



# POLLEN 2023

# ABSTRACT BOOK

# On Being a Steward of the Earth: An Islamic Liberation Theology Approach

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There has been noted development in the field of Islam and Ecology on the concept of being a khalifah fi al-'ardh (steward of the earth). Some authors, assuming a social ecology approach, have assumed the translation of khalifah as 'vicegerent' or 'steward' to be valid in the effort to confront contemporary ecological catastrophe. However, a number of authors engaging a deep ecology approach have argued against defining khalifah as vice-gerent or steward in an attempt to move beyond crass anthropocentric conceptualizations of stewardship which they believe further the ecological crisis. The discourse of Islamic Liberation Theology has provided a critical human ethics which seeks to address the problems of the world through the lens of the margins. This paper argues for a commitment to a liberatory form of human stewardship of the earth which brings together the best of deep and social ecology approaches.

On Being a Steward of the Earth: An Islamic Liberation Theology Approach, There has been noted development in the field of Islam and Ecology on the concept of being a khalifah fi al-'ardh (steward of the earth). Some authors, assuming a social ecology approach, have assumed the translation of khalifah as 'vicegerent' or 'steward' to be valid in the effort to confront contemporary ecological catastrophe. However, a number of authors engaging a deep ecology approach have argued against defining khalifah as vice-gerent or steward in an attempt to move beyond crass anthropocentric conceptualizations of stewardship which they believe further the ecological crisis. The discourse of Islamic Liberation Theology has provided a critical human ethics which seeks to address the problems of the world through the lens of the margins. This paper argues for a commitment to a liberatory form of human stewardship of the earth which brings together the best of deep and social ecology approaches. KEYWORDS: Religion and Ecology, Islam, Liberation Theology, Stewardship

# An Island In The World, The World In An Island: Extraction, Materialities, And Governmentalities In Madagascar 2

Ms Chanelle Adams<sup>1</sup>, Dr Brian Klein<sup>2</sup>, Mingyuan Zhang<sup>3</sup>, Miss Gabrielle Robbins, Dr Annah Zhu<sup>4</sup>

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In this proposed double session, we invite submissions of papers which explore Madagascar's many landscapes of extraction. We aim to move away from a damage-centered approach to studying extraction in the Global South, and from normative understandings of extraction centrally focused on circuits of capital and resource exploitation. We instead seek to illuminate Madagascar's landscapes of extraction through multi-faceted attention to that which is material and immaterial, human and nonhuman, organic and synthetic, local and global, violent and generative. As a group of interdisciplinary scholars, themes explored in this session include:

- The medicalized, reproductive body as a site of extraction
- Transnational and local/regional politics of production and reproduction amid overlapping climate change and public health crises
- Pharmaceutical resources and contestations of health/medicine across scales
- Complexities of knowing, inhabiting, and governing forested, cultivated, or mined landscapes

Adding to these themes, we invite papers across disciplines who broadly explore relations of extraction, materialities, and governmentalities across Madagascar. We wish to especially invite Malagasy scholars and researchers who examine or interrogate these themes in their work.

TITLE: BEYOND ENCLOSURE: STRATEGIES OF EXPLOITATION AND ACCUMULATION IN MADAGASCAR'S MINERAL COMMONS

**Abstract:** This paper uses a political ecology approach to examine strategies of exploitation and accumulation in Madagascar's artisanal and small-scale gold mining sector. Goldfields on the island are often managed and maintained as mineral commons (Klein, forthcoming), where miners and mining communities engage in varying forms of collective self-governance. While many gold-bearing landscapes have historically been and continue to be targeted by state-corporate extractors, the socially-embedded and historically-sedimented nature of artisanal gold extraction often render physical processes of enclosure and exclusion by external concession-holders largely impracticable, for both socio-cultural and techno-geological reasons. Faced with such conditions, corporate representatives, government officials, and a range of political-economic elites have been forced to look beyond enclosure as they navigate local politics in pursuit of gold and attendant riches. Drawing on archival and ethnographic evidence gathered in the gold-mining region of Betsiaka in Madagascar's far north, I argue that state-corporate actors and other political-economic elites have manipulated the forms and leadership structures of governance institutions; dispute mediation processes; sponsorship arrangements; share distribution systems; narratives and relations of ownership and belonging; and socio-cultural expectations around extraversion (Bayart 2000) in order to exploit miners' labor and accumulate gold-based wealth. At the same time, local miners have resisted these attempts, further (re)producing the goldfields as a contested landscape of both oppressive and autonomous possibilities.

**Keywords:** artisanal and small-scale gold mining; mineral commons; resource governance

TITLE: TBD

Abstract: Abstract: Since 2009, Chinese state-owned corporation SINLANX has been managing Anjava Sugar Plantation previously managed by French, Malagasy and Mauritian companies in northern Madagascar. Built upon the infrastructure constructed by the French colonial regime and operating based on a collaboration agreement between SINLANX and the Malagasy state-owned sugar company, Anjava presents a telling story of spatialized acts of survival and racialized conflicts over land and water in the interstitial spaces between capitalist production and subsistence economy. Malagasy villagers' access to resources is often squeezed by multiple enclosures – a water delivery system and a land distribution system that prioritize sugar production, and a bureaucratic system that punishes those who transgress the enclosures. Although Anjava villagers take advantage of the rhythm of sugar harvest and the nature of fire to sabotage sugar production or to make water claims for their livelihood, the agrarian and infrastructural arrangements at Anjava have perpetuated conditions of chronic precarity and profound marginalization of a landless population. The struggles at Anjava must be contextualized in the complex and ambiguous spaces between capital and labor, livelihood and resistance, dominance and adaptation, as well as ethnic collaboration and hostility.

Keywords: Sugar plantations, global commodities

TITLE: CHINA'S HOT MONEY IN MADAGASCAR

Abstract: “Hot money” refers to intensive financial speculation following short-term investment horizons. China’s hot money investments in rosewood – an endangered hardwood used to make classical furniture – have triggered logging booms across the tropics. One of the most intensive logging booms has been in the rosewood forests of Madagascar. China’s hot money in Madagascar has given rise to another type of hot money – or, *vola mafana*, the Malagasy vernacular related to, but not to be confused with, hot money in the financial sense. Hot money in Madagascar refers to the tendency of workers to spend their earnings in fanciful sprees, ranging from all-night trips to the bar to leisurely pasting money on chameleons. With little access to banking or credit and few productive outlets for channeling windfalls, hot money materializes in Madagascar’s forests almost randomly, as if by machine, and is often spent just as quickly. This paper reveals the divergent motivations surrounding money in such diverse settings and what exactly makes it so “hot.” In China’s speculative timber markets and Madagascar’s rosewood forests, money is simultaneously the key to fulfilling one’s livelihood and something that is tossed around hastily. Both forms of hot money, albeit in very different ways, provide absurd caricatures of the system of rational economic progress we call capitalism.

Keywords: Resource booms, global capitalism, money

# AN ISLAND IN THE WORLD, THE WORLD IN AN ISLAND: EXTRACTION, MATERIALITIES, AND GOVERNMENTALITIES IN MADAGASCAR 1

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In this proposed double session, we invite submissions of papers which explore Madagascar's many landscapes of extraction. We aim to move away from a damage-centered approach to studying extraction in the Global South, and from normative understandings of extraction centrally focused on circuits of capital and resource exploitation. We instead seek to illuminate Madagascar's landscapes of extraction through multi-faceted attention to that which is material and immaterial, human and nonhuman, organic and synthetic, local and global, violent and generative. As a group of interdisciplinary scholars, themes explored in this session include:

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TITLE: "IF YOU CAN'T MEASURE IT, YOU CAN'T SEE IT": POLITICS OF FERTILITY AND THE REPRODUCTIVE BODY IN AMBANJA-AMBARO BAYS MANGROVE

Abstract: In 2007, British marine conservation organization Blue Ventures began incorporating family planning into their conservation agenda, in an attempt to fill an unmet need for reproductive health care, empower women to build better futures, and create more sustainable communities. They have since expanded this program into a national Population-Health-Environment Network serving over 300,000 Malagasy women. In this paper, I draw on ethnographic fieldwork in the Ambanja-Ambaro bays mangrove with women participating in this initiative, in order to reveal how normative understandings of reproduction in Madagascar often fail to account for women's lived experiences of reproduction, and to illuminate deep connections between women's fertility and environmental desires. I also examine how Madagascar's renowned environmentalist-led family planning connects Malagasy women's reproductive lives to local, national and global circuits of demographic knowledge, capital, humans, nonhumans, and things. I wonder: How are Malagasy women's reproductive lives measured and represented within scientific knowledge, public discourse and policy? How are they connected to landscapes in unexpected ways? What materialities animate the landscape of reproduction in Madagascar (e.g. British conservationists, development agencies, and state demographers; hormones, condoms, plastics, petrol; mangroves, fisheries)? Investigating and challenging normative assumptions, knowledge, and management of Malagasy fertilities, I ultimately take a reproductive rights-based approach to reveal the richness of Malagasy women's fertility desires, environmental knowledges, and reproductive lives.

Keywords: fertilities, bodies, feminisms

TITLE: GROWING HEALTH: BODIES, LANDS, NATIONS IN CHEMICAL-DEPENDENT CRISIS

**Abstract:** This paper uses the medicinal herb *Artemisia annua* and its related chemical and medical industries to broadly interrogate how supply chain spatialities and materialities become creative resources in crisis contexts. From 2005-2020, artemisia was cultivated and processed in highland Madagascar into antimalarial drug ingredients destined for international export. With the worldwide spread of Covid-19, artemisia's supply chain was torqued to domestic Covid treatment manufacture: the plant became a #VitaGasy resource in Covid-Organics (CVO), framed as produced for Malagasy by Malagasy in pandemic response. Meanwhile, a parallel effort developed in the United States to commercialize artemisia for domestic anti-Covid and anti-cancer medicines. While artemisia's antimalarial economy figured as a silver-bullet intervention contra socioecological devastations wrought by climate change and chronic under-development, its Covid-era reformulations potently link bodily, national, and landscape health in pursuit of "good growth" and stable domestic drug supply. I therefore juxtapose ethnographic fieldwork conducted with U.S. and Malagasy artemisia farmers, agronomists, and pharmaceutical scientists to explore the ramifying socioecological imaginaries and lived effects of domestic supply chain protectionism in a cohering era of "pharmaceutical nationalism." In these two contexts, I also examine how artemisia's production, processing, and consumption are portals into the multi-faceted impacts of chemical dependency (whether agricultural fertilizers, alcohol-based extraction agents, drugs-in-the-making) writ large.

**Keywords:** Covid-19 response; pharmaceutical nationalism; chemical dependency

**TITLE:** RAVINTSARA, A LOCAL CURE FOR A GLOBAL VIRUS: PHARMACEUTICAL FRONTIERS OF MALAGASY MEDICINE

**Abstract:**

In 2020, Ravintsara leaves disappeared from Malagasy marketplaces, appeared as an essential oil in overseas pharmacies, and became a key ingredient in a national herbal remedy against Covid-19 called CVO (Covid-Organics). This paper draws upon a political ecology approach to Madagascar's positioning on the frontier of pharmaceuticals in the context of Covid-19 by situating the market for Ravintsara within geopolitical interplays of land use, labor, and health. Beyond theories of access and epidemiology, I examine how following commodity circuits of Ravintsara might offer a lens into a politics of post-colonial pharmaceuticals.

**Keywords:** Political ecology of health, resource booms

# “Subjectivity, fossil capitalism, and uneven and combined extraction in indigenous Amazonia”

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This paper examines contemporary processes of subject formation associated with extractive infrastructure in the Peruvian Amazon. It first introduces the historical and geographical development of the Amazonian oil complex, and the 'ethnopolitical field' through which its spatial and social contradictions are expressed. Through the examination of the case of Urarina territories, the paper analyses the ways moral economies constituted through local spatio-political strategies vis-a-vis previous extractive cycles combine with rapid processes of commodification of subsistence and the 'ethnobureaucratic field' of extraction in the constitution of new forms of political subjectivity and dynamics dependant antagonism.

Keywords: Amazon, oil extraction, uneven and combined development, indigenous territories, extractivism, subjectivity, Peru

# Conservation and people-park relations in Uganda

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Proprietary content / research



# Casteless Environmentalism: Ethical Rational Understanding Of Humans And Agriculture In Modern India

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TITLE: CASTELESS ENVIRONMENTALISM: ETHICAL RATIONAL UNDERSTANDING OF HUMANS AND AGRICULTURE IN MODERN INDIA

ABSTRACT: Caste is a birth-based division and social segregation of women, men, and children. The invention of caste/casteism, like race/racism, is not only meant to subordinate and exploit the free labor of fellow Indians by demeaning their bodies, it is also to dispossess their water, land, and knowledge-based skills, products, and environments. This means a large percentage of Indians have been oppressed as untouchables, on the one hand, and they, their body-based and touch-dependent labor and produce, are central to the very survival of privileged caste-groups, such as brahmins, kshatriyas, and vaishyas, in diverse environments of India (Hjejle 1967; Olivelle 2005; Washbrook 1994; Sharma 2017).

In contrast, this paper shows that the Buddhists in modern India, since the early twentieth century, show a remarkable this worldly ethical castefree understanding of human body, agriculture, and environment. I draw upon the Tamil Buddhist archives, such as *The Tamilian*, a weekly published from 1907 to 1914, and ethnographic field study in India, to argue in this paper that the Buddhists and their writings on castefree medicinal tradition (siddha), their practices of agriculture, demonstrate their historical sense of castelessness. And that, more importantly, the anticaste Buddhists had their own casteless understanding of human body, gender, and environment. In contrast to the racial-capitalism and the collusion of caste-accumulation with it, since the colonial period, the casteless Buddhists had ethical-rational discernment of themselves and fellow-humans, and their environs. It is here we see the seeding of casteless environmentalism in modern India.

KEYWORDS: caste/casteism; race and caste; casteless Indians; Tamil Buddhism; casteless nature; casteless environmentalism

# Other-Than-Human Political Ecologies Of Wildlife Conservation

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Political ecology (PE) has played a pivotal role in examining human–wildlife interactions and their implications for conservation practice. The most commonly researched themes in this domain include impacts of animals on people and related responses from different human actors; nonhuman-mediated re-ordering of landscapes, resource access, lives and livelihoods of local communities; or state-, market- and community-driven actions, their repercussions and the impacts of human social categories on interspecies interactions. While such scholarship has broken new grounds in the understanding of how power and inequality mediate environmental outcomes, the other-than-human has typically been relegated to being a mere object in these endeavours, or as lifeless entities upon which human meanings are inscribed. There are a number of approaches in cognate sub-fields that are beginning to take other-than-human lives seriously in their accounts of social and political life. For instance, ‘more-than-human’ geographers have argued that landscapes and lives are co-constructed by both humans and nonhumans, while others have called for the development of multispecies ethnographies, integration of individual- and collective animal subjectivities into geography, and the construction of dialogues between geography and ethology. Recent scholarship, careful to being attentive to animal lives within the mesh of material and symbolic politics through space and time, have also been successful in demonstrating the purposefulness of more-than-human political ecologies or a political ecology that considers other-than-human lives vital. We are organising paper session, from Global North and South, engaging with wild and feral other-than-human species, as actors in the political ecologies of wildlife conservation.

**TITLE: REWILDING AGRARIAN WORLDS: A MORE-THAN-HUMAN POLITICAL ECOLOGY OF LIVESTOCK PREDATION IN THE SCOTTISH HIGHLANDS**

**ABSTRACT:** Rewilding in Europe often occurs in upland areas, and is commonly linked with large levels of agricultural abandonment amongst traditional farming systems. In the Scottish Highlands, rewilding is associated with species-reintroduction initiatives, and can be positioned within a broader move towards a post-productivist countryside. Taking up the reintroduction of the white-tailed eagle, this paper seeks to understand the material and sociocultural impacts of livestock predation by a high conservation-value carnivore. It employs a more-than-human political ecology approach to conceive agrarian worlds as landscapes of liveable collaboration between humans and nonhumans that are constitutive of the ways of life of upland farmers. Livelihoods, and sociocultural meaning, stem from the relational compositions that occur through structural changes in agrarian capitalism, the biophysical materiality of landscape and the agency of nonhumans. The paper specifically forefronts the lifeworlds and behaviours of Scottish blackface sheep in accounting for how and why predation occurs. Sheep behavioural ecology and biology are central to the material vulnerabilities to predation that are intrinsic to extensive grazing systems, and bear emotional and sociocultural significance for farmers. I argue that we can only understand how predation occurs, and what it means to those who lose livestock, by centring the agency of sheep in the composition of agrarian worlds. I also illustrate the relevance of more-than-human accounts of animal agency in understanding conservation conflicts occurring in rewilding initiatives.

**KEYWORDS:** Rewilding, predation, coexistence

TITLE: "These monkeys are not original": Tracing the political lives of long-tailed macaques in Great Nicobar, India

ABSTRACT: The Nicobar-long tailed macaque *Macaca fascicularis umbrosa* is classified as Vulnerable by the IUCN Red List of Threatened Species and accorded the highest protection under the Wildlife Protection Act 1972 of India as a 'Schedule 1' species. The Great Nicobar Island, one of three islands populated by the macaques, has widespread areas notified for conservation. But all macaques do not sit comfortably within conservation's place-making. They consistently disrupt these spatial orderings by dwelling in human habitations. The macaques are "everywhere" for islanders, who encounter them every day. Yet, at the same time, in conservation's system of classification, this does not make them any less 'vulnerable'. Tracing the web of relations that Nicobar-long tailed macaques are entangled in, this paper argues that all macaque lives are political, but that they are not all political lives equally. It attempts to keep up with the beat of a group of macaques, who move through the town, examining the biopolitics of conservation and the asymmetrical extensions of power in the everyday lives (and deaths) of these 'wild' animals, as they upset the imaginative geographies of nature and society.

KEYWORDS: Animal geography, political ecology, macaque

TITLE: THE SUCCULENT SUBJECT? WHY IT IS IMPORTANT TO TAKE SERIOUSLY THE ACTIVE CAPACITIES OF PLANTS IN ILLICIT WILDLIFE TRADE

ABSTRACT: Studies of illegal wildlife trade (IWT) rarely consider the objects at the centre of these trades as more than commodified forms of either living or previously living beings. However, through multi-year research on illicit cactus and succulent trades, I show how the study of IWT can benefit from theory and method of more-than-human geographies and multispecies ethnography. Becoming attuned to the active capacities of plants as wild species rendered otherwise through illicit and illegal trades is an opening to resist knowledge-making practices that fail to recognise nonhuman (and nonanimal) life outside of their objectified and commodified forms, and instead as active participants of our more-than-human world. In turn, learning to recognise how unique vegetal qualities of plants intervene in and mediate illicit trades becomes a pathway towards understanding foundational drivers of such trades that have significant costs for biodiversity conservation and species flourishing. This is accomplished through tracing how particular qualities and capacities of plants elicit emergent, emotionally meaningful, and affecting person-plant relations and encounters. In this way, close attention to plant life and vegetal capacities is a route towards more-than-human, psychogeographic excavations of what lies behind the demand for wild species of succulent life.

KEYWORDS: Illegal plant trade, vegetal geographies, affect

TITLE: A STORIED APPROACH TO ACCESS OTHERS' VOICES IN HUMAN-ELEPHANT RELATIONS

ABSTRACT: Story is an ancient vehicle to comprehend relational realities, with complex ties, connections to place, and ethics built in, often expressed through metaphor. Stories, narratives connect past-present-future, carrying traditional knowledge and mingling multispecies' agencies. Indigenous scholars describe stories as emplaced in the land, co-authored across diverse beings, carrying others' point of view. Meaning-making is a storied process, including our current myths of growth and progress, pushing ecologies to the edge of collapse. As Amitav Ghosh attests, ecological collapse can be viewed as lack of multispecies stories of cohabitation as central narratives. Political ecology can benefit from strong engagements with story and dialogue as means of accessing other species' voices and voicing power imbalances. This paper explores how diverse stories coexist in a site in southeastern Sri Lanka with high human-elephant conflict, and how stories can be a guidepost towards enlarged understandings and cohabitation. Village names referring to

traditional stories, memories among elders of jungles where plantations now sit and stories about this transition, plant and animal folk tales that had guided ethical action, religious stories, news media stories – all form a Bakhtinian dialogue, a conversation, each responding to others. The conflict can also be considered a story with different actors, each playing roles that disrupt power or sustain balance. I discuss all these avenues for re-imagining and re-engaging with stories as practice and epistemology.

KEYWORDS: Human–elephant conflict, storied ecologies, dialogism

TITLE: METHODOLOGY AND MULTIDISCIPLINARITY IN POSTHUMANIST POLITICAL ECOLOGY: WILD ANIMAL AGENCY IN THE HISTORY OF YOSEMITE NATIONAL PARK

ABSTRACT: This paper addresses two interrelated questions: how can the historical agency of wild animals in protected areas be traced in the archives and how can such knowledge inform understandings of present-day human–wildlife conflicts in and around protected areas. For the former, I suggest two approaches. First: an engagement with the latest scientific advances in wild animal cognition, emotions, and culture, integrating insights from fields, ranging from evolutionary ecology to cognitive psychology, which have fuelled the ‘animal cultures debate’. Second: adopting archival research strategies that scholars have employed, of tracing, along and against the archival grain, the historical agencies of marginalised human groups, the enslaved, women, and the impoverished. I illustrate this approach using the case of Yosemite National Park in the western United States from 1890 to 1940, tracing the historical agency of black bears *Ursus americanus* in processes of multispecies placemaking. I consulted archival records of the park, and scientific and government institutions, interrogating wildlife ecologists and park naturalists’ observations of and conclusions about human–black bear interactions. For the second question, using evidence from the Yosemite, secondary literature and my earlier ethnographic research in Tanzania, I argue that conservation biologists, seeking to integrate wild animal cultural diversity with biodiversity in conservation planning, have so far failed to address the importance of historic human–wildlife interactions and processes of multispecies placemaking.

KEYWORDS: Human–wildlife interactions, multispecies methodology, animal cultures

# Gender, green spaces and daily practices: Comparing women's engagements with the environment in Glenmore and Umlazi, eThekweni Municipality

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## TITLE

GENDER, GREEN SPACES AND DAILY PRACTICES: COMPARING WOMEN'S ENGAGEMENTS WITH THE ENVIRONMENT IN GLENMORE AND UMLAZI, ETHEKWINI MUNICIPALITY

## ABSTRACT

Women have strong connections to the environment which is manifested in the ways in which they utilise green spaces and participate in environmentally sustainable practices (Brace et al., 2021; Ramstetter and Habbersack, 2019, Gorman-Murray and Lane, 2012). In the context of South Africa, apartheid socio-spatial continuities remain entrenched. Against this background, this paper compares women's engagements with the environment, green spaces and daily practices in Glenmore (a historically white, advantaged residential area) and Umlazi (a historically black, disadvantaged township) in the eThekweni Municipality. It was evident from this study that women from both areas had positive attitudes and demonstrated care for, as well as a sense of responsibility towards the environment. Notwithstanding socio-economic disparities, similarities were observed in women's daily practices in both areas, such as reducing water and electricity usage. However, women from Glenmore exhibited higher engagements with green spaces compared to women from Umlazi. This could be attributed to the differentiated access to safe and well-maintained green spaces by women from Glenmore compared to Umlazi, thus reflecting the persistence of apartheid socio-spatial legacies on the urban fabric.

## KEYWORDS

gender, environment, daily practices

# Political Ecology of Insurgency and counterinsurgency in the Sahel

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The violence in the West African Sahel has continued to increase since 2012 when 'jihadist' groups took control of northern Mali. The insurgency has spread leading to various armed groups taking control over the northern and central parts of the country except the urban areas. In addition, the insecurity has spill over into Niger and Burkina Faso and it has sparked counterinsurgencies from the state including support to militia groups to fend off jihadist control over land. This session will use a lens from political ecology and critical agrarian studies to investigate the ongoing insurgency and counterinsurgency as responses in historical and political-economic context. The point of departure is that violence needs to be seen in its wider context with a focus on access and control over land and natural resources. In such a study of the materiality of natural resources governance and politics, the dialectic of actors and land represent the main object of study. This type of materialist political ecology moves beyond studying conflicts as simple causal chains with resource scarcity having negative consequences for livelihoods and again leading to migration and conflicts. The session is sponsored by the Landresponse project at the Norwegian University of Life Sciences funded by and Advanced Grant from the European Research Council.

## A MORAL ECONOMY OF PASTORALISTS? UNDERSTANDING THE 'JIHADIST' UPRISING IN MALI

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Since 2012, so-called 'jihadist' groups have taken control over large parts of northern and central Mali. In addition, the rebellion has spread to the neighbouring countries of Burkina Faso and Niger. Various explanations of the rapid growth of this insurgency have been proposed ranging from grievances resulting from government mismanagement to a global rise of violent Salafist interpretations of Islam. In this paper, we suggest revisiting some classic contributions to Marxist-inspired peasant and agrarian studies from the 1960 and 70s in order to better explain the roots and rational of this uprising. Based on E. P. Thompson (1963) and J. Scott (1976), we argue that rapid expansion of the insurgency may, at least partly, be explained by a threat to a moral economy based on the notion of economic justice and exploitation. This notion is also guided by a certain ethic emanating from a perceived right to subsistence. However, such a threat is not sufficient in itself for rebellion to take place – otherwise insurgencies would be endemic in the Global South. It also depends on some external actor to challenge the power which constrains resistance. Such external power happened to emerge with some individual leaders entering the stage with links to global jihadist networks.

KEYWORDS: insurgency, violence, Sahel

## HOW DO JIHADISTS ADJUDICATE LAND-USE CONFLICTS?

Tchello Kasse, Boubacar Ba & Tor A. Benjaminsen

Since 2012, various armed groups labelled 'jihadist' have taken control over large parts of rural Mali. The inner delta of the Niger river in Central Mali is a huge floodplain marked by a complex web of overlapping use. From 2015, this area has been governed by the armed group called Katiba Macina, which has also started to adjudicate some of the land-use conflicts in the delta. With the Malian justice system strongly

influenced by French law, the winners emerging from state governance were usually powerful actors with access to resources. In this study, we investigate 'jihadi' adjudication of land-use conflicts and how it differs from the system practiced by the state. As a point of departure, we took an inventory of 151 land-use conflicts that was published in 1995. Of these, we identified 20 cases where Katiba Macina has provided new judgements during 2018-2022. General findings are that local Muslim scholars (Quadis) are used as judges who base their rulings on old Tariks (descriptions of family histories and land-use histories) that date back to the Macina Empire (1818-1862) or earlier. Contrary to state governance, rulings are seen by a large part of the peasantry as efficient, legitimate, and non-corrupt. However, while decisions based on Tariks and witnesses are the main rule, we find two exceptions to this; first when rights based in the Dina conflict with older rights, the Dina rights are prioritized, and second the rights of pastoralists and supporters of Katiba Marina are prioritized before those of farmers and opposing parties.

KEYWORDS: land-use conflicts, adjudication, Sahel

## THE AGRARIAN ROOTS OF DAN NAN AMBASSAGOU COUNTERINSURGENCY IN CENTRAL MALI

Ibrahima Poudiougou

The dismantlement of the main jihadist groups in northern Mali between in 2013-14 led to their repositioning, in the rural areas of central Mali. In addition to inserting jihad into the heart of peasant societies, the emergence of the jihadist katiba Macina has led to the interweaving of socio-political issues, particularly the land question, with the armed conflict, gradually incorporating local land-use conflicts into the armed conflict. In its initial formulation, the jihadist insurgency contested the hierarchies of Fulani societies of the inner delta of the Niger river. It challenged the control of land resources by the elites from the aristocracy of the Fulani Empire of Macina founded by Sékou Amadou (1818-1853). Armed incursions by the katiba into the villages of Seeno-Gondo (the plain bordering the Bandiagara cliffs and extending into Burkina Faso) and the involvement of fighters in land disputes between herders and farmers began in 2015-16. These incursions were perceived by farmers as a new attempt of political rule by Fulani elites, with herders taking over land to the detriment of agricultural activity. Starting from a corpus of discourses on land dispossession as one of the reasons for creating the Dan Nan Ambassagou self-defense movement, this paper examines the agrarian roots of counterinsurgency armed violence in the Bandiagara region. From a political ecology perspective, the description of the case of the Guimini confederation will allow me to analyse the embeddedness of armed violence in the land issues, while highlighting the structural role of land in the mode of government of peasant societies promoted by armed groups.

Transnational Environmental Justice Dreams and Praxis:

## Threading Diaspora through Activism and Ethnography

Mx Maya Bhardwaj<sup>1</sup>

<sup>1</sup>*University of Pretoria, South Africa*

Writing on – and participating in – climate and environmental justice activism and mass movements across multiple transnational sites can prove challenging in a time of surging social movements and expanding state repression, infiltration, and violence. Moving through these spaces in a queer Brown femme body can pose further challenges. This paper argues for a praxis of “threading diaspora” through “transnational [climate, environmental, better world] justice dreams” by actively engaging in activism within social movements across Black and Brown diasporas in the South Africa, the US, and UK. Drawing from my own experience as a queer Indian-American activist based between London, the US, and South Africa, I explore how multi-sited scholar-activist methodologies guided by building transnational activist comradeships can allow for new solidarities and climate and environmental spaces to emerge between Black, Brown, Indigenous, and other frontline communities. I also seek to explore how this can push back on “respectable” ways of doing scholarship and activism in the midst of the rise of the right, while also bringing in those outside of traditional “big green” and EJ/CJ spaces into the fights for our homelands, waters, ecosystems, and lives. Centering queer diasporic Black and Brown comradeships across South and North rejects the myth of impartial research, holds space for “oh, you too?” moments of QTPOC recognition (quoting interlocutor and EJ/CJ/RJ activist Sasha), and grows transnational webs of feminist and queer Black and Brown solidarity that develop in the liminal space between being member and researcher, insider and outsider, South and North.

This paper argues for a praxis of “threading diaspora” through “transnational justice dreams” by actively engaging in activism within social movements across Black and Brown diasporas in the South Africa, the US, and UK. Drawing from my experience as a queer Indian-American activist based between London and Joburg, I explore how multi-sited methodologies guided by building transnational comradeships can allow for new solidarities and climate and environmental spaces to emerge between BIPOC / frontline / directly impacted communities. I also explore how this can push back on “respectable” ways of doing scholarship and activism in the midst of the rise of the right, while also bringing in those outside of traditional “big green” and EJ/CJ spaces into the fights for our homelands, waters, ecosystems, and lives. Centering queer diasporic Black and Brown comradeships across South and North rejects the myth of impartial research, holds space for “oh, you too?” moments of QTPOC recognition (quoting interlocutor and EJ/CJ/RJ activist Sasha), and grows transnational webs of feminist and queer Black and Brown solidarity that develop in the liminal space between being member and researcher, insider and outsider, South and North. I aim to explore how leaning into personal narrative and emotive sharing (Ganz and Skocpol 2010, 2004, 2000) within social movement research can create threads that build deeper, more reflective, and more leaderful movement ecosystems. Building from Ahmed (2017), Minai and Shroff (2019), and Brown (2017)’s arguments for queer intimacies and co-production of knowledge, I argue that these methods of “threading diaspora” and “transnational EJ dreams” meld multi-sited ethnographic research in Black and Brown diaspora with activist praxis to move research and activism towards liberatory alternate worlds.



# Hydropolitics in Durban and Johannesburg

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The hydropolitical battlegrounds of Johannesburg and Durban (South Africa's largest and third-largest cities) represent some of the Global South's most intense conflicts over household water and sanitation access, affordability, and service standards. Large social movements, community-based organisations, trade unions and a very divided 'expert' network have disputed everything from the bulk supply systems (especially large dams), to public-private partnerships (e.g. Suez in Johannesburg and Veolia in Durban), to the slope and shape of tariffs, to disconnection systems, to constitutional water and environmental rights, to the character of household sanitation systems. The climate crisis has major implications, as well, for stormwater drainage and infrastructural resilience. Some major gains were won by activists, but the overall delivery, cost and reliability of water and sanitation remain subject to dispute. While the battles have raged in both sites since the early 1990s, hydropolitics are not yet settled, and municipal service delivery protests continue at rising rates.

The water utility serving the most populous South African province (Gauteng), Rand Water, was officially established in 1903, with the intention of supplying the gold mining industry of Johannesburg. Inter-basin transfer schemes bringing water from Lesotho and the Drakensburg mountains to the south, were necessary even once Johannesburg gold mining was exhausted, to support the resulting industrial complex, other mining in the region, coal-fired power plant cooling, agriculture and domestic use. Rand Water's main revenue was initially from mining, but today that represents only 10% of the total. Rand Water's primary mandate has shifted to providing potable water to Gauteng. The business model Rand Water ran on very clearly does not fit the current setting in South Africa. More than 60% of the South African population live in poverty, and many consumers cannot afford to pay capital and interest costs for new infrastructure development. In addition, large amounts of energy, supplied by Eskom, are required to pump water into Gauteng. Energy costs and chemical costs to purify polluted water are Rand Water's largest expenses. A complete rethinking of how Rand Water and even broader infrastructure networks operate is necessary. In this research we examine the role of the state in water resource management both in the past, acknowledge the dramatic changes and need to incorporate climate change factors (such as unpredictable long-term droughts and extreme weather events), and offer suggestions for future water management from bulk supplies to household consumption.

The political character of a society is often reflected in its material reproduction of daily life, and in a neoliberal era, the choices made about water and sanitation policies provide stark evidence. The most celebrated South African site for these policies is Durban, in part based upon unusually creative technical innovation and water pricing experimentation. But these disguise a Gramscian 'passive revolution' which reinforces a neoliberal – i.e., market-oriented, pro-corporate – orientation. Not limited to Durban, the passive revolution in water and sanitation is underway in many municipalities and promoted by national government, and indeed is also evident within the international water sector, where Durban's practitioners have been widely celebrated. In a society as divided as South Africa, however, such an approach requires extensive co-optation. Yet the extent of the myriad social, economic and environmental contradictions is such that alienation and anger inevitably increase. The mix of tokenism in water supply and unsatisfactory forms of sanitation services requires continual strategic adjustments. Foundationally, the outcomes are even less generous than what a race-based segregation of water and sanitation imposed on the majority prior to 1994. This is also true internationally, as passive hydrological revolutions of a neoliberal character continue to unfold nearly everywhere. In South Africa and many other sites, community (and feminist)

resistance techniques are not yet as sophisticated as those associated with co-optation, but this is likely to change as climate change and the country's fiscal squeeze heighten the contradictions in Durban, nationally and internationally.

eThekweni Water and Sanitation in Durban is reflected through two, lens: an award winning utility internationally recognized for innovation and achievement and a sinister arm of the state that is disconnecting poor people and is the target of protest. This paper argues that bureaucrats who focus on technical delivery issues, particularly payment for services, are forced to find ways of maneuvering through political realities and multiple accountabilities. There is a deliberate "will not to know", which is expressed by their not acknowledging the non-payment for services in Ingonyama Trust land. However activists, who are aware that people in a number of poor areas are not billed and do not pay for water, find it efficient to pretend as if it was not the case, and to fight the municipality on its payment requirements. The paper, based on individual interviews, focus groups, and observation over the past ten years in Mzinyathi (a peripheral settlement in eThekweni struggling with services), analyses people's engagement with the local councilor and the inkosi (chief), and their link with the African National Congress and the Council. The paper then considers the approach of responsible municipal officials to delivery and payment in a range of areas, including Mzinyathi. It fills an important space in examining the intersection and interaction of residents and activists, local political leaders and party, and utility officials— and their self-deceptions and misrepresentations of what is happening in the municipality in terms of payment for water services.

# Conservation Data Justice

Prof Dan Brockington<sup>1</sup>

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In December 2022 the 15th Conference of the Parties to the Convention on Biodiversity agreed a series of measures that requires 'effective conservation and management' of 30% of the world's lands, waters and oceans. Determining where this attention should be directed – the exercise of conservation prioritisation – preoccupies many of the world's leading conservation scientists. Conservation prioritisation is data hungry. It requires numerous data layers depicting land cover and land cover change, eco-region maps, agricultural activity, human populations, wealth, species distribution, predictions of how all these will change as the climate warms and so on. In this presentation I outline a new way of looking at the challenges of prioritisation by considering the data justice issues that it presents. I outline first why we need to think about data justice, and how it differs from other established concepts like epistemic justice. I then discuss what forms of data are being used in some conservation planning exercises and how using a data justice lens can help us better to understand the challenges they pose. I suggest practical ways of responding to some of the ethical challenges that arise.

# Contesting territoriality in the context of a “shrinking” civic space: Insights into the Land Access Movement of South Africa’s Land claims advocacy in Rural South Africa.

Dr Danford Chibvongodze<sup>1</sup>

<sup>1</sup>*Ukzn, South Africa*

## TITLE

Contesting territoriality in the context of a “shrinking” civic space: Insights into the Land Access Movement of South Africa’s Land claims advocacy in Rural South Africa.

## ABSTRACT

Using the case of LAMOSA, a land rights movement working in rural South Africa, the paper examines the interaction of race and land rights activism within the context of South Africa’s “shrinking” civic space. It utilises data gathered from interviews with key informants and court rulings to discuss how LAMOSA’s land claims advocacy shapes the discourse of “territoriality” in South Africa, a nation still confronted by unequal access to land that follows racial and gender fault lines. Further, the paper seeks to understand how the movement’s advocacy to reclaim territoriality has been reconstituted, reimagined and impacted by the narrowing space for civil society. The preliminary findings indicate that the despondency of civil society due repression, maladministration of court rulings, depleting of donor funding and recently the onslaught of COVID-19 pandemic has diminished LAMOSA’s capacity and urgency to mobilise dispossessed communities to regain access to their ancestral land.

## KEYWORDS

Territoriality, land, South Africa, race, advocacy

# Atmospheric Commoning

Dr Ariadne Collins<sup>1</sup>

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This paper broadens the debate on the role of environmental conservation in the Anthropocene by putting three strands of thought into discussion. The first is that of convivial conservation and its insistence that environmental conservation be pursued in the awareness of a dialectical integration between nature and culture (Buscher and Fletcher 2020). The second is Malcom Ferdinand's decolonial ecology and his reparative gesture of worlding in view of what he describes as modernity's racial and environmental double fracture (Ferdinand 2022). The third is my own related conceptualization of racial enviro-histories as tripartite, having emerged from the historical co-constitution of nature, labor and conceptions of race in the Caribbean (Collins, 2021). While Buscher and Fletcher's work convincingly takes the environmental conservation movement to task for failing to address staggering biodiversity loss and accelerating climate change, its replacement of 'Anthropos' with 'Capital' does not go far enough in deconstructing the generalized figure of humanity deemed responsible for these events. Ferdinand proceeds by highlighting the formative role of the transatlantic slave trade and colonialism in the ecological crisis. Yet, he does not engage with some work within political ecology that has thus far integrated concerns for racial and colonial injustice into their rubric. This paper argues that a combination of these approaches and a conceptual focus on atmospheres has the potential to act as a suturing, commoning space for reimagining and decolonizing conservation in the Anthropocene.

## Creating Change through Colonial Institutions? Rights, Sovereignty, and Emerging Technologies in Global Environmental Governance

**Prof Catherine Corson<sup>2</sup>**

<sup>1</sup>Mount Holyoke College, United States of America, <sup>2</sup>Mount Holyoke College, United States of America, <sup>3</sup>Autonomous University Of Barcelona, Spain

United Nations (UN) treaties, laws, regulations, and norms for environmental governance, such as the UN Framework Convention on Climate Change and the Convention on Biological Diversity, are spaces where colonial-capitalist systems are reproduced but also spaces where these systems are increasingly challenged by Indigenous groups, environmental activists, agrarian social movements and advocates for radical, decolonial reforms to the global political economic system. Actors mobilizing human rights-based approaches seek to use the tools and legitimacy of the UN to protect environments, livelihoods, and ways of life, with varying degrees of success. Yet, these UN mechanisms are themselves rooted in neo-liberal and -colonial forms of power that continue to perpetuate the harms these strategies aim to prevent. One central area of concern is the development of emerging environmental technologies – from artificial intelligence, to blockchain, to geoengineering – that pose novel questions for rights, sovereignty, and social transformation. Particularly when connected with mega- and innovative-finance, such techno-fixes tend to foster the consolidation of environmental elites – from multinational investment banks, private companies, big technology firms, governments, and large nongovernmental environmental organizations – who see opportunities for new markets or new rationales for territorial expansion.

This session aims to explore how mechanisms embedded in capitalist and colonial histories, namely rights, sovereignty, and technology, perpetuate socio-environmental harms and injustices in global environmental governance (GEG), and how these mechanisms have been mobilized to challenge those same systems.

### TITLE

Humanitarianism, Sovereignty, and Law in Contending Visions of Solar Geoengineering

### ABSTRACT

Solar geoengineering refers to technologies that can potentially cool the planet quickly and cheaply by modifying Earth's albedo. One prominent proposal would require continual spraying of reflective particles in the upper atmosphere to block some incoming sunlight. Given the potentially quick, planetary-scale effectiveness of these approaches, they are often touted as humanitarian mechanisms to reduce near-term suffering for the climate vulnerable. When these fantasies of planetary climate control on behalf of the global poor have left the laboratory, however, they have been fundamentally rejected by indigenous groups like the Saami Council, who mobilized to cancel a solar geoengineering experiment in their territory in 2021. Indigenous groups are invariably at the forefront of the most vocal, organized opposition to solar geoengineering in a variety of governance forums. Such opposition does not concern a specific aspect (e.g. governance design) but the entire enterprise: solar geoengineering as an affront to sovereignty, consent, and worldviews rooted in holistic rather than mechanistic relationships with nature. Recognition of these irreconcilable positions has spurred a turn to international law in solar geoengineering governance, to ensure that rogue or reckless deployment does not occur, and to enable all states and affected groups a voice in how geoengineering moves forward (or not). Yet international law is itself a colonial project: even the most "humanitarian" versions of geoengineering, seeking legitimacy through international law, perpetuate and entrench colonial power relations. Claiming the right to intervene in the climate system through these mechanisms portends the emergence of sovereign power at the planetary scale.

### KEYWORDS

Capitalism, Climate Change, Geo-engineering, Colonialism

## TITLE

The Third Pathway: Advancing a Human Rights-Based Approach through Corporatized Conservation

## ABSTRACT

Many activists and conservationists alike have commended the paradigm shift to embrace Indigenous territories as conservation mechanisms encompassed in the 2022 Global Biodiversity Framework (GBF). As a result of concerted, organized, and effective transnational alliances, the final GBF includes multiple references to the need to respect the rights, knowledge, and other contributions of Indigenous Peoples and Local Communities (IPLCs), as well as recognizes the role of Indigenous territories in protecting biodiversity. Drawing on a collaborative ethnography of the December 2022 Conference of the Parties to the Convention on Biological Diversity (CBD) in Montreal and its preparatory meetings, we analyze how IPLC advocates advanced a human rights-based approach (HRBA) to conservation by invoking the legitimacy of the UN system, by utilizing the Covid-pandemic-impelled hybrid preparatory meetings to build a social movement, and by collaborating with states to advance specific language in multiple parts of the GBF. We argue that the rising pressure on conservation organizations to acknowledge the colonial legacies of conservation and the Covid pandemic provided a critical historical moment for this paradigm shift. Yet, this historical moment is also characterized by the rising influence of the corporate sector within the CBD, with its reliance on private, innovative finance and embrace of blended and offsetting market-based mechanisms to achieve conservation—mechanisms often associated with human rights violations. We explore the opportunities that the HRBA provides for the systemic rebalancing needed to decolonize conservation and reshaping power relations in conservation governance as well as its limitations as a legal mechanism for redistributing resource rights and wealth.

## KEYWORDS

Rights-based approach, Global Biodiversity Framework, conservation finance

# Exploring river imaginaries around the globe

Mrs Lotte De Jong<sup>2</sup>

<sup>1</sup>Hanze University of Applied Sciences Groningen, Netherlands, <sup>2</sup>Wageningen University and Research

Worldwide, rivers face challenges due to human and climatic pressures. Floods, droughts, pollution, damming and hydropeaking are only a few examples of these pressures and influence the way rivers are managed. We invite river-experts, river-managers and river-researchers for an open discussion to understand how different river imaginaries shape river management under climate change. We build our understanding of river imaginaries on the concepts of sociotechnical imaginaries and hydrosocial territories, as this allows us to include control and power dynamics in a set space. River imaginaries are therefore described as 'the wished-for patterns regarding rivers and riparian zones, held by diverse epistemic communities'. The goal of the session is to discuss and enrich our understanding of how rivers are perceived, known and (thus) managed while discussing how river imaginaries have 'travelled' in several geographies going beyond North and South dichotomies.

The session format is twofold. We kick off this session with an introduction of river imaginaries in India and Colombia after which we facilitate an exploratory discussion. We virtually travel the world and invite participants to share river imaginaries. In the subsequent session, we present more detailed case study examples in Asia, Europe and South-America. Based on the examples, we reflect on the imaginaries found by using four archetypes: rivers as eco societies, rivers as territories, rivers as subjects and rivers as movements. We intend to jointly explore whether any of these lenses provide useful archetypes to deepen our understanding of how rivers can be known under multiple interpretations of reality.

River imaginaries reflect spatially bound hydrosocial territories in which multiple actors on multiple scales from multiples sectors operate to reach varying objectives. They include water flows, ecological systems, climate conditions and hydraulic infrastructure, financial means, institutional arrangements, legal frameworks and information/knowledge hubs. We kick off our session with imaginaries found in three rivers in India: the Mahanadi, the Warna river and the Cauvery river and one rivers in Colombia: the Cauca river. The Cauvery delta, also known as the 'rice bowl of southern India', is composed of a complex network of distributaries which support an ancient irrigation system and an intensively cultivated region. Today, it faces numerous threats like reduced surface flows, salt water intrusion, high-amplitude cyclones, the propagation of commercial shrimp farming at the cost of agricultural land, rising unemployment and the continued oppression of landless labourers.

There are several stakeholders of the delta, with varying imaginaries for it. In particular, the delta is witness to both confrontation aiming to resist and reform hegemonic powers (e.g. protesting new development projects), as well as productive efforts to protect and re-invent traditional water management practices (e.g. grassroots tank rejuvenation movements). The project analyses these confrontations and productive efforts through the story of water, probing how material, institutional and discursive structures, practices and knowledges on water management maintain and change power relations, and with what effects for whom.

Mahanadi and Warna are east and west flowing rivers in India, respectively, each creating its own niche in their respective regions. Both the rivers has seen strong social movement emerging which has managed to evoke alternative modes for governing the rivers. Yet these are not mainstreamed and the local and traditional knowledge is lost in the dominant discourse of managing rivers, which is highly politicized. The presenter will make an effort to showcase the learning from the social movement and what alterative imaginaries around the river exist for safeguarding it.

the construction of ecological restoration strategies, carried out in the Middle Magdalena River by the NGO Fundación Alma together with artisanal fishers, establishes negotiation and agreement processes with the actors present in the territory. These strategies seek to mitigate ecological degradation from river diversion works and oil- and agro-industrial infrastructures and vindicate fishers' communities as political subjects



with economic, cultural and decision-making rights over the resources of the river. The building and development of these ecological restoration strategies, as well as the relations between fishers and other actors in the Middle Magdalena that result from such strategies, have not been studied in detail. Therefore, I propose the following research question: How do the Middle Magdalena fishing communities' agro-ecological river restoration processes build on interwoven artisanal peasant-fishing norms, practices, and strategies, and how are these negotiated and disputed with different actors in the river's hydrosocial territory? First, I examine the divergent understandings of the hydrosocial territory of the Magdalena's middle basin through critical mapping and socio-spatial analysis of the different stakeholders' ontologies, interests, and strategies regarding restoration. Second, I investigate the different infrastructures present in the Middle Magdalena, to identify how they affect the river and have conflicts with alternative agro-ecological and fishing technologies. Third, I analyze the dynamics of legal pluralism of the fishing communities, to identify how they negotiate their own normative and techno-organizational strategies. Finally, I reflect on how artisanal fishing as an ecological restoration strategy can be understood as a process of fostering environmental justice

In the context of climate change adaptation, river imaginaries are dependent on the extent to which climate change is expected to influence rivers and they are a mixture of probable, possible, desirable or preferable versions of a river. As such, power and power structures in future making influence decision making. This presentations aims to elucidate how river imaginaries have influenced river management under climate change adaptation and the other way around through large infrastructural projects. Furthermore, a reflection on epistemic communities in climate adaptation, which hold diverse and sometimes contesting river imaginaries is presented. Through a case study of the Meuse river, a concrete discourse of river imaginaries provides insights in power plays of future making.

# River imaginaries and climate change adaptation

Mrs Lotte De Jong<sup>1</sup>

<sup>1</sup>*Wageningen University and Hanze University of Applied Sciences, The Netherlands*

Worldwide, rivers face challenges due to human and climatic pressures. Floods, droughts, pollution, damming and hydropeaking are only a few examples of these pressures, and influence the way rivers flow. Climate change adaptation projects increase the incentive to domesticate rivers, often legitimised through expert views on (future) vulnerability and risk. This emerging river imaginary dominates current debates in many rivers in our world. River imaginaries reflect spatially bound hydrosocial territories in which multiple actors on multiple scales from multiples sectors operate to reach varying objectives. They include water flows, ecological systems, climate conditions, hydraulic infrastructure, financial means, institutional arrangements, legal frameworks and information/knowledge hubs. In the context of climate change adaptation, river imaginaries are strongly dependent on the extent to which climate change is expected to influence rivers through a mixture of probable, possible, desirable or preferable versions of a (future) river. As such, knowledge-structures of future making are scrutinised in this research by emphasising on the role of change, the role of futures and the role of experts. This presentation aims to elucidate how river imaginaries have influenced river management under climate change adaptation that resulted in large infrastructural projects. Through a study of the Meuse river, a concrete case of a imaginary came into being in the Dutch-Belgian Border-Meuse trajectory. Moreover, preliminary result from adaptation projects in the marshlands of the lower Magdalena in Colombia strengthen the dominate imaginary of technocratic and ecocentric approaches to climate change adaptation where an expert view on local knowledge dominates.

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# Peri-Urban Transitions And Shrinking Commons In Delhi's Villages

Miss Anchal Dhiman<sup>1</sup>

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The urbanization process in India has undergone a rapid change after the neoliberal reforms of 1991. It led to the growth of peri-urban areas that serve as sources of land and water for urban expansion. There is a mixture of planned and unplanned activities that result in pollution, changing ecologies and land use. Natural resources especially common property resources are declining due to development of infrastructure, residential areas, recreational parks, and shopping centres. This research is located in Najafgarh area of southwest Delhi where common land has been acquired by the state government to construct bus depot, schools, sports facilities, community centres and plantation. Recently, the Delhi government proposed a state university on common land in study area. The urbanization process has also changed the customary use of common resources. For instance, village ponds that were earlier used for community bathing and livestock drinking are now converted into wastewater disposal sites and encroached by private builders for real estate development. Similarly, pasture lands have been acquired or encroached on by state authorities and private land developers. The conversion of common land has affected the livelihood of local villagers' especially landless communities and smaller farmers since they were dependent on these lands for fuel and fodder. The study will use the political ecology framework to understand the local level changes in terms of use, access to common resources and its effects on local villagers. It will consider these impacts as differentiated, and foreground locals' struggles for autonomy and agency over resources.

**TITLE: PERI-URBAN TRANSITIONS AND SHRINKING COMMONS IN DELHI'S VILLAGES**

**ABSTRACT:** The urbanization process in India has undergone a rapid change after the neoliberal reforms of 1991. It led to the growth of peri-urban areas that serve as sources of land and water for urban expansion. There is a mixture of planned and unplanned activities that result in pollution, changing ecologies and land use. Natural resources especially common property resources are declining due to development of infrastructure, residential areas, recreational parks, and shopping centres. This research is located in Najafgarh area of southwest Delhi where common land has been acquired by the state government to construct bus depot, schools, sports facilities, community centres and plantation. Recently, the Delhi government proposed a state university on common land in study area. The urbanization process has also changed the customary use of common resources. For instance, village ponds that were earlier used for community bathing and livestock drinking are now converted into wastewater disposal sites and encroached by private builders for real estate development. Similarly, pasture lands have been acquired or encroached on by state authorities and private land developers. The conversion of common land has affected the livelihood of local villagers' especially landless communities and smaller farmers since they were dependent on these lands for fuel and fodder. The study will use the political ecology framework to understand the local level changes in terms of use, access to common resources and its effects on local villagers. It will consider these impacts as differentiated, and foreground locals' struggles for autonomy and agency over resources.

**KEYWORDS:** Peri-urban areas, Common Property Resources, Political Ecology, Urbanisation, Delhi.

# Biodiversity Conservation, Disruptive Politics, And The Challenges Of (Challenging) Spatial Injustices (Part 2)

Miss Eleonora Fanari<sup>1</sup>, Prof Moenieba Isaacs, Dr Marie Widengård, Dr Charis Enns<sup>2</sup>

<sup>1</sup>Wageningen University, Netherlands, <sup>2</sup>University of Manchester

In many places around the world, both north and south, efforts to promote coexistence between humans and the rest of nature often run up against deeply engrained forms of spatial injustice. Related often to historical patterns of accumulation and dispossession, spatial injustices result when the institutional, ownership and power structures of terrestrial and marine resource management reproduce forms of inequality in space (Thakholi and Büscher, 2022). Often the only way to break through these engrained injustices is when disruptions happen that unsettle the status quo and open up space – in all its dimensions – for imagining change. We understand disruptive politics as forms of political action that combine these two elements: politics that seeks to disrupt the status quo while actively promoting imaginative alternatives. In relation to biodiversity conservation, such politics are often rare, but they are not uncommon either. All around the world, many communities and individuals resist forms of land, marine and resource dispossession while challenging forms of spatial injustice that explicitly include human-nonhuman relationships. Examples include environmental defenders, frontline indigenous and other communities, urban movements and many others. The convivial conservation initiative aims to tap into, learn from and support and extend such struggles for challenging various forms of (blue, green, social and other) forms of spatial injustice that take biodiversity conservation seriously (Jentoft et al, in press). This panel aims to convene papers that speak to the intersections between biodiversity conservation, disruptive politics and (challenging) spatial injustice.

TITLE: Rural Labor vs. Rentiers: The Concepts and Politics of Payments for Ecological Services

ABSTRACT: Payments for ecosystem services (PES) have gained academic attention because they promise global environmental benefits and finance for those protecting tropical forests. On the other hand, these schemes commodify nature by reducing it to the abstract carbon value. Since the 1990s, donor initiatives, peasant-driven public policies, and market-based projects have promoted different versions of support schemes for sustainable production in the Brazilian Amazon. Small project funds from the G7's Pilot Program for the Conservation of Brazilian Rainforests (PPG7, 1995-2008) inspired two contrary concepts: On the one hand, peasant movements proposed the public Program for the Sustainable Development of Rural Family Production in the Amazon (Proambiente, 2000-2008), which would compensate practices such as agroforestry based on the cost of labor, through rural extension, credit, and technical assistance. On the other hand, market-based PES projects, many funded by the Amazon Fund (2008-2019), based on a carbon price and restrictions to land use. Drawing on feminist ecology and ecological Marxist theory and over 120 expert interviews and archival documents, this paper traces the evolution of these PES concepts. It argues that the green economy paradigm and mechanisms such as REDD+ promote an anti-production rentier logic of PES, prioritize income and conservation, but risk cooptation by landowners, "low-carbon agriculture," and plantation conservation. By contrast, social movements have continuously challenged the conservationist logic, including proposing and implementing public policy alternatives to strengthen autonomy, food security and recognize the ancestral ecosystem-based relationship between peoples and territories.

KEYWORDS: payments for ecological services, rural development

TITLE: Leveraging crisis to rework nature-human relations: the case of the Cape Flats Aquifer

**ABSTRACT:** The cartesian dualism that has structured human-nature relations for centuries has reinforced the idea that humans and nature are distinctly separate, and as such, the exploitation of nature in the name of profit and “development” has hardly been questioned. However, this paper argues, in the context of Cape Town, that crises such as the recent drought and impending “Day Zero” can create possibilities for fundamentally and creatively reformulating these relations. Through ethnographic work done on the activist group the PHA Campaign, this paper explores the ways in which the drought has enabled a politics around the Cape Flats Aquifer (CFA) and therefore the Philippi Horticultural Area (PHA) that could protect these natural resources, rather than impending “paving over the aquifer”. This paper further considers how the PHA Campaign group has aimed to “make the invisible, visible” and thereby giving the aquifer a voice in the technoscientific conversations around “Day Zero” by developing more inclusive forms of “Sensemaking” (Ballesterio, 2019). In conclusion, this paper will provide an analysis of the work done by the PHA Campaign and consider some of the lessons that can be extracted from a radical form of ecopolitics in a neoliberal city such as Cape Town.

**KEYWORDS:** Aquifer, sensemaking, activism, Day Zero

**TITLE:** Conservation, commoning, and conviviality in the American West

**ABSTRACT:** The American West has long been a site of conflict over conservation and the appropriate management of the public domain. The 2014 Bunkerville showdown, 2016 takeover of the Malheur National Wildlife Refuge, and the election of Donald Trump are only the most recent wave in a punctuated history of “range wars” around land use dating back over a century. The return of gray wolves to these landscapes since the mid-1990s provides a new layer of socio-ecological complexity and polarization, as challenges of livestock depredation intersect with debates over non/belonging and regional futures. Yet the wolf question also provides opportunity to reconsider questions of coexistence and shared space. The Wood River Wolf Project (WRWP), a collaboration between ranchers, environmentalists, and government agencies in Blaine County, Idaho has pursued “collaborative coexistence” for over a decade. The WRWP represents a disruptive politics that challenges dominant norms and practices, even as it articulates with political economic transformations and populist reactions in the “New West”. I here turn to scholars of commoning to provide an analytical bridge between the “radical center” tradition from which the WRWP emerges and the normative aspirations of convivial conservation. Such a dialogue allows us to theorize and articulate the practical challenges faced by conservation efforts on the ground while highlighting the entrenched tensions and injustices of capitalist political economy and settler colonialism. I thus use the nexus of public lands livestock grazing and predator conservation to contribute to the development of the convivial conservation project, while imagining alternatives adequate to the region’s deep-rooted tensions and future socio-environmental challenges..

**KEYWORDS:** American West; human-wildlife conflict; rural populism

**TITLE:** Planetary Conservation: Towards Spatial Justice on a Global Scale

**ABSTRACT:** From its early foundations in the 19th century, modern conservation has always had universal ambitions. This led to a differentiated and dispersed yet distinctly global conservation regime that sought to protect biodiversity from the structural extinction risks presented by an equally global regime of capitalist accumulation. However, as capitalism is current shifting from a global to a planetary regime, conservation is struggling to follow suit. Building on discussions of the planetary condition more generally, this paper reflects on recent dynamics that signal the growing effort to move from a global to a planetary conservation regime. We argue that within this move, several core dialectical relationships are currently being renegotiated and rethought, including those between integration and disintegration, equalization and differentiation, and universalism and pluralism. Most importantly, we argue that a key challenge for

conservation in a planetary era is to go beyond an understanding of transformation that hinges on particular actors as key drivers, which we show ultimately leaves only two viable options: pursuit of nature free from people and/or subsumption of nature under capitalism. Yet both of these options are antithetical to any sustainable transformation, as they cannot accommodate what will be critical going forward, namely to integrate the transformation of human-nature relations into broader societal transformations. For this to succeed, we argue, the only realistic form of 'planetary conservation' is a truly convivial conservation.

KEYWORDS: planetary, conservation, conviviality, biodiversity

# Political Ecology of Environmental Protest in the Global North

**Ms Emanuela Ferrari<sup>1</sup>**

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Similarly to what happens in the Global South, Ireland is experiencing an extractive boom driven by neoliberal economic growth, which matched with poor environmental governance has paved the way for heated environmental contestation. Extractive economic policies are paradoxically related to a European green deal based on principles of ecological modernization and on the contested idea of sustainable development.

Even within the global core, rural communities are being sacrificed in the pursuit of economic growth, however far from being passive victims they have been mobilising in defense of the environment with ingenuity and passion. They have put forward proposals to contrast the environmental and social crisis by appealing to coexistence with more-than-human beings, rights of nature, localization and rootedness. These struggles have also developed strong international solidarity networks, with knowledge flowing across the North-South binary, thus challenging this dichotomy. Their work moreover is making important contributions in highlighting the limits of processes of public participation and the representativeness of political institutions, thus contributing to question, challenge and revitalize notions of democracy and justice.

In this sense, local environmental protest in Ireland carry a huge potential to signpost a friction between diverse and competing world-views and discourses about the environment and the role of environmental imagination in shaping particular practices, and how various understandings and uses of nature are regulated by pre-existing power relations. Earth protectors across Ireland challenge taken-for-granted concepts of nature within environmental debates and show the heterogeneity of meanings of the environment in the core of the Global North.

# Deagrarianisation: what are the underlying reasons and effects with focus on livelihoods, poverty reduction and climate change

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Deagrarianisation and depeasantisation is seen across the Global North and South, stimulated by various drivers and with different consequences for farmers and societies. A combination of ecological, political and economic drivers has been found to stimulate deagrarianisation: changing urban-rural linkages, new risks associated with climate change, reductions in the flow of remittances, lack of (or inappropriate) government support, the erosion of collective work parties, changes in livestock ownership and herding practices, soil fertility loss, lack of interest in farming from the younger generation. Global trends of the upscaling of farming, concentration of the seed sector, land grabbing, and the supermarketisation of our food systems are other important drivers with impact on deagrarianisation. Importantly, abandonment of farming does not necessarily happen because better opportunities arise, nor necessarily because farming is not valued as important by those abandoning it.

This session is one in a pair, presenting empirical examples from across the Global South and North to discuss how we might understand trends variously discussed as deagrarianisation and depeasantisation. We will discuss how and why trends differ across contexts, and what lessons we might learn from cross-context comparison. We aim at forging a better understanding of the reasons behind and the effects of deagrarianisation across contexts, as well as how smallholder agriculture might be revitalized and food security and sovereignty supported.

## UNDERSTANDING DEAGRARIANISATION AS A GLOCAL PROCESS: DIVERSE DRIVERS, PROCESSES AND CONSEQUENCES IN RURAL EASTERN CAPE, SOUTH AFRICA

Deagrarianisation and underlying pressures against small-scale farming are globally present, and yet local examples show that the process is not uniform across contexts. Diverse drivers include increasing environmental challenges, social change and a general struggle of small-scale farming to compete with the economies of scale. While deagrarianisation in some places is cushioned by rural people finding other livelihood opportunities, perhaps linking up to the globalized economy, this process in other contexts may lead to deepened poverty as people are “adversely incorporated” into markets. This paper presents a case of two rural South African villages, surveyed in 2002 and 2016. While smallholder field agriculture on plots of 0,5 – 3 ha was abandoned completely in this time, kitchen gardening continued being popular, but often changed focus to become more specialized and less subsistence-driven. Drivers and consequences of deagrarianisation and agricultural reorientation also differed between households, showing the importance of understanding specifically what kind of processes we are observing. This paper makes a case for understanding deagrarianisation as a ‘glocal’ process – where glocal is taken to mean that diverse and locally specific processes can amount to global-scale trends, although every locality may experience its own unique process that is not necessarily resembling or conforming to another locality’s process. A glocal understanding of deagrarianisation moves us away from blanket statements about problems and solutions towards more nuanced understandings anchored in local realities, while not losing sight of the global aspect of this trend.

## DISTRESS INDUCED DEAGRARIANISATION FROM SEMI-ARID SMALLHOLDER COMMERCIALISATION IN INDIA

Critical scholarship on post-liberalisation rural India has dismissed the salience of agricultural modernisation theory, instead pointing to processes of adverse agricultural commercialisation, distress led non-farm dependence and jobless growth. These consequences have sparked widespread farmer protests against agricultural liberalisation policies. In this article, I argue farmers across landholding size and caste have faced simultaneous distress from Bt cotton commercialisation in dryland India and non-farm livelihood



reliance amidst jobless growth. I draw on eight-months of mixed-methods research in Telangana, south India. I find dryland commercialisation via Bt cotton and groundwater irrigation has deepened long-term indebtedness via persistent harvest failures. This increased dependence on non-farm incomes, constituting a distress-coping outcome for farm losses and rising household expenditures. Yet, non-farm livelihoods were informal and low paid, a sign of India's post-liberalisation jobless growth era. Farmers have sought further loans for cash to survive their farm and non-farm income pressures, increasing their debt. Therefore, this article empirically grounds the rural livelihood realities in India against the persistent policy adherence to agricultural modernisation in the 21st century.

#### DEAGRARIANISATION, LIVELIHOOD DIVERSIFICATION AND SOCIAL DIFFERENTIATION: LESSONS FROM THE COMMUNAL AREAS OF SOUTH AFRICA.

The communal areas of South Africa's former 'homelands' have long been characterised by processes of 'deagrarianisation', driven by an array of structural, agro-ecological and social factors. While the precise causes and consequences of deagrarianisation remain debated, the extreme case of South Africa is of wider interest. South Africa potentially prefigures patterns of change elsewhere including growing landlessness, ascendant medium-scale (often indigenous urban elite) commercial farmers and large-scale agricultural investments (or 'land grabs') by foreign investors in sub-Saharan Africa. Deagrarianisation is furthermore inexorably intertwined with low levels of industrial growth (or 'premature deindustrialisation' in South Africa), which see African urban and industrial economies largely unable to absorb displaced rural labour.

Against this larger backdrop, rural livelihoods and livelihood diversification in South Africa are shaped by often-precarious formal and urban labour market linkages and, increasingly, unconditional state welfare transfers. Drawing on detailed area-based inquiry, combining qualitative (case study) and quantitative analysis (census income) data, this paper examines households in a communal area and presents a typology of their 'livelihoods trajectories' over time. It uses these to consider the interrelation between processes of livelihood diversification and social differentiation, in a general context of long-term agrarian decline. This analysis is germane in the context of growing rural displacement, alongside urban migration and joblessness and, small but proliferating, anti-poverty cash transfer programmes across much of the African continent.

#### UNDERSTANDING DEAGRARIANISATION IN SOUTH AFRICA AS COLONISATION OF THE LIFEWORLD

In South Africa's former homelands, smallholders today disengage from farming, despite being unsuccessful in filling this economic and time reorientation with other income generating activities. The resulting deepening of rural poverty has been addressed by numerous development programs aiming to reinvigorate farming by introducing modern inputs and teaching smallholders entrepreneurial skills. Such programs have largely failed. In this paper we aim to explain deagrarianisation, and current agricultural programs' failures in reversing the trend, through a lens of the colonization of the lifeworld of farming. Drawing on ethnographic field work and analysis of aerial photographs from four villages in South Africa's Eastern Cape province, we show how the possibility to farm depends significantly on household poverty level, but also that there are other logics to farming that yield maximization, and other values in the land and in rural life that need to be taken into account if we want to understand deagrarianisation, as well as why some rural residents hold on to farming. We conclude that a continuity of state led interventions into rural life and farming has had significant negative impact on smallholder agriculture. We also conclude however that smallholders value their sub-subsistence farming, also in situation where it does not have the reasonable possibility of supplying full rural subsistence. There are no indications that farming is about to disappear completely in these areas. In contrast, the partial contribution of farming to livelihoods is valued by rural residents.

# Power, knowledges and multi-species perspectives in smallholder agriculture

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This session is one in a pair of sessions. The sessions aim to bring multi-species social sciences into dialogue with political ecology in an exploration of the relationship between non-human agency, smallholder knowledges and practices and wider systems of governance in agriculture. The session includes presentations from empirical contexts in the Global South and North, by presenters from the Global South and North.

Mainstream research and agriculture development interventions frequently frame knowledge as universal and linear, with modernist, science-based knowledge typically characterising 'successful' farming. Empirical evidence, as well as research on knowledge production, repeatedly tells us that this is a far call from reality. Knowledge is social, contextual and situated; and farmers' knowledge production is entangled with their farming practices and the wider agroecological context. As a result, more holistic multi-species lens has the potential to add important dimensions to our understandings of how smallholders can be supported in meaningful ways, and with technologies that are appropriate and desirable. Like political ecology, multispecies perspectives address the entanglements between nature and society and strive to shift our ontological standpoints away from modernist dualist places towards relational ways of being and relating.

Within this context, this session seeks to draw attention to multi-species understandings of the relational agencies that shape smallholder farming; and of how entanglements between crops, livestock, insects and pathogens shape farmers' practices and situated knowledges. Importantly, we seek efforts that engage in such multi-species perspectives without losing sight of wider systems of power and control.

## MAIZE SEED TECHNOLOGIES AND THE UNRAVELLING OF RELATIONAL AGROECOLOGICAL KNOWLEDGE ON SMALLHOLDER FARMS IN SOUTH AFRICA

This paper explores the effects of the technification of maize seed on social-ecological knowledge and practices within smallholder maize agriculture. Like all technologies, maize seed technologies are not neutral 'objects' but are rather deeply entangled in the history and politics of knowledge production. Commercial technologies such as hybrid and GM seeds are of a particular lineage of thought rooted in the post-enlightenment age of modernist, dualist science in which humans have come to be treated as separate from 'nature'.

Today smallholder farmers are often treated as the receivers of unidirectional transfers of knowledge with little attention paid to the lineage of knowledge embodied in smallholder farming. We draw on a multispecies approach - focusing on changing social-ecological relationships around maize seed in smallholder maize agriculture in Northern KZN, South Africa. Among other factors, the technification of seed has contributed to a growing disconnect between farmers and their social-ecological knowledge and relationships with more-than humans.

Through exploring the meeting points between humans and all other lifeforms we suggest that maize agriculture offers space to consider alternative agricultural pathways beyond the dominance of dualist

science. Drawing on decolonial literature we emphasise the need to de-center the hegemony of modernist agricultural science (from which modern seed comes) and to bring in knowledge from the margins.

#### HIMALAYAN FOOD SOVEREIGNTY: REBUILDING UPLAND AGRICULTURE THROUGH HERITAGE CROPS

In this paper we will interrogate recent attempts by various international- and grassroots actors to strengthen upland agriculture through the reintroduction of heritage crops like millets, buckwheat and barley. These crops are increasingly appreciated for their climate resilience, nutritious value and cultural significance among indigenous upland communities. The revival of indigenous food systems is more generally projected as a critical path to enhanced food sovereignty. The paper draws on ongoing research in upland areas of Northeast India and the wider Eastern Himalayan region. Here we will focus on the concerted effort by a women's organization – North East Network (NEN) – to promote millet cultivation in a district of Nagaland, India. Millet was earlier a staple food crop in these areas, but farmers have during last two or three decades increasingly turned to new high yielding crops and monocultural plantations of cash crops, often through state driven initiatives. NEN and women farmers in the area now seek to turn this trend around, by setting up cooperatives, promoting new livelihood opportunities, making millets more accessible, with particular focus on organizing women as seed keepers and knowledge bearers. Millet is being projected as a key crop to build self-sufficiency in food and to strengthen indigenous food cultures. Theoretically, the paper is informed by and seek to further develop a multispecies political ecology framework.

#### ECOLOGICAL AND SOCIAL MISALIGNMENT: RISKS AND COSTS TO A ONE SIZE FITS ALL AGRICULTURAL DEVELOPMENT MODEL FOR SEED SYSTEMS IN LESOTHO

Agricultural systems are co-constructed with ecological and human social systems, the more misaligned they are, the more costs and risks they incur. Seed as a basic unit of reproduction for crops embodies both the ecological and social relations (Ostrom 2009) necessary for suitable crop production systems, in what are called seed systems (Almekinders et al. 1994, Kerr 2013, McGuire and Sperling 2016). Because these are varied across space and time, they require differentiated agricultural development models in different ecological and social contexts. A dualistic industrial approach for seed system development often bifurcates the seed as an object separate from its ecological and human social relations, with improvements solely located in the technologies applied to the seed. Because these can't be separated in an agricultural system due to the multispecies networks (Haraway 2008, Galvin 2018), this industrial approach is often met with resistance and/or outright rejection since it often lacks the ecological and social contextual suitability. The case of the Lesotho lowlands and highlands demonstrates how different social and ecological contexts interact with a singular development model of Agriculture through the support of the use of industrial agricultural inputs, including seed. The emerging entanglements include social reproduction and market delinked seed systems, climate pressures and seed system costs, pest life cycles and pest control costs.

#### WHY IS BT MAIZE NOT OF BENEFIT TO SOUTH AFRICAN SMALLHOLDERS? A MULTISPECIES ANALYSIS OF MAIZE-STEM BORER ENTANGLEMENTS

The research community is becoming acutely aware that conventional research has been unable to provide the knowledge needed to support smallholder agriculture development. A key reason for this is the lack of engagement in research with the multispecies entanglements in farming. We need approaches that appreciate the formative impacts of both the crops and the humans and their wider entanglements that affect smallholder farming. The recent multispecies turn in environmental social sciences offers a way of working across the social and natural sciences to take a more comprehensive grip on understanding how relations between humans and non-humans create possibilities for action. In the present project we use this multispecies lens to understand the interactions between smallholders, maize and stem borers in three

South African smallholder communities. The aim is to better understand the limited positive impact of genetically modified Bt maize on smallholder farming in South Africa despite high levels of stem borer damage to maize in the region. This study engages with smallholder conceptualisation of maize-insect interactions and describes how multispecies entanglements impact both conceptualisation and action on pest damage to maize. Findings are envisioned to contribute to the knowledge on folk knowledge on insects, as well as to the multispecies literature on the specific effects of multispecies entanglements in smallholder farming.

#### CONTESTED KNOWLEDGES, ONTOLOGICAL CONFLICTS, AND OLIVE TREES IN THE PLANTATIONOCENE: MULTI-SPECIES ENTANGLEMENTS IN THE OLIVE QUICK DECLINE SYNDROME IN APULIA, SOUTHERN ITALY

During the past few years, thousands of olive trees in Southern Italy dried out and the whole olive farming sector was put under threat. Despite having been framed mainly as a technical problem related to the spread of a quarantine pathogen known as *Xylella fastidiosa*, the disease has deeply social, cultural, environmental and political causes that have been mostly overlooked. The abandoning of the countryside and the disappearance of “good agricultural practices” on historically shaped monocultural landscapes, the use of pesticides and herbicides in the last decades, and the market pressures brought by globalization, have created the perfect playground for the bacteria to spread widely and, more importantly, to take the center of the political stage. The case is thus emblematic of the fact that “the agrarian composes, and is composed by, complex spatial and temporal assemblages as well as social and cultural relations, which are fundamentally human and nonhuman” (Galvin 2018: 234). By making use of ethnographic material, combined with semi-structured and narrative interviews as well as the analysis of secondary data, and bridging discussions ranging from critical agrarian studies and political ecology to STS, anthropology and environmental humanities, the contribution aims to provide a multi-species ethnography of the *Xylella fastidiosa* outbreak in Southern Italy, and to highlight complex interspecies relationships that, over space and time, have shaped and keep shaping olive farming practices and Apulian landscapes.

# The Insecurity of Climate Security: Power and Marginality of an Emergent Discourse

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In part driven by characterizations of the climate crisis, there has been a groundswell in recasting climate change in terms of climate security. This research extends a political ecology lens on the proliferation of climate security by examining its effects on the framing and enactment of policies and practices. Our approach draws from a literature review and expert interviews to explore how climate security interacts with a series of processes, including i) new forms of global-local interactions; ii) effects on forms of tenure and access iii) changing state relations iv) distribution of costs and benefits v) stakeholder engagement, and vi) conflict resolution. Our findings show that the understandings of climate security vary considerably among climate change actors but share particular trends in that they lead to the obfuscation of issues related to power dynamics among actors. Specifically, climate security shifts potential opportunities for understanding imbalances of power, tilting them towards policies and practices that privilege existing powerful actors at the expense of the marginalized. In many ways, climate security has become a floating signifier for further entrenchment of neocolonial relations and practices. Therefore, while climate security initiatives continue to attract the attention of major global players to address a pressing global challenge, we highlight the particular blindspots that they create.

# Water And Local Power Dynamics: “Empty Democracy” As An Opening For Transformative Change

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Activists working at the local level, and academic-activists who work in solidarity with them, focus on the pressing need for transformative change so that households can cope with worsening climate conditions such as water scarcity. This paper explores three case studies in South Africa: Nqushwa in the Eastern Cape, Madibeng in North West, and eThekweni/ uMzinyathi in KwaZulu Natal. It examines how people’s frustrations around their lack of access to clean water are embedded in and constructed through their articulation with local power dynamics. Capturing local voices, it shows how the failure of the state to secure people’s access to water and to protect water resources affects people’s perceptions and support of democracy. Without access to water and other resources, their despondency results in a dismissal and lack of support for democracy. The paper develops the concept of “empty democracy” in a socio-economic and ecological terms. It concludes by asking how local challenges to the very nature of governance may create the very openings that are needed for fundamental, transformative change at national and global levels. Might people’s lack of support for democracy and their desire for a form of governance that secures water and other resources unintentionally provide a basis for crucial political and ecological change?

# Re-Conceptualizing Gentrification In Coastal Cities: A Case Study Of Port Development In Vizhinjam, Kerala

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## TITLE

RE-CONCEPTUALIZING GENTRIFICATION IN COASTAL CITIES: A CASE STUDY OF PORT DEVELOPMENT IN VIZHINJAM, KERALA

## ABSTRACT

In recent years, port cities across the globe have undergone massive transformation by development and redevelopment projects. Economic, technological advancements and infrastructural development have substantially transformed the images and representations of the place and space of port cities. In the global north, the word gentrification is often used to characterize urban regeneration and dispossession, but its usage in the global south to depict transformation and spatial injustice is being questioned. This paper argues for a new form of gentrification different from the global north and criticizes the dominant theorization of contemporary gentrification. It aims to broaden the definition of gentrification by embracing emerging and new spatial expressions of gentrification in the global south. This study examines the growing number of large-scale port development projects actively promoted by the government that result in the displacement and dispossession of coastal communities through the appropriation of coastal space, including sea and land, by interests outside the community. The case study of Vizhinjam port in Kerala attempts to relate how urban dispossession has been carried out through large-scale projects throughout the Indian subcontinent's port cities through the prism of gentrification.

## KEYWORDS

Gentrification, coastal communities, spatial injustice

# CRITICAL TOURISM STUDIES: POLITICAL ECOLOGY AND POLITICAL ECONOMY IN TOURISM SPACES

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This session seeks to include presentations on the broad topic of what is being referred to as critical tourism studies. The purpose of this session is to examine tourism studies through a cortical lens by incorporating theory from political ecology and political economy. Tourism is consistently and continuously propagated as a mode to economic development, livelihoods transformation, employment, upliftment and even environmental conservation. However, less frequently discussed are the implications of such development in a clear, theoretically grounded and critical manner. In addition, little mention is made of the implications of these initiatives failing and the severe consequences for both environment and community. This session seeks to examine these themes by highlighting some of the neocolonial constraints and questioning political rhetoric surrounding tourism development, particularly that which occurs in nature spaces.

TITLE: Challenges and Opportunities for Transformation in South African Nature-based Tourism

Abstract: Nature-based tourism has been at the heart of South African tourism for at least two centuries due to the unique landscapes and wildlife the country has to offer. However, nature-based tourism in South Africa has a long and tumultuous history, due to the oppressive colonial and apartheid regimes. Much of the apartheid nationalist rhetoric and propaganda evoked nature-based tourism imaginaries solidifying nature-spaces, particularly national parks, as white (primarily Afrikaans) recreational spaces. Until recently, this sentiment largely remained, despite the fall of apartheid and the rise of the post-apartheid (primarily Black) government in 1994. While a number of factors are at play in this scenario, the lack of engagement of Black South Africans in nature-spaces remains problematic and a clear legacy of apartheid. In fact, even scholars have previously insinuated that Black South Africans are not interested in nature-based tourism experiences. This perception is, however, overly simplistic and does not take into account the nuances of domestic leisure tourism in South Africa - particularly amongst previously disadvantaged groups. In the post-pandemic period, the drive of Black South Africans towards nature-based tourism has become increasingly apparent. However, a number of challenges for Black South African domestic tourists remain. This is particularly problematic as the future of both South African domestic tourism and South African conservation is dependent on stewardship from Black South Africans – particularly young Black South Africans. They are the custodians of these nature spaces and the future of conservation in South Africa.

Keywords: tourism geographies, transformation, domestic tourism, nature-based tourism, Black tourism



# Decolonizing transnational environmental justice struggles: The Baram Peace Project as a practice of indigenous territorial control and transnational solidarity

Dr David Gilbert<sup>1</sup>, Jettie Ward<sup>2</sup>, Fiona McAlpine<sup>2</sup>

<sup>1</sup>*University Of California, Berkeley, USA*, <sup>2</sup>*The Borneo Project, USA*

After generations of struggle to stop logging and dam construction in their lands, in 2010 the Orang Ulu Indigenous Peoples of the Baram River watershed in Malaysian Sarawak began a movement to create the Baram Peace Park within their territories. Movement members envisioned the Peace Park as a new forest territory within their ancestral lands that would allow them to reduce large-scale logging of the forests and strengthen their control of the area. In 2020 the Sarawak government and the International Tropical Timber Association announced their plans to create a new legal entity, the Upper Baram Forest Area, with the same boundaries as the proposed Peace Park.

Building on a decades-long solidarity with Baram environmental justice movements as activists and researchers from the USA, this paper uses our experience with the Baram Peace Project to explore the potential of decolonizing transnational environmental justice struggles. Based on our work with the Baram movements for indigenous control and environmental well-being, we analyze the ways that transnational solidarity activism and research can move beyond typical Western ideas of consent and participation and into more emancipatory roles of allyship. We describe the formation of an Indigenous movement across the upper Baram that advocated for the Peace Park and our position within it, our experimentation with a series of ecological and cultural community-led research initiatives across the region to support Indigenous claims to the land, and the way that these efforts of advocacy and research unfolded alongside the state and intergovernmental organizations efforts to define and control the Baram in their own vision.

# Power and politics in global forest restoration and tree planting efforts

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University Of Newfoundland, Dr Ambarish Karamchedu

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Recent years have seen growing calls for largescale landscape restoration, especially forests, most recently through the UN Decade on Ecosystem Restoration. Proponents often argue that restoration has great potential to advance environmental objectives alongside human welfare. Political ecologists have raised concerns about how actual practices of restoration (especially tree plantations) may serve to legitimate land cover changes that further marginalize poorer people, reproduce entrenched power asymmetries in global environmental policy interventions, and neglect underlying drivers of forest loss and poverty. While extensive research has called both for protecting local land rights and ensuring that local stakeholders have power in restoration planning processes, there remains a need for theoretically-grounded research on how more just restoration and tree planting can be achieved in practice. Certainly, dominant policy discussions have lacked social scientific perspectives.

This session aims to contribute to building a foundation for critical social science scholarship on global restoration – its politics, its impacts, and its many varied manifestations on the ground. We do so through a paper session and through a panel discussion between researchers and practitioners who have in-depth experiences with restoration and tree planting in different parts of the world. Our objective is to draw together experiences from across the Global South & North in ways that can help synthesize existing knowledge and identify areas where strong political ecological scholarship is needed. We hope that this can help stimulate a knowledge community of critical restoration scholars that we can continue to engage with in the coming years.

## CARBON, COMMUNITIES OR CONSERVATION? ANALYSING TRADE-OFFS IN FIVE 'BEST-CASE' CARBON FORESTRY PROJECTS IN UGANDA AND TANZANIA

Abstract: Triple-win scenarios are common in carbon forestry - projects are usually presented as beneficial for carbon storage and conservation goals alike at the same time as having positive impacts on local communities. In reality however, there are trade-offs between these three objectives and even projects designed in dialogue with local communities have various shortcomings. This paper analysis five 'best-case' projects: three that engage with local farmers to plant trees, one that encourages cheap and simple restoration of trees and one that works with community land use planning to protect existing forest. Through interviews with project designers, implementers and farmers as well as analysis of documents and websites, the underlying core motivations behind each project are identified. We analyse the effects of these core motivations on general project design, on the spirit in which the projects are implemented and on how trade-offs are negotiated. Discussing five examples of concrete trade-offs that took place in these projects, we show how underlying motivations are key for how trade-offs were settled and discuss what effects this has on project outcomes. As part of a larger effort to expand critical social science scholarship on global restoration and carbon forestry initiatives – not least as these are currently being massively scaled up - it is key that we open up the narrative of triple-wins in carbon forestry for critical scrutiny.

Key words: carbon forestry, community, trade-offs

## FOREST PLANTATIONS? GENDERED PARTICIPATION IN COMMUNITY BASED FOREST MANAGEMENT ABSTRACT:

This paper is based on a study of gender participation in community based forest management. Most of the actors in forest management have included gender component and claim to commit to equity in participation especially those of men and women. However, there are levels of participation which are

influenced by a number of factors. One is that forest management activities entails some activities that are socially constructed as men and women which excludes women from participating in certain tasks. Second, discourses subsuming women under the patriarchal structures are becoming internalized even by women themselves, accepted and form another level of exclusion in the participation of women in leadership and managerial position. Surprisingly, the same discourses when applied to subsistence farming are allowing for inclusion of women without men. We argue that the discourses are what allow men to be included in the forest management where cash payment is obtained and exclude women to allow them provide for subsistence yields no different outcome from the plantations economy introduced in many part of Africa during the colonial rule, except in this case it is under the community based forest management and with different actors. In the end women are still deprived of access to cash while they bear the main responsibility of feeding the families.

Key words: Community based forest management, gendered participation, sustainability outcomes

#### CAN CARBON LINKS SUSTAIN COMMUNITIES? PROCESSES AND OUTCOMES FROM A NOVEL CARBON FORESTRY PROJECT IN UGANDA

Abstract: Forest carbon projects are widely spread across the globe and Africa. Typically, they take different approaches and place varied emphasis on areas of possible gains upon project implementation. While research has investigated community-level benefits and effects of carbon payments as well as problems and discourses in these projects, studies looking at broader potential benefits to communities than the immediate cash incomes are needed. Despite the criticisms that these projects have received over the years, they seem to be both a major form of land use and investment if going by the growing amounts of land committed, number of projects and scale of investments. As such, empirical studies remain a valuable input into the dialogue over - and practice of - these projects. Through interviews with participants in a community level carbon project designed for small scale subsistence farmers in Uganda, this study analyses the different outcomes attained and links them to the processes through which the project has been implemented. An enduring outcome seems to be the informal links and networks that participating in project activities has inevitably created between community members. These links have generated losses at times, but overall seem to have created closely knit community groups that have created a stronger sense of belonging, and from which members are reaping enhanced welfare benefits at the household and community levels. The study contributes to an improved understanding of positive externalities of forest carbon projects beyond the direct benefits that have been a centre of focus for most scholars.

Key words: carbon forestry, community, community-level action

#### FROM FARMERS IN UGANDA TO A HAMBURGER CHAIN IN SWEDEN: DISCOURSE AND POWER ALONG THE CARBON VALUE CHAIN

Global predictions of climate change suggest that we need to absorb existing carbon dioxide from the atmosphere in significant amounts if we want to have any chance to stay within the limits of what is considered acceptable climate change. One widely practiced strategy for mitigating climate change is planting trees, mainly in the global South. Because of the abundance of these efforts, the significant change in local environments that they entail, and their often wide reaching claims of producing triple wins between biodiversity conservation, climate change mitigation and poverty reduction, their effects need to be investigated. In particular, it is important to investigate and highlight the effects on those people whose voices are rarely heard in international negotiations: the rural poor.

This presentation highlights early findings from a study of a Swedish hamburger chain investing in tree planting in Uganda run by a local NGO. The company specifically aims to combine offsetting their carbon foot print with reducing local environmental degradation and poverty.

To what extent is it possible to meet these different goals jointly? And to what extent are the realities on the ground reflected in project design documents, third party evaluations and marketing to Swedish public? Drawing on interviews and field walks in farmers' agroforestry plots and woodlots, interviews with key external actors involved in the project, and analysis of documents we aim to respond to this question. In

doing so we contribute to the growing evidence of the local livelihood effects of carbon forestry in the global South.

KW: tree planting, Africa, climate change

#### WOMEN'S AGENCY IN JOINING REDUCED EMISSIONS FROM DEFORESTATION AND DEGRADATION PROGRAMS IN HURUNGWE, ZIMBABWE

This paper provides an analysis of a Reduced Emissions from Deforestation and Forest Degradation (REDD+) initiative in Hurungwe, Zimbabwe and how it impacts the lives of rural women. This study aims to establish why women engage in the REDD+ project despite multiple case studies from some African and Asian countries showing that as forest enclosures take place to cater for the development of REDD+, women became burdened with labour as they must look for alternative sources for gathered items such as fruit and firewood. The question I aim to understand is why women do not actively resist the systems of power associated with climate mitigation programs but instead engage in programs that are otherwise oppressive in some instances. As new programs like REDD+ emerge in communities, new problems arise regarding how women access land and resources. I focus on how the development narrative pushes women to join REDD+ since it claims to include excluded groups and give them a voice so that they benefit from economic and social development programs. I also focus on women's maternal instinct and how they desire to take care of their children and families by joining climate change initiatives such as REDD+. I conclude that while REDD+ initiatives may seem appealing to different groups of women because they can provide food for their families, the benefits-sharing policy short-changes them because they receive less than they deserve.

KEY WORDS: WOMEN, REDD+, AGENCY

# Convivial Constitutionality: Conditions for Human-Predator Cohabitation, institutional change and ontological contestations in a 'Glocal' World

Mr Samuel Weissman, MA Lisa Alvarado, Miss Ariane Zangger

<sup>1</sup>*University of Bern, Switzerland*

This panel explores the options of convivial constitutionality in co-habitation of humans and predators as a new approach in a messy global-local ('glocal') world. It looks for the analysis of the several layers of colonial and post-colonial legacies in the way powerful actors view the environment as pure nature based on a naturalist ontology and how this is contrasted with heterogeneous local actors' views of cultural landscapes interconnected systems in a more than human way (animist/totemist ontology). We focus on the relation of local actors and predators, often based and included in common property institutions, and the complex ways how these have been transformed and grabbed by states, neo-liberal privatization and open access processes in the past. We discuss how the local views on these transformations and frontier processes impact and shape the way new innovative bottom-up institution building - constitutionality – (Haller, Acciaoli and Rist 2016) - for co-habitation (convivial constitutionality) have to be researched in participation with local indigenous and non-indigenous actors providing a basis for such new institution building processes. The panel focuses on the way asymmetric power relations unfolds in hegemonic narratives and discourses on conservation of predators (wolf, lion, jaguar, bear and others) as being the important animals for biodiversity conservation but in danger because of local human-predator conflicts. The panel discusses this assumption from a combined institutional and political ecology approach debating this rather should be considered a human-human conflict based on commons grabbing since colonial times and continued in neoliberal top-down conservation.

## WHEN HUNTERS BECOME HUNTED: THE POLITICS OF CRIMINALIZATION IN KENYA'S POST-INDEPENDENCE CONSERVATION LANDSCAPE (Samuel Weissman)

The sense one gets in Kenya's conservation landscape is one of dramaturgy, where rare and few Megafauna face dire circumstances. Survival is crucial and conservation necessary. The politics around this urgency have shaped a narrative that justifies a radical strategy to combat and prevent any harm done to wildlife. This narrative, which has always blamed humans as the major cause is in the general blaming population pressure and in the particular 'harmful practices' by locals, not least poaching. There is however simultaneously an amnesia around the historical circumstances where game- and trophy-hunting in the colonial past fed a global market trading in animal goods. In colonial Kenya, the period where hunting became regulated to exclude local hunting practices save for the ruling class, certainly, ecologies were influenced. The real tragedy however is marked by an unregulated phase starting with a complete hunting ban in the newly independent state and an absence of resources to enforce new laws, leading to an increase of what is now called poaching. In the years before new regulations can be enforced, poaching reaches unprecedented levels. What has evolved from this is a very radical and highly militarized countermovement, which has everything to do with a settler and tourist game-hunting practice, and very little with the previous institutions by groups who have for centuries regulated a co-habitation in complex cultural landscape ecosystems. The immense scrutiny and regulatory enforcement, however, is also equally urgently pressuring people who are not responsible for the legacy they must now weather.

Keywords: Conservation, Poaching, Human-wildlife conflict

## CONVIVAL CONSTITUTIONALITY IN THE ECUADORIAN AMAZON (Lisa Alvarado)

Ecuador is a country with a colonial history that has influenced relationships between indigenous and non-indigenous people for the last 500 years. This, even though involuntarily, is reflected in conservation

management strategies in many places still today. Jaguars and other apex predators are often used as flagship species by conservationists in order to indicate a functioning ecosystem that needs to be protected. However, historically grown, local practices and knowledge systems of how to “con-vivre” with these animals, which have been developed by local people over centuries, are ignored. Rather, a division between the “natural”, which includes the jaguar, and the human world is propagated. Using the example of an indigenous Kichwa group of the Ecuadorian Amazon, this paper aims to discuss local ways of dealing with potentially conflictive large carnivores as well as the extent to which political-economic processes and international conservation policies change everyday practices of humans living alongside large carnivores in a world without a nature-culture dichotomization. To finish off, the paper considers the possibilities for a constitutionality process in the entanglements between Kichwas, jaguars, conservationists and the Ecuadorian State.

Keywords: conservation, human-nonhuman relationships, constitutionality

#### CONVIVAL CONSTITUTIONALITY AND HUMAN-WORLD INTERRELATIONS IN THE ROMANIAN CARPATHIANS (Ariane Zangger)

Romania includes a significant portion of the European wolf population. The Romanian Carpathians are believed to be the only area in Europe outside of Russia that has a healthy population of all three large carnivore species. The fact that a healthy wolf population has been able to exist in Romania to this day, while the species has experienced a wave of extinction in the countries of Western Europe, requires an institutional and ecological setting that is dealing with wolves and ensured its continued existence. The historical-political change - such as the interwar period, (post)communism, EU accession - and conservation policies meant that wolves are considered today a protected animal that may not be hunted. This means that the people whose daily life, work and economic survival is shaped by wolf presence must develop new and adapt local institutions to enable coexistence. In this context, it will be discussed to what extent institutional change has redesigned the Romanian wolf management and how political processes and conservation policies influenced it. Based on the local, national and international levels, the aim is to show how institutional frameworks are interrelated and influenced by each other. Finally, the paper examines the possibility of a constitutionality process at the interface of local people (shepherds, farmers, hunters, gamekeepers, villagers, etc.), wolves, conservationists and the Romanian state.

Keynotes: human-wolf-interrelations, institutional change, constitutionality

# The Infrastructure Of Sustainable Development

Dr Jessica Hope<sup>1</sup>

<sup>1</sup>*University Of St Andrews, United Kingdom*

The Infrastructure of Sustainable Development: roads, extraction & finance in the Amazon

Dr Jessica Hope, University of St Andrews, Scotland

New roads lead Latin America's infrastructural turn, pitched as a necessary first step in securing sustainable development by national governments, global development institutes and private finance. These roads constitute multi-lane highways that connect remote markets and communities, whilst helping global actors invest and increase capital. For their proponents, the COVID19 pandemic has increased the need for such infrastructure, to ensure economic growth. Roads are known, however, to extend fossil fuel mining, increase deforestation, and reduce biodiversity, as well as to impact citizenship, influence politics and shape development imaginaries. In this paper, I explore the political ecology of this new road infrastructure by first outlining how and where the roads of sustainable development are also the roads of fossil fuel extraction. Second, I explore how these roads as a new entry point to understanding the global sustainable development project and its relationship to global capitalism.

# Paper submission: Environmental Aid, Ecological Modernization, and Technologies for the Green Economy

Dr Claudia Horn<sup>1</sup>

<sup>1</sup>*London School Of Economics, UK,* <sup>2</sup>*Federal University Pará, Brazil*

Since the 2000s, Brazil's rural elites have engaged in "greening" the Amazon extractive frontier. Private and state-led "sustainable producer" initiatives consolidate the agro-industrial system. Scholars argue these schemes incentivize compliance and legalize deforestation and "green grabbing." Studies on neoliberal frontier governance describe a global-local assemblage of state and non-state actors. While they mention donor agencies, there is little theorizing on how North-South environmental aid has not only reproduced but strategically constituted colonial-capitalist systems. This paper—drawing on critical state and development theory and several years of multi-site interview, participant, and archival research—considers the Pilot Program for the Conservation of Brazilian Rainforests (PPG7, 1992-2009) implemented by the Group of Seven countries and the World Bank. Against the backdrop of democratization, structural adjustment, economic liberalization and privatization in Brazil, the program guided the decentralization of environmental management along northern concepts of environmental modernization. Its central component, the Natural Resources Policy Project (SPRN) built environmental secretaries and some municipal institutions in nine Amazon states between 1995 and 2005, including economic-environmental zoning, "natural asset" inventories, and early environmental registration. The paper examines to what extent these programs, driven by donor and recipient agencies, early on tested technologies that are fundamental to the green economy even though they maintained local underlying power structures and inequalities. Particularly, the paper tracks examples such as the aid-driven testing of environmental registration that still today seeks to reconcile agricultural intensification with deforestation control, maintaining colonial-capitalist trade and the responsibility to manage its socioenvironmental costs in the global South.



# Putting political ecology and critical conservation scholarship to work: a dialogue with conservation practitioners

Dr Annette Hübschle<sup>1</sup>, Dr Jared Margulies<sup>2</sup>, Mr Sizwe Zulu, Mr Lwazi Khuzwayo, Miss Noxolo Kindness Mbebe, Oscar Mthimkhulu

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For decades, critical scholars have critiqued some of the most violent, colonial, oppressive, and racist tendencies in conservation thinking, management, and practice. South Africa is no exception, and is perhaps one of the best examples of a country with a long history of fraught conservation thinking, community exclusion and gating as well as conservation practice that engages in “fortress conservation”. This includes increasingly militarized and securitized conservation enforcement, linked human rights abuses, privatization of wildlife commons, the gaslighting of indigenous knowledge systems and top-down approaches to human-wildlife conflict management.

Today, there is increasing tension within the conservation community as poaching of high-profile species is accelerating at the same time there is increasingly scrutiny of conservation practices and potential human rights abuses amidst an atmosphere of greater foreign donor oversight and public and media attention.

However, a new generation of conservation practitioners is emerging. This is a community of conservation professionals exposed to or directly engaged in the study of conservation conflicts and inequalities, who either engage with or practice the work of political ecology. This panel is therefore an important opportunity for an open dialogue and critical discussion between a mix of conservation practitioners working in South Africa on how they balance their professional duties and pressures alongside working to enact decolonial, emancipatory, pragmatic, and perhaps even “convivial” forms of conservation. This panel will include both practicing conservation professionals trained in the theory and practice of political ecology, as well as scholars engaged in both academic and more applied conservation research.

# SITUATING LABOR IN BIODIVERSITY CONSERVATION (CONLAB)

Dr Anwesha Dutta<sup>2</sup>, Dr Amber Huff<sup>1</sup>, TBC Jevgeniy Bluwstein<sup>3</sup>, Dr. Trishant Simlai<sup>4</sup>, Dr Amber Huff<sup>5</sup>

<sup>1</sup>*Institute of Development Studies, United Kingdom*, <sup>2</sup>*Chr. Michelsen Institute, Norway*, <sup>3</sup>*University of Bern, Switzerland*,

<sup>4</sup>*University of Cambridge, United Kingdom*, <sup>5</sup>*Northumbria University, United Kingdom*

Despite an established and growing body of research on social dimensions and politics of biodiversity conservation, scholarship in both political ecology and conservation science lacks robust engagement with issues around labor and work. The result is an incomplete understanding of the different ways in which people are put to work in and for conservation and how shifts in conservation practice and changing labor dynamics affect each other. Turning a labor lens on conservation can help us to focus in on the power relations that underpin the relationships between workers and employers, how these relations are constantly negotiated as workers shape their own terms of employment in often labor rights-hostile environments, as well as how different labor relations and conditions are implicated in the production of nature and value through conservation practice. Introducing the CONLAB (Conservation Labor) project, this roundtable involving project researchers and invited discussants Rosaleen Duffy, Dan Brockington, Bram Büscher, Tor Benjaminsen and Maano Ramutsindela, seeks to theorize, and spark debate on the international conservation labor regime, asking how labor dynamics shape and are shaped by conservation spaces, policies, practices, technologies and institutions, from new participation and co-management schemes to research, and interactions within and across sectors from tourism to resource management to law enforcement. Questions of labor, value and justice in biodiversity conservation are more important than ever considering its central role to a range of policy proposals for scaled-up environmental action to protect species and respond to climate change in the coming decade.

MILITARIZATION, GOVERNANCE AND 30\*30

NATURE, LABOR AND VALUE

WORKPLACE SURVEILLANCE AND FOREST WORKERS

THE CHANGING NATURE OF RANGER WORK

# From Chico Mendes to Berta Cáceres: responses to the murders of environmental defenders (INDIVIDUAL PAPER)

Ms Diana Jimenez Thomas<sup>2</sup>

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Authors: Diana Jiménez Thomas R., Grettel Navas, Arnim Scheidel

## Abstract

Environmental defenders commonly face violence in response to their activism against socially and ecologically destructive development projects. While various protection mechanisms have been developed in the last decades, the level of repression they face is on the rise – especially in Latin America. This chapter discusses different ways through which the public and international community have responded to the violence experienced by environmental defenders, as well as the limitations of such responses in preventing future violence against them. We examine, as indicative case studies, the responses to the murders of two high-profile defenders: Chico Mendes (Brazil, 1988) and Berta Cáceres (Honduras, 2016), and propose a schema which maps responses according to: 1) their institutional character, and 2) their transformative capacity. We argue that while conventional institutional and non-institutional responses are crucial to address violence against defenders, more transformational responses that aim to recast the logic of extractivism are needed for the protection of environmental defenders. Furthermore, we argue these responses need to incorporate a wider understanding of violence and go beyond demands for retributive justice and incorporate demands for the protection of the territories and ways of life of environmental defenders.

# Women's agency in joining Reduced Emissions from Deforestation and Degradation programs in Hurungwe, Zimbabwe

Miss Julian Kapfumvuti

<sup>1</sup>*Memorial University Of Newfoundland*

WOMEN'S AGENCY IN JOINING REDUCED EMISSIONS FROM DEFORESTATION AND DEGRADATION PROGRAMS IN HURUNGWE, ZIMBABWE This paper provides an analysis of a Reduced Emissions from Deforestation and Forest Degradation (REDD+) initiative in Hurungwe, Zimbabwe and how it impacts the lives of rural women. This study aims to establish why women engage in the REDD+ project despite multiple case studies from some African and Asian countries showing that as forest enclosures take place to cater for the development of REDD+, women became burdened with labour as they must look for alternative sources for gathered items such as fruit and firewood. The question I aim to understand is why women do not actively resist the systems of power associated with climate mitigation programs but instead engage in programs that are otherwise oppressive in some instances. As new programs like REDD+ emerge in communities, new problems arise regarding how women access land and resources. I focus on how the development narrative pushes women to join REDD+ since it claims to include excluded groups and give them a voice so that they benefit from economic and social development programs. I also focus on women's maternal instinct and how they desire to take care of their children and families by joining climate change initiatives such as REDD+. I conclude that while REDD+ initiatives may seem appealing to different groups of women because they can provide food for their families, the benefits-sharing policy short-changes them because they receive less than they deserve. KEY WORDS: WOMEN, REDD+, AGENCY

# A feminist political ecology framework to understand water access in urban India

Ms Pooja Kamalaksha Kini<sup>1</sup>

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There is growing evidence and awareness that the impact of climate change is exacerbated by gender and other social inequalities (IPCC, 2017). However, research on the topic is yet to be translated into policies which tend to focus on technocratic solutions to the biophysical impacts of climate change (Alston & Whittenbury, 2013). This paper contributes to climate change studies with an investigation of how climate change and environmental risks intersect with other forms of systemic exclusion to produce differentiated impacts on diversely situated women and girls. It does so by applying a Feminist Political Ecology (FPE) approach to analyse the everyday politics of water practices in urban India. The paper highlights how intersectional FPE is useful to analyse the gendered consequences of water scarcity and flooding differ across class, caste, age, and religion. It provides a thorough review of the topic and identifies gaps in FPE research in urban India and Global South. The findings reflect that while a growing body of literature on urban India is attentive to how water infrastructures are shaped by social and spatial inequalities with some attention to gender, much of this work focuses on mega-cities (such as Delhi, Mumbai, Bangalore, Calcutta), overlooking the situation faced by 'ordinary cities' in India and the Global South. Moreover, while intersectionality has been tackled by recent literature, the focus is generally on prime-age poor women from rural areas, informal settlements, or settlement colonies. The paper focuses on the need to study everyday struggles to access water across different age groups, living in both middle-class and poor areas to understand how inequalities in water infrastructure are produced relationally and have changed over time.

# Knowing, growing and transmitting local food (knowledges) in school – a way to enhance more-than-human haptic learning experiences and food sovereignty in Vanuatu?

Prof Matthias Kowasch

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Pacific Island countries often make headlines for facing natural hazards, especially cyclones, and their vulnerability to climate change. In face of extreme weather events and geographic isolation, local communities rely on deeply-rooted networks of food sovereignty highlighted by social exchange, mutual support and traditional knowledge. Such networks of food sovereignty are increasingly threatened by urban development and the transformation of consumption patterns.

Within the school system, Indigenous and local traditional knowledge is generally given at best a secondary epistemological status, often viewed as superstition. However, local and Indigenous knowledge traditionally breaks down the classic dichotomy between nature and society, and communities possess valuable knowledge that is not part of formal education. To bring attention to the social and emotional aspects of local agricultural knowledge, this paper investigates the role of school gardens in the Pacific archipelago of Vanuatu.

Based on empirical studies in the frame of the EU Horizon 2020 project “FALAH” (family farming, lifestyle and health), I discuss school-led food sovereignty examples, which stand in contrast to cash crop-oriented agricultural programs promoted by international development agendas. The empirical studies include semi-structured interviews with pupils and teachers, and a questionnaire (mixed-method approach) in secondary schools on the islands of Tanna and Efate.

In particular, I explore oft-overlooked emotional and social experiences of knowing and growing local food (varieties) as a key element of climate resilience and environmental subjectivities. I also ask how school gardening contributes to the re-valorization of local agricultural knowledge and practices, and enhance haptic learning experiences.

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# THE POLITICAL ECOLOGY OF THE BIODIVERSITY-BASED ECONOMY IN SOUTHERN AFRICA

Dr Jessica Lavelle<sup>1</sup>, Prof Rachel Wynberg<sup>1</sup>, Miss Sthembile Ndwandwe<sup>1</sup>, Dr Tariro Kamuti<sup>2</sup>, Osiphesona Ngcanga<sup>3</sup>

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In recent decades, national policies and economic strategies in southern Africa have increasingly focused on the biodiversity-based economy to stimulate income opportunities for rural communities within lucrative global value chains. Often targeted towards those marginalised by colonialism and apartheid, this neoliberal approach favours sophisticated export markets and trickle-down economics to alleviate social inequalities and address environmental concerns. With the goal of rapid expansion of the biodiversity-based economy, multiple mechanisms have been adopted by policymakers and industry including strategies for cultivation, breeding, formalisation of wild plant harvesting and trade, and access and benefit sharing amongst others. While these strategies may generate income opportunities and give recognition to local communities and traditional knowledge, they may also perpetuate colonial North-South trade relations, intensify local structural inequalities around land ownership and access to natural resources, markets and capital, exacerbate environmental degradation through land clearing, the use of agrichemicals and overstocking, and further disenfranchise resource custodians, erase traditional knowledge and weaken customary law. This session draws on multiple case studies to explore the limitations of the biodiversity-based economy as currently envisaged by governments and illuminate opportunities and local perspectives for transformative change.

## BIODIVERSITY-BASED ECONOMIES, CONSERVATION AND EQUITY: PIPE DREAM OR AN OPPORTUNITY FOR TRANSFORMATION?

Access and benefit sharing (ABS) is a central approach to address biopiracy – the misappropriation of genetic resources and traditional knowledge without consent or compensation, often tied to patenting. Benefit-sharing agreements comprise a core element of ABS and are intended to leverage greater social and economic justice, create incentives for biodiversity conservation, and strengthen the rights of indigenous and local communities. However, emerging evidence suggests otherwise. Through review of four cases of biodiversity commercialization in South Africa – *Hoodia gordonii*, *Aspalathus linearis* (rooibos), *Sceletium tortuosum* (kougoed) and *Pelargonium sidoides*, each with histories of biopiracy charges and associated benefit-sharing agreements, this paper aims to explain this apparent contradiction. The cases reveal that while ABS has succeeded in recognizing holders of traditional knowledge, the wider political and economic struggles faced by communities remain neglected. Power relations and economic disparities have not changed, and control remains vested in land, with ownership remaining highly skewed towards industry partners who have market dominance; and intellectual property, the benefits of which are disassociated from traditional knowledge holders and biodiversity custodians. ABS processes have also led to a clamor for representation, favoring groups that are politically connected, well organized and resourced, while excluding more marginalized groups who are less capacitated. Moreover, despite significant biodiversity concerns in each case, there are few conservation benefits. Such trends, combined with new forms of “digital biopiracy” – and opportunities opening through the post 2020 Global Biodiversity Framework, emphasize the need to reconceptualize ABS to leverage more equitable and sustainable outcomes.

Keywords: Access and benefit sharing, Nagoya Protocol, traditional knowledge

## COMMODYING BIODIVERSITY IN HISTORICISED AND POLITICISED LANDSCAPES: A REFLECTION ON HONEYBUSH COMMERCIALISATION IN SOUTH AFRICA

Wild products are important for the livelihoods and heritage of indigenous and local communities across the globe. In South Africa, wild products are receiving attention at policy level for their potential to contribute to biodiversity economy. I reflect on the viability of the biodiversity economy Operation Phakisa and provide a critique on whether there is a disconnect between historic strategies of exclusion and redress frameworks targeting the commercial use of wild products. Operation Phakisa is a tool for implementing the National Development Plan and it is essentially aimed at fast-tracking delivery. It is used as a core state management tool for commercialising nature, including honeybush, a wild plant traditionally used as a herbal tea. I use a variety of datasets including secondary data sources and from ethnographic data collected between 2019 and 2021 in the Western and Eastern Cape provinces of South Africa. The results shows that policies and strategies governing biodiversity economies perpetuate technical solutions and best-laid plans that seldom match the change that is needed, promote abusive silencing interventions and are less inclusive than the government wants them to appear. The state intervention in honeybush commercialisation is helping in fast tracking the redress of racial hierarchies but misses a much-needed restoration of sovereignty of harvester communities that are historically dispossessed of power to define ambient and socio-ecological changes in their landscapes. Policy sensitivity to place-based and/or wild products histories is recommended for avoiding disconnect between historic strategies of exclusion and redress frameworks targeting the commercial use of wild products.

Keywords: bio-economy, livelihoods, non-timber forest products

## AN ANALYSIS OF ACCESS IN DEVIL'S CLAW (*HARPAGOPHYTUM* SPP.) HARVESTING AND TRADE IN NAMIBIA

Devil's claw (*Harpagophytum* spp.) is a wild plant harvested from Namibia and traded in the international market. This article examines the historical and current social and political-economic relations that determine the mechanisms of access by which benefits from devil's claw are derived by harvesters. Based on qualitative research, the article reveals how colonialism, traditional authority and community-based natural resource management shape access to markets, knowledge, technology, capital, authority and harvesting rights. Harvesters benefit primarily through the provision of income and in some cases, the delivery of training, equipment and reduced permit fees. Benefits did not alleviate producer dependencies and inequalities were reinforced at the intersection of race, class and gender. Considering new access and benefit-sharing legislation in Namibia, the article highlights caveats that may perpetuate, rather than alleviate, inequitable trade relations and suggests a (re)interpretation of access and benefit-sharing in implementation towards transformation of wild plant industries in Southern Africa.

Keywords: Access and benefit sharing; CBNRM; traditional authority

## THE WILDLIFE ECONOMY AND AGRARIAN TRANSFORMATION IN THE CONTEXT OF THE DEEPENING LAND QUESTION IN SOUTH AFRICA

Wildlife ranching has spawned issues surrounding the character and trajectory of the private wildlife sector. Wildlife resources are anchored on land which is subject to fierce debate given the recent passing of a parliamentary motion of 'expropriation of land without compensation'. This is amidst increased investment in the wildlife economy witnessed through the deepening of the supply and demand value chains based on wildlife on privately owned land. This development is backed by tacit government support through recognition of wildlife ranching as an agricultural activity and the recent adoption of the Biodiversity Economy Strategy. The development of the wildlife economy is also in line with massive investment leading to rapid growth of agribusiness. This paper seeks to explore the role and influence of the emerging wildlife



economy in shaping South Africa's deepening agrarian question. The paper adopts an institutional approach incorporating a theory of access in analysing the developments in the wildlife economy in the context of the broad agrarian sector. It concludes that wildlife capital seems to have forged to sway the agrarian question in its favour through discourses of the need to respect property rights and not disrupting current agricultural production. However, the growing populist call for transformation in the wildlife economy as part of the broad agrarian question is starting to rattle this discourse. It remains to be seen how far the transformative interventions stipulated in the Biodiversity Economy Strategy and the broad measures around land reform will go to shape the trajectory of the much-needed transformation in South Africa's agrarian question.

Keywords: agribusiness, bio-economy

#### AN EQUITABLE MARINE BIO-ECONOMY: A PERSPECTIVE FROM THE YOUTH

The marine bio-economy is a rapidly growing field that focuses on the sustainable use of marine resources for economic development. It encompasses a range of industries which include, inter alia, seafood, aquaculture and renewable energy. Africa has a median age of 19 years and with over 70% of the Earth's surface covered by water, the potential for youth to actively take part in the marine bio-economy is immense. The global demand for seafood is increasing, and the industry is projected to grow significantly in the coming years. The only issue within the seafood industry is that the neo-liberal approach which is a direct result of colonisation, only favours large commercial companies to the exclusion of rural coastal communities. Cases like the *Gongqose v Minister of Agriculture, Forestry & Fisheries* clearly highlight the structural inequalities within the laws and policies of the fishing industry. One of the lucrative sectors of marine bio-economy includes the development of renewable energy sources, such as offshore wind farms. Local structural inequalities deprive those marginalised by colonialism from access to these types of markets, and from sufficient capital to partake in renewable energy sources. These technologies have the potential to provide clean energy while also creating jobs for the youth and economic growth for Southern Africa. The marine bio-economy offers a range of opportunities for sustainable economic development. There needs to be transformative change to incorporate opportunities for the youth particularly from previously disadvantaged communities. By promoting the responsible use of marine resources, we can create a more sustainable and prosperous future for Southern Africa.

Keywords: blue economy, transformation

# Does South Africa Deserve Climate "Reparations"? A Critical Reflection on the Just Energy Transition Partnership

Dr Alex Lenferna<sup>1</sup>

<sup>1</sup>*Nelson Mandela University, South Africa*

In the presentation, I would critically discuss the moral question of whether South Africa deserves climate reparations. I examine the deeply unequal and polluting nature of the South African economy, to demonstrate how claims from South Africa for climate finance and reparations are morally complex and fraught. For South Africa's claims for climate reparations and finance to be justified, I propose two conditions: 1) that South Africa acts in line with its fair share of global climate action; and 2) climate finance must help to transform South Africa's deeply unjust country and bring benefits not to the rich elite, but to the majority, especially the poor, black and working class. Based on this analysis, my presentation provides a critical analysis of whether the Just Energy Transition Partnership (JETP) Investment Plan announced by President Cyril Ramaphosa meets those conditions. I argue that it potentially fails to meet both. Based on that example, I argue that global south countries must be critically wary of JETP funding models, as rather than being a fulfilment of climate debt owed to the global south, they may entrench the interests of Western donors who seek to dominate the clean energy future.

# Mining Development, Climate Change and implications for Residential Water (and Food) Security in the uMkhanyakude District Municipality, KwaZulu-Natal, South Africa

Prof Llewellyn Leonard<sup>1</sup>

<sup>1</sup>*UNISA, South Africa*

Abstract: There has been limited academic research exploring the combined effects of mining and climate change on water resources, particularly in developing countries. The adverse weather patterns resulting from climate change are expected to worsen water insecurity in rural areas. Mining activities not only contribute to climate change but also have significant impacts on already limited water resources, posing challenges for communities hosting these mining operations. This study investigates the interconnectedness between climate change, mining development, and water security, shedding light on the vulnerability of rural communities to water scarcity induced by mining and climate change. The primary focus of this paper is the Somkhele rural community, located in the uMkhanyakude District Municipality of Northern KwaZulu-Natal, which experiences water scarcity due to climate change. Despite the prevailing drought conditions, mining operations continue in this region. Data for this research was collected through semi-structured interviews with key social actors in the Fuleni community, located near Somkhele and opposing mining development, as well as with the residents of Somkhele who are already burdened by mining activities. Additionally, a questionnaire was administered to 424 households in Somkhele to gather their perspectives on the impacts of climate variability and mining on their livelihoods and water resources. The study findings reveal a complex interplay among climate change, mining impacts, and water (and food) security. Unfortunately, instances of government and traditional leadership corruption to support mining have exacerbated water insecurity for residents.

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# A Political Ecology of Jurisdiction

Prof Libby Lunstrum<sup>1</sup>, Dr Elizabeth Havice

<sup>1</sup>*Boise State University, United States*

## Abstract

In this presentation, we consider jurisdiction as a key dimension of transboundary political ecology. Jurisdiction is both a legal and extra-legal concept, one that can denote ownership and authority to interpret and apply the law but also reflect a sense of entitlement or power over objects and/or bounded space. Unlike territory, jurisdiction allows for an examination of the more subtle and discrete features of spatial-legal-ecological relations, including how they play out at and across legally codified or disputed borders, both internal and international. Our presentation elaborates the concept of jurisdiction and its utility for transboundary political ecology, and vice versa, in relation to both the land and sea. Specifically, we examine:

- \* how ecological processes and more-than-human actors disrupt and complicate jurisdiction, especially as they refuse jurisdictional confinement and push across borders
- \* how mobile more-than-human actors (and efforts to exploit, protect and surveille them) embody legal protections/exclusions that change from one jurisdiction to the next, and why this matters
- \* how the fragmentation of authority and decision-making capacity into discrete jurisdictional units disrupts ecological processes, including possibilities for ecological restoration and Indigenous-led involvement across jurisdiction and borders
- \* how more-than-human actors and ecological processes are strategically deployed to challenge spatial-political fragmentation, including across international borders

We also invite audience participation to think through what a political ecology of jurisdiction might entail and what is at stake in its formation.

# Bankrolling the state - milking the community: Mining and the treadmills of production at Connemara mine in Zimbabwe

Dr Martin Magidi<sup>1</sup>

<sup>1</sup>*African Centre For Cities, University Of Cape Town, South Africa*

The paper investigates the relationship between mining activities and local community development at the now dysfunctional Connemara Mine in Zimbabwe. It uses ethnographic evidence collected at/around the mining site to challenge the notion that mining equates to development. It explores how the host community benefitted from mining at the site and weighs it against the livelihood and environmental costs. Findings suggest that while Connemara Gold Mine was rated as one of the top gold producers in Zimbabwe, the host community has very little to nothing to show in terms of benefits after hosting the mine for almost a century. The paper also discovers some huge gaps in terms of implementation of a range of mining and environmental laws and regulation with the miners extracting the precious mineral in destructive ways – all unfolding in the eyes of the responsible authorities. Connemara mine is now an abandoned mine, which besides posing serious environmental health and safety problems, is also accused of impoverishing the host community in several ways. The study provides a critique of mining/environmental governance in Zimbabwe. It poses critical questions as to how most miners successfully disregard mining laws at all mining stages from exploration to decommissioning without facing any consequences. It also exposes the continued exclusion of local communities in important issues that affect their lives as they are systematically left in the dark as to the next step at the mine.

Keyword: Mining, Environment, Livelihoods, Treadmills of production

## Settler Ecologies: Ecological Transformation and the Endurance of Settler Colonialism in Kenya and The Cactus Hunters: Desire and Extinction in the Illicit Succulent Trade

Dr Jared Margulies<sup>3</sup>, Dr Charis Enns<sup>1</sup>, Dr Brock Bersaglio<sup>2</sup>

*<sup>1</sup>University of Manchester, <sup>2</sup>University of Birmingham, <sup>3</sup>University of Alabama*

In this session, Jared Margulies & Charis Enns will introduce their forthcoming books: *The Cactus Hunters*, which focuses on the illegal wildlife trade in cactus and succulent plants, and *Settler Ecologies*, which examines how animals and plants can be enrolled in the ongoing reproduction of settler colonialism. Conversation between the authors and discussants, Prof Dan Brockington and Dr Annette Hübschle, will draw out key themes that link these two new political ecology books and that resonate deeply with both the conference theme and the South African context, including: settler-colonialism, species extinction, imaginaries of nature and more-than-human relationships. The session will also involve a Q&A in which the authors will converse with the audience about these books, as well as provide an opportunity for discussion with early career researchers in political ecology about book projects more broadly.

# Political ecology of memory: Memories of violence and socio-environmental struggles (I)

Dr. Catherine Windey<sup>4</sup>, Mr Emmanuel Akampurira<sup>2</sup>, Miss Sara Weschler<sup>2</sup>, Dr Esther Marijnen<sup>1</sup>

<sup>1</sup>Wageningen University And Research, Netherlands, <sup>2</sup>University of Ghent, Belgium, <sup>3</sup>Kings College London, UK,

<sup>4</sup>University of Antwerp, Belgium

This panel explores connections between political ecology and memory studies. Osterhoudt (2018) defined a "political ecology of memory" approach to history as, "examining how memories of extra-local political histories become embodied and articulated through personal stories of local ecologies" (2018). By doing so Osterhoudt integrated political ecology and environmental anthropology to study the political ecology of memory, we aim to further this line of inquiry by integrating methodologies, theories and concepts from another discipline; memory studies.

Traditionally memory studies has focused extensively on World War I and II yet with the transcultural debate research on the politics of memory increasingly looks beyond the 'Global north', and beyond 'the nation-state as the main agent of memory', recognizing that memory is dynamic, multidirectional and is not site-bound. As such there is an increasing body of literature focussing on the politics of memory in post-genocide and post-conflict societies globally. Focusing on what is remembered and/or forgotten in these memory processes, and how they shape societies in aftermath of violence. Debates have also explored relationships between both official and unofficial means of remembering; and interdisciplinary connections with forced displacement.

In this panel we aim to bring political ecology research in closer connection with memory studies, by not only asking how the politics of memory shape societies in the aftermath of violence, but also how they shape socio-environmental relations, struggles and landscapes in conjunction with each other.

The political ecology of memories of dispossession: Understanding pastoralist resistance in Queen Elizabeth National Park

Colonial conservation policies and practices are recognised for their dispossession and displacement of local people to create wild places free of human influence. Political ecologists linked conservation conflicts to the continuities and legacies of colonial conservation policies that have been sustained by post-independent states in different forms but based on the same blueprint. In this paper I discuss the colonial strategies of 'accumulation by dispossession' in the creation of Queen Elizabeth National Park (QENP) in Uganda and how these events are remembered by local pastoralists. Additionally, I explore how these processes and events gave birth to the "fishing enclave problem". These fishing villages later became spaces of resistances and the last stronghold that have been used by Basongora pastoralists to invoke their ancestral rights to QENP. Using archival data and historical ethnography I examine the political ecology of memory of how the Basongora mobilise intergenerational memory in contemporary contestations with the state and conservation authorities in QENP. As Roderique Neumann has argued, historical analysis are important to understand the contemporary issues in conservation, this paper further argues that this should include the social memory of local people and how they use it to legitimise their claims. In such power-laden situations where of one actor, the state has at its disposal resources to subjugate the subordinate group, pastoralists. In hindsight, memory becomes an important form of moral authority through which the pastoralists contest the hegemonic dominance of conservation authorities.

Key words: Memory, pastoralists, conservation

"Rivers are traces for us": Entangled Landscape-ing in Kisangani hinterland, DR Congo

Through a story-so-far of the making of a more-than-human landscape in Kisangani hinterland (DR Congo), this article offers ways of rethinking landscape from a relational and processual perspective that incorporates the four dimensions of sociality, materiality, spatiality and temporality. Drawing on insights from decolonial and feminist epistemologies, environmental anthropology/humanities and critical geography, I propose the analytic of entangled Landscape-ing and operationalize it with an inquiry into the ever-becoming articulation of nonhumans and material things, human land use and access practices, meanings and social identities across space and time. The empirical analysis experiments with Todd's and Kanngieser's environmental "kin study" approach and is based on local narratives and memories complemented with critical participatory mapping processes and with secondary (archival) material. More specifically, it depicts how the physical and symbolic rubble of colonial ethno-territorial and capitalist environmental rule, of post-colonial land grabs and the construction of Congolese authenticity, of wars, and current politics of conservation and "sustainable" resource extraction all intertwine with the remembrance and continuity of indigenous ways of practicing, experiencing and making sense of the world. Attending to entangled Landscape-ing, I argue, requires telling stories about the specificity and dynamism of landscape and attuning to its visible and invisible entanglements of humans and nonhumans in multiple spatial and temporal layers. It breaks the divide between space (abstract) and place (concrete), between the conceptual (imagined) and the experiential (embodied), defying containerized socio-spatial-temporal logics –in the interest of fostering conservation politics that engage with the complex connections people have with their environment.

Keywords: relational landscape; environmental kin study; rubble

“But we were on our way home”: Unsettled Land, Unsettled Questions, and the Ghosts of Colonial-Era Environmental Engineering in Northern Uganda

This paper examines how memories of colonial-era forced displacement shape responses to contemporary government(-backed) land-grabbing in Uganda's Acholi region. In 2006, the Lord's Resistance Army (LRA) withdrew from Uganda, opening the way for 1.1 million Acholis to begin returning home after a decade of forced internment in camps. Resettlement has been marred by clashes over land, and land conflict has thus become a primary topic of research on the region.

Unfortunately, the 19-year-long LRA war looms so large in our understanding of Acholiland that most analysis of present-day land-conflict is blinkered by a focus on this war's effects. To many Acholi, however, struggles over land do not begin with wartime internment. Rather they date to earlier waves of forced displacement.

Beginning in 1912, as part of a tsetse-fly eradication program, British administrators relocated the entire population of western Acholiland, later converting the vacated territory into conservation areas. While this caused lasting social damage, many Acholi communities struggled throughout the 20th century to return to their former homes. This struggle was interrupted in the late-1980's by the LRA war; but it has resumed, in new forms, in the years since.

This paper examines how colonial-era forced displacement is remembered by Acholi communities, and how the stakes of contemporary land conflict change when considered within the context of a century-long fight for ancestral lands. Applying a *longue durée* lens, I analyze contemporary land conflicts in Acholiland as part of the enduring legacy of British environmental engineering in northern Uganda.

Keywords: forced displacement, land conflict, colonial legacies



## Vernacular memories and landscapes of war in Africa's Great Lakes Region: Understanding changing nature-society relations

In this paper we underline the importance of integrating memory studies within political ecology research on conflict and violence, we do so by focusing on Africa's Great Lakes Region. With examples from Burundi, Rwanda and Uganda we show how decades of protracted violent conflict, including colonial violence, have left marks upon people's relationship with, and memories of particular landscapes, such as rivers, mountains, swamps and forests. In the article we underline the importance of the environmental history of colonialism, wars and genocide in the region; to understand contemporary relations people have with nature. To do so, we focus specifically on tracing family histories and intergenerational memories of landscapes of war. This approach does not only offer a welcome alternative perspective of the history of war in region which often continues to be narrated from the vantage point of states, militaries and other armed actors, but is also of importance to understand contemporary nature-society interactions. This paper challenges the assumption that 'nature' is a mere victim of war, and argues that subsequent 'landscape restoration' projects in 'post-conflict' contexts should take into account people's lived experiences in these landscapes, to avoid reproducing violent memories of the past. The paper is based on recently conducted in-depth field research in three specific contexts, combining oral histories, focus groups, in-depth interviews and archival research.

Keywords: War, landscapes, Africa's Great Lakes Region

## Political ecology of memory: Memories of violence and socio-environmental struggles (II)

Dr Tanya Matthan<sup>2</sup>, Genevieve Sekumbo<sup>5</sup>, Marketta Vuola<sup>3</sup>, Dr. Diego Polanco<sup>4</sup>, Dr Esther Marijnen<sup>1</sup>, Dr. David Mwambari<sup>6</sup>, Mr Emmanuel Akampurira<sup>7</sup>, Dr Anwasha Dutta

<sup>1</sup>Wageningen University And Research, Netherlands, <sup>2</sup>University of California Berkeley, USA, <sup>3</sup>University of Helsinki, Finland, <sup>4</sup>The University of Massachusetts Amherst, USA, <sup>5</sup>Graduate Institute of International and Development Studies, Genève, Switzerland, <sup>6</sup>Kings College London, UK, <sup>7</sup>Ghent University, Belgium

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From Political Ecology to Data Science of Memory: Towards a Socialist Strategy

### Abstract

This article discusses how Political Ecology orientation towards transcending the simple nature/society dichotomy and its exploration of their structural coupling and co-constitution provides a fertile ground to connect the contemporary debate of Chilean historians with the modern developments in Political Economy and Marxist scholarship. Relying on a Territory-Place-Scale-Network framework (Jessop, Brenner, Jones, 2008), this article explores the political ecology of memory in the Atacama Desert under the context of revolutionary technological changes of global capitalism and the struggles for memory in post-dictatorial Chile. Arguing that these changes are "data-driven" and identifying how the eurocentric character of knowledge production under capitalist development expresses itself in the Atacama Desert at different scales, the article proposes to operationalize Jessop & Sum (2001) Cultural Political Economy as an emergent research field and public policy agenda for the Chilean context labeled "Data Science of Memory" (DSM). Later, the article identifies how the neoliberal state in Chile has already developed the basis for a DSM with the "Young Programmers" initiative of the BiblioRedes program of the National Cultural Heritage Service. Finally, the article identifies a broader set of research avenues and policy initiatives, arguing that a DSM framework can integrate critical social theory within a unified theoretical framework and deploy policy initiatives articulated in a socialist strategy.

Key Words: Atacama Desert, Memory Struggles, Data Science

## The 'Ethereal' Memories of Natural Gas

### Abstract

In December 2012, Tanzania's southern region of Mtwara, a region never previously marked by any political uprisings experienced violent protests over the construction of a gas pipeline from the region to the interior and commercial capital of Dar es Salaam. At the heart of these contentions were governance concerns between the central government and local communities on how benefits from offshore gas extraction were to be widely shared. Ten years following the deadly protests, memories of the deadly clash between the residents and the state punctuate the living experiences of residents as it pertains to their interaction with the state and their understanding of the extractive processes of gas. Drawing from ongoing fieldwork conducted between 2020-2021, this paper draws on the narratives and experiences of young people at the height of the gas boom in 2012 and thereafter. Using the biophysical properties of the extractive processes of transforming raw natural gas from the seabed to its use for energy consumption as a theoretical lens, this paper explores how the 'ethereal' properties of natural gas and its subterranean properties contribute to how present-day experiences of the extractive processes are framed, talked about, and how it contours the violent memorialisation of the 2012 protests.

## Frontier memories: commodities, conflicts and rural transformation around Ranomafana National Park, Madagascar

### Abstract

This paper analyses the historical roots of the current conflict between gold mining and biodiversity conservation in Ranomafana National Park, Madagascar. Using a timeline-interviewing methodology, I trace the life histories of women and men living in this rural area. I argue that in order to understand the current situation, Ranomafana should be viewed in the broader historical context as a peripheral space experiencing the effects of consecutive global commodity booms. First, the coffee frontier and the use of forced labour during the French colonisation made the ancestors of the current inhabitants seek refuge in this mountainous rainforest area. Second, the neoliberal conservation and ecotourism frontier began to occupy the land since the late 1980s displacing communities and dismantling local livelihoods. Third, the artisanal gold mining frontier crept in, promising risks and opportunities for local people but clashing with the conservation frontier and leading to the violent confrontations of today. Each commodity frontier seeks to modify the socio-ecological fabric, including ethnic and gender relations, to enable commodity production. These processes are mediated by local people (sometimes accepted, sometimes resisted) leaving behind collective narratives of violence and injustice as well as altering the narratives of the ancestral ways of living and relating with the non-human environment. Such narratives explain the choices made today, the logics behind the contemporary conflict and the agency of local populations in the face of the varying external pressures. The political ecology of memory here deepens the understanding of the transformation of rural landscapes under global capitalism.

Key words: commodity frontier, conservation conflicts, ASM

# Researching Green Militarisation: The ethical, political and emotional challenges of conducting research on the militarization of conservation

Dr Esther Marijnen<sup>4</sup>, Prof Maano Ramutsindela<sup>1</sup>, Prof Libby Lunstrum<sup>2</sup>, Dr Anwasha Dutta<sup>3</sup>, Emile Smidt<sup>4</sup>, Mr Ivan Ashaba, Dr. Trishant Simlai<sup>5</sup>

<sup>1</sup>University of Cape Town, South Africa, <sup>2</sup>Boise State University, Canada, <sup>3</sup>Chr. Michelsen Institute, Norway, <sup>4</sup>Wageningen University and Research, Netherlands, <sup>5</sup>Cambridge University, UK

As 'green militarization' (Lunstrum, 2014) research is increasingly developing into a sub-field of political ecology, with increasing number of students and researchers taking on the study of the entanglements between conservation, displacement, militarization, power, race and coloniality – it is a good moment to reflect specifically about what it means to research green militarization, the problems or contradictions researchers encounter when 'studying-up', and the methodological challenges people encounter during their research, alongside the legal/ethical issues they are faced with. We feel that although it has now been a decade of engagement on the topic which has led to the emergence of a relatively large body of scholarly work spanning across continents, the inter-personal experiences of the scholars' everyday narratives have not yet found a place in this work.

The aim of the roundtable is twofold:

1/ a discussion of the numerous challenges (your own personal experience), and how people preparing, or are who at the start with their research on green militarization, can 'better prepare' themselves for numerous challenges they are likely to encounter. Or, situations where one might unexpectedly find themselves in a context of militarized conservation without it have been the initial focus.

2/ Yet, instead of solely offering 'advice' to scholars, we want to also formulate a critique of the current political climate that allows different forms of intimidation to occur to people not only researching, but also to individuals and communities suffering from the detrimental consequences of the militarization of conservation.

In this roundtable the participants have not been asked to prepare an abstract and paper, but all will prepare a intervention based on their own personal reflection of having conducted research on green militarisation.

# The Political Ecology of Zoonotic Outbreaks: Reconceptualising ‘Reservoirs’, ‘Interfaces’, and ‘Spillovers’

Dr Charis Enns, Dr Francis Masse, Dr Brock Bersaglio

<sup>1</sup>University of Manchester, United Kingdom, <sup>2</sup>Northumbria University, United Kingdom, <sup>3</sup>University of Birmingham, United Kingdom

Zoonotic diseases are rapidly increasing in incidences and geographic range, posing a significant threat to global health. Although our understanding of what increases the risk of zoonotic diseases emerging continues to develop, existing research tends to lack consideration for the structural forces and power relations behind zoonotic disease outbreaks. Without adequate attention to the structural drivers of zoonotic disease, disease mitigation and prevention measures will remain limited in their effectiveness. In this article, we suggest that political ecology can be used to reveal how processes of power unfold in socioecological systems to shape zoonotic risk, outbreaks, vulnerabilities, and interventions – ultimately extending and deepening understanding of why zoonotic diseases emerge and how best to prevent future outbreaks. Specifically, we show how political ecology can be used to reconceptualise key components of zoonotic outbreaks – reservoirs, interfaces, and spillovers – so that analyses of zoonoses are more attentive to the political-economic structures and power relations that work across space, scale and time to produce uneven experiences with and responses to zoonotic outbreak.

# Silverbacks, black mambas and deadly women: Changing gender identities in South African and Australian biodiversity conservation

Dr Vanessa Masterson<sup>1</sup>

<sup>1</sup>*Stockholm Resilience Centre, Stockholm University, South Africa*

Biodiversity conservation in the Global South has traditionally been viewed as an 'alpha-male' dominated, settler-colonial activity – but this is changing. A global movement aims to transform conservation, with gender diversity and inclusivity seen as critical for holistic and fair ecosystem stewardship. Gender mainstreaming programs have brought more women into conservation, but there has been little empirical research on the lived experiences and motivations of conservationists involved in these shifts. We explore these identity shifts through the lens of sense of place as a vehicle through which to articulate the relational ties between landscapes, biodiversity and those who care for them. We present results of (virtual) photo-elicitation with women conservation practitioners in South Africa to understand how they navigate and perform socio-spatial identities within the highly gendered, and militarised landscapes in this region. Participants' photographic narratives revealed deep, shared meanings imbued in the protected areas of the Lowveld: revered as the 'mecca of conservation' and an 'epicenter of biodiversity'. The findings highlight the role of women in restoring relationships and practices 'beyond the fence', yet show that in order to cope and claim space participants both challenge and draw on normative femininities and masculinities. Personal approaches are shaped by and inadvertently reproduce hegemonic masculinities which are a barrier to more inclusive conservation practices. We use this pilot study to introduce and elicit feedback on our new research project with cases in South Africa and Australia which take a performative and intersectional approach to trace the production of gendered conservation identities in the media and explore how men, women and non-binary individuals contest or transform these identities in their daily conservation practices.

# Geotourism development at the Cradle of Humankind World Heritage Site: Prospects from a collaborative project

Dr Khodani Matshusa<sup>1</sup>

<sup>1</sup>*University Of South Africa, South Africa*

UNESCO World Heritage Sites (WHS) stand out as landmarks of natural and cultural heritage for the achievement of sustainable development through social, economic, and environmental activities. Their prospects as enablers to achieve sustainable development goals (SDGs) and their importance in research and innovation have received the attention of institutions, political groups, communities, researchers, and governments of many countries such as South Africa. As such the number of WHS continues to increase year after year, with the current total of 1157 WHS in 167 state parties. These parties have developed activities to conserve and develop the WHS while contributing to the SDGs of the 2030 Agenda. The diversity of these landmarks indicates that each WHS is unique and has geological and cultural values different from the rest. This study describes the prospects that geotourism development at the Cradle of Humankind (CoH) WHS can have through a mixed-method design with the aim of inventory, evaluation, and prioritisation of geoheritage sites and highlighting their potential contribution to sustainable development, especially social sustainability. The social sustainability aspect of the study will highlight the conflicts, lack of beneficiation for local communities, and lack of participation in decision-making regarding geoheritage conservation and management. This study is part of a collaborative project involving various stakeholders including, CoH officials, government officials, representatives or leaders of local communities, residents, education institutions, conservation agencies, and tourists. The results of this study are expected to generate new scientific knowledge and contribute to the SDGs (1, 2, 4, 8, 15, and 17).

## GEOTOURISM DEVELOPMENT AT THE CRADLE OF HUMANKIND WORLD HERITAGE SITE: PROSPECTS FROM A COLLABORATIVE PROJECT

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Keywords: Geotourism; Cradle of Humankind World Heritage Site; Political Ecology

# Geotourism development at the Cradle of Humankind World Heritage Site: Prospects to solving political ecology issues

Dr Khodani Matshusa<sup>1</sup>

<sup>1</sup>*University Of South Africa, Rooderpoort, South Africa*

UNESCO World Heritage Sites (WHS) stand out as landmarks of natural and cultural heritage for solving political ecology issues such as lack of access to geoheritage resources and associated social, economic, and environmental benefits. Their prospects as enablers to achieve sustainable development goals (SDGs) and their importance in research and innovation have received the attention of institutions, political groups, communities, researchers, and governments of many countries such as South Africa. As such the number of WHS continues to increase year after year, with the current total of 1157 WHS in 167 state parties. These parties have developed activities to conserve and develop the WHS while contributing to the SDGs of the 2030 Agenda. The diversity of these landmarks indicates that each WHS is unique and has geological and cultural values different from the rest. This study describes the prospects that geotourism development at the Cradle of Humankind (CoH) WHS can have through a mixed-method design with the aim of inventory, evaluation, and prioritisation of geoheritage sites and highlighting their potential contribution to sustainable development, especially social sustainability. The social sustainability aspect of the study will highlight the conflicts, lack of beneficiation for local communities, and lack of participation in decision-making regarding geoheritage conservation and management. Therefore geotourism can be used as a tool to solving political ecology issues. The results of this study are expected to generate new scientific knowledge and contribute to the SDGs (1, 2, 4, 8, 15, and 17).



# Exploring convivial conservation theory for socio-economic development in historically disadvantaged communities of the Greater Kruger landscape

<sup>1</sup>*Sawc, South Africa*

The Greater Kruger landscape is a region of South Africa with a rich diversity of wildlife and plant species, but it is also an area where Human-Wildlife Conflict(HWC) has severe impacts on the livelihoods of historically disadvantaged communities, especially communities adjacent protected areas. The methodologies currently in place to address HWC issues are ineffective in meeting the ultimate goal of linking people with nature - the duration of projects aimed at addressing HWC issues, nature and scope of these projects, high-level planning and decision making, involvement of the “communities” greatly affected by these issues and very little consideration of indigenous knowledge systems. Moreover, the strategies for raising public tolerance of wildlife damage include compensation schemes, tourism revenue sharing with communities living adjacent the parks, use of natural resources like medicinal plants and basketry fibre by local communities, harvesting of Mopani Worms and community outreach programmes. However, it is important to note that these strategies are inadequate as the gap between people and nature remains wide.

To address these challenges, convivial forms of conservation that prioritize socio-economic development and community empowerment are needed. By focusing on sustainable and equitable economic development in historically disadvantaged communities, conservation efforts can help alleviate the impacts of HWC on livelihoods. This approach involves creating meaningful opportunities for local communities to participate in the conservation and management of their natural resources.

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# Decolonizing Imaginaires: Art and Political Ecology in latin america

Dr Felipe Milanez<sup>1</sup>, Dr Mary Menton<sup>2</sup>, Dr Gabriela Merlinksy<sup>3</sup>, Dr Paula Serafini<sup>4</sup>

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This exhibition builds upon an innovative encounter between Latin American and Indigenous artists from two projects in Brazil and Argentina: 'Another Sky' which explores the complexity of contemporary Indigenous struggles between art and war in Brazil, and Art and Political Ecology in Latin America. Another Sky explored ecological conflicts by engaging with 15 Indigenous artists and 5 environmental defenders artists, as well as a documentary directed by two Indigenous filmmakers. *Arte y Ecología Política* is a groundbreaking book written by Argentinian artists and intellectuals bridging art and political ecology. Through an innovative encounter and format with an online exhibition of the works of artists from these two groups, and one special sessions in a hybrid format of artists participating in English and video recorded contributions with subtitles. The organizers will facilitate the discussion and the meeting of the artists over one provocative question: how can art interact with political ecology to reconstruct or destabilize worlds torn by conquest, colonialism and capitalism? Contemporary art as the imaginal politics of dissensus has helped to raise horizons, suspend the Sky and rediscover the meaning of existence. What futures are being imagined by artists working in the intersection of decolonial political ecology and art, and how to think of common and shared worlds?

The exhibition and panel will discuss the artwork within this context of anti-colonial resistance that seeks another horizon of conviviality of differences, new worlds that are more just and egalitarian.

TITLE: Another sky: political ecology, art and Indigenous resistance in Brazil

Felipe Milanez and Mary Menton

ABSTRACT: This section of the panel/exhibition presents the Another Sky project which explores the complexity of contemporary Indigenous struggles in Brazil: art and war. Mapping of the political ecology of conflicts facing Indigenous peoples in Northeast Brazil was conducted by Indigenous researchers. From these territories of art and war emerge different forms of resistance, narratives, constructions and reconstructions of worlds torn by conquest, colonialism and capitalism. In conjunction with the mapping of the ecological conflicts, artworks were created by 15 Indigenous artists, as well as a documentary directed by two Indigenous filmmakers. The exhibition and panel will discuss the artwork within this context of anti-colonial resistance that seeks another horizon of conviviality of differences, new worlds that are more just and egalitarian, and Another Sky suspended on high.

TITLE: Art and Political Ecology in Latin America

ABSTRACT:

In literature, art, cinema as well as in democratic action, what is in play is the possibility of the hegemonic forms of experiencing the world and thereby bring visibility to all that is often excluded from common frames of perception. In Argentina and throughout Latin America, the recent expansion of extractive frontiers has put at risk territorial rights and collective health. It is necessary to question this sacrificial logic that subordinates human and non-human life through the and intensive exploitation of nature. It is a task that require repopulating our imagination to make space for alternative worlds. The authors explore how different aesthetic and expressive aspects make space for other more just and sustainable forms of living. The session will also include short filmed contributions by artists and an online exhibition site which will include the works exhibited on the Another Sky website (<https://anothersky.ufba.br>)

# Discursive Construction of Climate Change in the Indigenous People's Narratives: A Case of Doma People of the Zambezi Valley.

Mr Achieford Mhondera<sup>1</sup>

<sup>1</sup>*University of Zimbabwe*

This paper explores the varying ways in which the Doma people of the Zambezi Valley in Zimbabwe give meaning to climate change discourses on adaptation and mitigation. Doma people are regarded as one of the indigenous groups of Zimbabwe together with the San. Given the continued marginalisation of such community and the unique characteristics of these people, the study was motivated to move away from the popular conception that there is a linear and correct way of interpreting and understanding climate change as a scientific discourse and interrogated the meaning of climate change to such indigenous populations. The study is based on the findings of a focused ethnographic work undertaken during the build-up to COP 26 in Glasgow. It contextualizes climate change in the historical, environmental and socio-political dimensions of the Doma interpretive horizons. In addition, it put forward the argument that local discourses and meanings attached to climate change by the indigenous peoples are not barriers in the global pursuit of meeting some of the targets in the Paris Agreement such as goals on mitigation and adaptation. Local discourses might appear to contradict global discourses and policy goals but they reveal crucial insights about local priorities, values and agency. It must be therefore noted that the rejection of global discourses by these people should not be conceived as a form of ignorance, but rather they should be considered as an act of cultural translation and resistance.

# Africa and Political Ecology

Miss Takshita Kemrajh, Dr Biniam Misgun<sup>1</sup>

<sup>1</sup>*University Of Kwazulu-natal, South Africa*

The session will host a range of themes on environmental issues and changes in Africa explored and reviewed using political ecology as an approach and theoretical lens. The main thrust of presentations in this session is the nexus between power, discourse and political struggle in framing environmental changes and issues of environmental justices in the African context, while the focus spread from the local to the national and international levels.

FRAMING THE SEARCH FOR GLOBAL ENVIRONMENTAL GOVERNANCE IN POLITICAL ECOLOGY: NOTES FROM AFRICA AS THE GLOBAL MARGIN

This paper proposes the need to frame these multilateral processes within political ecology; thus, the need to problematize the contexts and dynamics of these initiatives geared towards establishing global environmental governance mechanism (GEGM). Thus, we appraise African states and organisations' participation, positions, interests and ability to set agendas in these initiatives. This paper reviews to what extent African states and organisations as a collective and individually have sought to influence and shape global environmental governance mechanisms (GEGM). Though appear to be ostensibly innocuous global environmental concerns/projects, these represent sites of intense struggle in global power politics, competition and economic interests. Discourse on the global environment and its governance, or lack thereof, have essentially been framed by the global political economy, and often marked by major power competitions. Tussles among global giants play out in most, if not all, GEG summits seeking to find answers to a variety of present-day questions. In addition to this, almost all attempts at these were mobilized and organized by global North, with much of the concerns and agenda effectively set to reflect their interest. This paper explores possibilities of African states (individually or collectively) as well as African civil societies to negotiate and clearly formulate their positions in the discourses and platforms dominated by powerful global players. Finally, we propose the need to rethink African states, regional bodies and organization outlook of and roles in these initiatives.

Africa; Global Environmental Governance; Political Ecology

THE STRUGGLES FOR ENVIRONMENTAL JUSTICE AND COMMUNITY ACTIVISM:  
A CASE STUDY OF THE SOUTH DURBAN BASIN

Drawing from research conducted in South Durban Basin (SDB) communities, this paper examines issues of environmental justice and associated struggles in the area, and critically appraise the nature of struggles and community activism in SDB. The SDB represents a sturdy case of environmental injustice, which is connected to apartheid spatial planning that moved the cost of petrochemical industries to poverty stricken black communities. The SDB as a site of environmental injustice is produced through systematic policies and planning of apartheid state to relocate polluting industries near low income black South African townships, with absolute disregard to their well-being. The paper investigates the diverse environmental concerns and problems arising from the existing industrial practices and the struggle of communities (communities, groups and workforces) in and around the petrochemical industries in SDB. The intention here is to explore these themes by locating them within the broader experiences and struggles against environmental injustices in South Africa. Data is collected through interviews with 50 community members made up of residents, workers, healthcare professionals, political leaders, activists and environmental justice organizations. This paper explores and accounts for experiences of communities in the SDB, the modes of struggle they wage against these environmental injustices, the role of the state and capital, and the

politically contested content and context of the search for remedial strategy/plan of action to address these problems.

Environmental Justice; Social Movements: Urban Political Ecology

#### ROLE OF INDIGENOUS KNOWLEDGE IN THE EVOLVING NATURE CONSERVATION SYSTEMS: THE STUDY AREA OF KHULA VILLAGE, MTUBATUBA LOCAL MUNICIPALITY

The gatekeeper state, through the human-environmental dichotomization, has imposed specific discourse and practice of an environment (Garrick et al., 2006). Such impositions lend themselves not only to forms of state control of resources but also displacement of local practices and discourses. Khula Village conservation project located in Mtubatuba Local Municipality represents one such modernist state-controlled conservation project. The following questions are crucial to my earliest conception of this project: What are constitutive elements of and tensions between traditional and modern conservation practices and discourses? Given its colonial and violent past, how accommodative have modern conservation practices and discourses been? To engage with these questions, I picked the role of indigenous environmental knowledge (IEK) in the evolving nature conservation systems as a topic of interest, more generally, and, specifically, its implication/application to the South African context. The intent here is to problematize such dichotomization and critically appraise local practices, interests as well as IEK. This paper explores existing indigenous ecological knowledge and their appropriation and use in guiding specific environmental practices and discourses in Khula Village. In this, I sought to pay attention to the basics of IEK, its dynamics, and the mechanism through which it is constituted. Oral history and oral tradition feature as crucial components of IEK and any other traditional knowledge systems. Oral history and tradition are the primary tools that construct African communities and are employed to conserve the natural environment and build strong relationships between local communities and the natural environment.

CONSERVATION DISCOURSE; INDIGENOUS KNOWLEDGE SYSTEMS; POLITICAL ECOLOGY; KHULA VILLAGE

# Forest Management Under Land Reform: Investigating the Sale and Leaseback Model in the Midlands, KwaZulu-Natal

Miss Nonduduzo Mkhize<sup>1</sup>

<sup>1</sup>*University Of Kwazulu-natal, South Africa*

The sale and leaseback model (SALB) is an institutional arrangement that creates partnerships between land claimant communities and commercial forestry companies. The model provides benefits the following benefits to claimant communities, (a) rent and stumpage, (b) capacity building, (c) bursary scheme, (d) employment opportunities, (e) corporate social investment (CSI), and (f) enterprise development. Studies have shown that while partnerships were hoped to be a bridge between claimant communities and private forestry companies, it has not been the case. The study evaluates the SALB and its impact on claimants and forest management from a political ecology perspective and co-management analysis framework. Central themes analyzed in co-management are (1) representation which examines the scope of actors involved in co-management, (2) power sharing which analyses the extent of power sharing in a co-management arrangement, and (3) empowerment which examines the extent to which communities are dependent on the company they work with. Power is a central theme in the study as it is used to understand the interaction between the commercial company and claimant communities as well as understanding power dynamics within communities themselves. In the study, we see that power is not static, it shifts from actor to actor depending on the situation; although partnership arrangements account for potential power struggles, there is a lack of a mechanism to address them. The study shows that there is also an underlying inferiority from trustees as a result of historical injustices. The study provides practical case studies on institutional arrangements in forestry management.

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# STRATEGIES FOR PROTECTED AREAS TO SUPPORT LOCAL ECONOMIC DEVELOPMENT IN KWAZULU-NATAL, SOUTH AFRICA.

Mr Teboho Mokoena<sup>2</sup>, Dr Tariro Kamuti<sup>1</sup>, Prof Sevias Guvuro, Ms. Deshni Pillay<sup>1</sup>

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## STRATEGIES FOR PROTECTED AREAS TO SUPPORT LOCAL ECONOMIC DEVELOPMENT IN KWAZULU-NATAL, SOUTH AFRICA.

Protected Areas (PAs) have long been considered cornerstones for biodiversity conservation repositories providing vital ecosystem services and landscapes for communities living within and around them. In KwaZulu-Natal (KZN), a South African province with more than 11.5 million people, PAs occupy more than 924,400 ha (9.9% of the province's terrestrial area). Despite the conservation role of the biodiversity of these PAs, there is a dearth of studies that focus on the promotion of local economic development by PAs in KZN beyond conventional monetarised parameters such as ecotourism and wildlife ranching, which are largely limited and have unevenly distributed benefits to society. However, in general, PAs in South Africa have been evolving in response to societal demand since the dawn of the new democratic government in 1994. This paper aims to determine, describe, and explain different strategies conducive for PAs to promote Local Economic Development in KZN. By interviewing PA management staff and conservation industry experts, we collected specific data concerning recent developments around PAs management systems. SWOT and Analytical Hierarchy Processes (AHP) were used as data analysis tools. Key conducive PA strategies to support Local Economic Development that emerged from the analysis include the rationalisation of Provincial and National PAs; development of a special Commercialisation Framework for public PAs; revitalisation of the township and rural economies around PAs; expansion of Transfrontier Conservation Areas and inter-industrial linkages, and contemporary PAs Business Reengineering Framework. These strategies are envisaged to bring more benefits and reduce potential conflicts between the local communities and the PAs.

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# 'The political ecology of water-energy-food nexus in postmining western platinum belt'

Dr Ngaka Mosiane<sup>1</sup>

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TITLE

THE POLITICAL ECOLOGY OF WATER-ENERGY-FOOD NEXUS IN POSTMINING RUSTENBURG

ABSTRACT

Within two decades, the Rustenburg landscape of communal grazing lands and agricultural production of sunflowers, tobacco and citrus has become dominated by smelters, tailings storage facilities and poor air quality. Low-income and indigent settlements have expanded around mining shafts where basic services (water and energy) and food have become difficult to produce and access. This urban footprint extends to the very fence line of the Kgaswane Mountain Reserve and the UNESCO declared Magaliesberg Biosphere Reserve, increasing infrastructural demands for potable water and larger traffic volumes, and compromising biodiversity and natural water sources as they introduce alien invasive plants in their gardens. Furthermore, the natural water of the Magaliesberg has become much sought after by city people from Gauteng and the mine-affected communities. The increasing need for holy water for cleansing rituals and pools for baptisms has not kept up with spatial development plans. In the Covid-19 landscape mental health and the healing force of natural areas are so sought after that people will risk their lives and trespass onto private property. This paper reflects on these issues from the vantage point of the political ecology analysis, focusing on the effects of platinum-group-metals mining, the urban footprint, and climate change on water, energy and food in the western platinum belt.

KEY WORDS:

Postmining, WEF, Rustenburg



# COMMUNITY PERCEPTIONS ON A PROPOSED GAME RESERVE: A CASE STUDY OF LOZIBA WILDERNESS, NORTHERN KWAZULU-NATAL

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## COMMUNITY PERCEPTIONS ON A PROPOSED GAME RESERVE: A CASE STUDY OF LOZIBA WILDERNESS, NORTHERN KZN

South Africa has seen a notable trend on privately owned land in which farms are transformed to game reserves, particularly in rural areas. This transformation is associated with declining agricultural productivity on marginal lands, the growth in the 'wildlife economy' and game farming industry, and the increasing demand for the conservation of wildlife. However, these transformations introduce significant changes in the property regime where land restitution is involved, as it redefines conditions for the access and the control of land, the creation of game reserves faces significant challenges for both project developers and communities.

The aim of the study was to investigate the perceptions of communities and other stakeholders involved regarding the opportunities and the risks/challenges for a prospective game reserve. The study focused on the proposed expansion project of the Mawana Game Farm to include restituted farm land and form the Loziba Wilderness, near Gluckstadt and the Black Imfolozi river in Northern KwaZulu-Natal. The study revealed that communities allow for projects to be implemented on their space on conditional basis, which include the maximum beneficiation for local people, i.e. job opportunities, access to park and grazing land. The study also revealed that wildlife conservation perceptions for this specific project are informed by two factors, which are 1. Interpersonal relations within the project developers and their interaction with the local communities and 2. Community relations within the communities and their leaders. The study demonstrates a need for stakeholders to be attentive to factors such as micro-politics and power relations, expectations, past injustices, land politics and distrust between project initiators and local communities.

# EVALUATING THE ROLE OF INDIGENOUS KNOWLEDGE IN THE EVOLVING NATURE CONSERVATION SYSTEMS: THE STUDY AREA OF KHULA VILLAGE WITHIN MTUBATUBA LOCAL MUNICIPALITY, IN KZN

Miss Thenjiwe Ncube<sup>1</sup>

<sup>1</sup>*University of KwaZulu Natal, South Africa*

The gatekeeper state, through the human-environment dichotomization, has imposed specific discourse and practice of an environmental conservation (Garrick et al., 2006). Such impositions lend themselves not only to forms of state control of resources but also displacement of local practices and discourses. Khula Village conservation project located in Mtubatuba Local Municipality represents one such modernist state-controlled conservation project. The following questions are crucial to my earliest conception of this project: What are constitutive elements of traditional and modern conservation practices and discourses? What are the tensions between these two practices and discourses? What are the attempts made to incorporate IEK into modern conservation practices? Given its colonial and violent past, how accommodative have modern conservation practices and discourses been? In an attempt to closely engage with these questions, I picked the role of IEK in the evolving nature conservation systems as a topic of interest, more generally, and, specifically, its implication/application to the South African context. This paper begins with the impulse to problematize such dichotomization and critically appraise local practices, interests as well as what is often referred to as indigenous environmental knowledge (IEK). This paper explores existing indigenous ecological knowledge and their appropriation and use in guiding specific environmental practices and discourses in Khula Village. In this, I sought to pay attention to the basics of IEK, its dynamics, and the mechanism through which it is constituted. Here, oral history and oral tradition feature as crucial components of IEK and any other traditional knowledge systems. This paper also evaluates the role and relevance of indigenous knowledge in modern environmental conservation systems in Khula Village.

## KEYWORDS

Indigenous Ecological Knowledge, Modern Conservation Practices, Gatekeeper State.

# Extractivism and Lawfare in South Africa – the cases of Amadiba and Fuleni/Somkhele

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The South African extractives context provides a terrain in which the legal geography of mining has been particularly influential in recent years. In the wake of the Marikana Massacre a decade ago, and amidst a national push to institute a Mining Charter, local sensitivities concerning the ‘the Right to Say No’ as well as the salience of the social license to operate characterize the current moment in South Africa’s long relationship with its minerals-Industrial complex. The Fuleni/Somkhele and Xolobeni cases provide fertile ground to explore the interaction of these elements. Both are seized with high profile, likely precedent setting legal proceedings that are likely shape the future of both areas and beyond, and much is at stake for Community based Organisations, NGOs and mining houses alike, and not least their local environments. This session involves presentations and reflections from individuals involved in anti-extractivist struggles in these two areas, as well as from the lawyers that represent them. We hope to focus on the comparative legal terrain and its lessons for the role of ‘lawfare’ in the the South African extractives sector more broadly.

# Adaptation to Coastal Environmental Changes in Ghana's Volta River Delta: Post-Constructivist Political Ecology Perspectives

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## ADAPTATION TO COASTAL ENVIRONMENTAL CHANGES IN GHANA'S VOLTA RIVER DELTA: POST-CONSTRUCTIVIST POLITICAL ECOLOGY PERSPECTIVES

Representing a geomorphologically highly active ecosystem, Ghana's Volta River Delta struggles since several decades with continuously diminishing land resources. This is due to persistent coastal erosion and inundation on a densely populated but narrow sand spit east of the Volta estuary that is located between the Atlantic Ocean and Keta Lagoon. My paper draws on perspectives from post-constructivist political ecology – going along with a re-appreciation of matter after the material turn – to scrutinize how adaptation to environmental changes materializes unequally at particular locations within the delta. Referring to ethnographic and other qualitative data from field visits, the paper unveils unique naturecultural assemblages that lead in one site to state-led resettlement of people into villages on reclaimed land that is protected by sea defense structures, but in another site to autonomous practices of 'living with' environmental changes without much governmental interference. This contribution in addition uses post-colonial thinking to demonstrate the crucial role of dichotomous valuations of knowledge – with (global) 'scientific' knowledge surpassing (local) 'indigenous' or 'practical' knowledge – for these adaptation outcomes. Trying to overcome the dialectic between nature and culture, adaptation takes shape as permanently reshuffling assemblages of more-than-human sociomaterial practices. These entail as multispecies agents a.o. the dammed Volta River, flows of sand, tidal and wave dynamics, but also (inter-)national climate change adaptation discourses dominated by technocratic and managerial science-based interventions, historical knowledge of the native Anlo-Ewe clans, or traditional worldviews and belief systems – altogether renegotiating the symbolic, material and spatial dimensions of land and ocean.

KEYWORDS: adaptation, environmental change, post-constructivist political ecology

# Deagrarianisation or reagrarianisation? Land reform, agrarian political ecology and reconfigured rural-urban relations in Zimbabwe

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Zimbabwe's Fast-Track Land Reform Programme has given rise, since its inception at the dawn of the 21st-century, to a new agrarian political ecology. On the one hand, this new landscape is characterised by emergent class formations and rapid expansion of small-scale commercial agriculture, occurring against a background of de-industrialisation undermining the viability of urban livelihoods. On the other hand, Zimbabwe's climate has already changed dramatically in recent decades, and in ways which highlight the vulnerability and precarity of much – though by no means all – small-scale commercialisation efforts. These trends are perhaps nowhere more evident than in the uptake of tobacco by almost 125,000 small-scale farmers, a crop which prior to land reform was the preserve of perhaps 1500 mostly white, large-scale farmers in 1980.

This picture forms a contrast with the deagrarianisation that has been underway for decades in nearby countries like Tanzania, Malawi and South Africa, and raises important questions. To what extent do these dynamics constitute an instance of 're-agrarianisation', and how is this new agrarian political ecology refashioning rural-urban relations, lives and livelihoods in Zimbabwe? There is a burgeoning literature on 21st-century agrarian change in Zimbabwe, but as yet very little consideration given to these dimensions. This presentation will take on these questions and set out a future research agenda in this area.

# The politics of CITES: clashes between two paradigms for regulating international trade in wildlife

Miss Michele Pfab<sup>1</sup>

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## THE POLITICS OF CITES: CLASHES BETWEEN TWO PARADIGMS FOR REGULATING INTERNATIONAL TRADE IN WILDLIFE

The Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) aims to ensure that international trade does not threaten the survival of species in the wild. However, there is a clear dichotomy among Parties to CITES in relation to implementation of the Convention. Many Parties, predominantly those from the global North, see it as an international instrument to protect wildlife species from trade or any form of utilization or commercialization, while others, particularly from developing economies in southern Africa, see it as a tool for the sustainable utilization of wildlife for the benefit of local livelihoods and incentive-based conservation. The power balance is currently swayed towards the protectionist viewpoint, manifesting as a series of trade prohibitions for particularly the charismatic animal species, such as rhinos and elephants, or onerous management measures for natural resources in high global demand such as timber. Widely purported to be a science-based Convention, science is sometimes ignored in favour of emotional decisions, while the social and economic sciences do not feature at all. While the European Union is the most powerful force in the decision-making of the Convention, Northern hemisphere based non-governmental organizations are also strong influencers. This state of politics at play will be demonstrated through several case studies emanating from amendments to the Appendices of CITES at the 19th Conference of the Parties held in Panama in November 2022.

wildlife trade, sustainable use, livelihoods

# Biodiversity related jobs: benefiting people and nature to enhance intergenerational equity whilst securing ecological infrastructure

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An assessment in 2018 of the jobs contributed by the biodiversity sector found, that more than 418 000 jobs in South Africa were related to biodiversity. One category of biodiversity-related jobs is those involved in conserving biodiversity. This under-utilised category has the potential for addressing the high levels of unemployment in a megadiverse country with corresponding levels of endemic biodiversity. Between 2020-2022, SANBI was involved in two presidency-led initiatives, aimed at catalysing the economy following the devastating effects of Covid-19 pandemic. These projects were addressing the serious problem of youth unemployment, which stood at 45% in 2022. Among the more than 4 000 employment opportunities created under these initiatives, were jobs involving clearing invasive plants, restoring wetlands, gathering biodiversity data and internships for young graduates. The outcomes revealed both biodiversity and socio-economic benefits. Efforts at restoration had a visible impact on the landscape, and observable outcomes such as the revitalisation of springs and streams that provide communities with water. The most obvious socio-economic benefit came from the wages that gave individuals and their families more spending power making them less vulnerable to environmental and socio-economic shocks. Other benefits were noted reductions in crime, increase in bank accounts, development of skilled teams, further opportunities for self-employment, ability to be resilient to climate change and reduced time spent on collecting water to meet household needs. Both biodiversity and socio-economic outcomes gain from a multiplier effect where the actions of individuals can accumulate throughout communities and across the diverse landscapes in South Africa.

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# Experts' Perceptions on the Roles and Salience of Stakeholders in Influencing Protected Areas Governance towards Local Economic Development in KwaZulu-Natal, South Africa

Mr Teboho Mokoena<sup>1</sup>, Ms. Deshni Pillay<sup>2</sup>, Prof Sevias Guvuriro, Dr Tariro Kamuti<sup>3</sup>

<sup>1</sup>Ezemvelo KwaZulu-Natal Wildlife, <sup>2</sup>University of the Free State, <sup>3</sup>University of the Free State

EXPERTS' PERCEPTIONS ON THE ROLES AND SALIENCE OF STAKEHOLDERS IN INFLUENCING PROTECTED AREAS GOVERNANCE TOWARDS LOCAL ECONOMIC DEVELOPMENT IN KWAZULU-NATAL, SOUTH AFRICA

Good governance under political ecology is critical for Protected Areas (PAs) to realise their ecological and economic values, most specifically, their contribution to Local Economic Development (LED). This governance must allow key stakeholders to reflect on various issues relating to PAs such as identifying, analysing, negotiating, and modifying constraints, variables, and subsystems. This article aims to analyse and explain the political ecological dynamics as reflected by the perceptions of experts on the roles and salience of key stakeholders in influencing PA governance (policies, strategies, and institutional structures) to promote LED in KwaZulu-Natal Province. A comprehensive Mendelow Stakeholder Mapping Matrix was used to measure stakeholders' interest, power, positions, and then salience, attributes used to prioritise stakeholders' engagement in developing and reviewing policies and strategies relating to PAs promotion of LED. In-depth interviews were conducted with PA officials, Government Officials, Academics and Consultants within the PA sector. Six key stakeholders and their roles, influential in PA governance toward LED were identified, namely PAs' customers/tourists (providing revenue for PAs financial sustainability); PAs' employees (influencing aspects of PAs developing and implementing policies); National and Provincial Government (developing PA Legislative Framework); Traditional Leaders (nucleus between PAs and the society); and Local Communities (partners to sustain PAs impetus for LED). Such identification reveals a complex matrix of the stakeholders and provides a nuanced understanding of the dynamics of their interactions. These dynamics play a critical role in shaping the trajectory of the governance of PAs as they are increasingly expected to steer LED.



# Cultivating Environmental Subjects: Non-Generational Kinship between Species in the Mangrove Forests of Bangladesh

Mr MD Raihan Raju

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## CULTIVATING ENVIRONMENTAL SUBJECTS: NON-GENERATIONAL KINSHIP BETWEEN SPECIES IN THE MANGROVE FORESTS OF BANGLADESH

The knotted lives of Bonojibi (forest venturers) with wildlife and environment postulates in a mythical tale called Bonbibi Johuranam (the glory of Bonbibi in Sundarbans). The mythical tale, in which the Bonbibi is the protectors of lives in Sundarbans, invokes a non-generational kinship in everyday lives among Hindu, Muslim, indigenous Bonojibi, tigers, other wildlife, and supernatural figures. The faith of Bonbibi configures the notion of none of the agent dominion; none of the agents in the forest is of a superior rank within the non-generational kinship since the forest is home for all beings. Moreover, this faith postulates ethical actions whereby forest dwellers cannot destroy or degrade the forest. Dwellers are not permitted to take resources apart from what they need to survive, thus leaving space for other species to survive on forest resources. Based on non-generational kinship, the faith cultivates a non-anthropocentric human and non-human subjectivity. The everyday cultural practice, rituals, and the veneration of Bonojibi in relation to wildlife, mythical figures, and the environment through Non-generational Kinship proposes a conceptual framework that adheres to the idea of how to engage with the environment, how one ought to live in the environment and recapitulate the human and non-human subjectivity. Therefore, my ethnographic attempt is to conceptualize the environmental subjects under the web of Non-generational kinship between species in the Sundarbans mangrove forests.

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## HUMAN-NONHUMAN RELATIONS, NON-GENERATIONAL KINSHIP, ENVIRONMENTAL SUBJECTS

# The Violence of Conservation in Africa

Prof Maano Ramutsindela<sup>1</sup>

<sup>1</sup>*University Of Cape Town, South Africa*

In this panel we launch our book on *The Violence of Conservation in Africa*. We conceptualize violence in conservation spaces as encompassing the adverse material and non-material consequences of the ideas of nature and conservation practices whose contestation on the ground necessitates the use of overt and covert power by the state and other actors to enforce, manage, and police prescribed relations between people and the environment. We emphasize two main dimensions of the violence of conservation: the institutionalized idea of conservation that makes conservation inherently violent, and the racial hierarchies and demographic character of violent conservation. We identify four conditions that make such violence a permanent feature of conservation in Africa. The first relates to the hierarchical ordering of humans and nonhumans and the enduring stereotypes and perceptions of black people and indigenous groups. The second condition is the introduction of global environmental agendas on the continent which African states pursue to the detriment of their own citizens. The third relates to the inability of the African state to regain resource sovereignty and to resolve the colonial architecture of resource regimes for their nations. The fourth condition is the neoliberalization of conservation, which enables extractivism. We draw on theories of non-violence to (a) reject the violence/non-violence duality as a conceptual frame, and (b) to propose non-violence as a set of conditions that not only prevent the use of force and the consequent harm but that also render its use an irrational approach to human interactions and relations.

TITLE: Protected Forests as Violent Forests

ABSTRACT

State goals to protect forest areas are often marked by violence in different forms that lead to violent territories. As a counterview of “protected forests”, this presentation introduces the concept of violent forests. The concept examines forest areas under state purview, whose anticipated benefits, as laid out by the legal framework, are achieved using state-sanctioned bureaucratic and institutionalized violent practices. Underpinning “violent forests”, therefore, is that the use of violent tactics to protect forests obscures and often engulfs the noble intentions of their conservation – producing the more violent than protected forests. In this presentation we first discuss literature on the militarization of conservation and locates this in the broader history of state violence and use of military tactics in Zimbabwe. Next, we trace the characteristics of Sikumi forests in relation to state violence. Using qualitative material evidence, local people’s experiences are presented before discussing emerging forms of state violence against the stated policy of promoting national development and social equity through sustainable forest management. We draw on these experiences to show that (a) people’s needs are violated rather than protected, (b) resources in themselves are not necessarily protected by conservation practices instituted but are instead (ab)used by extractive institutions, and (c) conservation practices instituted around Sikumi Forest suggest that roles assumed by state institutions in conservation are entirely for the existential benefit of such organs rather than for national or global biodiversity. Such existential threats are maintained by violent means, as necessary.

Keywords: violent forests, Sikumi, state institutions

TITLE: The state and contested natural resources in Africa

ABSTRACT

The modern African state was born out of an external control over the local populations through colonial hegemony. As a result, the state lacked legitimacy among the populations of African states. Hence, state authority was achieved through brutal conquest. New governance regimes that centralize authority away from the governed and treat them as subjects continues to be problematic for Africa in the post-colonial period. This chapter engages with the vexed question of the role of the state in the oversight of natural

resources by situating this historically and then examining the contemporary ramifications. Historically, colonialism played a major role in disrupting local governance and resource management practices that were rooted in a commons ethos. That is, resources were owned and used collectively by specific populations falling under customary authorities. Natural resources were used for the provisioning of goods and services for those living with them. The ushering in of the colonial state changed this ethos and very rarely have African states restored rights lost to rural populations. In this presentation we offer two theses on coloniality (Ndlovu-Gatsheni 2015) and bifurcation (Mamdani 1996) to frame our contribution. Our contention is that local populations around protected areas are still treated in much the same way colonists treated the “natives”. Such treatment manifests in the form of subjectification of populations, disregard of their knowledge and resource-based livelihoods, privileging “science” and outside knowledge, denial of rights to resources and land, perpetration of violence and violent acts, as well as imposition of governance systems that are not aligned with the rest of the country.

KEYWORDS: coloniality, bifurcation, local subjects

TITLE: Non-violent conservation in a violent and unequal society

ABSTRACT

The requirements for non-violence in society include rejecting the Hobbesian individual as an object of defence and the reconstituting of society based on empathy and co-existence (Butler 2020b). The project of ‘conjured individuation’ is considered ‘an existential threat to the future of humanity’ and accounts for ‘our collective inability, our arrogant unwillingness, to live within – and at peace with – our natural surroundings’ (Blomley 2019, pp.xvii, xix). Non-violence is considered in its gerund form to be a particular kind of activity performed to prevent violence in whatever relational patterns it may take. It is also relational in that it is ‘reconfigured in the complex entanglements of bodies, things, abstractions, and histories and how these different entanglements enable an ethically sustainable response for non-violence’ (Pihkala et al. 2018, p.167). Drawing upon the traditions of Mahatma Gandhi and Martin Luther King, Jr, Butler (2020a, p.1) rejects a reductionist conception of non-violence such as passivity, withdrawal or quietude but instead suggest that ‘there are forceful and effective modes of action that gain their force precisely by refusing violence’. We refer to these conceptions of non-violence to open intellectual space for imagining non-violent conservation. Our proposition is that non-violent conservation should be contextualized within broader understandings of non-violence but with a specific focus on conservation spaces and actions.

KEYWORDS: individuation, violence/non-violence, alternatives

# UNDERSTANDING ADIVASI (INDIGENOUS) CONCEPTUALIZATIONS OF NATURE AND ANIMALS IN NEOLIBERAL JHARKHAND, INDIA

Dr Pallavi Raonka<sup>1</sup>

<sup>1</sup>*DePauw University, United States*

## UNDERSTANDING ADIVASI (INDIGENOUS) CONCEPTUALIZATIONS OF NATURE AND ANIMALS IN NEOLIBERAL JHARKHAND, INDIA

Built on extensive ethnographic fieldwork, this article explores the sophisticated relationships shared by the Munda Adivasi (indigenous) communities and non-human actors such as domestic and wild animals. Munda Adivasi communities have been living alongside centralized state powers for many centuries in the eastern state of India, Jharkhand. More recently, corporate land grabs and infrastructure development projects such as roads and bridges have led to massive deforestation and changes in animal mobilities in the area. These changes have transformed the intimate relationship shared between the Munda, the nature they inhabit, and the non-human actors around them. This article explores the ways in which the Munda Adivasi communities negotiate with the neoliberal state through the embodiment of their Munda alterity (indigeneity), especially in terms of how they interact with the land and non-human actors. These interactions include the community's decisions to kill, sacrifice, pray, and not to kill animals. In essence, the Munda Adivasi view their interactions with non-human actors as expressions of their alterity (indigeneity); they see this alterity as essential to maintain their territoriality over nature and the land they inhabit as they negotiate to keep the neoliberal state away. Thus, their negotiations with the neoliberal state and with non-human actors are imbricated. By analyzing their intimate interactions with non-human animals, I argue the meanings of the Munda community's relationships with their land, nature, and animals are in flux as they negotiate their relationship with the neoliberal state.

# POLITICAL ECOLOGY OF A PETRO-METROPOLIS: COMMUNITY-BASED DISASTER MANAGEMENT PLANS IN THE SOUTH DURBAN BASIN

Ms Tashmica Sharma

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Political ecology holds that environmental challenges within any region can be extrapolated to its economic and political structures, which generate and exacerbate such problems. Third World political ecology is often linked to the impacts of colonial legacies, extreme poverty and lack of spatial transformation. The South Durban Basin (SDB) in South Africa is no exception to this, being home to one of the most toxic environments in the world. The SDB contains two of the country's major petrochemical plants – Engen refinery and SAPREF, South Africa's largest crude oil refinery. Consequently, there have been numerous industrial accidents such as flaring, explosions and odours with over 180 refinery-related incidents recorded between 1998 - 2022. Such incidents remain on the increase despite the existing institutional frameworks of local government, including the Offsite Emergency Plan for the SDB and eThekweni Disaster Management Sector Plan, which have been ineffective. Given the spatial vulnerability of the South Durban residents, community-based organizations such as the South Durban Community Environmental Alliance (SDCEA) and Merewest Community Forum (MCF) have resorted to developing their own community-based disaster management plans (CBDMPs) to mitigate, prepare, respond and recover from petrochemical accidents, after decades of fighting for environmental justice. This paper will assess the CBDMPs of SDCEA and MCF in response to the refinery accidents, and demonstrate the inefficiency of the eThekweni Municipality's disaster management governance as an infringement on the community's rights to live in a safe environment – enshrined in Section 24 of the South African Constitution.

Title: POLITICAL ECOLOGY OF A PETRO-METROPOLIS: COMMUNITY-BASED DISASTER MANAGEMENT PLANS IN THE SOUTH DURBAN BASIN.

Abstract: This presentation will analyse the Community-Based Disaster Management Plans of the South Durban Community Environmental Alliance and Merewest Community Forum in response to the refinery accidents, and demonstrate the inefficiency of the eThekweni Municipality's disaster management governance as an infringement on the community's rights to live in a safe environment – enshrined in Section 24 of the South African Constitution.

Keywords: Political Ecology; Disaster Management; Environmental Justice; South Durban

# Assertion and subversion through digital technologies: rights, sovereignty and counter mapping by indigenous pastoralists in India

Dr. Trishant Simlai<sup>1</sup>

Indigenous communities throughout the world are increasingly deploying technologies primarily used by the state to counter spatial narratives. In this paper, we depict the necessity, strategies and challenges for a nomadic pastoralist community- the Van Gujjars, whilst they engage in counter mapping practices for the assertion of rights in a landscape wherein the state too engages in technocratic models of conservation. We explore if the adoption of digital technologies can foster greater participation of youth, provide strategies to resist dispossession, engender new forms of evidence for claim making, as well as engage in effectively depicting an indigenous sense of place. We also discuss if digital technologies have the potential to reify dominant notions of ownership and property for nomadic van gujjars thereby alienating existing common land use strategies. Finally, we argue that the use of such tools for mobilization and assertion of rights can democratize technical knowledge and access for forest dwellers as well as cultivate plural imagination of land use, rights and sovereignty.

# SMART Conservation? Exploring the Transition From Intimate Government to Algorithmic Ontopower in Belize

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SMART CONSERVATION? EXPLORING THE TRANSITION FROM INTIMATE GOVERNMENT TO ALGORITHMIC ONTOPOWER IN BELIZE

Key Words: SMART Technology; Conservation; Ontopower

This paper presents an analysis of the Spatial Monitoring and Reporting Tool (SMART) and its use in terrestrial and marine protected areas in Belize. SMART is a software application used by park rangers on mobile devices to collect, store, share and analyze data on wildlife observations, poaching, arrests and other events in real-time. The most recent update to the platform (SMART 7) included the rollout of “Predictive Patrol Planning,” which uses machine learning to predict poachers’ future behavior based on patrol records and data about the physical and human geography of the protected area. In 2018, Belize adopted SMART as the country’s official monitoring system for their protected area network. Significantly, the adoption of SMART in Belize has seemingly coincided with a shift away from a focus on community-based conservation toward an emphasis on surveillance technology, law-enforcement and combatting the illegal wildlife trade. Based on a literature review, as well as interviews and ethnographic fieldwork with protected area managers, this paper describes the impacts of the Spatial Monitoring and Reporting Tool, and the recent adoption of SMART 7, on the practice of protected area management in Belize. Framed as a transition from “intimate government” (Agrawal 2005) to algorithmic ontopower (Massumi 2015; Büscher 2018), this paper explores what happens when protected area management decisions are increasingly determined not by humans and local knowledge, but by big data, algorithms and artificial intelligence.

# Latest developments of blockchain in biodiversity conservation and environmental sustainability efforts

Miss Andrea Stuit<sup>1</sup>

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TITLE: Smart, Commodified and Encoded: Blockchain Technology for Environmental Sustainability and Nature Conservation.

ABSTRACT: We explore the implications of blockchain technology for conservation and environmental policy. Drawing on an analysis of 27 initiatives, we examine their goals, assumptions, visions and workings. We find that these initiatives do not yet form a coherent approach, there is too much variety in their environmental focus, and the role of blockchain technology in achieving their goals. However, they share a faith in environmental-commodity markets, a penchant for surveillance and upward accountability, and lack a critical analysis of the main causes of environmental problems. Blockchain initiatives are forming a growing community of praxis and deepen ongoing trends in neoliberal environmental governance, characterised by the increased commodification and global accounting, surveillance and marketisation of environmental goods, services and outcomes. We suggest these services and outcomes fail to challenge the actual root causes of environmental degradation. At the same time, they are not all necessarily flawed by these characteristics. They can render information held by communities financially valuable in ways those communities may find useful. Future research should focus on exploring whether blockchain initiatives may at least translate in concrete environmental outcomes and contribute to the well-being of natural resource managers.

KEYWORDS: blockchain technology; distributed ledger; commodification; surveillance; trustlessness; cypherpunk



# Memories of Air

Dr Giovanbattista Tusa<sup>1</sup>

<sup>1</sup>NOVA INSTITUTE OF PHILOSOPHY (IFILNOVA), Universidade Nova de Lisboa, Portugal

## MEMORIES OF AIR

In my presentation, I suggest that we are currently witnessing a mutation, which disrupts the mythical imaginary that had confined viruses, climate change, and atmospheric turbulences to an immutable, celestial background. Western philosophy has based its perpetuation on ideas that have been built on an exploitable ground, endlessly manipulated, dissociated from a sky that has become increasingly uncertain and threatening, increasingly distant. The conclusions presented in this short presentation move in opposite direction to this disastrous separation, as I argue that the repression of this traumatic experience, is the cause of the perturbation that haunts our time. Disorientation pervades philosophy when the entire imaginary to which it had anchored its power to change the world seems to dissolve in the air; but precisely for this reason, philosophy must accept inhabiting the fluctuating disorientation of its own time, populated by intermittent and uncertain opportunities of experiencing differently the past and the future—to encounter different relationships with the times that change.

Keywords: ecology; climate change; philosophy.

# The Narrative Predictability of Political Ecology

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## THE NARRATIVE PREDICTABILITY OF POLITICAL ECOLOGY

Drawing upon critical social theory and fine-grained empirical observations, political ecologists have long argued against hegemonic stories on environment, development and capitalism. Despite their diversity, this critical approach is largely shared among political ecologists rooted in the work of Marx, Polanyi and Foucault. In a world haunted by increasing social inequalities and ecological degradations, there are strong reasons to pursue this critical agenda. In this paper however, I coin the concept of narrative predictability to offer a critical engagement with a tendency towards a biased narrative plot featuring the State and/or the Corporation as villains, the environment and indigenous peoples as victims and activists as heroes. This engagement is not a reactionary attack, but rather an application of political ecology's main tool – empirical scrutiny – on itself. Empirically, the paper draws upon recent fieldwork among indigenous Shuar people engaged in gold mining in the Ecuadorian Amazon, and my observations from a Latin American Political Ecology conference in Quito, accompanied by a Shuar leader. Whereas the fieldwork offers observations on the becoming of indigenous gold miners, the conference experience offers reflections on scholars rehearsing a narrative of indigenous resistance facing extractive industries accompanied by complicit States. Theoretically, the paper problematizes romanticism and essentialism within resistance studies. A key observation is a neglect of empirical complexity challenging the recurrent plot. What are the implications of avoiding discomfiting observations when producing counter-narratives aimed for progressive change? This paper argues that political ecology needs to counter its own narrative predictability by strengthening its attentiveness to the heterogeneity and ambiguities of marginalized people in a world of capitalist ruins.

Narratives, political ecology, Amazonia

# Political ontologies and social-ecological change in the Colombian Andes Highlands. Building socio-natural struggles towards alternative worlds.

Mr Juan Sebastian Velez Triana<sup>1</sup>

<sup>1</sup>Center for Alternatives to Development-CEALDES, Colombia, <sup>2</sup>Institute of Development Policy (IOB), University of Antwerp, antwerpen, Belgium

This paper investigates the material and ontological dimensions of peasant collective agency in agrarian frontiers with protected areas. It explores the intersection of claims for distributive justice, cultural recognition and ecological change in the Colombian Andes highlands, following an ethnographic and participatory action research approach. It draws on the links between a past experience of struggle for land redistribution and a current project to create a Peasant Reserve Zone to show how this long-term process is entangled with the improving conditions of the high-Andean forests. The paper reflects on how peasant agencies and landscape transformations are entangled in political ontologies that contest dominant understandings of conservation and agriculture. It also delves into reflections about the necessity to include landscape transformation and ecological processes of change as relevant agents of struggles for social and environmental justice. This poses methodological, theoretical and even ontological challenges to researchers who intend to side their(our) research with such struggles to contribute to scaling them up. the paper makes a call to build a double hybridization of 1) politically engaged academics and rural activists and 2) human and non-human agents, constituting what Escobar (2015) calls the entanglement of socionatural worlds towards alternative pathways to development that have autonomy and social-ecological justice at their core. The paper aims to contribute to the Latin-American debates around the eco-territorial shift of agrarian struggles – from land struggles to environmental and cultural claims for recognition- and to the broader conversation about the relevance of ontological dimensions of dispossession and resistance taking place within critical geography and agrarian studies, commonly referred to as the ontological turn.

# Different Life Experiences, A Common Goal: Women's Motivations To Mobilise Against A Mining Project In Northern Portugal

Mr Francisco Venes<sup>1</sup>

<sup>1</sup>*Centre For Social Studies, University of Coimbra, Portugal*

TITLE: Different life experiences, a common goal: women's motivations to mobilise against a mining project in northern Portugal

ABSTRACT: The European Union energy transition policies have sparked interest in Portuguese lithium deposits. The Barroso mine project, promoted by Savannah Resources in the village of Covas do Barroso (northern Portugal), is the front-line project of the country's lithium strategy. Since prospecting started four years ago, the local population actively mobilised to oppose it, pointing the contradictions of policies that promote new extractive frontiers and sacrifice a region renowned for its important biodiversity, water abundance and cultural heritage.

Women have been the key organizers of resistance in Covas do Barroso, an aspect scholars acknowledge for other grassroots movements for Environmental Justice. Existing studies on Feminist Political Ecology have either focused on the specific impacts of mining on women, often associated with their role as care providers, the entrenchment of patriarchal dynamics in mining territories, and the occurrence of gendered strategies of resistance.

Focusing on the Covas do Barroso case, I propose to look at women's motivations to oppose Savannah's lithium project by asking how their activism appears in their life trajectories and how it relates to their daily practices. I have carried ethnographic research locally for a year through participant observation and biographical interviews with six key informants. In POLLEN 2022, I expect to present the main results of this research, namely by highlighting the nexus between women's motivations to mobilise and past and present aspects of their lives, as well as the differentiated material and emotional relationships each has established with the territory now threatened by mining.

KEYWORDS: Women; lithium mining; resistance

## The political ecology of de-greening: War and the environment in Tigray, Ethiopia

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### Abstract

While the war in Tigray, Ethiopia, has evidently been a humanitarian and human rights catastrophe, a largely overlooked issue in the reporting and coverage of the war is how it may have impacted Tigray's fragile environment and thus the future of nature and people in the region. In crisis contexts, life decisions focus on surviving today as tomorrow is uncertain and invisible. While the focus is understandably on the humanitarian side of the crisis in Tigray, the impact of the war on the environment is as important when it comes to thinking about the future of the region and its people.

In this paper, I analyze the broader impacts of the war on Tigray's fragile environment. Moreover, the paper explores how the relationship between people and nature have been altered due to the war and the long-term implication of such changes. I carefully document the different impacts of the war on forests, farms, irrigation schemes and the broader social and ecological implications of changes following the war. The paper is based on empirical material from reviews of reports, media stories, key informant interviews, and analysis of satellite images of the Tigray region. The environmental cost of the war on Tigray is without a doubt immense. It is important that the environmental impacts of the war are further assessed on the ground to inform recovery strategies. Only if the environment thrives can the long-term well-being of survivors be assured.

### Abstract

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## "Bringing down the Master's house: exploring researcher positionality and its place(lessness) in the academy."

Miss Jennifer Whittingham, Akshata Mehta, Miss Sthembile Ndwandwe, Dr Jessica Lavelle, Mia Strand

<sup>1</sup>*University Of Cape Town, South Africa*

"Political ecology research often contends for the elevation of anti-imperial, post and increasingly decolonial epistemologies of the South. However, this is often done through the rather contradictory use of imperial, colonial epistemologies of the North, even if unintentionally so. Taking a cue from De Sousa Santos (2014: 6), we seek to bring in the "world of passions, intuitions, feelings, emotions, affections, beliefs, faiths, values, myths, and the world of the unsayable" to the "highly intellectualized and rationalized" field of research. We consider Epistemologies of the South as those that embrace emotional, spiritual, and embodied ways of knowing, doing, and being - in contrast to northern ontologies that rely only on imperial, rational, reductionist, and objective principles. In this regard, we explore our diverse positionalities as students and early career researchers (ECRs) who must operate within the confines of academia - the Master's house (Lorde, 1984), rooted in epistemologies of the North. Recognising this friction, this session aims to provide a generative and reflective space for participants to think through the epistemological and ontological struggles of being human and doing research within the confines of the university. Through the use of embodied practice and emotion as tools, we seek to unearth the tensions and discomfort of undertaking academic research and discuss the possibilities and limitations of institutional transformation. Ultimately, the session hopes to produce an open-source toolkit that will enable participants to initiate these important conversations at their own institutions."

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# Leveraging crisis to rework nature-human relations: the case of the Cape Flats Aquifer

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The cartesian dualism that has structured human-nature relations for centuries has reinforced the idea that humans and nature are distinctly separate, and as such, the exploitation of nature in the name of profit and “development” has hardly been questioned. However, this paper argues, in the context of Cape Town, that crises such as the recent drought and impending “Day Zero” can create possibilities for fundamentally and creatively reformulating these relations. Through ethnographic work done on the activist group the PHA Campaign, this paper explores the ways in which the drought has enabled a politics around the Cape Flats Aquifer (CFA) and therefore the Philippi Horticultural Area (PHA) that could protect these natural resources, rather than impending “paving over the aquifer”. This paper further considers how the PHA Campaign has aimed to “make the invisible, visible” and thereby giving the aquifer a voice in the technoscientific conversations around “Day Zero” by developing more inclusive forms of “Sensemaking” (Ballestero, 2019). In conclusion, this paper will provide an analysis of the work done by the PHA Campaign and consider some of the lessons that can be extracted from a radical form of ecopolitics in a neoliberal city such as Cape Town.

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# African Perspectives on Agroecology

Dr Brittany Kesselman, Prof Rachel Wynberg<sup>1</sup>, Miss Morgan Lee, Miss Maya Marshak, Prof Mvuselelo Ngcoya, Dr Witness Kozanayi, Rachel Bezner-Kerr

<sup>1</sup>*University Of Cape Town, South Africa*

With nearly all landscapes across Africa in decline, a transition to agroecology is no longer negotiable. But what it would take to transform agriculture and seed systems to another paradigm? In this session we draw on examples from South Africa, Malawi, Lesotho and Zimbabwe, to explore the way in which agroecology is already taken up by small-scale African farmers, its potential for addressing the climate and biodiversity emergencies faced, and the “lock-ins” and barriers that preclude the horizontal and vertical scaling up of agroecology. We also reflect on the epistemicide of both local and scientific knowledge, and what this loss means for smallholder farming communities, whose knowledges and skills have been silenced over generations. The session will also be used to introduce a new book titled African Perspectives on Agroecology: Why Farmer-Led Seed and Knowledge Systems Matter, which includes contributions from all of the panelists.

Rachel Bezner-Kerr: Building a reparative and resilient agroecology – reflections from Malawi.

Witness Kozanayi and Jaci van Niekerk: In the wake of cyclone Idai: A holistic look at its impacts and an exploration of the resilience enhancing potential of landscape agroecology

Mvuselelo Ngcoya: Narrative agriculture: Agroecology and community building in Phatheni, Richmond

Maya Marshak and Rachel Wynberg: Mapping maize seed, research and relational knowledge

Morgan Lee: Exploring agrichemical lock in within the Western Cape Wheat Industry, South Africa



# Making and unmaking of forest landscapes with fire in India

Mr Kapil Yadav<sup>1</sup>

<sup>1</sup>*King's College London, United Kingdom*

This study focuses on the impact of fire suppression practices on forest landscapes and local communities. The consequences of fire suppression are explored by examining a case study of fire management in British India from the mid-19th century to the early 20th century. This research draws on historical records to contextualise the present-day consequences of fire suppression in forest landscapes. The study highlights that some fire suppression practices led to an immediate rupture in the ways of living of indigenous communities, while others involved a slow violence that erased ecologies and world-making practices. The role of colonialism, including the knowledge politics involved, is shown to be a factor in the heightened risk of wildfires in forest landscapes today. The marginalisation of indigenous practices continues even in the post-colonial era. The threat of wildfires in forest landscapes is part of the legacy of the empire and highlights the persistence of plantation logic in wildfires, climate change, and land-use change. Examining the material and historical context of fire suppression provides a much more critical entry point into understanding current fire regimes. The slow process of ontological marginalisation and the unaddressed historical injustices and erasures in forest landscapes must be acknowledged to fully understand the impacts of fire suppression and move beyond considering only ecological loss in the Anthropocene.

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# Pre And Post Colonial Power Imbalances Among Protected Areas And Communities-Land Reform Beneficiaries.

Miss Khumbu Zulu<sup>1</sup>

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Rural communities that consist of land reform beneficiaries who are in co-management agreements with state owned protected areas are facing imbalances in power relations (Ashley 2005; Nguyen 2007; Bukhosini 2011; Zeka 2013; Maluleka 2018; Fedreheim & Blanco 2017; Petursson & Kristofersson 2021). This marginalisation in terms of authority over decision making processes has gendered and generational segments which are not new as they are related to the history of how black communities were treated before democracy (Duchak 2014).

The imbalances in power relations are one of the major social issues that adds to existing pre-and post-apartheid tensions and conflicts between protected areas and communities. In order to identify causes of marginalization, the environmental history of the area will be reviewed along with its conservation geography. The proposed study is aiming to research how co-management engagements extend in socio-ecological context at the Hluhluwe iMfolozi Park. It aims to find the roots, catalysts and dynamics of power imbalances and other unidentified existing forms of marginalization operating in the landscape. Furthermore, to investigate the historical and current patterns of social well-being and imbalances in power relations between communities and protected areas.

One of the primary objectives of the study is to examine the history of relationships between the protected area, land reform beneficiaries and communities in light of power, entitlements and responsibilities. To achieve this primary aim the study will use archival research. Furthermore the relevant stakeholders will be interviewed to get life histories and memories of communities and interactions with the environment.

Title: Pre and post colonial power imbalances among protected areas and communities-land reform beneficiaries.

Abstract:

Rural communities that consist of land reform beneficiaries who are in co-management agreements with state owned protected areas are facing imbalances in power relations (Ashley 2005; Nguyen 2007; Bukhosini 2011; Zeka 2013; Maluleka 2018; Fedreheim & Blanco 2017; Petursson & Kristofersson 2021). This marginalisation in terms of authority over decision making processes has gendered and generational segments which are not new as they are related to the history of how black communities were treated before democracy (Duchak 2014).

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**Keywords**

Power imbalances, Rural communities, Protected areas, Pre and post colonial