Gender and environmental change: recent debates and new perspectives in anthropological research

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Environmental change is omnipresent and occurs worldwide at a worrisome pace and extent. The current human impact on our planet is unprecedented and has resulted in lively debates about the Anthropocene. This proposed epoch in which humans significantly impact the earth's ecosystems challenge us to rethink the relationship between humans and ‘nature’ (Haraway et al. 2016, p. 535). Environmental change and increasing environmental degradation present one of the biggest future challenges for humanity. These manifest on a global scale and in specific local phenomena, embedded in complex relationships. As we show in this special focus, of crucial importance here is the fact that all these processes of environmental change are gendered.

Environmental change often leads to far-reaching transformations of local livelihoods. These transformations (re)produce in manifold ways economic, political and social inequalities, whereby gender is a crucial category of differentiation. Men and women often engage in different activities and therewith relate to the environment in different ways. As a result, they often possess different knowledge. Furthermore, in some societies, gender plays a crucial role in determining access to and control over natural resources, and often influences how men and women are incorporated into new labour systems. Environmental change and related changes of economic systems and social structures thus have a huge impact on gender relations, gender identities, gender roles, male and female work activities, gendered control over natural and financial resources, gendered responsibilities, and the exclusion of men and women from various economic systems.

The field of ‘gender and environment’ emerged from feminist and environmentalist activism in the 1970s and currently unites a “multi-, inter-, and trans-disciplinary body of scholarship that lacks clearly defined boundaries” (MacGregor 2017, p. 6). The common aim of this rather heterogeneous field is a “sustained and systematic scholarly investigation of how gender shapes human experiences of environments and how environments are interpreted and treated through the lens of gender” (MacGregor 2017, p. 2).

Anthropologists working on the nexus of gender and environment have been inspired by concepts and theories advanced by gender studies and feminist

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scholars, as well as by environmental studies and the scholarship of natural resource management. The gender-environment nexus is thus characterised on the one hand by feminist perspectives that include and address environmental issues. On the other hand, approaches that have primarily grown out of an interest for human environment relations increasingly include gender-specific perspectives. However, as we will show in this special focus, far from being mutually exclusionary, during the last decades, several new approaches have been developed which are inspired by two perspectives, namely gender research and environmental research. Intersectionality, for example, emerged within gender studies – pushed forward mainly by black women and authors from the global south – and has become common within the fields of gender and environment. Thus, intersectionality, which examines how axes of stratification are mutually constructed, are interdependent, and reinforce each other (Lykke 2010), shifts new attention to the complexity of identity and the intertwinment of different categories of differentiation. Besides, a new interest in materiality provides new impulses for the gender-environment nexus. The properties and meanings of ‘things’ developed in various disciplines ranging from biology to anthropology and to new ontological approaches, thus contributing to a re-conceptualisation of the relationship between human and non-human entities.

This special focus compiles empirical studies that analyse recent processes of environmental change from a gender perspective, aiming to discuss and complement recent approaches on the nexus of gender and environmental change. This introduction provides a short overview of the diverse perspectives, themes, and debates that have shaped research and theoretical debates around the gender-environment nexus within the field of social and cultural anthropology. After laying out the central terms, we discuss core themes and intersections of gender and environment. As our focus is mainly on developments within social and cultural anthropology, we do not cover the entire field. Finally, we provide an overview of the contributions to this special focus and point out how they engage with and advance recent debates.

**Terms of reference: ‘gender’ and ‘environment’**

‘Gender’ and ‘environment’ have been shaped by specific historical contexts and academic debates (MacGregor 2017, Buckingham 2015). The term ‘gender’ entered social and cultural anthropology during the feminist turn in the 1970s to emphasise the distinction between gender as a cultural construction and biological sex. During the 1970s and 1980s, ‘gender’ studies were largely a synonym for ‘women’ studies and dominated by a male-female binary, which was also mirrored in research on the gender and environment nexus. Since the 1990s, masculinity, queerness, and non-heteronormative gender concepts have received more attention in anthropological research...
and in gender and environmental studies as the understanding of gender has become more elaborate and expansive (e.g. McCright, Dunlap 2011).

Although the term ‘environment’ can be traced back to the German geographer Friedrich Ratzel (1901), it only became a prominent concept amongst scientists in the 1960s (Dryzek 2013). The dominant use of the term refers to the non-human environment, which has been conceptualised as distinct from human society. The human versus nature dichotomy forms also the base for the nature versus culture debate in social and cultural anthropology. These discussions have been of crucial importance for early elaborations on the gender-environment nexus within the discipline. Sherry Ortner (1974) employed the dichotomous nature-culture divide to explain the universal asymmetries between men and women, thereby associating women with nature and men with culture. Her argument was critically discussed and rejected by other scholars (e.g. MacCormack, Strathern 1980) who stressed the huge diversity of gender models. They rather argue that masculinity and femininity should be understood as the result of specific cultural conditions, thereby linking this to Margaret Mead’s culturalist theory. Margaret Mead (1928) revised the perceptions of universal naturalistic patterns in gendered roles by arguing that it is culture, not nature, that determines the constitution of gender.

In debates about the cultural development of mankind, the relationship between gender and ecology also played an important role. In 1968, Lee and DeVore argued that human development took its roots in male hunters’ collectives. Feminist anthropologists, however, countered this androcentric, essentialist world view by a similarly essentialist claim that women contributed significantly to the advancement of culture, handicraft, knowledge and language (Dahlberg 1981).

Since the 1990s, critiques of the nature-culture divide have encouraged a blossoming field within anthropology, and universalistic concepts of nature are no longer taken for granted (Descola, Palsson 1996). Recent ‘post-humanist’ approaches such as multi-species ethnography (Kirksey, Helmreich 2010, Ogden et al. 2013, Tsing 2015) call for a perspective that includes other species and view humans as embedded in a more-than-human world that has agency and intrinsic value (e.g. Kohn 2013).

The described expansion of the term ‘gender’ and recent re-conceptualizations of the relationship between humans and the environment have much to offer for scholars currently working at the gender-environment nexus within anthropology, as the contributions in this issue show.

**Mother earth – Male oppressor? Ecofeminism and strategic essentialism**

The gender-environment nexus is often linked to ecological feminism, which has developed from environmental and feminist movements in the
mid-twentieth century. During the 1970s, activists and scholars pointed out the inextricable link between social inequalities, environmental exploitation, and social gender constructs that emerged within patriarchal, capitalist and colonial power relations (MacGregor 2017, p. 2). They argue that women and nature have both been subject to a shared history of oppression by patriarchy and the domination of Western culture (Biehl 1991; Mies, Shiva 1991). Some ecofeminist scholars thus relate the oppression of women and the exploitation of nature to patriarchal-capitalistic domination and thereby bring together dimensions of the feminist and environmental justice movement (Mellor 1997). Prominent ecofeminist scholars emphasize the ‘natural connection’ between women and nature, which Vandana Shiva (1988) calls the “female principle”, and construct women as ‘guardians’ of the environment (Dankelman, Davidson 1988; Rodda 1991). Most ecofeminist writings are grounded in a form of radical environmentalism and give women as ‘change agents’ a central role in the fight against social and environmental injustices (Radford Ruether 1975).

Ecofeminist conceptions contributed significantly to discourses on woman and ecology by merging radical critique on environmental degradation and the dominant patriarchal development paradigm. However, the essentialist analysis of androcentric capitalism and the natural connection between women and nature was heavily criticised in academia. Especially postmodern female thinkers criticised the naturalist stance of ecofeminism, the dualistic view of gender relations and the focus on one aspect of oppression in society, namely that of men over women (Agarwal 1992, Jackson 1993, Rocheleau et al., 1996). Moreover, they strongly rejected ecofeminists’ claim on the unique natural connection between women and nature.

Despite ecofeminist approaches being heavily criticised in academia, in the field of development cooperation, by contrast, an essentialist take on women still plays a dominant role, both in their ideologies and practical applications (Großmann et al. 2017). Environmental organisations and development institutions such as the United Nations (UN) frequently deploy ‘strategic essentialisms’ (Spivak 1988) in the context of gender and environment. Hereby, gender and other categories of differentiation are essentialised and instrumentalised in the course of identity politics and political activism. For instance, in the course of the Women, Environment and Development (WED) framework, women are often appointed as more effective managers of natural resources and constructed as key actors in environmental protection and conservation programs (Suma, Großmann 2017). Critics such as Melissa Leach (2007) accuse mainstream development agencies of echoing ecofeminist discourses in their statements and designs for environmental programmes, thereby cementing rather than critically addressing patriarchal gender roles. These issues are addressed by Cottino and Treidl, who focus on gender orders, which are promoted by new development policies regarding
natural resource management. They describe how implemented essentialist gendered identities conflict with indigenous perceptions and cosmologies.

To counter severe critique and restore the reputation of ecofeminism some authors argue that many ecofeminists were “materialist and post humanist before these concepts gained popularity in the mainstream of Western academia” (MacGregor 2017, p. XX). The argument that ecofeminists always included non-human aspects is not totally unfounded, regarding, for example, the work of Karen Warren (2000), who founds her ecofeminist philosophy on the interconnections between the unjustified domination of “other Others” (2000, p. XIV), which includes “…‘human Others’, such as women, people of colour, children, and the poor and ‘earth Others’, such as animals, forests, the land” (2000, p. XIV). In contrast to being side-lined in feminist studies in the last decades, currently, ecofeminist approaches seem to become of interest again, as Becci and Grandjean also argue in their contribution in this issue. Moreover, Gaard (2011) argues that ecofeminist thoughts live on in new materialist approaches and queer ecology, an argument which is highly contested by Becci and Grandjean. In this regard, the authors of this special focus enrich the current vibrant discussions on ecofeminism and queer ecologies by critically discussing spiritual ecology and essentialisations of masculinity and femininity.

### Material feminism and ontology

Since the 1990s, to better grasp environmental transformations and human-nature relationships, non-dualistic views on society and nature have become prevalent. They conceptualise human/non-human relationships as monist, holistic, hybrid or dialectic, dependent on epistemological interests and ontological understandings. Bruno Latour’s Actor-Network-Theory (ANT) (1993) is certainly one of the most influential works in this field. He dissolves the nature-culture division and redefines ‘the social’ as a confluence of forces and associations, and as a collective assembly of human and non-human interactions. In the feminist theory, material feminism is a currently burgeoning body of literature in the attempt to overcome still-prevailing dichotomies of nature versus humans. It aims to counter the overemphasis of constructionist models that are prevalent in gender studies in the course of postmodernism and poststructuralism. Poststructuralism undoubtedly pushes through the analysis of complex intertwinements of power, subjectivity, language and knowledge but rejects the material and the materiality of the body, and sidelines elaborations on the relationship between nature and women. Bauhardt (2013) points out that within feminist studies “dealing with questions of nature means living a life of danger” (2013, p. 361), referring to the negative conception of nature.
naturalist inclined feminist research, nature and the naturalization of women and men is the rationale for women’s suppression and exclusion as it builds, as Alaimo and Hekman emphasize a “solid ground for heterosexist infrastructure” (2008, p. 12). By criticizing this, material feminism aims at including the materiality of the body and of nature itself being an active agent in feminist analyses. Lived experience, corporal practices, biological substance, nature as actor and not as social construction or bare natural resource, and the agency of non-human actors should be taken seriously in the analyses (Alaimo, Hekman 2008). Material feminism thus understands nature not as a “blank, silent resource for the exploits of culture. … Instead, it is an active, signifying force; an agent in its own terms; a realm of multiple, inter- and intra-active cultures” (Alaimo, Hekman 2008, p. 12). Cottino in this issue also includes the materiality of certain crops in regard to livelihood strategies and new patterns of natural resource use and stresses the continuum of food, body and land.

However, the influence of material feminism is predominantly found in the realms of philosophy and cultural studies. Little empirically grounded research in the field of material feminism deals with power relations and identity formation regarding nature and gender. Thus, in regard to research on gender and environmental transformations, the current concepts of material feminism “appear unable to deal head on with many of the practical questions confronting gender and development studies in natural resources settings …” (Elmhirst, Darmastuti 2015, p. 182) and material feminism has astonishingly not yet found noticeable entrance into gender-specific elaborations on the nexus of nature, human agency and culture (Cottino, this issue). Within the broad field associated with the ‘ontological turn’, many scholars engage in alternative constitutions of human/non-human relations and aim at dissolving binary views on society and nature (e.g. Viveiros de Castro 1992, Latour 1993, Ingold 2000, Kohn 2015). These approaches stress alterity and bring indigenous conceptualizations of ‘nature’ and ‘the environment’ to the fore. Although anthropologists have now and then called for a more thorough analysis and application of indigenous concepts of gender within academic discourses (e.g. Strathern 1988) and within development co-operation (Van Esterick 1995), this is still a cogent demand (cf. Haug 2017). The radically constructivist approach of acknowledging diverse ontologies could inspire scholars working at the gender and environment nexus to search for alternative constitutions of gender and to challenge the often hasty adoption of western gender and development discourse.

Intersectionality and queer ecologies

Intersectionality focuses on overlaps of gender and other categories and thus
has been marginalized within feminist analysis until the 1990s. This has changed over the last years, and intersectional approaches move closer to the core of feminist and gender studies. Moreover, in gender and environment research, intersectionality has become a cross-cutting approach. Treidl in this issue explicitly follows an intersectional approach by including multiple categories of differentiation in her analysis. Gender-based inequalities often intersect with inequalities based on class, age, race, and ethnicity inflicted by relations of power. Intersectionality has enriched research on the gender-environment nexus by bringing to the front diverse categories of differentiation which are critical variables in shaping access to knowledge and organisation of natural resources (Großmann 2017; Haug 2017; Park, White 2017; Resurreccion, Elmhirst 2008).

Since the 2000s, scholars working on the gender-environment nexus have increasingly broaden the category gender by including men, LGBT+ and queer. Queer ecologies, as elaborated by Becci and Grandjean in this issue, shed light on the nexus between queer and environmental studies. This approach questions and disrupts heteronormative discourses and institutionalisations of sexuality and nature to rewrite evolutionary processes and contest environmental politics in the framework of queer theory. It refers mostly to Foucault’s *The History of Sexuality* (1978), where the author argues that modern regimes began to examine sexuality in a scientific manner and exert ‘biopower’ as the power over life to discipline, optimise, use, normalize and control human bodies, sexuality and reproduction. Thus, queer ecologies that are linked to postmodernism/constructivism, material dimension of environmental issues and zoology aim to critically examine the naturalisation of heterosexuality and reproduction, and the interrelated social and political organisation. Authors in the twentieth century, while criticising the equation of homosexuality with unnatural behaviour and degeneracy, elaborate on homosexual eroticism in pastoral societies (Shuttleton 2000) and lesbian anti-urbanism, setting up the conceptual framework for recent approaches in queer ecologies. Recently, scholars of queer ecologies, influenced by Donna Haraway’s concept of nature cultures (1991, 2003), increasingly connect sexual and ecological politics and thus link ecofeminism, environmental justice and material feminism. They critically probe intersections of sex and nature, whereas nature is broadly defined as ideas, spaces and practices. In elaborating on queer animals and queer environmentalism, authors link environmental destruction to a de-eroticized human-nature relationship (Mortimer-Sandilands, Erickson 2010). One specific strand in

1 Queer, literally similar to strange or odd, includes all forms of non-heterosexuality such as lesbian, gay, bisexual, transgender and intersex (LGBTI), as well as pansexual, asexual and heterosexual who practice polyamory and questioning, two-spirited and allies (LGBTTIQQ2SA).
queer ecologies opens ‘queer’ to non-humans, and authors reconsider animal-human relationships, sociality and pleasure (Alaimo 2010), or the relational co-constitution of humans and the material world. Current scholars under the umbrella of queer ecologies combine these conceptional trajectories, include more-than-human corporalities and work on cross-species and eco-sexualities (Sandilands 2004).

The terms queer, nature and ecology in approaches which are subsumed under the umbrella of queer ecology are conceptualized in a broad sense. They include more conventional understandings of LGBT as also non-human ‘queers’ such as animals and matters. Ecology in these approaches comprises almost everything from landscape to ideas. Thus, queer ecology definitely inspires to transgress boundaries in science, politics and practices.

A gendered perspective on power, commodification and access to natural resources

Another set of approaches centre around the question of how gender influences access to and control over resources and how certain ways of managing natural resources (re)produce specific gender hierarchies. Bina Agarwal (1994) as a pioneer in this field, framed the concept of feminist environmentalism. Her research focused on the limited access to and authority over natural resources and land as causes of gender inequalities. She draws on a strong activist stance to empower women, especially in the Global South. Since the late 1990s, feminist political ecology (FPE) has emerged as a sub-field of political ecology, seeking to elaborate on the role and agency of women within globalised processes of environmental transformations (Rocheleau et al. 1996). Political ecology became prominent during the 1980s as a vibrant approach in geography and anthropology, with the aim of understanding “the complex relations between nature and society through a careful analysis of […] access and control over resources and their implications for environmental health, sustainable livelihoods and explaining environmental conflict […]” (Watts 2000, p. 257). Expanding these analyses by a gender-specific focus, scholars within the feminist political ecology framework analyse the relationship between environmental transformations and certain categories of inequality, including gender. They elaborate on multifocal power relations, the social position of women as providers and workers, access and control in political economies and processes of commodification, and examine gendered land rights, representation within the community and gender-specific elaborations on livelihoods (Elmhirst 2011; Resurreccion, Elmhirst 2008; Harcourt 2012). Rocheleau et al. (1996) identified three major themes as follows: gendered knowledge; gendered environmental rights “including property, resources, space and all
the variations of legal and customary rights that are ‘gendered’ (Rocheleau et al. 1996, p. 4) and gendered environmental politics and grassroots activism. Furthermore, the authors also contribute on development policy and governmental development programs (Cornwall et al. 2007).

Current studies on PE and FPE, including the contribution by Cottino, that focus on natural resource exploitation and power relations increasingly include the materiality of natural resources. This comprises the quality of the environmental milieu and the character of certain crops such as cacao or clove (Li 2014) or rubber (Peluso 2012). Only recently, Rebecca Elmhirst and Ari Darmastuti (2015) have developed a more nuanced description in their gender-specific analysis of environmental change, governance and power structures, which also takes the materiality of resources into account. The authors developed a conceptual framework of material feminist political ecology that is aimed at “‘bringing nature back in’ to consider the ways in which different kinds of engagements with nature produce particular constellations of gender, and from this, contrasting livelihood pathways” (Elmhirst, Darmastuti 2015, p. 183). They elaborate on the continuing embeddedness of multi-local livelihoods with reference to the use of diverse natural resources. Changing economic systems and social structures, they assert and lead to new (self-)concepts of gender identities, gender roles, work activities, control and responsibilities. Another strand within FPE is the feminist analysis of climate change policies where authors combine feminist theory, concepts of the environmental justice movement, FPE/feminist environmentalism and queer ecologies (Caglar et al. 2012; Dannecker, Rodenberg 2014), an issue tackled by Cottino.

Currently, a broad range of gender-specific research on environmental transformations, though not always explicitly, refer to the framework of FPE (Elmhirst 2011). Tabacco, Cavicchioli, Treidl and Cottino in this issue refer to this framework as they address changes in access, control and identities of men and women that are induced by transformations of livelihood strategies and new patterns of natural resource exploitation. Therefore, FPE establishes a differentiated and politicised perspective and debate on the gender-environment-development nexus. Although some research studies within the political ecology and the feminist political ecology framework increasingly include material aspects of the environment, include a broader angle and are inspired by other conceptualizations (Elmhirst 2018), the focus remains nevertheless on humans. Non-humans (e.g. plants, animals, spirits or technical devices) are not ascribed ‘agentive force’, as it is prominent in ontological approaches which stress alternative constitutions of nature and dissolve the nature/culture divide. Concepts at the interface of PE and ontology such as Mario Blaser’s concept of political ontology (2013) or the approach of plural ecologies (Sprenger, Großmann 2018) have not yet deployed a gendered perspective.
The contributions: challenges and future pathways

Work on gender and environmental change aims to analyse, contest and change regimes of inequality and gender orders in globalized environmental transformations by focusing not only on (hetero) sexism but also on capitalism and colonialism. The contributions in this issue show that focusing on gender as a political category of differentiation reveals multifocal power relations, essentialisation and exclusion.

However, despite enlarging understandings of gender, most existing literatures on gender and environmental change exhibit a tendency to focus on women rather than on gender relations, thereby stressing the negative effects on women’s well-being, livelihoods and working conditions. Not denying these impacts on women but taking seriously the category ‘gender’, masculinities, men’s roles and the relations between men and women should also be included in future research on the gender and environment nexus, as shown by Tabacco in this issue.

Studies on gender and environmental change also tend to neglect the complex, multi-layered and intertwined power relations and (re)productions of differentiations, be it gender, race, class, age or status in capitalised environmental transformations. Moreover, especially in fields of praxis, categories are often employed in an essentialist way. In activists’ circles and within development programs, essentialised gender roles and constructions of femininity and masculinity serve to substantiate claims for the restitution of rights. However, strategic essentialism also is highly problematic, as identities are imposed upon actors, often as a result of inequalities of power and authority, thus becoming divisive and repressive, as elaborated in the contribution of Becci and Grandjean.

New approaches in the field of gender and environmental change refer to nature in a more positive way and bring back materiality into the analysis, as shown in the contributions of Cottino and Cavicchioli. As human/nature relations often are not constituted in a binary system of nature on the one side and society on the other side, these studies broaden the scope of analysis favourably.

The inclusion of ‘non-modern’ epistemologies and indigenous cosmologies has also the potential to describe gendered human-nature relations in more comprehensively, address complexities and therefore enhance the understanding of environmental transformations, as shown by Cottino, Caviccioli and Treidl in this issue. The focus on human/non-human co-constitutions linked to categories of differentiation thus enlarges the analysis of gendered resource use and livelihood practices.

Becci and Grandjean critically discuss, by referring to feminist concepts such as performativity, materiality and queer ecology, the background, agenda and strategies of ecospiritual and ecofeminist activists in French-speaking
Switzerland. On the basis of two case studies, one on gendered representation of nature and the other on gendered characteristics of human perceptions, the authors elaborate on the aims of deployed strategic essentialisations. They contrast ecofeminist approaches from queer ecologies, which follow a more explicit political agenda. Finally, the authors discuss both approaches in the framework of performative strategies of claims over new gender roles.

Gaia Cottino draws empirical data from the Kingdom of Tonga in Oceania to describe conflicts between different approaches to address food security by indigenous people and a development organization. She shows that frictions arise between autochthonous perceptions and values of food and the body and a food security program in the frame of an urban horticulture project. For many people in Tonga, food is embodied in and reflects male and female identities, relationships and spheres of action figuratively and literally. By contrast, the implemented food program follows universal concepts of resilience, sustainability, food security, healthy food and women’s empowerment, thereby not guaranteeing food sovereignty and peoples’ well-being.

Martina Cavicchioli also deals with food security but in Burkina Faso and takes the intertwining of soil degradation and the controversial change of local perceptions about the gendered use of land as a starting point. She describes negotiations and the dilemma of the necessity to provide enough staple crops and the gendered way of accessing and using land for agriculture. She argues that cash crop production is still ascribed merely to women, although they contribute increasingly to the household food provision. Nevertheless, the position of women is not strengthened and men are still viewed as the household head because of their role as the main provider of staple crops.

Johanna Treidl stresses the intersections of class and gender in risk management, labour conditions and livelihood strategies in Rwanda. She argues that especially poor and single-mother households are excluded from the state’s endeavour to transform rural areas into modern production zones. Although Rwanda is known for the establishment of a set of successful measurements for gender equality, such as legal reforms and the worldwide highest percentage of female parliamentarians, gender equality in the field of rural development lacks effective implementation and follows essentialist constructions of gendered roles and responsibilities.

Drawing from empirical data in Indonesia, Giacomo Tabacco discusses gendered labour conditions and livelihood strategies in the field of small-scale gold and stone extraction. While small-scale cultivation of cash crops is women’s domain, men increasingly engage in the artisanal exploitation of minerals and other commodities to materialize their aspirations of heteronormative life models. However, single Acehnese men who aimed to marry
found themselves involved in a family struggle because small-scale resource extraction not only bears the possibility of fast cash but also entails high competition and physical stress, thereby putting in question a secured way of earning good money.

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