africa and the United States. Moreover, Moore (2010a; 2010b) has shown colonial expansion in terms of the shifting of specific commodity frontiers (e.g. from Saxony to Potosi in the metallurgical sector; from Madeira to Brazil and Barbados for sugar). See also Alnasser (2004) for an analysis of France’s primitive accumulation strategies in Algeria, Federici (2004) for colonial policy in the Andean region, and Wolpe (1972) for a study on South Africa.

⁵⁴ Similar to the double free wage laborer, slave laborers are also ‘free’ from sufficient means of subsistence due to coercion and (state) force, and of course also produce (surplus) value through the exercise of commodity production. Although they are not free in the sense that they are not the juridical possessors of their labor power, the value of their work and the private appropriation of the surplus function just as much (Alnasser 2004, p.79f.).

⁵⁵ Appropriation assumes two principle material forms. The first pivots on processes of biophysical reproduction (labor power, forestry, agriculture), and the second on geological extraction (energy and minerals) (Moore 2015, p.146).

disciplined in the factories of early modern capitalism, the female terrain of struggle was confined to their bodies, their independence, and their autonomy with regards to reproductive rights (cf. Federici 2004; von Werlhof 2000).⁵⁶ At the same time, housewifization also meant the total atomization and disorganization of their hidden labor forces, splitting the working class through a gendered division of work, and subordinating women's work to male wage labor *and* capital (Mies 1986, p.138). Thereby, unpaid work done by women contributed to the labor productivity of the (male) wage laborer, and the rapid expansion of capital accumulation. Facilitated by a powerful discourse on the 'natural inferiority of women', capital accumulation was premised above all on the "accumulation of differences, inequalities, hierarchies, divisions, which have alienated workers from each other and even from themselves"(Federici 2004, p.115).

Likewise, the discursive production of nature as a vast warehouse full of cheap or free raw materials was an essential part of restructuring society-nature relations over time (Mies 1986, p.110). More than anything else, the Scientific Revolution of the seventeenth century with the emerging hegemony of Cartesian dualism in conceptualizing the world, was a crucial factor in legitimizing the ruthless exploitation of non-human natures (Merchant 1995).⁵⁷ New commodification and appropriation strategies, however, not only evolved from social struggles but also as a result of socio-ecological conditions of production. The concept of 'commodity frontiers' helps show how the uneven global expansion of capitalist relations was linked to the regional exhaustion of specific appropriation strategies. While commodity *chains* refer to a network of labor and production processes that ultimately result in a finished commodity, the concept of commodity *frontiers* takes the perspective of presuppositions of commodity production, rather than its end result. Accordingly, such frontiers (e.g. for sugar, silver, timber, cotton, lithium, or any other commodity) track capitalist expansion and simultaneously show the unevenness of this process (Moore 2000, p.411). Such capitalist development, as outlined above, is premised on both the commodification of uncommodified spaces *and* on the appropriation of services that keep commodity production profitable (Moore 2015, p.63ff.). In other words, frontiers create windfall profits, both visible and invisible. They are therefore just as much about the appropriation of unpaid work/energy (women, slaves, non-human natures), as they are

⁵⁶ Above all, the disciplining aimed at illuminating the 'irrationalities' and uncontrollabilities of independent women, and was effected forcefully through witch hunts. "The stakes on which witches and other practitioners of magic died, and the chambers in which their tortures were executed, were a laboratory in which much social discipline was sedimented, and much knowledge about the body was gained" (Federici 2004, p.145).

⁵⁷ We will return to the question of how to conceptually grasp the discursive production of abstract social natures in the course of this chapter.

about the extension of commodity relations. In fact, commodity frontiers are constantly produced and shift the divide between paid and unpaid work in order to create favorable conditions for capital reproduction (Moore 2015, p.66). They arise out of socio-ecological conditions in the sense that they are always linked to the relative exhaustion of particular regional commodity production networks (Moore 2010a, p.41). This might seem self-evident, but it has important implications for the theorization of capitalist development. While there has certainly been a dimension of class struggle in the dispossession of the peasantry since the 15th century, there were also socio-ecological relations underlying these processes. Moore (2010b), for example, shows how the 'expropriation of peasant holdings' was systematically linked to commodity frontiers (e.g. that of timber) in the sixteenth century. Capitalism, from this perspective, is a system of 'unpaid costs' (Biesecker & von Winterfeld 2014) and of 'cost shifting successes' (Guha & Martinez-Alier 1997), or simply put, of *unpaid* work/energy (Moore 2015). Against this background, primitive accumulation theoretically represents a spatial and politico-economic *frontier*-relation, which appears historically as a social relation of force and coercion that mediates the articulation of capitalist and non-capitalist modes of production (cf. Alnasser 2004, p.168).

5.2.3 The Contingency of Capitalist Development

None of these processes were inevitable, nor were they fully intentional or planned prior to their development. As mentioned above, capital's arising can only be understood through its contradictory and conflictual processing, i.e. its regulation. Federici (2004), for example, analyzes the origins of primitive accumulation as "feudal reactions" to both a labor crisis due to the Black Death, and anti-feudal struggles in Western Europe, which were "opposed to the established order and contribut[ed] to the construction of alternative models of communal life" (Federici 2004, p.22). They were partly grounded in grassroots women's movements.⁵⁸ Ultimately, these struggles established or restored profitability by, for example, decreasing real wages (appropriating women's unpaid work by institutionally securing their dependency). Hence, primitive accumulation signifies a bundle of specific strategies which aim at commodifying non-capitalist spheres *and* appropriating unpaid/work energy. Ultimately, the success of these strategies is contingent on concrete

⁵⁸ Moreover, she shows how these struggles have to be analyzed against the background of the more equal and visible role of women in Western Europe since the 14th century: "As women gained more autonomy, their presence in social life began to be recorded more frequently: in the sermons of the priests who scolded their indiscipline [...] and above all, in the new popular movements, especially that of the heretics [...]. Heresy was as much a critique of social hierarchies and economic exploitation as it was a denunciation of clerical corruption" (Federici 2004, pp.31–34).

social struggles, and can only be understood in the context of the prevailing balance of social forces. This is why primitive accumulation is best understood as *continuous* ‘class struggle from above’ (Shah 2015). It is important in yet another way to theorize capitalist development with a focus on such struggles. In contrast to modernization theories, which generally emphasize stability and continuity in analyzing capitalist development, such a conceptualization emphasizes the discontinuities and ruptures present within the circuit of capital (cf. Lutz 1989), while suggesting that these struggles co-determine the evolution of capitalist dynamics. Moreover, to emphasize capital’s precarious reproduction and its link to contingent outcomes of social struggles, which are at the heart of the articulation between capitalist and non-capitalist relations of production, is necessary to circumvent the frequently found functionalism used to explain capitalist development.⁵⁹

As mentioned above, the *qualitative* restructuring of social and society-nature relations is the core of why primitive accumulation offers a radically different perspective for analyzing capitalist development. After all, the enclosures were “not simply a physical fencing of land but the extinction of common and customary use rights on which many people depended for their livelihood” (Wood 2002, p.108). For example, the production of commodities and the reproduction of the workforce were hardly ever separated in the life-world of feudal villages, and “all work contributed to the family’s sustenance” (Federici 2004, p.25). Several critical scholars have emphasized that primitive accumulation is not only the story of driving direct producers off of their land: “It was [also] a process that extracted people, through coercive power of the state, from their life-world” (Sanyal 2007, p.122). This is an extremely important point when reading primitive accumulation as ongoing contingent struggles that, above all, depend on the social relations of forces, and revolve around the very basic structuring of people’s livelihoods.⁶⁰ Only against this background can we understand the multiple dimensions of destruction inherent in such development (see also chapter 5.6). It is also against this background that we have to read Rosa Luxemburg’s notion of the dual character of capital accumulation:

“Non-capitalist organisations provide a fertile soil for capitalism; more strictly: capital feeds on the ruins of such organisations, and although this non-capitalist milieu is indispensable for accumulation, the latter proceeds at the cost of this medium nevertheless, by eating it up.

⁵⁹ Functional explanations of continuous primitive accumulation and capitalist development are not only characteristic for Rosa Luxemburg’s work, but also for famous contemporary scholars (see e.g. Dörre 2009; Harvey 2003).

⁶⁰ To re-read primitive accumulation more broadly is also important in order not to exclusively emphasize the role of dispossession, as some reconceptualizations do, e.g. Harvey (2003).

Historically, the accumulation of capital is a kind of metabolism between capitalist economy and those pre-capitalist methods of production without which it cannot go on and which, in this light, it corrodes and assimilates. [...] Only the continuous and progressive disintegration of non-capitalist organisations makes accumulation of capital possible” (Luxemburg 2003, p.397).

In drawing on Luxemburg’s important characterization of the dual character of accumulation it is crucial to shift our focus of analysis away from the ‘realization problem’, understood as the realization of surplus value in the sphere of circulation. Instead, we approach the dialectics of ‘accumulation proper’ and ‘primitive accumulation’ from the problematic to assemble sufficient *invisible presuppositions* to safeguard the expanded reproduction of capital. Thus, it is imperative to relocate our attention from the economic processes involved in ‘accumulation proper’ to the *extra-economic* moments that constitute primitive accumulation as part of capital accumulation in concrete spatio-temporal contexts. Moreover, historicizing capital’s emergence and development through the lenses of the dual character of capital accumulation helps us to go beyond an analysis of mere economic activities⁶¹, and to embed these into political, juridical, cultural, scientific and other extra-economic processes (Görg 2004; Perelman 2001; Moore 2015) as well as practices in the daily reproduction of society (De Angelis 2006).⁶² It is precisely these spheres outside ‘the capitalist economy’, the policies and legislation and cultural meaning-making through (scientific) discourses, that can open up and potentially secure new profitable investment opportunities (Jessop 1997, p.565). What a re-reading of primitive accumulation does is to provide a ‘structural framework’ through which conflicts over the regulation of social and society-nature relations are fought (cf. Görg 2004, p.1504), as well as pathways through which new opportunities for capital reproduction are possibly opened, legalized, and socially naturalized.⁶³ In other words, the diverse commodification and appropriation strategies also represent a struggle over the conditions for capital reproduction (cf. Alnasser 2004; McCarthy 2004). Only from the perspective of the dual character of capital accumulation can we understand and see capital’s invisible presuppositions: the history of naturalizing commodification and appropriation strategies, the colonization, housewifization and enclosures of non-human natures. Ultimately, it is exactly these naturalization processes that temporarily stabilize capital accumulation, while moments of

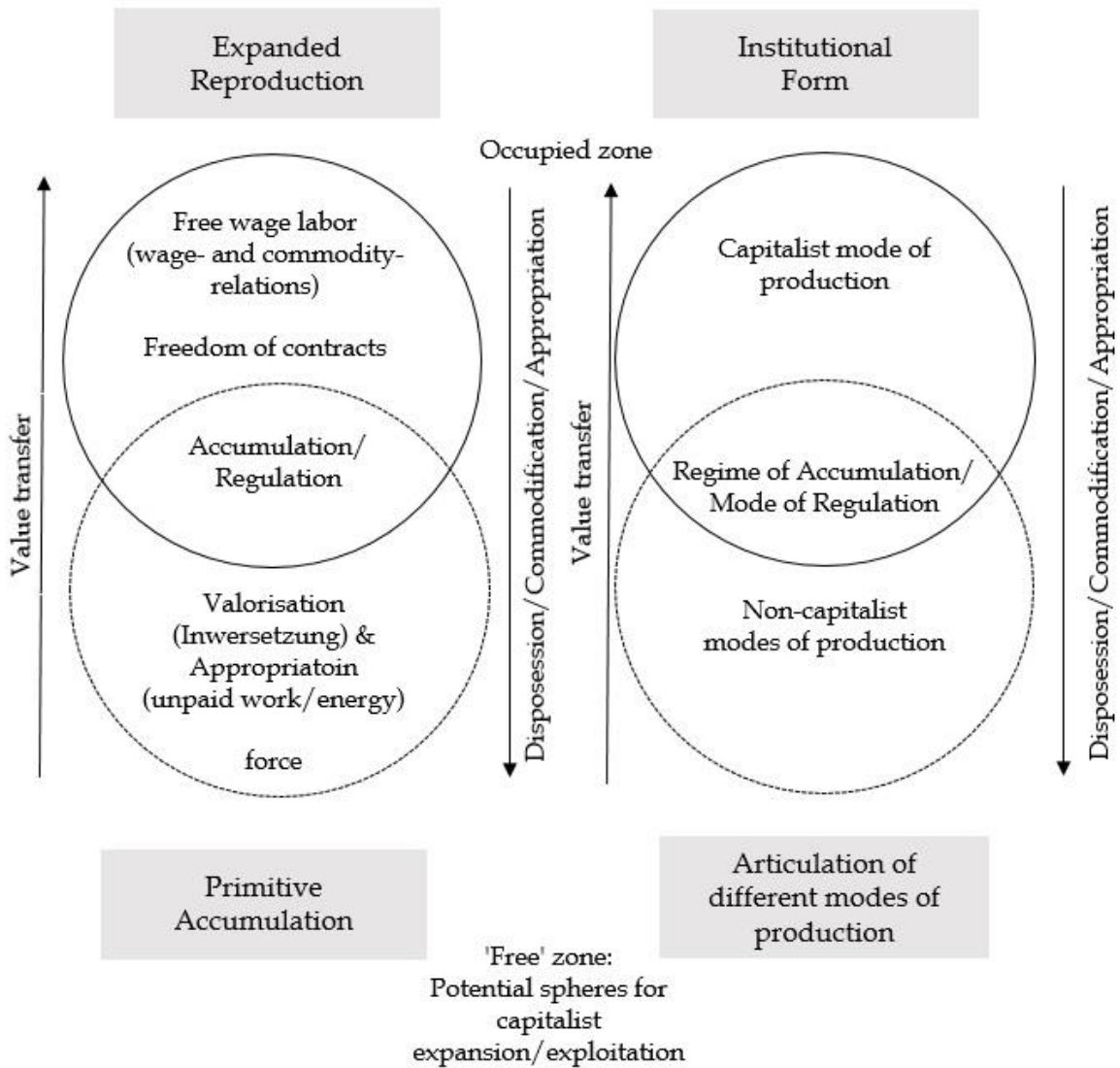
⁶¹ or worse, the conceptualization of capital accumulation as ‘economic engine’.

⁶² We will return to a theoretical conceptualization of these important points in the following sections.

⁶³ As Rosa Luxemburg remarked: “Accumulation is more than an internal relationship between the branches of capitalist economy; it is primarily a relationship between capital and a non-capitalist environment [...]” (Luxemburg 2003, p.398).

violence and coercion are suppressed in the centers of the world economy, and are assumed to be 'natural' in the periphery (Alnasseri 2004, p.28).

Figure 5: Primitive Accumulation, Articulation and Regulation



Source: Slightly adapted and translated from Alnasseri (2004), p.169.

5.3 The Crucial Role of the State and Hegemony

This section will provide a conceptualization of the extra-economic means necessary for capital's precarious reproduction in the context of the 'integral state'. Thus, the first part will uncover the relation between processes of primitive accumulation and Gramsci's notion of the integral state, while the second part will shed light on the question of the material and discursive dimensions of these enclosures.

5.3.1 Primitive Accumulation and the Integral State

In his elaboration on 'primitive accumulation', Marx made it very clear that the state had a crucial role in the various segregation processes constitutional to capital's emergence and development. The examples are manifold and contain, for example, the 'blood legislations': the expropriation of agricultural populations and formal enclosures of the commons in Britain (Marx 1887, Chapter 27 and 28), the witch hunts in Western Europe and the Andean region (Federici 2004, Chapter 5), and colonial policies throughout the Global South aiming at the appropriation and exploitation of human and non-human natures in service to an emerging global system of profitable commodity production. Any convincing conceptualization of capitalist development focusing on socio-ecological struggles and related segregation processes thus has to include the central role of the state. In fact, the state represents the terrain on which these struggles are fought, while framing the *extra-economic* moments necessary for capital's precarious reproduction.⁶⁴

'The battle of annihilation', as Rosa Luxemburg called it, or more technically the conflictual articulation between capitalist and non-capitalist modes of production, is always structured around the principle methods of political force (i.e. military and police, legislation and enforcement, forms of criminalization) and other forms of state control and oppression:

"Force is the only solution open to capital; the accumulation of capital, seen as an historical process, employs force as a permanent weapon, not only at its genesis, but further on down to the present day" (Luxemburg 2003, p.351).

⁶⁴ A fully conceptualized state theory would go far beyond the ambitions of this section, and remains a task for further work. What is important, however, is to outline some preliminary thoughts on how to connect the 'role of the state' with the previously developed concepts of primitive accumulation (above all, the strategies of commodification and appropriation).

Particularly in seemingly non-violent processes, like parliamentary legislation, lies a potentially brutal juridical state power: “the power to restructure property relations and entitlements” (Sanyal 2007, p.120). This point is important because most liberal approaches actively advocate the *extension* of private property rights regimes as a *solution* to contemporary socio-ecological conflicts (see chapter 4.2). The downside of these processes, the destruction of various forms of self-provisioning and alternative forms of property and production, are thereby rendered invisible. However, the previously outlined perspective of primitive accumulation can make the latter visible at last. Moreover, the commodification and appropriation of human and non-human natures is facilitated by state institutions through the production of infrastructure, which is a precondition for large-scale commodity production and realization on the world market, i.e. through transport infrastructure (Parenti 2015, p.830). Thus, capital’s previously mentioned metabolic relationship with non-human natures is always mediated through the state. The latter does not *have* a relationship with nature but it *is* a relationship with nature, with a central function in capital’s value form (Parenti 2015, p.830). In this context, Christian Parenti talks of the ‘environment-making state’, an expression we will soon be able to fully appreciate.

The central role of the state is tightly interconnected with the conflictual and precarious processing of capital, i.e. its regulation. After all, the state is neither a ‘monolithic bloc’ outside of society, nor is it neutral. It rather represents the institutionalization of norms, compromises and demands that mainly evolve through social conflicts of diverging groups and interests, and that have evolved a certain dynamic of their own over time. This is also to say that orthodox Marxist conceptions of the state as a mere instrument of the capitalist class are misleading generalizations. In other words, the state can be understood as an ‘institutional ensemble’, which constitutes a terrain that defines how conflicts play out and how compromises are built, including the process of decision-making, the establishment of alliances (through shared values and beliefs), discussions, and negotiations (Brand 2007, p.164; Demirović 2007, p.24). This is best understood if the state is approached from a Gramscian perspective, which also heavily inspired regulation theory. Accordingly, the functions of the state outlined above (legislation, executive, and juridical power) are only part of the ‘integral state’, or the so called ‘political society’. Complementary to the narrow focus on these state institutions, Gramscian scholars have emphasized the crucial role of ‘civil society’ in stabilizing or potentially changing social orders.⁶⁵ While the former predominantly rests on force and coercive measures, i.e. the famous ‘monopoly of

⁶⁵ In this context it is important to acknowledge that a differentiation between ‘political’ and ‘civil society’ mostly serves analytical purposes, because both modes of governance are highly intertwined in practice.

violence’, the latter rather works implicitly through (passive) consensus in society.⁶⁶ This consensus is of course never static, but in flux, permanently contested, and best understood as a struggle over effective ideologies in the sense that “they ‘organize’ human masses, and create the terrain on which men move, acquire consciousness of their position, struggle, etc.” (Gramsci 1971, p.371). In this sense Gramsci conceptualizes public ‘common sense’ as what people perceive as *normal* or *natural*. Yet this normality is socialized, and therefore inherently historic and political, including modes of legitimization and rationalization which together build “an amalgam of historical effective ideologies, scientific doctrines, and social mythologies” (Rupert 2005, p.487). In sum, hegemony then refers to a mode of power in the form of an ‘organizing principle’ (Burke 1999), in which particular interests, namely those of dominant social groups, are universalized and (passively) accepted and/or tolerated in society. Violence is thus the secret of the state, “but if force were required for each act of reproduction of social relations, it would no longer make sense to speak of a state” (Lipietz 1988, p.12).⁶⁷ This is why Gramsci suggests that “[...] the State must be conceived of as an ‘educator’, in as much as it tends precisely to create a new type or level of civilisation” (Gramsci 1971, p.247).⁶⁸ It is in this context that we can make sense of the relation between capital’s precarious reproduction, i.e. its regulation, and power relations within the integral state. The crucial role of consensual moments towards a certain ‘mode of development’ is perhaps best shown by the previously elaborated works of (Neo-) Extractivist research. In order to facilitate a certain regime of accumulation, which in this case is structured around export-oriented extractive industries, a corresponding mode of regulation needs to normalize specific state activities (e.g. financial support in the form of subsidies for extractive industries through infrastructure or taxation). To do so requires the manufacturing of common sense among people in civil society that such a mode of development is in their interests. Creating such common sense mostly works through aligning a given regime of accumulation with notions of progress, wealth, modernity or

⁶⁶ Typical civil society institutions are, for example, education institutions, trade unions, churches, social movements, non-governmental organizations, the media, and families (see e.g. Cox 1983; Demirović 2007).

⁶⁷ In this context, Lipietz maintains that: “[...] the state form is neither the guarantor nor the expression of harmony in the sense that the members of the community have no reason to struggle. It is the expression of a hegemony which in general translates into domination of certain social groups, at the same time as it is the expression of that domination” (p.12).

⁶⁸ Marx also emphasized the crucial role of education and habits in the century-long processes of turning dispossessed peasants into modern wage laborers, and in perceiving capitalist production relations as ‘natural.’ “The advance of capitalist production develops a working class, which by education, tradition, habit, looks upon the conditions of that mode of production as self-evident laws of Nature” (Marx 1887, p.523); see also Federici (2004) on self-management/government/development as an essential requirement for capitalist dynamics (p.149).

national identity (see e.g. Esteva 2010; Gudynas 2013).⁶⁹ To highlight these connections is to show how the (integral) state matters for processes of primitive accumulation, i.e. specific strategies of commodification and appropriation of human and non-human natures. Ultimately, the latter represent a frontier-movement between capitalist and non-capitalist spheres, which can only be understood in the context of the prevailing balance of social forces: the hegemonic constellations within the integral state.

5.3.2 The Material and Discursive Dimensions of Enclosures

The conceptual introduction of hegemony offers a promising way to think of the ‘material’ and ‘non-material’ moments of primitive accumulation with a common though contradictory unity. After all, “the scientific and intellectual practices that make bio-physical reality economically legible and accessible” (Parenti 2015, p.830) are fundamental extra-economic means in the process of primitive accumulation. The destruction of other modes of providing for people’s livelihoods is not simply a material question of dispossession and displacement. It is also about conquering people’s minds and collective imaginations on how to organize social and society-nature relations, thereby creating consensus towards potentially (invisible) destructive developments. In fact, processes of segregation, dispossession and appropriation need to systematically include a non-material dimension, since they are also about culture, knowledge, skills, and of course, control over bodies, i.e. processes of subjectivation and control over reproductive capacities (von Werlhof 2000, p.731). Emphasizing such non-capitalist forms of knowledge, cultural practices, production and distribution, does not imply a normative privileging, but rather serves to provide analytical clarity.⁷⁰ This is important in order to show that segregation processes were never and will never be exclusively material, though this dimension is far more *visible*.⁷¹ Massimo de Angelis articulates this point eloquently:

⁶⁹ Of course, this is not to say that consensual moments only matter for Neo-Extractivist ‘modes of development’. In fact, the very notion of modern development is strongly linked to large-scale infrastructure projects facilitated and supported by the state, around which the latter creates a ‘common sense’.

⁷⁰ Arturo Escobar has made this point very clear: “Local knowledge is not pure or free of domination; places might have their own forms of oppression and even terror; they are historical and connected to the wider world through relations of power, and in many ways determined by them. The defense of local knowledge proposed here is both political and epistemological, arising out of the commitment to an anti-essentialist discourse of difference” (Escobar 2001, p.157).

⁷¹ Perelman (2001; 2007), for example, analyzes the decisive role of science, particularly the role of classical political economy, in envisioning and legitimizing the remaking of the social division of labor in agricultural production at the inception of capital’s arising. Likewise, other scholars have emphasized the discourse “that extolled ‘labor’ and berated ‘idleness’” in the context of disciplining early wage laborers in Western Europe (Sanyal 2007, p.124).

“If capital encloses, it cannot do it without a corresponding discourse. [...] The discourse of enclosures, in other words, must present itself not as a negative force, one that separates, brutalises, and disempowers; but, on the contrary, it also has to wear the mantle of rationality, and project a vision of the future that makes sense to a multiplicity of concrete subjects. [...] Enclosures are not just about taking resources away from people, but the first step towards attempting to define new subjects normalised to the capitalist market. Capital does not enclose simply in order to rob, but also so as to integrate the social body in particular ways” (De Angelis 2004, p.82).

At the heart of contemporary socio-ecological conflicts is precisely this ‘mantle of rationality’, a positive vision of progress and wealth that accompanies highly contested large-scale infrastructure projects, the global extension of mining frontiers, the privatization and appropriation of idle or unproductive land, and many other contested processes (see chapter 3). Moreover, in framing these commodification and appropriation strategies as development projects, the driving forces, mostly transnational corporations and state institutions, try to depoliticize processes of segregation and re-structuring of social and society-nature relations, while presenting them as politically neutral simple expert exercises in techno-bureaucratic planning (see Sanyal 2007; Chapter 3). Despite the fact that the very ‘material’ processes of dispossession and displacement lie at the heart of commodification and appropriation strategies, their successful processing inherently depends on discursive strategies that discover opportunities, legitimize state actions, and naturalize the processing of such restructuring. These ambitions are, however, expressions of diverging social group interests not to be understood in a teleological sense. Although a certain large-scale development project may have been successfully depoliticized at one point in time, civil society groups like local communities and non-governmental organizations can potentially re-politicize, de-legitimize and de-naturalize these processes through different means of resistance. This is precisely what civil society resistance in contemporary socio-ecological conflicts revolves around, which is a topic we will return to in the following chapter.

5.4 The Discursive Production of Abstract Social Natures

On a methodological level, a question arises regarding the exact role of discourses in framing processes of commodification and appropriation. In criticizing both widespread modern notions of human’s domination *over* nature and nature/society dualism, critical geographers have developed the ‘production of nature’ thesis, which links well with the previous elaborations. As illustrated above, any type of civilization always regulates its society-nature relations, mostly through forms of production and consumption mediated by

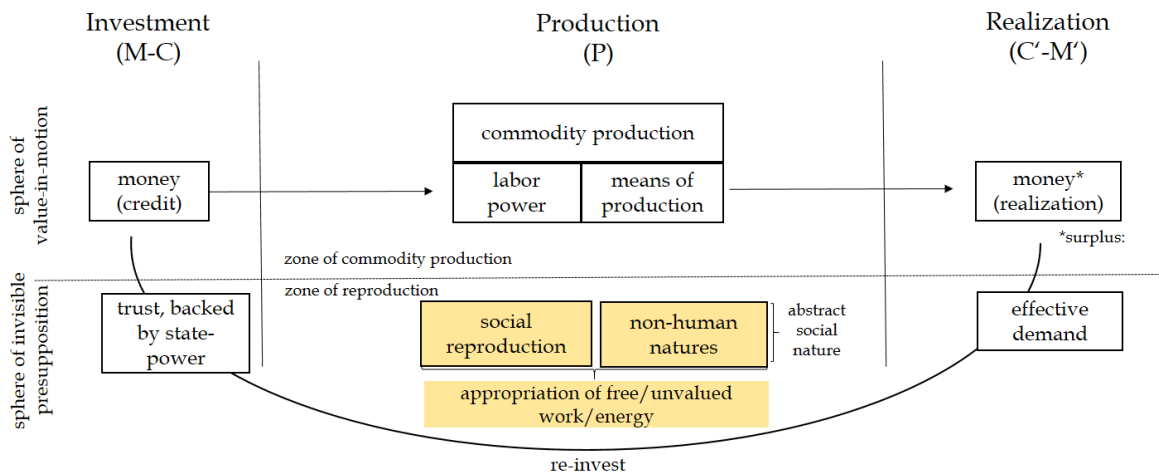
forms of statehood. Consequently, all civilizations also ‘produce nature’ in their distinct way. In other words:

“The social provision of sustenance has always involved a certain ‘production of nature’. In capitalist societies, however, the production of nature mutates from an incidental and fragmented reality to a systemic condition of social existence, from a local oddity to a global ambition [...] neoliberal globalization is only its latest incarnation” (Smith 2007, pp.21–22).

Thus, the ‘production of nature’ is always a form of environment-making, including “symbolic, cultural and scientific processes”, binding together the thinking and the doing of environment-making “as two moments of a singular process” (Moore 2015, p.79). These processes are fundamental in radically objectifying nature. Modern science has played a particularly crucial role in ratifying “this purview of an external, exploitable natural world” (Smith 2007, p.22).⁷² From the perspective of capital’s ‘invisible presuppositions’, this process is not limited to non-human natures, but likewise applies to the exploitation and appropriation of unpaid labor (women, slaves). This is why Jason Moore has recently suggested rather conceptualizing these processes as the (discursive) production of ‘abstract social natures’. In relying on Marx’s concept of ‘abstract social labor’, which refers to the sphere of commodity production, the notion of ‘abstract social natures’ refers to the sphere of invisible presuppositions. More precisely, it “names the family of processes through which states and capitalists map, identify, quantify, measure and code human and extra-human natures in service to capital accumulation” (Moore 2015, p.194). An adequate analysis of these processes can only be understood in the context of hegemonic struggles over knowledge, social hierarchies, and forms of power that, above all, work through the inclusion/exclusion of social groups. Against this background, Parenti’s notion of the environment-making state also becomes more apparent. The previously introduced figure of the abstract circuit of capital and its invisible presuppositions can also be fully appreciated by now. As previously mentioned, social reproduction and the appropriation of non-human natures is not simply a given terrain of exploitation, but one that is actively ‘produced’ and potentially contested. This is the essence of the discursive production of abstract social natures in service to the ‘never-ending process of profit-making’.

⁷² To speak of the ‘production of nature’ does not imply that human organizations can arbitrarily produce ‘nature’, nor that they only create it discursively. Rather, there are also always unintended consequences, and extra-human dynamics that co-determine the limits of such a process (Smith 2007). Other critical scholars have referred to this as the ‘irreducible materialities of nature’ (Castree 1995), or the ‘non-identity of nature’ (Görg 2003b).

Figure 6: Abstract Circuit of Capital and Appropriation of Abstract Social Natures



Source: Own illustration; inspiration from Karl Marx, Maria Mies, and Jason W. Moore.

Historically, the production of ‘abstract social natures’ has been facilitated by a number of “epoch-making revolutions in cartography, mathematics, agronomy, economic botany, quantification, and rationalizing endeavors of all kinds” (Moore 2015, p.194). In the age of neoliberalism, various strategies of marketization and financialization are central for the radical intensification and deepening penetration of abstract social natures by capital, i.e. credit markets for air pollution, wetlands, and fisheries (Smith 2007, p.17).⁷³ From a socio-ecological point of view, these enclosures represent yet another segregation process, namely that of work/energy in terms of which is valued and which is not. On the one hand, the privatization and commodification of commons is assigned a value when seized by capital (often arbitrarily), and thereby “creates its own distinctive ecosystem” (Harvey 2014). On the other hand, the appropriated abstract social natures are not formally valued, and thereby made invisible, but are nonetheless subordinated to and essential for the circuit of capital (see Figure 6). This is why ‘women, nature and colonies’ are not merely plundered, but “actively created through symbolic praxis, political power, and capital accumulation” (Moore 2015, p.216). In this context, a recent critical review of the discourse on the payment of ecosystem services (PES) stated: “Many involved in the policy discourse underestimate the agency of abstractions – how abstractions and the application of accounting procedures will shape, not just report how we see nature” (Kill 2015, p.16). Modern science, particularly economics in the previously mentioned case, has a crucial role in the persistent occurrence of primitive accumulation (see also Perelman 2001). More broadly, Moore concludes that the “production of knowledge itself is constitutive to

⁷³ For a more detailed account of the financialization of non-human natures, see Lohmann (2012).

capitalist world-praxis and its trinity – abstract social labor, abstract social nature, primitive accumulation” (Moore 2015, p.195). The discursive production of ‘abstract social natures’ and its ‘material’ commodification or appropriation can only be fully understood in the context of respective hegemonic constellations within the integral state. After all, capital’s precarious and conflictual reproduction, i.e. its regulation, is always a struggle to re-structure social and society-nature relations, and “takes place via institutions, norms, values, processes of subjectivation, and normalized practices that often bring to the fore new strategies of capital valorization” (Brand & Wissen 2013, p.693). To take these struggles seriously requires an emphasis on contingency without losing sight of asymmetries in power relations. Hegemonic struggles are not a one-way road:

“What this means is that, yes, capitalism operates at all levels of scale; yes, capitalism is always present in the production of place; moreover, capitalism has to operate on the basis of its incorporation of places, and there are probably as many varieties of this incorporation as there are places, despite capital’s best efforts at normalizing its conditions of operation. Yet this also means that capitalism is at least to some degree transformed by places; that in the same way as women are not completely defined by their relation to men, places and non-capitalisms are not completely defined by their relation to capitalism and space” (Escobar 2001, p.158).

To emphasize this point is to highlight capital’s precarious reproduction and its inherent contentiousness, which erupts in various types of social struggles, for example over the process of valorization. Moreover, this point shows that there is always a certain degree of autonomy within the non-capitalist sphere⁷⁴, an agency to counter capital’s enclosures, and potentially repel the latter. This agency is perhaps nowhere more visible than in contemporary socio-ecological conflicts. However, it is also always constrained by prevailing asymmetric hegemonic power relations, mediated through the nation-state in a narrow sense, through international state-like institutions such as the World Bank, the UN and the IMF, and through (ideological) struggles in transnational civil society. We will return to these questions in more detail in chapter 6. But first, a closer examination of the processes of valuation and potential crises is necessary to fully understand the contradictory character of the dual accumulation of capital.

⁷⁴ Referring to all types of non-capitalist modes of production and providing for people’s livelihoods.

5.5 A Brief Remark on Marxian Value and Crisis Theories

In the previous sections it was argued that the ‘invisible presuppositions’ are constitutive to capital both theoretically and historically, and thus are a necessity for the capitalist mode of production. So far, however, the argument has not explained why non-human natures and unpaid work (e.g. social reproduction) are not valued, despite being constitutive to value formation. Despite having a crucial part in both processes of commodification and appropriation, the problematic of value has not yet been explicitly touched on. In this context, critiques have altogether dismissed Marxian value theory on the grounds of an economically biased reading.⁷⁵ Moreover, it was mentioned that the circuit of capital is contradictory and conflictual, not to be understood without the notion of crisis.⁷⁶ Therefore, this section will shortly elaborate on these crucial moments. In doing so, neither a comprehensive review nor a detailed account of Marxian value and crisis theory will be presented, as this is a task impossible for a subsection. Rather, the section intends to outline the crucial role of valuation in the dual character of capital accumulation, since the topic in question plays a crucial role for contemporary socio-ecological conflicts.

5.5.1 The Difference between Value Form and Value-Relations

I argue that the confusion underlying the critique of ‘capitalocentrism’ emerges primarily from the contradictory and opaque *social form* of capital, and from a misconception of Marxian value theory. As mentioned in chapter 3, eco-Marxists have convincingly shown why non-human natures matter for the formation of wealth in society, but how they are nonetheless not quantitatively valued (see e.g. Burkett 1996; O’Connor 1997; Foster & Burkett 2000). Put simply, various modes of production in history have valued different types of production, e.g. land productivity in European feudalism. In contrast to feudalist production, capitalist relations privilege (wage) labor productivity in commodity production as the supreme metric of wealth (Moore 2015, p.58). This is the case not simply because labor is normatively privileged, but because it is the only variable that makes qualitatively different products of labor (i.e. commodities) commensurable. Strictly speaking, the labor embodied in any commodity can never be equated with that employed in another commodity since it is always concrete, and thus different. This is why Marx developed the concept of ‘abstract social labor’.⁷⁷ This is not a theoretically universal law nor is it the only

⁷⁵ One example is the frequent criticism of ‘capitalocentrism’ which fails to value other forms of labor.

⁷⁶ As Alain Lipietz put it: “Thus the notion of regulation can only be understood within a particular schema: relation - reproduction – contradiction – crisis” (Lipietz 1988, p.11).

⁷⁷ “It is the expression of equivalence between different sorts of commodities that alone brings into relief the specific character of value-creating labour, and this it does by actually reducing the different varieties of

way to structure exchange-relations in society, but it expresses the *historical* mode of the capitalist exchange of commodities (Elson 2015, p.153). Consequently, the relentless process of profit-making, i.e. capital, essentially depends on advances in labor productivity particularly from the standpoint of (individual) capitalist corporations, which are in a constant race for competitive fitness (Moore 2015, p.53). The commodity as *value form* emerges in the immediate process of production, thus in the visible sphere. However, the *value-relations*, including the systemic determination of socially necessary labor-time, are much broader than simply encompassing wage labor productivity. This is precisely what we have learned from chapters 5.1 and 5.2. The sphere of ‘invisible presuppositions’ and its continuous commodification and appropriation does not simply add to our analysis, but it is also a constitutive moment for labor productivity incorporating surplus labor, and thus potentially surplus value. The unpaid work formally outside the sphere of commodity production yet subsumed under it *is* surplus labor and has *effects* on wage labor in the sphere of commodity production.⁷⁸ This is why, from an eco-feminist point of view, the “rate of exploitation is fundamentally conditioned by the scale, speed, and scope of appropriation of nature’s work/energy, provided ‘free of charge’, or as close to free as possible” (Moore 2015, p.103). Moreover, unpaid work/energy co-determines the socially necessary labor-time for commodity production, i.e. the labor productivity.

From this perspective, the crucial role of conceptualizing capital accumulation from a ‘dual perspective’ becomes apparent once more. While the emphasis on accumulation proper, i.e. the sphere of commodity production, tends to result in an economistic reading of value relations, the sphere of ‘invisible presuppositions’ completes our perspective by conceptualizing the de-valued but necessary moments for commodity production. In sum, value under capitalist relations does not work, unless most work is not valued (Moore 2015, p.54; see also Federici 2004; Mies 1986). This contradiction, however, always implies an asymmetry in *which* types of work are valued and *how* this is done.⁷⁹ The previously introduced notion of primitive accumulation, comprising various segregation processes at the frontier between capitalist and non-capitalist modes of production, helps to clarify this point. After all, it is precisely these segregation processes and *frontiers* that determine which types of labor are (de-) valued in different social formations (see also Alnasseri

labour embodied in the different kinds of commodities to their common quality of human labour in the abstract” (Marx 1887, p.35).

⁷⁸ Sanyal (2007), for example, argues that various types of informal labor that dominate regional economies also belong to this category. Another prevalent example, of course, is the previously mentioned unpaid forms of care and household work which ultimately render wage labor (productivity) possible (see also 5.1.2).

⁷⁹ Through various processes of segregation, see chapter 5.2.

2003, p.149). Marx's value theory from this perspective is an invitation to analyze what *forms* different types of labor take in society, and how the fluid potentiality we call labor power is 'socially fixed' or objectified in the production of particular goods, by particular people in particular ways (Elson 2015, p.128). Value-*relations* are thus not an economic phenomenon as suggested by orthodox Marxists. They are rather a *systemic* phenomenon with a pivotal economic moment, i.e. abstract social labor (Moore 2015, p.191). From this vantage point, the 'law of value' is comprised of two moments. One is the visible ceaseless accumulation of capital as abstract social labor. The other is capital's totalizing drive to expand the relations of exploitation and appropriation to the sphere of 'invisible presuppositions' (cf. Moore 2015, p.54).⁸⁰ Moreover, this tendency is "historically materialized through the development of scientific and symbolic regimes necessary to identify, quantify, survey, and otherwise enable not only the advance of commodity production but also the ever-more expansive appropriation of cheap natures" (Moore 2015, p.191). This is precisely what has been described earlier as the discursive production of abstract social natures (see chapter 5.4).

5.5.2 Improbable Reproduction and Crises

At the intersection of the sphere of commodity production and the sphere of 'invisible presuppositions' is the constant creation of 'Cheap Natures.'⁸¹ These include labor power, food, energy and raw materials as principle inputs for the process of commodity production. This creation of Cheap Natures is both a condition and constraint for capital because, as shown above, the continuous flow of the circuit of capital is always precarious. Capital is not only confronted with the problem of overproduction, i.e. of profitably realizing produced commodities, but also with the 'underproduction' of such Cheap Natures, i.e. the deteriorating conditions of production or lack of affordable inputs (O'Connor 1997, p.161; see also Altvater 2011). This is precisely where the notion of crisis enters. Jason Moore, for example, argues that early capitalism's dominant crisis tendency was not overproduction, but underproduction: "the insufficient flow of labor, food, energy, and [raw] materials relative to the demands of value production" (Moore 2015, p.92).⁸² As shown above, capital

⁸⁰ To speak of capital's totalizing drive is to highlight its tendency towards endless accumulation. Yet as elaborated earlier, this tendency is only realized through the social practices of individuals and collective groups. In this sense, capital *as* class realizes the extension of capital *as* relation (see also chapter 5.1.1 for the different 'faces of capital').

⁸¹ 'Cheap' in this context is a relative claim not an absolute one, since the relation between these inputs and value creation and realization in the sphere of commodity production is important here. The suggestion of these four Cheap Natures most likely needs revision, and should also include other Natures such as water.

⁸² For a broader list, see also Dörre 2012, p.107.

accumulation is a contradictory process. This implies that the continuous reproduction of capital is never certain, but may be confronted with several obstacles that express themselves in different grades of crisis tendencies and social struggles. The improbability and contingency of capital's successful reproduction is central, particularly from the perspective of regulation theory (Brand & Wissen 2013; Demirović 2003). Marxian scholars have extensively written on the 'blockage points' of the capital circuit in the sphere of commodity production.⁸³ However, taking the dual character of capital accumulation seriously also implies devoting attention to induced crisis tendencies *between* the sphere of commodity production and the sphere of invisible presuppositions.

In general, competition becomes fiercer and pressure on individual corporations rises to profitably employ their surplus capital in times of crisis. In other words, the pressure for capital to expand increases (Raza 2003, p.167). Now we return to the aforementioned specific commodification and appropriation strategies which aim at creating Cheap Natures for continued reproduction. These strategies become ever more important in times of crises, since they may present a way to restore profitability. In other words, "[a]ccess to cheaper inputs is, therefore, just as important as access to widening markets in keeping profitable opportunities open" (Harvey 2003, p.139). These strategies, however, remain aspirations and do not necessarily always materialize. They are part of class struggle in capitalism, or more precisely, represent what I refer to as *class struggle from above*. Against this background, we can fully appreciate the dual character of capital accumulation. The survival and dynamic of capitalist development is rooted in its self-stabilizing mechanisms that secure its continuous reproduction despite catastrophic crisis processes (Dörre 2009, p.29). Put differently: "If capitalism has been able to reproduce itself it is only because of the web of inequalities that it has built into the body of the world proletariat, and because of its capacity to globalize exploitation" (Federici 2004, p.17). Once more, such a perspective employs a distinction between the strategies of individual corporations to revive profitability or competitiveness on a micro-level, which aggregate into a macro-economic context that theoretically and historically seems to be planned and guided.⁸⁴

⁸³ For a very accessible overview of several 'blockage points' in the context of the recent financial crisis of 2007/2008, see Harvey (2010). These include, for example, insufficient initial money capital, scarcities of or political difficulties with labor supply, inadequate means of production, inappropriate technologies and organizational forms, resistance of inefficiencies in the labor process, and a lack of effective demand (Harvey 2010, p.47).

⁸⁴ Moreover, it should be noted that particularly transnational corporations operate at different levels and also organize on a macro-scale to influence 'the rules of the game', i.e. the rules of the world economy. This is why a simple micro-macro distinction is quite blunt. Yet for the purpose of this thesis, it suffices to point to a scalar differentiation. Further determinations need to emerge from empirical studies.

5.5.3 Primitive Accumulation in the Age of Neoliberalism

These arguments are not simply a theoretical exercise. They present the abstract framework for a more concrete analysis of capital's contemporary structuring. After all, it is not arbitrary that Marxian scholars have increasingly re-read Marx's concept of primitive accumulation, and further elaborated on Luxemburg's notion of the dual character of capital accumulation in the most recent two decades.⁸⁵ Historical materialist scholars almost unanimously agree that global capital has been persistently confronted with the problem of overaccumulation since the Fordist crisis of the 1970s (Bello 2006; Demirović 2003; Harvey 2006). Generally speaking, overaccumulation refers to a lack of profitable investment opportunities for surplus capital to be employed. One of the most visible expressions of this development is in various processes of financialization that grip ever more spheres of life (Dörre 2013, p.120ff.). A proper analysis of such an accumulation regime goes far beyond the ambitions of this section. It is important to recognize that a massive increase in fictitious capital particularly represents claims on surplus value to be produced in the future, and thus increases expansionary pressures (Raza 2003, p.167). Accordingly, fictitious capital has to return from the 'high grounds' of the financial products sphere to the 'dirty grounds' of the earth, because only down here can it find the conditions necessary for its successful reproduction (von Werlhof 2003, p.173). In fact, the peculiar form of accumulation dominated by fictitious capital (various types of credit) is based on the illusion that credit growth is detached from any social and material conditions (Dörre 2013, p.117). This is precisely the reason why the contemporary period of capitalist development is characterized by shifting financial crises around the globe. In this sense, we can understand global capital as a web of values in motion which operates at very different levels of the economy: "Money as expressions of value-in-motion and capital as claims to future (labour-)time established an arena for frenzy financial activities. Speculating on future values and the buying-of-time proceeded through the creation of new spaces and spatial relations"(Swyngedouw 2004). But this restructuring of space is not limited or exclusively executed by financial markets in a strict sense. Similarities can be spotted, particularly with reference to global climate policies and their link to ecological modernization theories. This is evident in the creation of all kinds of markets (e.g. emissions markets) in order to spatially and temporarily dissolve the overaccumulation crisis (see Bond 2012), as well as in the discourse on 'payment of ecosystem services' (Kill 2015) and numerous instances of 'land grabbing' and 'green grabbing' (cf. Backhouse

⁸⁵ For an overview of different re-conceptualizations of primitive accumulation, see Backhouse et al. 2013.

2013; Fairhead et al. 2012; Fatheuer 2013; White et al. 2012). Ultimately, these processes are advocated as means to confront (climate and ecological) crises by extending the valorization and appropriation of non-human natures. Crisis management thus always potentially sparks new crisis movements by shifting them around (Harvey 2011).

In the midst of such overaccumulation crises, profitability may be restored through a number of processes that have often been summed up as “intense process[es] of ‘creative destruction’ that wipe[s] out the excesses in the economy through extensive bankruptcy of enterprises, large-scale unemployment, and turmoil in financial market” (Hung 2008, p.152). Once more, critical analyses have chiefly concentrated on the effects on the sphere of commodity production, including the devaluation of fixed capital (e.g. when firms go bankrupt) as well as technical and organizational innovations that increase the rate of exploitation, and coercive-intensive policies that redistribute wealth from the direct producers. Taking the conceptualization of primitive accumulation outlined above as a bundle of specific commodification and appropriation strategies vis-à-vis the ‘invisible presuppositions’, may serve just as well to fix the persistent problem of overaccumulation (see also Dörre 2009; Harvey 2003). In a more technical way, the restoration of Cheap Natures revives profitability through an increase in circulating capital (these inputs), which also affects variable capital (above all, labor power) (Moore 2015). Since labor productivity is the essential metric of wealth, these processes are of crucial importance.

These brief remarks on the role of value and crises are important because even critical approaches claim that capitalism has survived by *destroying* nature (cf. Altvater 2011; Foster et al. 2011; Mahnkopf 2013). However, through the lenses of value theory, it looks rather like capital as value in motion has succeeded in various spatio-temporal contexts, particularly in the presence of crises by “putting nature to work” in a way that *creates* the Cheap Natures necessary for continuous accumulation (Moore 2015, p.13). Consequently, there are no objective limits to capital, but rather specific spatio-temporal constraints based on configurations of appropriation, valorization and accumulation strategies (cf. Brand & Wissen 2015; Görg 2003a). Limits to capital at one point in history may not be perceived as limits in another time. It is rather the internal contradictions of these strategies that lie at the heart of crises and (spatio-temporal) limits. In other words:

“The immanent limits of the capitalist mode of production do not lie in the reproductive necessities of human and non-human nature, but in crises of the valorisation process. This is the source of both its creative and its destructive force vis-à-vis vis-à-vis human beings and nature” (Brand & Wissen 2013, p.692).

On a more concrete level, one can observe the exhaustion of regional strategies of accumulation *and* appropriation, which are almost invariably solved through new spatio-temporal fixes.⁸⁶ Moreover, this line of argumentation also matters for the previously mentioned discourse on ‘objective scarcities’ (see chapter 4.1). After all, the ‘underproduction’ of sufficient (affordable) inputs for continued accumulation is hardly ever premised on ‘scarcities’ in an external nature, as neo-Malthusians would suggest. Instead, ‘scarcities’ are “co-produced by human and extra-human natures, and historically specific. ‘Scarcity’ for one civilization may not be for another” (Moore 2015, p.105). In order to make sense of the complex abstractions of the previous sections for the purpose of analysis (chapter 6), the following section will recapitulate the main arguments while integrating them into an overarching framework.

5.6 Destructive Creation as Capitalist Development

So far, it has been shown that capital is a precarious socio-ecological relation which is inherently dependent on extra-economic means to reproduce itself.⁸⁷ These extra-economic means are best understood in the context of power relations within the integral state, i.e. hegemonic struggles comprised of both material and discursive dimensions. Moreover, capital accumulation consists of both accumulation proper and primitive accumulation, with each taking distinct forms in different phases of capitalist development. Particularly in times of crisis, specific commodification and appropriation strategies, i.e. primitive accumulation, are used in two major ways. On the one hand referring to the zone of commodity production, such strategies open new, profitable opportunities to invest overaccumulated capital. On the other hand, these commodification and appropriation strategies revive profitability through the enclosure of ‘invisible presuppositions’ and thereby create new Cheap Natures. Yet these insights still need to be summed up with regard to their relevance for a theory of capitalist development.

⁸⁶ This is why Harvey’s descriptions not only refer to the visible sphere of commodity production but also to the sphere of ‘invisible presuppositions’: “I have often had cause to formulate it in the past, that capitalism perpetually seeks to create a geographical landscape to facilitate its activities at one point in time only to have to destroy it and build a wholly different landscape at a later point in time to accommodate its perpetual thirst for endless capital accumulation” (Harvey 2003, p.101). For a historic analysis, see Moore (2010a; 2010b).

⁸⁷ Due to the ‘many faces of capital’ (chapter 5.1.1), a confusion of such expressions may arise. To say “reproduce itself” is not to refer to an ‘automatic reproduction’ that is self-sustaining, but rather as contradictory and potentially conflictual processing of a social relation, which is only realized through different forms of social practice (individual and collective).

5.6.1 Creative Destruction and its Blind Spot

Perhaps the most prominent notion to describe capitalist dynamics, used by both liberals and critical scholars, is the notion of Creative Destruction. At the outset of this chapter, we saw that capital can only be understood as a process in its permanent contradictory and conflictual development. Capital thus has an ‘evolutionary character’ (Schumpeter 1950, p.136). In this context, a question arises regarding the central dynamics of this development. In his famous treatise *Capitalism, Socialism and Democracy*, Schumpeter claims that this dynamic cannot be found in an automatic increase of population or money, but rather stems from new consumption products, new markets, and new forms of industrial organization created by capitalist corporations (Schumpeter 1950, p.137). It is these innovative processes that “incessantly revolutionize[s] the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism” (Schumpeter 1950, pp.137–138). Schumpeter’s famous notion of Creative Destruction sounds much like a passage from the *Communist Manifesto* in which Marx and Engels describe the unique character of the capitalist mode of production:

“The bourgeoisie cannot exist without constantly revolutionising 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 revolutionising of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones” (Marx & Engels 1848, p.16).

What is distinct about this perspective is that it does not simply focus on how capitalism works within a *given* social structure, but rather places emphasis on how capital creates *and* destroys its own environment at the same time (cf. Schumpeter 1950, p.139). Against this background, Schumpeter and others have argued that the history of capitalist development reveals relatively long phases of prosperity and stability, each built on new products and modes of production. After all, fundamental innovation, i.e. industrial revolution, lies at the heart of any new phase of prosperity (Lutz 1989, p.48). Such a conceptualization also links well with critical concepts of regulation and world-systems theory that similarly try to divide capitalist developments into distinct periods. What becomes obvious is that such a notion of capitalist development exclusively privileges the sphere of commodity production. This is not to deny innovations in terms of technology or organization as the

most obvious successes of the capitalist mode of production. They certainly are. However, the question is whether they are the *only* answer behind the secret of capitalist development. The sphere of reproduction is once more systematically excluded from this perspective.

Some scholars have tried to altogether subsume the dual character of capital accumulation described above under the process of Creative Destruction (cf. Harvey 2003). Interestingly, this reception is not limited to political economy, but is also increasingly finding attention in global political ecology. “At this moment in history global nature confronts an assertive neoliberal capitalism which is simultaneously destroying (existing) and creating (new) commons through complex processes of dispossession, annihilation and creative destruction” (Peet et al. 2011, p.11). What seems contradictory in these arguments is a lack of conceptual clarity between revolutions in commodity production, i.e. through innovative technologies and organization and destruction of non-capitalist modes of production, i.e. commons. I argue this conflation mostly stems from the absence of a systematic conceptualization of the sphere of reproduction in these theories (see previous sections). Hence, I suggest examining capitalist development as a “two-sided process of destruction and creation” (Sanyal 2007, p.40), including not only the sphere of commodity production but also the sphere of reproduction. This is to say that in addition to the industrial revolutions characterizing new phases of capitalist development, there is a distinct set of destructive and creative processes related to the sphere of reproduction. In adopting the concept of Creative Destruction, I suggest conceptualizing this family of processes as Destructive Creation.

5.6.2 Introducing Destructive Creation

The frequently cited *Creative Destruction* emphasizes the intense competition between capitalist (in the sphere of commodity production/accumulation proper) and the related innovation of the ‘entrepreneur’ as central dynamics of capitalist development. In contrast, the process of *Destructive Creation* emphasizes simultaneously occurring (but temporarily and geographically uneven) forceful and imperial extra-economic moments (sphere of reproduction/primitive accumulation), which are necessary to sustain capital accumulation, particularly in times of crisis. This counter-concept is an intervention to conceptually clarify the mystification of the capitalist mode of production, while making visible the necessary violent, repressive and destructive ‘face of development.’ To do so is to counter the narrative of these events (whether human rights abuses or destruction of local ecosystems) to singular events specific to ‘less developed’ regions in the Global South, and

to highlight their *systematic* and common character. As shown in chapter 5.5.3, these processes are certainly a key characteristic of the contemporary capitalist phase. In other words, processes of Destructive Creation are presently emerging because the capital circuit is confronted with persistent overaccumulation, while processes of financialization have increased expansionary pressures.⁸⁸ Destructive Creation is thus also a process of frontier-making. Of course, this process does not go without resistance or without social forces acting as dynamic limits to capital's totalizing drive. It is precisely the socio-ecological conflicts central to this analysis that often (but not exclusively) represent such dynamic limits to capital's contemporary quest.

A recognition of the dual character of capitalist development is also central to this, because the perspective of primitive accumulation brings forward the centrality of violence and conflict involved in capital accumulation, and thus leads our analysis directly into a 'battle field' (Federici 2013, p.41). This is not to deny that technological and organizational innovation play a crucial part in capitalist development, but rather to emphasize that an exclusive focus on these processes is as one-sided as the exclusive recognition of accumulation proper. As mentioned earlier, this one-sidedness is often reflected in a perception of capitalist development as an economic 'machine' (cf. Schumpeter 1950, p.137).⁸⁹ After all, social and socio-ecological struggles at different frontiers co-produce the further trajectory of capitalist development. In this sense, Destructive Creation emphasizes the struggles around people's modes of living and production, as well as the very structuring of society and society-nature relations.

But what exactly are the 'destructive' and the 'creative' moments in Destructive Creation? Following Marx, capitalism would not have developed without a qualitative transformation in social forms (Roberts 2008, p.540). More specifically, this includes a number of segregation processes, i.e. producers from their means of production and social hierarchization and (de)valuation of work, for example, based on gender or race. Despite this restructuring of social relations, capital's hegemonic expansion into non-capitalist spheres also includes a restructuring of society-nature relations. The latter point becomes most apparent when looking at capital as a socio-ecological relation and the labor process as a certain regulation of society-nature relations (see 5.1). In this regard, the notion of

⁸⁸ Of course, these processes are not limited to the contemporary phase of capitalist development, and have existed in different forms from the very formation of capital's hegemony. With reference to a restructuring of social and society-nature relations in the sixteenth century, Moore noted: "As such articulations go, it was creative. It was destructive. It was globalizing. How little things have changed" (Moore 2010, p.62).

⁸⁹ Such a perspective is, however, not limited to liberal scholars and applies just as much to many orthodox Marxists.

‘destruction’ in *Destructive Creation* highlights the mostly violent and coercive dimensions of this restructuring of social and society-nature relations, primarily including disciplinary and coercive measures of state power (see 5.3). As Rosa Luxemburg put it: “capital leads the way, its passage is marked with universal destruction” (Luxemburg 2003, p.391). What is destroyed are other modes of living and re/producing communities which are not primarily based on profitable commodity production in the market. When looking at these as dynamic processes of frontier-making that divide the “colonised from the colonisable” (De Angelis 2006, p.142), then capital’s expansion is “the destruction of their way of life” (Perelman 2007, p.47). This not only includes forms of material dispossession or displacement, but also the destruction of local knowledge linked to various types of re/production (cf. Shiva 1993; von Werlhof 2000). To return to the introductory words of this thesis, *Destructive Creation* builds on the “annihilation of those who have a different imagination” (Roy 2010). Put simply, “there is no enclosure of commons without at the same time the destruction and fragmentation of communities” (De Angelis 2006, p.134). Of course, contemporary processes of primitive accumulation do not necessarily share the same ferocious face depicted by Marx as primitive accumulation or what five centuries of colonialism have brought about. Destruction in a post-colonial context is masked by the neutral and de-politicized process of ‘development’ (Sanyal 2007, p.88). Often it appears as ‘slow violence’, and only manages to receive broader attention through widespread resistance (Nixon 2011). Moreover, in contrast to the colonial epoch in which these process were predominantly secured by military means, legal and political measures have gained considerable importance in the post-colonial era (Brand et al. 2008, p.109). This is why *Destructive Creation* can only be understood in the context of the integral state, or of the prevailing balance of social forces that is in constant flux for hegemony.⁹⁰

Thus, “[c]apital must not only ceaselessly accumulate and revolutionize commodity production [create destruction]; it must ceaselessly search for, and find ways to produce, Cheap Natures: a rising steam of low-cost food, labor-power, energy, and raw materials to the factory gates (or office doors, or...)” (Moore 2015, p.53). Put simply, creation refers to new opportunities for capital to reproduce itself by appropriating unpaid work/energy. As discussed in chapter 5.4, appropriation strategies do not simply refer to something ‘existing out there’, but rather involve complex processes of meaning-making, or the discursive

⁹⁰ This also includes popular corporate strategies of ‘social responsibility’ “to green-wash activities that are damaging to communities, or to reduce local opposition to future expansion of corporate activities like extraction of water, minerals, oil, coal, construction of a mega-dam or roads” (Kill 2015, p.4).

production of abstract social natures suitable for profitable investments. Logically, such discursive productions have to be materially realized in order to be subsumed under the global circuit of capital. For example, numerous scientific processes of mapping and legitimizing the appropriation of new abstract social natures are the creative part from the vantage point of capital. After all, early modern labor productivity (until today) not only relied on technological change and organizational innovation, but also included “new technics of value through which cheap natures were mapped, organized, and appropriated” (Moore 2015, p.71).

The destructive and creative sides of Destructive Creation cannot be easily separated, but are intertwined and potentially reinforce each other. The massive displacement of peasant populations in the Global South, particularly during the past four decades, “helped to create a global surplus of migratory labor power that dramatically increased the supply of deproletarianized labor power. At the same time, rural displacements free up massive spaces of surplus nature, formerly used for simply reproduction, for enclosures by corporate agro-food capitals” (Araghi 2009, p.132). Capitalist development is therefore best understood as the “audacious mixture of productivity and plunder” (Moore 2010a, p.46), or as the unified process of Creative Destruction and Destructive Creation. While some strategies aim at deepening existing exploitative relations (creative destruction/accumulation proper), others aim at appropriating and restructuring new spaces and new social and society-nature relations in order to subordinate them to the circuit of capital (destructive creation/primitive accumulation). Both moments are based on the distinct strategies of specific social groups, the contingent outcome of which can only be understood in the context of hegemonic struggles in the integral state. In this sense, socio-ecological struggles may be understood in a similar vein to class struggles. However, while the latter is a struggle within the zones of commodification (see Figure 6) or a struggle between proletarian and bourgeois segments of society, the former represents a struggle between the zones of commodification and the zones of reproduction and/or other non-capitalist spheres. Ultimately, both types of struggles essentially shape the trajectory of capitalist development.

The detailed arguments and debates in this chapter have tried to prepare the ground for a more sophisticated GPE analysis of socio-ecological conflicts. In this sense, the following chapter will synthesize the essence of Destructive Creation with the previously outlined empirical insights from chapter 3.

6. Synthesis: Socio-Ecological Conflicts as Value Struggles

This chapter deals with the question of how to synthesize the previously outlined conceptual framework of Destructive Creation with empirical observations on contemporary socio-ecological conflicts (chapter 3).⁹¹ Thereby, it does not aim to fully explain these conflicts, but rather to show entry points for future analyses. In order to incorporate the dynamics of socio-ecological conflicts into the theoretical framework, the first two sections will introduce the concepts, value practices and value struggles, while giving examples from specific cases. Section three will investigate the contribution that Destructive Creation can make in analyzing these conflicts, and section four will reflect on contemporary socio-ecological struggles as frontiers of capitalist development.

6.1 Revisiting the Structure-Agency Relation: Value Practices

So far, it may seem as if structural dynamics were privileged in the conceptualization of Destructive Creation. This impression may arise due to the focus of the perspective employed. After all, this thesis approaches contemporary socio-ecological conflicts from the perspective of GPE. Nonetheless, it was also noted that structures are only reproduced in and through the practices of individual and collective actors (see also chapter 2). In order to fully grasp this dimension and thereby also the glocality of these conflicts, this section will introduce Massimo de Angelis's concept of value practices as a link between the reproduction of structures and the multiple forms of agencies:

“By value practices I mean those actions and processes, as well as correspondent webs of relations, that are both predicated on a given value system and in turn (re)produce it. These are, in other words, social practices and correspondent relations that articulate individual bodies and the wholes of social bodies in particular ways” (De Angelis 2006, emphasis in original).

What is distinct about this perspective is that it neither privileges structure nor agency per se, but rather emphasizes the relation between the two.⁹² In this sense, value plays an important role because it determines the priorities, consciously or unconsciously, according to which social and society-nature relations are structured. At the same time, the latter also determines the conditions under which values are created, legitimized and normalized in

⁹¹ In addition to the stylized characteristics of contemporary socio-ecological conflicts from chapter 3, this chapter will also draw on existing literature on specific cases to further substantiate the arguments.

⁹² For a more elaborate explanation of this relation, see chapter 2.

different spatio-temporal contexts. Values are not outside the previously described power relations in society but are rather a constitutive part of them. Any hegemonic struggle within the integral state necessarily privileges, proclaims and instrumentalizes certain values. For the topic in question, this means that multiple forms of producing abstract social natures and of facilitating enclosures in general always consist of distinct *value practices*. To speak of these processes as practices is to highlight their everyday re/production, the vital moment of agency that is both potentially stabilizing and potentially transformative. Yet this contradiction is always uneven because it is part of the aforementioned power relations. The concept links various scales of re/production because value is the way people represent the importance of their own actions to themselves. On the other hand, any action or process only becomes meaningful through its integration into a larger system of action(s) (De Angelis 2006, p.174). Likewise, different types of value practices “reproduce different types of societies, of wholes, of self-organising systems, of forms of social cooperation” (De Angelis 2006, p.176).

This concept allows us to close another gap, mainly situated on an analytical level. It provides a method to combine the rather macro-oriented global political ecology of socio-ecological conflicts with the rather micro-focused research on specific cases of these struggles. The reproduction of capital is predicated on specific value practices that are, for example, expressed in material practices in the provisioning of livelihoods. It has already been mentioned that capital as a socio-ecological relation is a specific way to structure social and society-nature relations (e.g. including access to and distribution of resources, implying a never-ending process of profit-making). When taking the meta-theoretical elaborations from chapter 2 seriously, structuring these relations in specific ways also involves particular actions by individuals or collectives. This is precisely what the concept of value practices implies. Moreover, this holds true not only for capital but also for any other mode of production. The granting of private property rights for land and its profitable exploitation for commodity production is as much a bundle of value practices as is the subsistence production of the communities that may inhabit and work on the land, worshipping it for its spiritual nature or its ancestral importance.⁹³ What this example shows is that these ‘values of the outside’⁹⁴ are real and they are a social force, although they “may emerge simply as discourse, or be expressed as needs and in practices of

⁹³ This is just a schematic example. It is important to remember that value practices are as contradictory, conflictual and in constant flux as any other hegemonic relation. They may, however, be temporarily stabilized and sedimented.

⁹⁴ Thought from the perspective of capital.

objectivation that are limited in time and space due to the limited access to resources in given power relations” (De Angelis 2006, p.32). This leads us to the crucial question of what happens if different value practices in society are in conflict with each other.

6.2. Socio-ecological Conflicts as Value Struggles

In the brief analysis of contemporary socio-ecological conflicts in chapter 3, it was shown that these struggles contain a divergence of interests, needs and goals which are fundamentally incompatible and most frequently involve two antagonistic groups. While they emerge from economic activities involving claims on nature almost invariably driven by TNCs that dominate their respective sectors, local communities and related civil society organizations resist such claims and related detrimental consequences for their health, living environment, and livelihoods. In other words, these are struggles of conflicting value practices understood as clashes “between modes of doing, relating, giving meaning and articulating social powers” (De Angelis 2006, p.13). That is to say that the conflicting line is not between ecology and economy or conservation and utilization, but between “different *forms* of human utilisation of nature” (Brand et al. 2008, own emphasis). Thus, socio-ecological conflicts can be understood as value struggles that are both material and discursive in form.⁹⁵ Or, as Federico Demaria put it in a case study on conflicts around the shipbreaking industry in India: “[t]he conflict has material origins that are then shaped by cultural discourses” (Demaria 2010, p.256). Their common ground resides in the fact that the antagonistic group’s value practices are incompatible and incommensurable. This could be, for example, because local communities value their land, forests, and water sources for reasons other than economic, perhaps because they consider nature to be sacred and uncommodifiable (Escobar 2006; see also Gerber et al. 2009; Urkidi 2010; Veuthey & Gerber 2010). Precisely because of diverging practices or ways of relating and meaning-making, the re/production and re/structuring of social and society-nature relations “is a site of conflict between competing values and interests and different groups and communities that represent them” (Martinez-Alier et al. 1999, p.37).

After all, the conflict between different forms of valuation of social and society-nature relations is frequently also one of diverging modes of production. These insights are tightly connected with the previously mentioned regulation of society-nature relations, understood as their contradictory and conflictual processing. Such relations are not simply given, but only temporarily stabilized and constantly altered to different degrees through, for example,

⁹⁵ Zhouri (2004), for example, talks about ‘conflicting paradigms’ in this regard.

struggles between different groups in society. Ultimately, the struggle between indigenous populations or traditional communities and agribusiness, mining corporations, or industrial workers is also a hegemonic struggle between different *existing* society-nature relations (Raza 2003, p.163). Value practices are neither solely material nor only discursive, but rather both forms that co-produce specific configurations. It is in and through these struggles that people's living conditions are politicized and their future configuration is regulated (Görg 2003a, p.182). Ultimately, such regulation gives form to capital as a socio-ecological relation in concrete spatio-temporal contexts because capital exists neither prior to nor independently of its regulation (see chapter 5). Such regulation also implies the articulation between different forms of power relations such as gender and race discrimination, within and between conflicting groups (Aulenbacher & Riegraf 2013; Sauer 2013). The recognition of such power relations also includes a careful examination of colonial legacy which, for example, remains to have crucial implications for present day property rights, bureaucratic rules, and other institutions that normalize and facilitate capital accumulation (see e.g. Veuthey & Gerber 2010).

Against this background, it once more becomes obvious why most economic approaches, whether institutional, developmental or environmental (see chapter 4.1 and 4.2), can only understand socio-ecological conflicts in terms of abundance, scarcity or a lack of market institutions. Most of these approaches simply *assume* a commensurability and interpersonal or intergroup compensability, on the common ground of monetary valuation. Yet ecological economists have shown that “[...] the defense of nature will take the form of monetary valuation only where the society is already organized by principles of economic valuation” (O'Connor & Spash 1999, p.1).⁹⁶ As Joan Martinez-Alier put it:

“People who are poor, and whose health and lives are cheap, often appeal to non-monetary languages of valuation. It is only capitalism, with its fetishism of commodities (even fictitious commodities, as in the 'contingent valuation' methods of neoclassical environmental economics), that sees only one way to value the world” (Martinez-Alier 2007, p.274).

From the perspective of capital as a social force, commensurability through monetary valuation is only an *aspiration*, not necessarily an outcome. This aspiration is most visibly reflected in specific commodification and appropriation strategies. Proclaiming monetary valuation as the only measure itself is a strategy that marginalizes all other kinds of values

⁹⁶ And even this is not taken for granted, but rather depends on the politicization of social and society-nature relations, as a number of socio-ecological conflicts in the Global North show (see Table 1).

which potentially govern conflicting claims (cf. Kill 2015). After all, diverging value practices also imply multiple ‘languages of valuation’ (Avci et al. 2010; Martinez-Alier et al. 2010). Private corporations almost invariably invoke the economic contributions of their activities in terms of employment, customs duties and sales taxes, competitiveness, and shares of domestic demand (see e.g. Demaria 2010), thus demonstrating their belief in smoothing civil society resistance through monetary compensation. Yet empirical studies have increasingly criticized the notion of a monetized regime of conflict management as an ineffective, unidimensional method for evaluating losses/gains and protecting non-human natures (Temper & Martinez-Alier 2013). Instead, many studies emphasize value pluralism, which can be found unanimously in prevailing socio-ecological conflicts. In analyzing plantation conflicts in Ecuador and Cameroon, researchers have found that “the companies involved are in practice not obliged to pay for the damages caused, while the local populations complain in terms of *reduced livelihood options instead of money*, and in the Cameroonian case also in terms of sacredness of territory” (Gerber et al. 2009, own emphasis). Similar cases can be observed all over the world, from conflicts over bauxite mining in the Niyamgiri hills of Odisha, India, to the controversial Inga Hydropower Project in the Democratic Republic of Congo, and smelting in the Yauli province, Peru.⁹⁷ The resistance movements against these projects share a common set of non-monetary values that differ from the logics and aspirations of capital’s enclosures. Put simply, “[s]ome values such as human life, health, nature, love, honor, justice, or human rights, are seen as absolute and inviolable and thus trading them off with other values (e.g. money) is considered taboo” (Temper & Martinez-Alier 2013, p.85). These findings substantiate the previous claims that contemporary socio-ecological conflicts fundamentally revolve around people’s living conditions and their autonomous designation, while monetary compensability remains an exclusive strategy of the private corporations involved. Ultimately, these corporate strategies aim at increasing people’s dependency on capitalist markets for the reproduction of their livelihoods (De Angelis 2006, p.133), including a variety of detrimental social and socio-ecological consequences. This is a fact people become aware of through their struggles (see e.g. Veuthey & Gerber 2010), and while the burdens largely fall on the local communities, it is the corporations involved that reap the benefits of such projects (see also Avci et al. 2010).

The projects in question have far-reaching consequences for local populations. In many cases, an increase in socio-economic inequality is observed as new social classes and power

⁹⁷ All of these cases are documented in detail in the EJA, see: www.ejatlas.com.

relations emerge. While most local populations suffer from precarious and marginalized working and living conditions, local elites and decision-makers benefit from the influx of global capital (Wichterich & Charkiewicz 2012, p.37). From the perspective of non-capitalist modes of producing and providing for livelihoods, this aspiration is an assault on their autonomy, a way of imposing different organization in terms of social and society-nature relations. It could thus be labelled as an ‘imperial ambition’.⁹⁸ If enclosures are successful, the process of valorization integrates non-capitalist value practices, e.g. certain modes of production, into the web of capital’s value-relations and under its hegemony (see also Görg 2004). Hence, they either become subsumed under the capital circuit in direct or indirect ways, or they are destroyed.⁹⁹ This is why Moore (2015) argues that these struggles over ‘the grip of commodification’ are, in the first instance, a contest between contending visions of life and work.

To frame these struggles as class struggles, though not in the sphere of commodity production but between capitalist and non-capitalist modes of production, helps to highlight the antagonism between contending social groups. Most visibly, this class dimension comes to the fore when looking at these conflicts as economic, ecological and cultural *distribution* conflicts (Temper & Martinez-Alier 2013; see also Escobar 2006). While capital as a social force undertakes a ‘class struggle from above’ through various commodification and appropriation strategies, local communities and related civil society organizations resist as “social forces guided by non-monetary values [which] posit themselves as limits”(De Angelis 2006, p.191). To speak of value struggles is not, however, to silence the crucial role of different forms of violence that play out in processes of Destructive Creation. In fact, it has already been mentioned that the perspective outlined above leads one directly into a battlefield. This is not simply a metaphor, but a critical reflection of the real conditions under which value struggles are fought. A recent report from Global Witness summarizes the violence with regard to individual activists in a shocking way:

“Each week at least two people are being killed for taking a stand against environmental destruction. Some are shot by police during protests, others gunned down by hired assassins. As companies go in search of new land to exploit, increasingly people are paying the ultimate price for standing in their way. We found that at least 116 environmental activists were murdered in 2014 – that’s almost double the number of

⁹⁸ This is also why some scholars have suggested reconceptualizing primitive accumulation as ‘the new imperialism’ (Harvey 2003; Harvey 2004). We will return to the ‘other side’ of this imperial ambition below.

⁹⁹ Destruction in this sense does not necessarily equal extinction. It may also refer to the altering of respective forms of re/production that are changed in such a radical way that they persist, but are so different from their previous form that to speak of a continued existence would be cynical.

journalists killed in the same period. A shocking 40 % of victims were indigenous, with most people dying amid disputes over hydropower, mining and agri-business. Nearly three-quarters of the deaths we found information on were in Central and South America” (Global Witness 2015).

Although this report is mainly focused on Central and South America and the case of Honduras, similar observations can be made for other regions. India, the self-proclaimed largest democracy in the world, has “turned into a battleground on the issue of development and displacement” (Temper & Martinez-Alier 2013), particularly in the last two decades. Once again, the present theoretical framework can help counter the narrative of these murders as local exceptions or individual tragedy, while shedding light on the broader political and economic contexts in which they occur. Finally, these killings unmask the ferociousness of Destructive Creation. When normalized in society, processes of Destructive Creation rather criminalize resistance and depoliticize such development projects; this is a hegemonic strategy that may not always be successful. As shown, resistance most importantly articulated by the affected communities may present a limit to the profit-driven appropriation of unpaid work/energy. This is to say that these struggles can be constructive for the powerless (Gerber et al. 2009, p.2888). Before returning to this question in more detail, a combination of insights from socio-ecological conflicts as value struggles and processes of Destructive Creation is necessary to fully appreciate the broader context of these developments.

6.3 The Broader Context: Value-Relations in the Global Economy

To emphasize only the value practices of the conflicting parties directly involved in such struggles, mostly transnational corporations vs. local communities, would be inconsistent with the outlined approach. Capital accumulation on a global scale is a complex, interdependent web of value-*relations*, combining spaces, different forms of work (not only wage labor) and energy into a process of self-valorization. Subsequently, the value practices of parties other than those directly involved in the conflict matter. Here, only two examples will be given which are characteristic for the current phase of capitalist development. One is the *imperial mode of living* and the other is the influence of fictitious capital and processes of financialization.

With regard to the first, the brief characterization of contemporary socio-ecological conflicts in chapter 3 revealed that these conflicts revolve around the very basic necessities for living and producing. These are land, water, foodstuffs, forests and vegetation as well as

other essential elements for the globalizing imperial mode of living such as metals and minerals, fossil and biofuels, and large-scale infrastructure work labelled as development projects along with related waste. These inputs, which on a local level express themselves as imperial ambitions from the perspective of the affected communities, can thus be interpreted as the other side of the imperial mode of living, from the perspective of the product consumers. The latter is defined by a growing consumer class, also in the Global South, that employs “production and consumption patterns that fundamentally rely on unlimited access to resources, space, labour power and sinks, which implies a globally unequal appropriation of nature” (Brand & Wissen 2013, p.690). Examples of this relation are numerous. For instance, the aforementioned bauxite in the Niyamgiri hills is planned to be mined and processed by the TNC Vedanta Resources in order to sell aluminum on the world market. Likewise, the La Oroya smelter in Peru has produced zinc, lead, and copper. Aluminum and copper are then used to produce all kinds of products for global transport, construction and electronics industries. This is where the link between contemporary socio-ecological conflicts and the imperial mode of production and living materializes. Of the millions of computers, smartphones and cars that are produced and consumed every year, none could exist without a constant influx of raw materials. The creation of cheap raw materials through the destruction of people’s livelihood opportunities is part of more efficient commodity production on a global scale. What appears as destruction to the affected communities is profitable investment for capitalist corporations, and cheap deals for the global consumer class. This is the point at which the uneven development of capital accumulation as “audacious mixture of productivity and plunder” (Moore 2015) becomes crystal clear. From this perspective, socio-ecological conflicts are both a reaction to and a part of various Destructive Creation processes.¹⁰⁰

The influence of fictitious capital on socio-ecological conflicts can only be understood when taking into account the web of value-relations that link different scales of the world economy.¹⁰¹ From this perspective, local extraction, i.e. disputed economic activities, is essentially determined by forces of the global economy. This includes “currency and interest rates, credit markets and stock markets [which] have always somewhat affected the regulation of raw material extraction” (Smith 2007, p.25). This is also where socio-

¹⁰⁰ Although this might seem contradictory at first sight, the problem becomes resolved when taking temporality into account. Although these conflicts initially emerge as a reaction to certain ‘economic activities’ and related legislation, their protest and resistance often becomes part of the initially planned projects for at least several months, in most cases many years.

¹⁰¹ Relating these to each other also includes a certain form of privileging, for example, in the form of value chains that determine which steps of production are more valuable than others.

ecological conflicts as glocal phenomena become apparent. In the contemporary phase of finance-dominated accumulation, processes related to finance capital including the provisioning of credit and other forms of fictitious capital like derivatives, render the structuring of certain social and society-nature relations possible. Carbon markets are a case in point. With more than one hundred billion US Dollars in annual trading, these forms of credit have created an attractive outlet for overaccumulated capital, while at the same time facilitating enclosure movements (Bond 2012).

At this point, the role of the (integral) state becomes prevalent once more, since capital accumulation from an integrated perspective includes both processes of accumulation proper as economic moments and processes of primitive accumulation as crucial extra-economic means to secure successful reproduction (see also chapters 5.2 and 5.3). Because political power relations are not exclusively rooted in the economic sphere but also in the relative autonomous sphere of the (nation) state, socio-ecological struggles take the form of political struggles in the context of the state (Görg 2003a, p.180). This holds true despite the fact that they emerge as resistance to economic activities that are mostly private. In other words, although these struggles may revolve around conflicting values between transnational corporations and local communities at their core¹⁰², in practice they are often directed against the institutional configurations that sustain given power structures, like property rights and entitlements, i.e. the state (Gerber et al. 2009, p.2889). Inversely, state power strategically privileges the economic activities in question. To talk about the role of the state in processes of Destructive Creation involves both the essential role of political society including policies and legislation as well as a police force or judicial means, and civil society.

The crucial role of the state in facilitating processes of primitive accumulation is documented extensively (ESCR-Net & IHRC 2013; Klein 2014; Roy 2010). Peru's most intense current socio-ecological struggle over a copper mine in Tia Maria serves as just one illustrative example. In 2015, when civil society resistance to Southern Copper's mining plans inflamed to new heights, the Peruvian government implemented a number of coercive measures. The list is long and includes a declared state of emergency, the dispatch of thousands of police and soldiers to the region, suspension of constitutional rights, open fighting, injury of more than 200 people, arbitrary arrests, journalist intimidation, accusations of "terrorism", reported sabotage, and a total of seven deaths as of 2011 (Hill 2015). Such measures are by no means an exceptional government reaction.

¹⁰² From a methodological point of view, this 'core conflict' is situated at the deep or real level, while corporate claims backed by state power (e.g. private property rights) can be observed at the actual level.

However, it is important not to take this abstract-theoretical concept for granted, but to look more closely at concrete relations between structures and agencies. The form of the state matters in several regards. An authoritarian ensemble of state apparatuses with little legal and institutional means to struggle for justice is most likely accompanied by rather disintegrated forms of local resistance, perhaps involving more but also fragmented forms of violence. In contrast, more democratic states offering civil society a number of ways to struggle for justice through public hearings, demonstrations, participation in decision-making and/or legal channels rather facilitate a stronger organization of civil society in official groups and organizations like NGOs, political parties and alliances (Gerber et al. 2009). Yet the role of the state is not to be understood in a narrow sense. Despite the above mentioned crucial role of legislation and police forces that rather represent the coercive moments of power, consensual aspects matter for stabilizing hegemonic relations within the integral state. In this context, De Angelis (2006) claims that the ‘law of value’ has to be understood as the core problematic in the quest to co-opt these struggles, which has to be socially normalized in order to appear as *the ordinary run of things*. This refers to the consensual dimension of hegemony, which is fought above all in the realm of civil society, in diverse organizations on different scales such as in the media and the sciences. Many civil society resistance successes within contemporary socio-ecological conflicts are not explained by victories in the legal sphere or on the actual ‘battleground’ of lands or forests. Rather, some local communities and their respective supporters manage to successfully contest corporate claims by invoking a ‘justice discourse’, for example, by highlighting impacts on the environment and the health and livelihood of workers and local communities (Demaria 2010, p.257). In doing so, a number of civil society institutions, understood in a Gramscian sense like the media, churches and academia, crucially matter for the concrete forms taken by such ‘justice discourse.’ Increasingly, corporate strategies also involve Corporate Social Responsibility (CSR) programs as a means to convince local communities of the benefits of corporate activities, and to create consensus around disputed development projects (see e.g. Kirsch & Moore 2016).

6.4 Value Struggles as Frontiers of Capitalist Development

Capitalist development advances into commodity frontiers, binding together space, time and society-nature relations in an uneven way. This is not an argument about the teleology of the history of humanity, but rather a claim about the specific structuring of capitalist logic. Yet this logic does not operate on its own, but is best understood as an

institutionalized way of relating to other human beings and non-human natures. It is constituted by myriad social practices in daily life. From the perspective of capital as a social class, “the identification of a space of social life that is still relatively uncolonised by capitalist relations of productions and modes of doing” (De Angelis 2006, p.142) is a constant moment of frontier-making. After all, capital is a contradictory process, but one that constantly breaches and transcends its limits, and thereby moves around its contradictions (Harvey 2011). A prime example for these shifting contradictions employing a highly uneven dimension between different modes of living is the appropriation of energy through coal plants.¹⁰³ A recent Greenpeace report estimates that all 8359 coal plants in the world consume as much drinking water as one billion people (Huber 2016). In many regions of the world, scarcity of drinking water is thus produced by a highly unequal distribution of access to and use of such resources.

In addition, more than 2600 additional plants are currently in planning, which will increase the pressures on land, water and raw materials in regions already suffering from low levels of available drinking water (Huber 2016). The solution to create cheap energy for industrial production through the mining and burning of coal thereby invokes problems in the form of socio-ecological conflicts. These struggles arise, at least in part, because people “are being displaced because they happen to live at the commodity extraction frontier” (Martinez-Alier et al. 2016, p.197). As has been discussed at length, such enclosure movements are not a one-way road. The converse effects of these struggles on the process of frontier-making are crucial. After all, such frontiers may represent limits to capital. This is not to be understood in a static sense. Rather, the notion of limits to capital refers to the limits that arise from the valorization process. “The immanent limits of the capitalist mode of production do not lie in the reproductive necessities of human and non-human nature, but in crises of the valorisation process”(Brand & Wissen 2013, p.692). When analyzing socio-ecological conflicts as value struggles, these conflicts also essentially matter for the valorization process. In essence, these conflicts become part of the contradictory and conflictual processing of capital, i.e. regulation. Moreover, they represent a social force other than capital, a limit that must come from the outside because capital as a ‘never-ending process of profit-making’ does not recognize any inherent limits (De Angelis 2006, p.44). In this sense, socio-ecological struggles represent a *dynamic limit* because they are in constant flux, are part of hegemonic relations within the integral state, and are contingent on the evolving relations between specific structures and agencies. While some socio-ecological

¹⁰³ Once again, massive energy supplies are essential for the imperial mode of production and living.

conflicts may become successful in their resistance through, for example, the prohibition of previously granted private land acquisitions, mining concessions or infrastructure projects, others manage to delay the initial plans for profitable commodity production. Ongoing struggles may thereby increase the costs of the former. Either way, the circuit of capital is disrupted, however temporarily. This is why Klein (2014) has referred to these struggles as ‘Blockadia’.

Precisely because these struggle play out at the frontiers, the communities under threat and their most outspoken organizers stand under inconceivable pressure that frequently takes on violent and live-threatening dimensions. This is not only true for the introductory reference to the murder of Berta Cáceres in early 2016, or the Global Witness report that documented more than one-hundred environmental activist assassinations in 2014 (Global Witness 2015). Sikhosiphi ‘Bazooka’ Rhadebe, a leading activist for the Amadabi community on South Africa’s Wild Coast, was shot in March 2016. Over the past decade, he had organized community members in resisting attempts by Australian-owned mining company Mineral Commodities Ltd. and its local subsidiary to access the titanium-rich Xolobeni coastal dunes (Nicolson 2016).¹⁰⁴ A fellow activist summarized corporate difficulties with long-term resistance as follows: “We make their lives so difficult [...] They’ll fail. They don’t have any options so will try to scare us” (Nicolson 2016).

Once more, a micro/macro distinction is necessary not to conflate individual strategies in specific cases and their aggregate outcome from a global and historical perspective. Certainly, local communities primarily resist destructive economic activities due to a different set of values, including other ideas on living and producing; not because of an abstract fight against capital’s hegemony. Nonetheless, myriad instances of local resistance may aggregate on a larger scale to an existential threat for particular corporations, branches or even whole commodity markets. Such successes, from the standpoint of the resisting groups, cannot be analyzed in detail here, and have to be examined carefully for each and every case. In doing so, the perspective of Destructive Creation can provide a novel theoretical framework that highlights the global political ecology of these conflicts, while taking into account a wide array of social forces that directly or indirectly influence and shape the decision-making around the disputed economic activities. From the abstract level, it can be said that these struggles represent a *potential barrier* for capital accumulation. As shown, these struggles “invariably involve the questioning of capitalistic economic models, on the one hand, and some sort of mobilization around, or defense of, local cultures, on the

¹⁰⁴ For more detailed information on the case, see also the file from the Environmental Justice Atlas: <http://ejatlas.org/conflict/pondoland-wild-coast-xolobeni-mining-threat-south-africa>.

other” (Escobar 2006, p.7). In doing so, they co-produce the trajectory of capitalist development.

7. Concluding Re-Marx

This thesis primarily aimed to provide a novel historical materialist framework to conceptually understand contemporary socio-ecological conflicts. In doing so, main characteristics of these struggles were outlined while building on data from the EJA. In a preliminary meta-analysis, it was shown that more than 1600 cases share common ground. All of these struggles revolve around economic activities and respective legislation that are almost invariably driven by TNCs, while local communities and related civil society groups resist the former. Many of these economic activities are labelled as development projects and supported by respective governments. Despite their uneven geography, these conflicts occur on a global scale in 120 countries. They concern the very basic means of producing and living, such as land, water, foodstuffs, forests and vegetation, as well as other essential elements for the globalizing *imperial mode of living* like metals and minerals, fossil and biofuels, and large-scale infrastructure with its related waste. Thus, these conflicts are an inherent part of the current world economy, and necessarily part of capitalist development. After evaluating existing approaches to understanding these processes, five criteria for an adequate critical GPE theory of socio-ecological conflicts were developed from key insights and blind spots in the literature. The newly proposed framework of Destructive Creation was constructed in accordance with these.

First, in order to grasp the global and simultaneously local (thus glocal) character of these conflicts, their analysis was incorporated into a theory of capitalist development. By re-conceptualizing Marx's notion of primitive accumulation, local processes of destruction, dispossession, appropriation, and resistance were highlighted along with capital accumulation on a world scale, involving inherently competitive markets, fictitious capital, and the persisting problem of overaccumulation. Moreover, the glocality of these conflicts was further stressed through a global web of value-relations that links the increasingly globalizing imperial mode of living with imperial ambitions in specific resource-rich regions.¹⁰⁵

Second, despite the centrality of disputed economic activities, it was stated that extra-economic dynamics need to be included in a systematic way. This refers not only to the granting of mining concessions, the legalization of property rights or other legislation, but also to socio-cultural processes of normalization, meaning-making and the organization of dissent. In this context, it was suggested to add Gramsci's notion of the integral state to a

¹⁰⁵ In this context, rich needs to be understood in a broad sense, also including land fertility, for example.

re-conceptualized form of Marx's primitive accumulation. The coercive dimensions of state power (e.g. police violence) and other state apparatuses were analyzed as part of political society. Additionally, other dimensions related to the making of consensus or dissent with regard to the contested development projects were analyzed as part of Gramscian civil society. Thus, the perspective of the integral state as a terrain on which socio-ecological conflicts are fought brings the role of hegemony in social formations to the foreground, while incorporating both coercive and (non-) consensual dynamics.

Third, it was suggested that any critical theory of contemporary socio-ecological conflicts needs a notion of crucial actors and their role in society. The meta-analysis of the EJA clearly showed an antagonism between private corporations (often TNCs) and local communities as well as supporting networks in civil society in almost all of the cases. This antagonism was theorized as a clash between fundamentally diverging value practices. While corporations act within a profit-driven logic of ever more commodity production and thus value creation, civil society resistance proclaims a number of other value practices that are incompatible with the former. These may include the use of natural resources only as a means of need satisfaction, or the worship of lands, rivers, and forests. As such, these value struggles are also a conflict between capitalist and non-capitalist logics. Moreover, the role of the state in facilitating such value struggles was emphasized, for example through the privileging of certain modes of production or the strategic selection of specific discourses.

Fourth, building on a substantial body of research, it was proclaimed that these conflicts are material struggles around people's livelihoods, while at the same time including a crucial discursive dimension. It was shown that processes of primitive accumulation, usually emerging as specific commodification and appropriation strategies, necessarily involve a material dimension like dispossession from the commons or the establishment of private property rights. Yet it was also highlighted that what *can* or *should* become commodified/appropriated is neither objective nor trans-historical. Rather, it is a strategic process of discursive production of abstract social natures, primarily driven by civil society institutions like academia and think-tanks. As such, this discursive production is itself subject to continuous hegemonic struggles within society.

Finally, through the integrated perspective of Destructive Creation, it was shown in detail that these conflicts revolve around the re/structuring of social and society-nature relations at their very heart. This is to say that they are fundamentally linked to the contemporary phase of capitalist development. Nowhere is this point more obvious than when looking at the various processes of the financialization of nature (e.g. PES, carbon markets) and the

deepening of the imperial mode of living. These dynamics matter not only in the structuring of the visible sphere of commodity production, but also in the sphere of reproduction.

Although these insights were thus far mostly presented at the abstract level, they may provide a useful guide for further empirical research. In this sense, the theoretical framework of Destructive Creation is best understood as a contextualization of socio-ecological struggles worldwide, revealing their systemic character and interconnectedness. To put these struggles in a common context is to show these complex interrelations. It thereby enables us to move from the abnormality of individual cases to the destructive normality of the contemporary hegemonic mode of development.

However, the outlined concept is not designed to understand specific cases in detail or to replace further case studies. Nor is it yet a useful tool to study the role of the success, constraints and strategies of respective resistance movements in detail. For example, the heterogeneity of resistance movements, which identify themselves and their struggles in different ways, presents a challenge for further elaboration. Many other disciplines and approaches, some of which I have referred to in this thesis, seem more relevant to address these questions. What the concept of Destructive Creation can do instead is to provide a 'bigger picture'. It may also present a novel systematic introduction of these struggles into current GPE research, provoking inspiration, critique and further thematic work.

In a broader political context, this research matters in at least another crucial way. After all, "[t]he collective response to the climate crisis is changing from something that primarily takes place in closed-door policy and lobbying meetings into something alive and unpredictable and very much in the streets (and *mountains, and farmers' fields, and forests*)" (Klein 2014, own emphasis). These changes also pose a challenge for academia and emphasize the necessity of further analyzing the role, contexts and constraints of civil society resistance in protecting the commons. These insights link well with Roy's introductory quote. In her stunning essay on the failure of the trickle-down revolution in India, she stresses an important strategic point with regard to socio-ecological transformation. This is the need to provide physical space for the survival of populations with an altogether different imagination and understanding of what constitutes happiness and fulfilment, or of "those who may look like the keepers of our past, but who may really be the guides to our future" (Roy 2010). This is not to romanticize the conflictual developments that any fundamental transformation will bring about. The murder of Berta Cáceres is one of the cases that reminds us of this. As her friend and fellow campaigner Beverly Bell phrased it in her obituary: "It is an attempt to halt the construction of a new

world” (Bell 2016). In this sense, the concept of Destructive Creation above all highlights ongoing socio-ecological conflicts as struggles for a different life-world, one that is not subordinated to the relentless process of profit-making.

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