

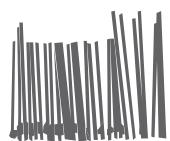
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Researching Inequalities from a Socio-ecological Perspective

Kristina Dietz



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Abstract

The inequality implications of nature exploitation, utilitarian representations of nature and processes of (global) environmental change are substantial. In Latin America social inequalities are historically rooted in unequal allocation systems of land rights or mining rents. Current investments in natural resources or elements thereof tend to generate new or reinforce existing patterns of inequality. Despite these evidences and despite the increasing recognition of the social dimensions of environmental change, linking the analysis of social inequalities with (global) environmental change, politics and forms of nature appropriation and production is still incipient. Based on first empirical findings from the Research Network on Interdependent Inequalities in Latin America (desiguALdes.net) the aim of this paper is to draw conclusions on how inequalities can be researched through the lens of societal nature relations. The paper reveals ways to theoretically conceptualize and analytically understand social inequalities as historically rooted expressions of contingent spatio-temporal societal nature relations, taking different research fields and social theories as points of departure. The key fields addressed are environmental justice, political ecology and social and cultural anthropology. In addition, core analytical categories such as time, space and physical materiality are introduced in order to show how they operate in empirical analysis. The paper concludes with a summary of the main findings.

Keywords: socio-ecological dimensions of inequalities | time | space | materiality

Biographical Notes

Kristina Dietz is Associated Researcher at desiguALdades.net and currently the leader of a BMBF-funded Junior Research Group “Global Change and Local Conflicts? Conflicts over Land in Latin America and Sub-Saharan Africa in the Context of Interdependent Transformation Processes”, at Freie Universität Berlin, Lateinamerika-Institut. She holds a Ph.D. in Political Science from the Department of Social Sciences of Universität Kassel, Germany, focusing on climate change, democracy, adaptation and vulnerability. Her main research interests encompass societal nature relations, climate and energy policy, political ecology, conflicts over land, spatial and democracy theory. Her main regional focus is Latin America and Sub-Saharan Africa. Recent publications include: *The Political Ecology of Agrofuels* (edited volume with Bettina Engels, Achim Brunnengräber and Oliver Pye), Abingdon: Routledge, 2014 (forthcoming); “(Neo-)Extractivism: A New Challenge for Development Theory from Latin America”

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Contents

1.	Introduction	1
2.	Inequalities in Latin America from a Socio-ecological Perspective: Summary of Research Findings from the Network <i>desiguALdades.net</i>	3
3.	Conceptualizing the Relations between Nature and Society: Evolution of the Debate, Research Fields and Theoretical Perspectives	7
3.1	Environmental Justice	8
3.2	Political Ecology	10
3.3	Anthropological Perspectives on Nature and Society	12
3.4	Interdependencies of Nature and Social Inequalities: A Conceptual Proposal Grounded in Critical Theory	14
4.	Categories of Analysis: Time, Space and Materiality	16
4.1	Time and Space	17
4.2	Materiality: Why and How Matter Matters	20
5.	Conclusion	22
6.	Bibliography	24

1. Introduction¹

The inequality implications of nature exploitation, utilitarian representations of nature and processes of (global) environmental change are substantial. In Latin America, for example, social inequalities are historically rooted in highly unequal allocation systems of land rights and mining rents that in the colonial era emerged in close relationship with racial hierarchies and slave or indentured labor (Therborn 2011: 6; Bergquist 1996). Currently, growing capital investments in the region directed towards natural resources or elements thereof such as land, minerals, metals, fossil fuels, genes, (planted) forests or their capacity as sinks to absorb greenhouse gas emissions tend to generate new or reinforce existing patterns of inequality. Because nature valorization requires the (re-) allocation of rights of access and exploitation as well as the re-signification of natural elements as commodities (Altvater 2013: 19-23), a process that entails the restructuring of existing rules and authorities over the access, use and control of resources with repercussion on social positions based on access to and power over natural resources (Fairhead et al. 2012). Finally, adverse effects of global environmental change (e.g. climate change) or environmentally hazardous industrial production hit societies unevenly, thus reinforcing existing or generating new inequalities along lines of class, gender, ethnicity and “race” (Auyero and Swiston 2008; Carruthers 2008b; Dietz 2011).

Despite these evidences and despite the increasing recognition of the social dimensions of environmental change, linking the analysis of social inequalities with (global) environmental change and politics is still incipient. Social inequalities have conventionally been studied within socio-economic, social, and political spheres, with class as the core category of analysis. The predominant unit of analysis has thereby been the nation-state; and the processes of production and reproduction of social inequality are mostly considered as synchronous processes (for a critique, see Boatcă 2011; Costa 2011; Braig et al. 2013). In contrast, transnational and world-historical approaches underline the importance of overcoming methodological nationalism in mainstream social theory. These works show how inequalities correspond to historical entanglements between different world regions and places. Articulations of these entanglements are flows of people, goods, capital or ideas that transcend space and time (Weiβ and Berger 2008; Korzeniewicz and Moran 2009; Boatcă 2011; for an overview Lillemets 2013). In addition, approaches dedicated to an intersectionality perspective underscore the multidimensionality of social inequalities and examine how various and not only one axis of stratification, i.e. gender, class, ‘race’, and ethnicity are mutually constructed and reinforce one another (Costa 2011; Roth 2013).

¹ For valuable comments to an earlier version I thank Ana Isidoro Losada, Bettina Engels, Miriam Boyer, Astrid Ulloa, Barbara Göbel and Imme Scholz.

Independent of these promising relational approaches of the more recent past, nature or the non-human world are largely absent from current endeavors of understanding and explaining (persistent) social inequalities. That means that established scholarship on social inequalities has not adequately considered the matter of nature (its physical materiality), its related policies (climate, biodiversity and conservation policy), its divergent cultural representations as well as the social practices of its appropriation as a context of reinforcement or (re-)production of social inequalities across time and space.

The Research Network on Interdependent Inequalities in Latin America (*desiguALdades.net*) has over the past years made a worthwhile effort to overcome this research lacuna through the application of a socio-ecological perspective on inequalities. Such an approach takes into account the interconnectedness of the social (human) and the physical material (non-human) world in order to understand and explain the (re-)production of multiple inequalities. Building on initial empirical findings from research conducted within the network, the aim of this paper is to draw conclusions on how inequalities can be researched through the lens of societal nature relations. My aspiration goes beyond simply acknowledging the relevance of the material, non-human world for social reproduction. I suggest ways to theoretically conceptualize and analytically understand social inequalities as historically rooted expressions of contingent spatiotemporal societal nature relations. With the latter the focus is first “on how society, even while *producing* nature, is materially *mediated* through its biophysical conditions” and, second, on how nature is symbolically represented and how these representations reflect, reproduce or change power asymmetries (Görg 2011: 44, italics in original). In addition, this paper serves as a first step to systematize and theoretically conceptualize some of the presented empirical findings of the research network *desiguALdades.net*.

The paper is structured as follows: I first briefly summarize conceptual findings from research on inequalities conducted within the network *desiguALdades.net* that apply a socio-ecological perspective.² I then review different social theories and research fields that look at the relationship between society and nature to develop an encompassing understanding of how nature and the production and reproduction of social inequalities

2 In so doing my revision of the existing findings formulated within the network is by no means complete. I rely on a selection of working papers, journal articles, book sections, presentations and discussions from conferences and two Summer Schools organized by the network: the 3rd *desiguALdades.net* Summer School “Asimetrías de Conocimientos. Conocimientos desiguales – desigualdades de conocimientos”, October 2012, at Universidad Nacional de Colombia (Bogotá and Villa de Leyva, Colombia), and the 4th *desiguALdades.net* Summer School “La globalización de la naturaleza y desigualdades sociales: Estructuras – disputas – negociaciones”, October 2013, at Pontificia Universidad Católica del Perú (Lima, Peru).

are interrelated. Key fields are environmental justice, political ecology and social and cultural anthropology. After drawing preliminary conceptual conclusions, the paper offers reflections related to the analysis of inequalities from a socio-ecological perspective. Based on examples from the literature, I point to how core categories such as time, space and materiality in its physical sense can operate in empirical analysis. In the conclusion, the main findings are summarized.

2. Inequalities in Latin America from a Socio-ecological Perspective: Summary of Research Findings from the Network desiguALdades.net

Starting from different disciplinary backgrounds (sociology, social anthropology, human geography, environmental history, political science, law) scholars of the network *desiguALdades.net* have since the end of 2009 conducted research on current and past processes of socio-ecological transformations in Latin America. They ask how these processes either influence the reproduction or exacerbation of existing social inequalities along lines of class, gender, ethnicity and “race”, or produce “new” inequalities both within or among societies, groups or nations and at the global scale. All topics addressed (e.g. climate change, mining, water privatization, land grabbing, shrimp farming, fishmeal production) feature similar characteristics such as complex entanglements of actors, temporalities (past-present), political regulations, institutions and legal norms. They can be characterized as socionatural processes, meaning processes that are constituted by specific society-nature interactions, inserted in a series of “scalar spatialities” as all “embody and express physical and social processes, whose drivers operate at a variety of interlocked and nested geographical scales” (Swyngedouw 2004: 129).

Within the different studies, “nature” has been taken to be either a contested field of interests, that is an arena where claims and rights of access, participation and recognition are fought, as well as identities and subjectivities are constructed, or as a site where existing social and spatial inequalities are reinforced or new ones are generated through dynamic societal-nature interactions. The studies underscore different manifestations of inequalities in relation to nature: (1) unequal distribution of environmental risks and economic benefits, (2) structural inequalities of access to resources and control over their allocation and use, and (3) knowledge asymmetries that translate into a variety of unequal power relations.

Many studies have shown how the socio-spatial distribution of environmental risks and benefits is mediated by either class and/or ethnic relations, power asymmetries

between state institutions at different scales (local regional, national government) or asymmetries between expert (scientific) and non-expert forms of knowledge. Juliana Ströbele-Gregor (2012) shows that it will be mostly small scale subsistence farmers and herders that are directly affected by the expected adverse ecological effects – water and soil contamination as well as water scarcity – of lithium mining in the region of the Salar de Uyuni in Bolivia. Carla Gras' (2013) findings on the social distribution of adverse ecological and health effects of the expansion of GMO soy production in the Cono Sur point to an exacerbation of existing class and ethnicity based inequalities in rural areas. In relation to the mechanisms that mediate the distribution of economic benefits gained from processes of nature commodification, several works indicate the importance of territoriality as a strategy that uses bounded space (territory) as an instrument for securing (particular) economic interests and control (Taylor 2003). Sara Latorre (2012) for example shows how shrimp farmers in the Ecuadorian coast used territorialization strategies in the 1980s (claiming of buffer zones, employment of armed guards to secure shrimp farm property boundaries) to prevent "others" (mangrove gatherers) from trespassing and hence to secure control over territory and gains from shrimps farming.

Taken as a whole, these studies focus on inequalities of access and control while asking two (interrelated) questions: first, how do institutional, political-economic, and technical transformations in relation to societal practices of resource appropriation affect social inequalities of access and control and hence social power relations; second, in what way does the introduction of legal norms that aim at securing minority rights restructure access to and control over resources and thus influence both power relations and identity constructions? Marcela López-Rivera's (2013) study on market-driven reform in the water supply sector of Medellín explores how the liberalization and transnationalization of a public multi-utility company has become a key factor in the (re-) production of unequal access to water across the city. As the company inserts itself into transnational networks of capital, the water supply in Medellín is being commercialized and thus becomes a private matter as it mainly depends on households' economic means. This form of "privatization" is underscored through the introduction of specific material infrastructures, e.g. so called prepaid meters and flow restrictors (López Rivera 2013). Another case in point is the study by Carla Gras (2013). Gras shows how biotechnological innovations (GMO soy), processes of corporate transnationalization and financialization (growing importance of financial capital) have repercussions on the access to and control over resources and knowledge at different scales (global, national, local) (also Göbel 2013a, 2013b). Finally, from an environmental history perspective, Claudia Leal and Shawn Van Ausdal (2013) illustrate how the introduction of so-called African grasses in the mid 19th century in the Caribbean lowlands of Colombia, together

with other socio-environmental reconfigurations (elimination of forest resources, monopolization of land), transformed the practices of ranching, the landscape and the social distribution of access to and control over land and forests. Related to the second question, the study of Maria Backhouse, Jairo Baquero and Sérgio Costa (2013) reveals that the introduction of legal norms to secure minority rights of access and territorial control restructures local and regional power relations and repositions those minorities that are granted legal rights within negotiation processes over land access and control. Often this process goes hand in hand with an ethnic re-identification in order to gain collective rights. These laws provide an important platform for claiming and fighting rights; but they are limited in scope as other relations of domination that mediate access and control do not disappear because of the introduction of a new legal statute (Backhouse et al. 2013; also Göbel 2013a, 2013b). Finally, Sara Latorre (2012) provides valuable insights on how socio-environmental transformations linked to mangroves over time and space impact on identities. She shows how a history of (legally) restricted access and natural resource depletion can lead to the conformation of new “ecosystem-based” indigeneity identities and how this conformation opens ways for claiming access and thus gaining more control over resources (related to identity construction and struggles over nature, also Canessa 2012; Göbel 2013a).

Further manifestations of inequalities that can be discerned from the existing studies are inequalities of discursive power or power-knowledge relations in (global) environmental political negotiations, and struggles over nature on the ground. Through power-knowledge relations, nature is socially constructed and politically managed in specific ways with repercussions on micro-practices, subject positions and subjectivities. In this sense, Astrid Ulloa (2011a, 2012, 2013) demonstrates how “geopolitics of knowledge” (Mignolo 2000) are reproduced through the discursive framing of climate change as an “external” environmental problem that requires (scientific) expert knowledge from the North. She shows that with the disavowal of other situated and context-specific forms of dealing with the problem are negated especially indigenous knowledge. Knowledge inequalities translate into socio-political inequalities, the (re-)production of (marginalized) subject positions and identities, and hence undemocratic decision making processes related to the formulation and implementation of political instruments designed to tackle climate change or promote adaptation to its adverse impacts.

Among the common themes that guide the research within the *desiguALdades.net* network is the question of transregional entanglements. Studies that focus on inequalities from a socio-ecological perspective have dealt with this question in different ways. All refer to global-local interdependencies and different scalar spatialities inherent to their research topics. Especially those who deal with

questions of resource extraction and agricultural crop production for the world market refer to – though not always explicitly – dependency theory (unequal exchange, structural heterogeneity or internal colonialism) or world system analysis in order to stress persistent structural asymmetries at the international and subnational level that derive from capitalism's inherent tendency to uneven development (Smith 2010 [1984]). Although some point to relational inequalities, that is inequalities that emerge interdependently beyond national boundaries (e.g. Gras 2013: 3; Boatcă 2011) only a few explicitly take such an analytical perspective. A study that stands out is Kristin Wintersteen's (2012) work on the global rise of fishmeal and the industrialization of Southeast Pacific Fisheries in the middle of the 20th century. From an environmental history perspective she describes how the rise of industrial fishmeal production in Peru and Chile between the 1950s and 1970s was linked to changing consumption patterns in the Global North. Fishmeal was needed in the North to feed chicken and pigs in order to meet the mass demand for cheap white meat. As a global commodity it also took on central importance in the rise of US agribusiness giants, and in Peru and Chile it brought about the formation of new national elites. Taking these multiple linkages into account, Wintersteen shows how local and regional inequalities become entangled with changing norms of consumption elsewhere as well as with global economic processes.

Another study on spatio-temporal entanglements of power and inequalities is David Manuel-Navarrete's work (2012) on tourism in the Mexican Caribbean. Based on critical geographical understandings of space, he explores persistent spatial inequalities in the Yucatan Peninsula. The author argues that these inequalities are rooted in recurrent and in part contradictory spatio-temporal entanglements of power that started in the era of colonialism and culminates in the current domination of global tourism. Herewith he makes a strong claim that history matters in order to understand present socio-ecological and socio-spatial inequalities. Furthermore, his findings confirm that "things other than humans make a difference in the way social relations unfold" (Bakker and Bridge 2006: 17) as the different historical entanglements of power indeed shaped the territory of the peninsula, but not in determinant ways. The specific forested landscapes of the region resisted Spanish occupation for some time and aided the Maya to challenge European and Mexican hegemonies for centuries.

These observations point to another topic that became increasingly important throughout the networks engagement with the nature-inequality nexus, namely the question of whether and how the physical materiality of nature matters in the production and reproduction of social inequalities. Marcela López-Rivera's (2013) claims that being sensitive to the materiality of nature offers new possibilities to understand how and in what way different biophysical and spatial characteristics of resources influence the social

forms of their appropriation, commodification or valorization and thus the production and re-production of inequalities. Claudia Leal and Shawn Van Ausdal (2013), in their environmental history analysis, also confirm that the materiality of nature matters. By exploring the environmental history of two regions in Colombia (Pacific and Caribbean Coast) that until the beginning of the 19th century had comparable characteristics but in the middle of the 20th century featured totally different socio-ecological conditions, they show that environmental conditions do not determine completely the social history of a place but shape social relations with nature and social inequalities (Leal and Van Ausdal 2013).

This brief summary of some of the network's empirical studies underscores that relations of power and inequality are manifested through the social production of nature across time and space and at different levels: social structures, symbolic representation and identity construction. These findings are in line with recent calls for intersectional analyses of socio-ecological transformations and crises phenomena like climate change, in order to "illuminate how different individuals and groups relate differently to climate change, due to their situatedness in power structures based on context specific and dynamic social categorizations" (Kaijser and Kronsell 2013: 417). In addition, the works summarized above point to the overall insight that the employment of spatial and temporal categories as well as the category of physical materiality enriches our efforts to better understand in what way and to what extend "nature" makes a difference in the way social inequalities are (re-)produced. Finally, taken as a whole, the outcomes presented here support the argument that a socio-ecological perspective on inequalities must be informed by a range of social theories as well as theories generated in research fields that specifically look at the relationship between society and nature. The research outcomes thus underline that understanding what role "nature" in its different articulations plays in the (re-)production of social inequalities requires a reflection on the theoretical and ontological status of the complex relations between nature and society.

3. Conceptualizing the Relations between Nature and Society: Evolution of the Debate, Research Fields and Theoretical Perspectives

A review of past and current work that provide theoretical and methodological clues on how to understand the relation between nature and social inequalities reveals first of all what Margaret Fitzsimmons called a "peculiar silence on the question of [...] nature" (Fitzsimmons 1989: 106)³. An indicator of this lacuna is that nature, the ecological

³ In her statement Fitzsimmons referred to the human geographic community.

crisis and its related politics do not seem to be part of what publications indicate to be the current theoretical and methodological challenges that the sociology of inequalities face in the era of globalization (c.f. Held and Kaya 2007; Bayer et al. 2008; Weiß and Berger 2008). This “nature/environment forgottenness” within sociology, can be traced back to what Bruno Latour (1995) called “epistemic enthybridisation”: a categorical separation within modern thinking since the Enlightenment of different core ontological spheres: human/non-human, society/nature, and mind/body. This “ontological rupture” (Fitzsimmons 1989: 108) historically marked the division of modern scientific disciplines into natural sciences, and was responsible for the rationalization of nature through a focus on natural principles and laws, and social sciences focusing on the explanation of the social via social categories and concepts. The division into natural and social and natural and cultural phenomena external to each other led to a modern understanding of society and culture based on the differentiation from nature and a denial of society’s material dependencies. Social progress and modernity was thus equated with social emancipation from nature via domination, simplification, subordination, mastery and control (c.f. Parsons 1975; for a critique, Plumwood 1993, 2006). This dominant dualistic reasoning in Western thought has hindered, particularly in the social sciences, a theoretical and methodological understanding of hybrid phenomena produced at the interface between nature and culture (Beck 2008: 169). I argue that only by overcoming the deeply anchored idea of society and nature as being ontologically separable spheres will we be able to further our understandings of how nature interacts with the (re-)production of inequality, without at the same time falling into a “nature or deterministic trap”, that is assuming that nature predetermines culture, social relations and processes.

Since the 1970s the idea of a non-dualistic view on society and nature has received attention by scholars from different disciplines and areas. Depending on the various epistemological interests and ontological understandings of the relations between nature and society – dialectical, hybrid, monist or holistic – scholars address these relations in their research in different ways based on different theoretical foundations. Three fields of research that provide insights in this respect are the fields of environmental justice, political ecology and social/cultural anthropology.

3.1 Environmental Justice

Environmental justice as a political claim and research concept emerged in the beginning of the 1980s in the United States as a response to urban social protests – organized mainly by black and Hispanic communities – against the unequal exposure to environmental hazards and pollution (Szasz and Meuser 1997; Bullard 2000; Flitner

2007; Schlosberg 2007). Since then the concept has travelled to other world regions and other spatial contexts (e.g. Latin America, Sub-Saharan Africa, rural areas) (cf. Martínez-Alier 1997; Carruthers 2008a, 2008b; Schroeder et al. 2008; Sneddon and Fox 2008).⁴ The underlying assumption of the concept is that environmental problems “are never socially neutral any more than socio-political arguments [and decisions] are ecologically neutral” (Harvey 1993: 25). The latter emphasizes that an unequal and hence unjust socio-spatial distribution of environmental impacts is not an apolitical, “natural” or arbitrary phenomena. Because of close links between local movements and research activities, researchers in the U.S. focused in the beginning mostly on “race”⁵ as the primordial explanatory variable for unequal exposure to environmental risks. The issue was even posed as “race” or “class”, as if these and other axes of social stratification were mutually exclusive and “compartmentalizable as discrete things” (Szasz and Meuser 1997: 113). This one-dimensional explanation and reification of social categories was in later debates criticized and overcome, especially by scholars that departed from an intersectional conviction, meaning that social relations like class, gender and “race”⁶ interact in complex ways and that it is this interaction that needs to be understood in order to explain the unequal distribution of environmental hazards and risks (cf. Pulido 1996; Kaijser and Kronsell 2013).

Overall, the environmental justice literature provides encompassing evidence that the distribution of environmental risks and impacts is mediated by underlying socially-constructed power asymmetries and inequalities. Existing social inequalities are reproduced or exacerbated according to the way in which adverse impacts of nature transformation or environmental changes fall unevenly along divisions of wealth/poverty, white/non-white, men/women, and power/powerlessness. The question that remains open is: In which ways does this happen?

Recent studies within this area focus therefore more on identifying the specific underlying structural and historically rooted processes, causes and relations that lead to uneven outcomes and the reproduction of inequalities via nature transformation. A case in point is the work of Juanita Sundberg (2008: 26) exploring the ways in which “race

4 Cf. the special issue of *Society & Natural Resources* (2008, 21, 7).

5 It is in this context that the concept of “environmental racism”, understood as “racial discrimination in environmental policy making and the unequal enforcement of the environmental laws and regulations” (Chavis quoted in Newell 2005: 75), gained momentum.

6 In the literature it is widely understood that “Race” as a fact of nature does not exist. When using the notion in this paper my intention is not to reify racial categories as natural but to understand how racial categories come into being through specific forms of nature appropriation and representation (cf. Sundberg 2008). I do assume that processes of racialization, that is processes through which social differences are marked according to racial hierarchies and hierarchical discourses, still operate and continue to organize social relations in general, and nature-society relations in particular, in virtually all societies.

works to organize and rationalize environmental inequality” in Latin America. Based on examples from the colonial era to the present, she illustrates how systems of racial classification come into being in relation to dominant environmental formations and vice versa. Throughout history, (western) conceptions of “appropriate” (rational) and “inappropriate” (irrational, barbarian) land use were employed by colonists and elites in Latin America to claim and grab lands for multiple uses they considered “legitimate”. Through such practices, forms of difference (“racial” identities, class interests, etc.) are linked to environmental politics and resource management, as much as nature is infused with forms of social difference (Kosek 2006: 22; cf. Moore et al. 2003). These findings are important for furthering our understanding of how social inequalities and “nature” interact as they show that nature itself is not neutral, but racialized, classed, gendered.

All of this goes to show that the concept of nature, like that of society, is inherently and intensely political. It is invariably bound up in a politics of claim and counter-claim whose outcome depends upon the prevailing balance of power (Ingold 2005: 503).

3.2 Political Ecology

The indicated idea of a co-constitution of society and nature is most prominently encapsulated in another field of work that provides hints for the conceptualization of socio-ecological dimensions of inequality: political ecology. Political ecology is not a theory. It can best be understood as a cross-disciplinary “frame of research” consisting of a more or less diverse set of questions, modes of explanation and methods for analysis” (Martín 2013: 4), which has been nourished by various critical social theories (Marxist, Gramscian, feminist, Foucauldian and post-colonial theories), disciplines (social anthropology, geography, political science, sociology), and strands of research (cultural ecology, political economy, agrarian studies, development studies, environmental/ecological anthropology, feminist critique of science) (cf. Robbins 2004; Watts and Peet 2004; Paulson and Gezon 2005; Palacio Castañeda 2009; Biersack 2011).

Political ecologists ask how knowledge about, access to and control over natural resources is mediated by social hierarchies and relations of difference based on power relations. Over the years, the field has experienced productive differentiations. The most prominent approaches that have evolved since the 1970s are neo-Marxian, feminist, and post-structural approaches to political ecology.

Neo-Marxian approaches within political ecology conceptualize the nexus between nature and social inequality in political economic terms, i.e. as grounded in the social relations of capitalist production, distribution and international division of labor (Blaikie 1985; Blaikie and Brookfield 1987; cf. Wissen 2014). In the 1980s this structural theory and class-based approach succeeded in moving beyond a solely local analysis of socio-ecological changes through linking those changes that occur predominantly at a local scale, e.g. land degradation and deforestation, to transformations in political economy at the national and global scale. Following critical theories of development (dependency theory, world-system theory) scholars from this line of research began to explain environmental degradation in the Global South as a function of the increased integration of peripheral regions into the global capitalist system. Concepts such as the “development of underdevelopment” (Frank 1969) were applied to problems of resource degradation in the Global South and complemented by issues of classed inequalities of access to land or forests (Bunker 1985). Such a view offered a way of making sense, “of the power of ‘non-place-based’ forces” (practices of transnational corporations, instruments and functions of the global (financial) market) “over ‘place-based’ activities” (e.g. small scale agricultural production) (Bryant 2001: 153). Many current studies on “land grabbing”, the “financialization” and “commodification” of nature depart from this line of research. Thereby David Harvey’s (2003) analytical lexicon around the concept of “accumulation by dispossession” is often used to locate place based struggles around nature valorization within the wider scope of transformations that is neoliberalization of global capitalism (cf. Borras et al. 2012; Fairhead et al. 2012; Sauer and Pereira Leite 2012).

In the 1990s a feminist political ecology strand emerged, aiming both to bridge the initial gender gap within political economy accounts and to counter the gendered binary codifications prevalent in science theory and practice which linked nature and emotions to femininity, and culture and reason to masculinity (Plumwood 1993; Merchant 1994). A key question asked is, in what sense struggles over “knowledge, power and practice, [...] politics, justice and governance” (Watts 2000: 257) related to environmental issues have a gender dimension. Bina Agarwal (1998: 212) emphasizes thereby the need to consider gendered nature-society relations through class lenses. She claims that the fact that poor women in rural areas in the Global South are often more exposed to environmental change and hazards is not a natural fact, but an outcome of (international) gendered divisions of labor and gendered environmental roles (cf. Rocheleau et al. 1996).

Current works within this field of feminist political ecology attempt mostly from a post-structuralist perspective to understand how gender comes into being, along

with other identities and markers of difference (class, “race”, ethnicity), through the material interaction with, and symbolic understandings of nature and changes of the environment (cf. Asher 2009: chapter 4). Others link to performative perspectives and explore how symbolic ideas of difference are reproduced and expressed through everyday embodied (materialized) practices (e.g. agro-forestry, food consumption patterns) (e.g. Nightingale 2001, 2011). These insights are important as they widen the scope of analysis towards the concept of embodiment, both in its material and symbolic dimensions (for an overview of recent debates within the field of gender and environment studies see Hawkins and Ojeda 2011).

In the 1990s a post-structuralist political ecology gained momentum, promoted predominantly by social and cultural anthropologists from different world regions. Analyses within this field of research look at micro-dynamics of socio-nature transformation, everyday resistance, subject constructions as well as different cultural and discursive articulations, practices and meanings. The main assumption is that an appreciation of everyday processes that shape people’s lives in relation to nature needs an analysis of discourse and representation, since questions of nature and lived reality are inseparable from the ways in which nature and reality is represented. Drawing on Foucault’s concept of discourse (Foucault 1978), knowledge-power relations gain particular importance. Studies thus ask how nature is socially constructed via discourse, and how certain situated ideas and knowledge about nature, ecology, society and political economy shape and have shaped the way people and societies perceive and use nature and how this perception in turn shapes and has shaped subject and power positions as well as forms of eco-governmentality (Escobar 1996, 1999, 2008). Thereby the importance of spatial entanglements (global – local and vice versa) of knowledge constructions and practices are emphasized (Tsing 2011). Examining the normalization of certain forms of knowledge about nature and the environmental crisis helps us to understand how new subjectivities are constituted and how powerful notions of nature become politically effective across national borders in the way local knowledge and practices are reinterpreted or transformed in the context of the global environmental crisis (Ulloa 2011b: 35). In this sense, different scholars have critically analyzed the notion of nature as a service provider of ecosystem services and of local populations like indigenous people or peasants as ecosystem managers (Goldman 2004; cf. Agrawal 2005; Ulloa 2010).

3.3 Anthropological Perspectives on Nature and Society

The place of nature in anthropological theory and social discourse has long been one of the core concerns of social and cultural anthropology. For this reason, anthropological

approaches contributed meaningfully to the widening of theoretical perspectives within the field of political ecology. Nevertheless, until only recently, the “nature-culture dichotomy has been a central dogma in anthropology, providing a series of analytical tools for apparently antithetical research programs as well as an identity marker for the discipline as a whole” (Descola and Pálsson 1996: 2). Today, a universalistic conception of nature as well as the dichotomy between both spheres, nature and culture, is no longer taken for granted. In a recent summary of concepts of nature within anthropology, Astrid Ulloa emphasizes that

anthropological approaches of the interrelation between nature and culture have been transformed, from a dualist perspective towards multiple visions that analyze both the contexts of knowledge and power [...] and the ways different forms of knowledge and meanings about the environment and its management interrelate in the light of contemporary environmental transformations (Ulloa 2011b: 26, own translation).

Departing from this observation, several pivotal analytical points can be highlighted that contribute in specific ways to a better understanding of the place of nature in the (re-) production of social inequalities. The first is the recognition of different notions, cultural visions, and situated forms of knowledge about the material world. There is clearly no singular, unique and universal concept of nature; there are in fact multiple “natures”. Concepts, visions and notions of nature are not static but are themselves the results of particular historical situations and cultural experiences. They coexist, overlap and are constantly contested, especially in times of ecological crises (Escobar 1999). This sides with Ingold’s statement that “[a]ssertions about the existence and constitution of nature [...] are claims, and the aggressive pursuit of these claims by agents with sufficient coercive power to impose their vision can greatly affect the circumstances under which people have to lead their lives” (Ingold 2005: 502); something that has been demonstrated by Ulloa in her studies on the social and cultural implications of an emerging expert vision of nature as “climatized nature” in the context of global climate change (Ulloa 2012; Hulme 2009).

Another analytical entry point is the focus on the “hybridization as a way of thinking processes, species and beings that do not correspond to any duality and that incorporate the artificial and the technological” (Ulloa 2011b: 30, own translation). It is in this line of research that draws back on the work of Bruno Latour (1995, 2005) and Donna Haraway (1991) that Stefan Beck (2008) underlines the importance of relational thinking within anthropology. Drawing on critiques of the nature-culture dyad, he highlights the importance of considering the cultural materiality of social life in order to understand

forms of inequality that materialize at the scale of the body (c.f. Hogle 2005). Beck asks how “culture and the social gets under the skin” (Beck 2008: 164). Focusing on the interrelation of social and bodily circumstances, material and spiritual dimension of social life can make a significant contribution in explaining how social class, social stress, permanent fears of job loss or constant exposure to adverse environmental stress materialize within bodies.

3.4 Interdependencies of Nature and Social Inequalities: A Conceptual Proposal Grounded in Critical Theory

The research fields and disciplinary approaches described above share a common ontological vision: a non-dualistic conceptualization of nature-society interrelations. Rooted in various social theories, they differ simultaneously in their levels and units of analysis, either highlighting the importance of social structures and social materiality, meanings and representations and/or identity constructions. All of these levels and units interrelate when we want to make sense of nature-society relations; nevertheless, the level which is being placed primarily in focus depends on the research question. In abstract terms, I nevertheless argue that in order to capture the interdependencies between nature and social inequalities, we need to conceptualize society-nature relations in a way that allows for the recognition of both, materiality and meaning. Therefore, I propose a conceptualization of the nature-inequality nexus grounded in a dialectical understanding of the interaction between the material world (nature) and the social world. Building on historical-materialism and on critical theory in the tradition of the Frankfurt School, proponents of a dialectic perspective emphasize that society and nature are “constitutively interconnected” (*vermittelt*) (Görg 2011: 49). Historical-materialism is founded on Marx’s ontological principle that humans need to transform (metabolize) nature in order to meet existential needs (Marx 2007 [1867]: 198). As Eric Swyngedouw puts it,

in order to live, humans transform the world they live in, and this takes place in interaction with others; that is under specific ‘social relations of production’. [...] Both nature and humans, materially and culturally, are profoundly social and historical from the very beginning (Swyngedouw 2004: 130).

Through the transformation of nature, “both humans and ‘nature, are changed” (Swyngedouw 2004: 130). From such a perspective, society, societal development, and subject positions are deeply interwoven by the way in which nature is and has been appropriated, managed and represented; hence human history is not independent, but rather is mediated by and related to nature. In other words, “there are not two

kinds of history [one human and one non-human, K.D.] but one" (Ingold 2005: 501). At the same time, nature is socially produced, in two different but interrelated ways: it is materially produced by economic, technical and everyday practices and symbolically and discursively through cultural interpretations – including science – meanings and ideas (Goldman and Turner 2011; Görg 2011). Nature thus "becomes a sociophysical process infused with political power and cultural meaning" (Swyngedouw 2004: 130; cf. Haraway 1991). Nature becomes social nature. But to take social nature as a point of departure does not mean that nature is social all the way down. Following critical theorists of the "older" Frankfurt School (Horkheimer and Adorno 1988 [1969]), I start from the premise that the materiality of nature as such is a socially produced materiality. Nature is, at the same time, socially produced and productive, meaning that it may indeed structure social action in some way because of its discrete materiality. Nevertheless, biophysical materials and processes are not infinitely malleable, and nature cannot be appropriated by society arbitrarily. The more society ignores the specific properties of nature's materiality through endeavors of domination and overexploitation, the more it will be reminded of it through ecological crises (see Castree 2000: 29).

Scholars from the fields of research described above that follow the idea of a "constitutive interconnectedness" assume that social relations of power and domination are constitutive for environmental problems; and vice versa that the way in which nature is appropriated, transformed and represented is constitutive for the (re-)production of social relations of power, domination and inequality. Herewith I do not claim that all forms of nature appropriation, representation and transformation lead to an increase of social inequality. What matters concerning the inequality implications of society-nature interactions are the conditions and constellations, that is under what premises nature is appropriated by whom, in which way and for what. Depending on these modalities, practices of nature transformation and cultural representation of nature might have both exacerbating and reducing effects for social inequalities.

Departing from this ontological foundation and the insights gained from the review of the different fields of research the interdependencies between nature and social inequalities can be conceptualized in at least three different but interrelated ways:

First, social inequalities, understood as asymmetries between positions that individuals or groups occupy in contexts of hierarchically structured access to socially relevant goods (income, wealth and other assets) and power resources (political rights, participation, voice etc.) (Burzan 2007: 7-11; Kreckel 2004: 17), are part and parcel of the multiple phenomena of the ecological crises. This becomes obvious at a global scale in relation to climate change as OECD countries still account for more than 40

percent of the total amount of global CO₂ emissions, emissions that derive from a historically rooted interdependency of fossil fuel consumption and growth orientated capitalist development. Another example for the vital importance of social inequalities for understanding current ecological crises phenomena are knowledge-power asymmetries (cf. Briones 2013). Depending on who has the power to voice their own interests and whose knowledge is deemed legitimate, decisions over how societies regulate their relations with nature, confront climate change or the loss of biodiversity are being taken in one way or the other, that is in more reflexive or in more destructive ways.

Second, nature, through the way it is socially produced, known, appropriated, represented and transformed, constitutes an explanatory variable for the production and reproduction of social inequalities in all dimensions defined by Göran Therborn (2011: 17-18): vital inequalities (socially constructed unequal life chances), existential inequalities (unequal allocations of autonomy and recognition, denial of existential equality) and resource inequalities (unequal distribution of resources to act). Mechanisms through which inequality is produced and reproduced in the context of nature transformation and environmental change are similar to other contexts: exclusion, hierarchization, concentration, dispossession, privatization, distanciation or exploitation (c.f. Therborn 2011: 19-20).

Third, the adverse effects of socially produced environmental changes act and react upon existing structures of inequality in reinforcing ways. Those who are already marginalized in multiple ways (spatial, economic, social and political) are relatively more vulnerable to climate change impacts, to air or water pollution, to health problems or to land degradation. Beyond this, the material properties of nature (e.g. water, soil composition, nutritive value) may already become operative in processes of appropriation, control and representation, which in turn may alter social inequalities in their multiple dimensions.

4. Categories of Analysis: Time, Space and Materiality

Throughout the preceding reflections, three core categories of analysis recurrently emerged: time, space and materiality. How these categories are interlinked and how they can enrich the efforts of analysis of inequalities from a socio-ecological perspective shall be sketched in the following section.

4.1 Time and Space

From a dialectical perspective, socio-ecological processes and practices are to be considered as contingent, historic and context-specific processes that transcend time and space. That means that all current socio-ecological issues are rooted in history. Time thus emerges first of all as past time, as history. In order to understand how current processes of global environmental change or new forms of nature appropriation (e.g. financialization) influence the way relations of inequality unfold, we need to start from history. Thereby, depending on the theoretical foundations and research questions, the focus of our analyses may differ. We may investigate the historic specific social, political and economic power constellations across scales that led to the emergence of specific forms of land rights regimes, property regimes, mechanisms of access and control and how these forms influence societal nature relations today. We may also examine the temporal and spatial entanglements of different imaginaries, norms, notions and meanings, forms of knowledge and how these have changed over time, why and with what effects on social inequalities in relation to nature. And we may explore how globalization and current transformations of the global political economic order (neoliberalism) lead to a transformation of the spatio-temporal coordinates of nature and society and what this means related to “entangled inequalities” (Costa 2011). In studies on the relationship between society and economy and on the production of space and nature under capitalism, the mobility of different forms of capital (financial capital, productive capital and labor) in the era of globalization is often described as a compression of space and time (Harvey 2001a; Altwater 2005; Bonanno et al. 2011: 60). To illustrate this, we can take the example of the mining sector and its latest booms in Latin America, where since the middle of the 2000s, capital investments have increased at an accelerated pace (Bebington and Bury 2013). At the global scale, this boom can be characterized by a dynamic reconfiguration of the spatio-temporal dimensions of production and consumption, and of economic spaces of resource and capital flows. According to Harvey (2001b: 246), geographical expansion and concentration in capitalist societies are both to be regarded as products of the contradictory dynamics of capital accumulation in space. Meanwhile, the imperative to accumulate produces concentration of production and of capital, while at the same time the need for the realization of value leads to a further expansion of the market. But the expansion of market structures is inherently characterized by the contradictory tendencies toward equalization and differentiation of patterns of production and consumption in space and time (Smith 2010 [1984]: 133). Thus capitalist development in general equalizes spatial differences and at the same time produces spatial inequality. These logics of uneven development in capitalism likewise apply to the mining or other sectors where nature is being valorized through capital transfer and its incorporation into the world

market, e.g. in the food or the agrofuels sector. In order to solve crises of accumulation, especially those of over-accumulation, or to benefit from local advantages (e.g. cheap labor, cheap means of production, path dependencies), capital and labor is spatially redistributed at different scales. This leads to a spatialization of bust and boom whereby old centers of accumulation decay and new ones are produced (Smith 2010: 150). In this respect the concept of “spatial fix” is pivotal. It refers to “capitalism’s insatiable drive to resolve its inner crisis tendency by geographical expansion and geographical restructuring” (Harvey 2001a: 24). Such a perspective helps to link the specific forms of socio-ecological transformations on the ground (e.g. the rapid expansion of open-pit mining in many regions of Colombia, Argentina, Mexico and Ecuador) to transformation processes at the global scale of capitalism and in other world regions. Thus it helps to understand the increasing spatio-temporal decoupling of resource extraction and resource consumption and thus the unequal distribution of the damages and benefits as being driven by a variety of processes situated at different scales. Amongst them are the over-accumulation of capital and the need for new fields of investment, and a resource- and emission-intensive “imperial mode of living” which is dominant in Northern societies and increasingly spreading to the Global South (Brand and Wissen 2013; Wissen 2014).

Time and space have constitutive significance for societal nature relations and various forms of inequality related to them. This holds true not for only for capitalist societal nature relations but all forms of relations between society and nature.

How space becomes relevant in the social production, use, and regulation of nature can thereby best be traced by referring to scholarly debates that underscore how space is socially produced and contested. Core analytical categories are: place (socially constructed locations, contingent and “filled up” with historical experiences and social meanings) (Massey 1991, 1994, 2005; Escobar 2008); scale (the vertical dimension of space, socially produced and politically contested) (Swyngedouw 2004), territory, territorialization (border demarcations, spatialization of social inclusion and exclusion, and of political power) (Vandergeest and Peluso 1995; Peluso and Lund 2011; Dietz et al. 2014), and network (transversal structures, forms of interspatial interconnections between places, things, actors, and institutions) (Castells 1996; Sheppard 2002; Latour 2005). Instead of privileging one dimension over others, Bob Jessop et al. suggest conceptualizing different dimensions as “mutually constitutive and relationally intertwined dimensions of socio-spatial relations” (Jessop et al. 2008: 389). I share this relational and multidimensional approach of theorizing socio-spatial relations. However, a relational spatial perspective on socio-ecological processes is not an end in itself. Instead, analyzing spatial configurations should help us to understand the emergence

and perpetuation of social inequalities in relation to nature production, transformation and appropriation and to identify the possibilities of overcoming them. As Margit Mayer puts it, the

relevance of a particular spatial form – either for explaining certain social processes or for acting on them – can be measured only from the perspective of the engaged actors. Thus, in order to define criteria for the relevance of (a specific form of) spatiality, we need to start [...] from concrete social processes and practices rather than reifying spatial dimensions (Mayer 2008: 416).

To give an example of how we can study inequalities in the realm of environmental change through the lens of “space” I will briefly turn to the notion of territory and territorialization: These concepts have been fruitfully deployed by Peter Vandergeest and Nancy Peluso (1995) in their analysis of territorial planning and its role in the constitution of state power in Thailand. Driven by various actors (government agents, private companies, landowners, peasants or indigenous peoples), territorialization aims at establishing control over natural resources and human beings, within or beyond a state’s territorial borders and thus changing socio-spatial relations of power. Robert David Sack defines territoriality as “the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area” (Sack 1986: 19). Territoriality thus refers to the inclusion and exclusion of people within certain geographic borders. Some questions that emerge in this respect are: Who draws lines in space, for example, through the allocation of mining concessions, by which means and with what interests? Who gets included, who gets or remains excluded? How have patterns of inequality thereby been changed? Political rulers for example territorialize power in order to achieve different goals. Enforcement of taxes, revenues and access to valuable natural resources are pivotal. State authority and domination are secured through territorial control, whereby local actors might accept or ignore state practices of territorial control, or fight against them. Territory thus cannot be reduced to a fix and static resource (Featherstone 2004: 703), but it is, at the same time, a material reference for authority as well as for the construction of collective identity. Territorial references are central for identity-related inclusion and exclusion; for the construction of “Self” and “Other” (Newman 2010). Political identities refer, often (not always, nonetheless), to territorially defined spaces, though these are not necessarily linked to nations and states but, possibly more frequently, to other “imagined communities” such as ethnic, indigenous and autochthonous groups. It is perfectly clear that these identity constructions also play an essential role for struggles related to natural resources as Tom Perreault (2013) shows in relation to gas in Bolivia.

4.2 Materiality: Why and How Matter Matters

In their working paper, Claudia Leal and Shawn Van Ausdal conclude that “while environmental conditions did not determine the divergent histories, they did shape what was feasible in each place [the Pacific and Caribbean Coast of Colombia]” (Leal and Van Ausdal 2013: 22). But how does this happen? How does nature, or the non-human world, become productive in social history and in the (re-)production of social inequalities? Some answers to this question have already been given: inequality of access, power-knowledge asymmetries related to nature, etc. But others remain open: This is first the question of whether nature and its specific materiality – geological, (bio) physical and chemical properties – make a difference in the deployment of how humans control, appropriate or access nature, and second, whether nature’s materiality makes a difference in relation to how social configurations unfold. This question is at the center of current debates within sub-disciplines of human geography (critical, cultural, feminist geography), political economy and anthropology (Castree 2000; Bakker and Bridge 2006; Bridge 2008; Wissen 2008; Richardson and Weszkalnys 2014). Starting from these debates, the following paragraph aims at providing some preliminary theoretical and conceptual reflections concerning the physical materiality of nature in relation to social inequalities.

Materiality as a concept is nothing new to social theory, especially not in the tradition of Marx. Here the notion of materiality refers to social forms like the state form, i.e. social relations which up to a certain degree have become independent of the multiple actions of individuals and groups and in turn orient these actions in a way that enables the reproduction of capitalist societies despite their inherent contradictoriness (Wissen 2014). But following the critical theoretical argument for a “constitutive interconnectedness” between nature and society as presented above, I argue that an engagement with materiality not only in a social sense can provide a productive way of interrogating persistent questions about the relationship between physical nature (both animated “nature” and inanimate “things” or resources) and social relations of inequality. However, engaging with the physical materiality of nature and asking in what way it matters in the production of novel social configurations is not an easy nor an unproblematic task since it “raises spectres of wornout dualisms, [...] object fetishism and environmental determinism” (Bakker and Bridge 2006: 8). Explanatory approaches that “naturalize” social problems and processes have been criticized in social sciences for decades. Nonetheless, contemporary explanations for instance on the relationship between climate change and conflict still fall back on environmentally deterministic reasoning as they often claim a linear causality between the impacts of climate change and violent local or inter group conflicts (e.g. Butler and Gates 2012; Raleigh and Kniveton 2012; Theisen 2012).

So the question is, how best to express the causal role of a material nature without stepping into the naturalism trap? To provide elements for an answer I suggest a non-essentialist concept of materiality, arguing against both the deterministic idea of nature as an external “thing” that determines social processes, and against purely constructivist approaches that reflexively deny any autonomous materiality of nature. The latter assume and insist nature to be, first and foremost, produced by ideas, discourses and ascriptions (for an overview of the work on the social construction of nature, see Demeritt 2002). However, accepting that physical materiality of nature is indeed relevant for socio-spatial transformation processes does not necessarily result in essentialist conceptions of nature. Nor does it mean to assume material constellations have the same or a similar meaning for all subjects in any time and space, and it definitely does not mean that material constellations determine social action.

At the same time, it does not imply that nature is social all the way down. That the very specific materiality of resources – e.g. oil, water, silver – possesses a generative role in a variety of meanings has become visible in many studies. For example, contributions from critical geography have shown how the production and appropriation of nature may fail because of the physical properties of the resource to be appropriated. Karen Bakker (2005) shows in her study on the commodification of water in the UK how attempts to liberalize water provision met with many of unforeseen difficulties. The main reason lay in the bio-chemical properties of water, particularly the problem of transporting drinking water over large distances or mixing water from different sources without risking undesirable chemical reactions which diminish its quality (cf. Wissen 2014). Other examples stem from anthropological research. Social anthropologists have demonstrated how resource exploitation is associated with changing social configurations, e.g. the emergence of settlements around points of extraction (Nash 1993 [1979]; Tinker Salas 2009). Thereby the materiality of the exploited resource gives these configurations a specific material and spatial shape. Open-pit coal mining in northern Colombia produces different socio-ecological and socio-spatial environments and inequalities than for example lithium brine extraction or copper mining in Chile.

What does this all mean for studying the nature-social inequality nexus in Latin America from a transregional perspective? First of all it means that “things other than humans make a difference in the way social relations unfold” (Bakker and Bridge 2006: 17-18). Starting from this assumption an analysis of the (re-)production of inequalities that takes the material site of the current socio-ecological transformation processes into account needs to focus on the productive capacities of different materialities, in the way resources come into being, in the way they enter and even structure global production networks to a certain extent, in the way they are filled with meaning and

in the way these materialities connect production and consumption in specific ways across time and space.

Current works in social and cultural anthropology provide helpful starting points for such an endeavor, e.g. studies of “material cultures of consumption and production” or so called “commodity stories” about global resource flows (Cook et al. 2004; Elias and Carney 2004; see Bakker and Bridge 2006: 13). Another entry point could be to link consumption and production analytically via a “materialist commodity chain analysis” thereby including the materiality and territoriality of extractive commodities. Related to this, the paper of Bridge (2008) provides interesting findings. In it, he laid out an agenda for research that merges the concerns of global production networks/value chain analyses with concerns related to the territorial dynamics and materiality of resources (Bridge 2008). By doing so, Bridge demonstrated how the forms taken by global oil production networks are influenced by oil’s material and territorial characteristics, and also that the way in which the subsoil comes into social life in the very places where oil is being extracted hinges on the nature of the global networks in which oil is embedded.

“Referencing ‘the material’ is thus a way of “acknowledging the embeddedness of social action” (Bakker and Bridge 2006: 18); but also its relationality. Nevertheless, acknowledging that materiality makes a difference in the way social relations of inequality unfold entails acknowledging that “things”, be they minerals, metals, plants, “are not pre-given substrates that variably enable [or] constrain social action, but are themselves historical products of material, representational and symbolic practices’ specific in time and space” (Bakker and Bridge 2006: 18).

5. Conclusion

The aim of this paper was to identify analytical entry points for the study of social inequalities from a socio-ecological research perspective. The focus and main purpose was first to deepen our theoretical understanding of the interdependencies between nature and social inequalities. From a dialectical perspective on societal-nature relations, three interrelated ways of interdependencies between nature and inequalities were identified:

- (1) social inequalities are inherent elements of current ecological crises phenomena;
- (2) social nature, its domination, transformation and representation, constitutes an explanatory variable for the production and reproduction of social inequalities in all its dimensions;

(3) the materiality of nature – whether as effects of socially produced environmental changes or in terms of its material properties – has implications for social inequalities.

Another aim of the paper was to develop an improved theoretical and methodological understanding of the relation between nature and social inequalities by drawing on three different fields of research: environmental justice, political ecology and anthropology. I have shown that within the environmental justice debates, socio-ecological dimensions of inequality have firstly been conceptualized as facets or moments of social inequality (Szasz and Meuser 1997: 116), meaning that inequality in the distribution of environmental risks “reinforces and, at the same time reflects, other forms of hierarchy and exploitation along lines of class, race and gender” (Newell 2005: 70). Beyond this understanding, the dialectic perspective on society-nature relations suggests that social inequalities are not only considered as a consequence of specific forms of nature transformation, but also as inherent in them. This implies that we need not only to view the nature-inequality nexus from the point of view of unequal distribution of adverse ecological effects, but also that environmental problems and historically specific forms of nature appropriation and/or conservation (e.g. agrobusiness, large scale open-pit mining, market-led forms of conservation) themselves need to be viewed as already being articulations of social inequalities. Class, gender, and “racial” relations of domination and inequalities are not only reproduced or perpetuated through new forms of nature transformation, but these differences are already inscribed in the forms and practices through which nature is appropriated, known, conceived and imagined. The focus on different notions of nature, forms of knowledge and on the body, prominently captured in anthropological studies widens the scope of analysis and the understanding of the nature-inequality nexus as it draws our attention to both unequal power-knowledge relations and the socially situated materiality of human bodies. Finally, what became clear both from theoretical reflections but also from empirical studies is that the three categories – time, space and materiality – hold analytical promise for studying inequalities from a socio-ecological perspective that goes beyond the nation-state.

Based on these observations I conclude that social inequalities emerge not only at the intersections between different regions and diverse social categorizations but also at the intersection between nature and culture, and in nature-society relations. Transnational processes and entanglements have, at least since the era of colonialism, always played a decisive role in shaping societal nature relations in their material and symbolical dimensions (Coronil 2000; Mintz 2007; Boatcă 2011), both in European and Latin American societies.

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Contact

desiguALdades.net

Freie Universität Berlin

Boltzmannstr. 1

D-14195 Berlin, Germany

Tel: +49 30 838 53069

www.desiguALdades.net

e-mail: contacto@desiguALdades.net

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