



## Detailed Program Pollen24 – Dodoma

#pollen24

Find the overview program [here](#)

Lund -1hr

Lima -8hrs

10  
JUNE



## Roundtable 1

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Time: 09.00-10.30

### **D038: Rethinking Political Ecologies of Commons, Enclosure and Value Struggle – LRB 004D**

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*Catherine Viens & Amber Huff, University of Sussex; Adrian Nel, University of KwaZulu-Natal*

Commons, enclosure and value production have long been key reference points for research in political ecology, but diverse struggles around the world are drawing on new, relational notions of ‘commoning’ to articulate politics of refusal against intersecting and intensifying extractive enclosures. Through bureaucratic, metrological, financial and representational techniques, enclosures are reaching well beyond land and natural resources, extending processes of abstraction and market rationalisation, commodification and financial logics to the material and affective relationships between people, technology and the environment which support processes of social reproduction. Recent work highlights that ‘the commons’ is not just an object of struggle, but it is also emergent from those struggles; practices of commoning are configuring new political spaces, translocal solidarities and socio-ecologies, addressing ‘from below’ the acute forms of damage that crises have wrought on institutional and natural orders whilst by imagining and cultivating the social, technological and ecological relationships and infrastructures for new orders. Beginning with a conceptual introduction and brief cases from India, South Africa, and Madagascar, this roundtable invites dialogue, provocation and debate toward a deeper conceptualisation of political ecologies of commoning and value struggle.

# Parallel session 1

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Time: 11.00-12.30

## Hybrid Panel LU192: Political Arenas of Infrastructuring African Futures – Lab 1

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*Arne Rieber, University of Bonn & Theobald Frank Theodory, Mzumbe University – hybrid from Lund & Dodoma*

The development of infrastructure is inherently political. While often portrayed as a technical process driven by engineers, infrastructure development is always moved to the forefront of the political agenda. The political decisions to develop infrastructure projects shape the future daily life. Building or not building physical artefacts such as roads, ports, dams, power lines or railways is a political choice and a political trade-off. These decisions shape the connectivity, mobility, well-being and market integration for some, while becoming barriers and obstacles for others. A political ecology lens on infrastructure development helps to challenge notions of the periphery, left-behind places and the infrastructure gap. Just as access to resources is socially produced and categories of abundance and scarcity are created, access to and availability of infrastructure is shaped by political processes and visions of desired development. In recent decades, infrastructure-led development agendas, driven by visions of integration into global networks of trade and capital, and more recent models of blue or green economies, have accelerated the scramble for infrastructure development in urban and rural Africa. The anticipation of large-scale infrastructure projects has led to the emergence of Political Arenas around these projects, in which actors and groups of actors contest project designs long before their actual implementation, with the aim of influencing the project in their own interests or maintaining the status quo. The focus of the panel will be on questions of future-making of infrastructure and how in- and exclusion into project's vision and benefits is navigated by individuals, groups and actors.

### **1. Arenas of future-making – researching visions and practices of the “not-yet” in Africa**

*Detlef Müller-Mahn & Arne Rieber, University of Bonn – hybrid from Lund*

The paper outlines a conceptual framework for the study of imagined futures and the practices of “future-making” in the context of infrastructure development. The “not-yet” in the title refers to a stage in the preparation of infrastructure projects before construction work begins, i.e., when the future still appears to be open. As long as implementation remains in limbo, there is room for contestation, with a focus on visions, “dreamscapes of modernity”, and desirable futures, but also negotiation and resistance. This is the moment of “the Political” in the sense of Swyngedouw (2018), when powerful actors seek to control project design, while others express their disagreement or forge strategic alliances to gain influence. The paper proposes a focus on “arenas of future-making” as a heuristic approach to research the co-evolution of infrastructure and society at an intermediate scale. Against the backdrop of the case studies presented in the panel, it will have to be discussed how the arena approach can contribute to the toolbox of Political Ecology.

## **2. Development in the Shadow of Big Dams: Women, Water, and the Politics of Infrastructure in Tanzania**

*Jackson Nuru & Lucy Massoi, Mzumbe University – hybrid from Dodoma*

This work provides an analysis of the involvement of women in the political arenas of infrastructure building in Africa, through the lens of Kidunda Dam in Tanzania as a case. It places women's experiences within the framework of Agenda 2063, specifically focusing on objectives for inclusive growth and sustainable development. We highlight how big dam projects, often viewed as technical grounds, are inherently political and have substantial socio-economic consequences, particularly for women. Drawing from our ongoing qualitative research, we uncover the many roles that women play in these initiatives, ranging from being impacted persons to actively shaping the results. This is in line with the aspiration 6 of Agenda 2063, which aims to prioritise the empowerment and involvement of women throughout Africa. We examine how women involvement in large-dams infrastructure projects (Kidunda dam) redefines the conventional narratives of women as victims, underscoring their agency and empowerment. The study also examines the ways in which the project transects with wider political and economic dynamics, and their effects on the daily lives of women. Concluding with policy suggestions, we emphasize the need for adopting more inclusive and gender-sensitive approaches in infrastructure design. These recommendations are essential for achieving the goals of Agenda 2063 and promoting equitable sustainable development.

## **3. Futile water claims and the confinements of formality: The mobilization of infrastructural powers for water access in Nairobi, Kenya**

*Maja Kristine Dahl Jeppesen, Aarhus University – hybrid from Lund*

The water provision infrastructures of Nairobi carve out an urban landscape of exclusion and inclusion through service provision. However, processes of exclusion still take place even when residents become formally included in the formal water provision system. This paper empirically describes the intricate process of claiming water rights in an unreliable public water supply context like Nairobi. Based on 11 months of fieldwork in Nairobi, Kenya, I show that successfully securing access to water demands substantial effort and hinges on the adept mobilization of specific bundles of powers. I argue that achieving successful claims to water is intricately linked to people's capacity to mobilize the infrastructural powers (Truelove 2021) of key actors directly or indirectly making the water flow, a capacity often facilitated through personal connections with officials and politicians. In this way, it is generally a network of fragmented relations between residents and water governance actors that fosters access, overshadowing the significance of formal recognition through a water connection to the city grid. I give an example from a slum upgrading project in Nairobi where formalization has made water access more challenging for residents than when they relied on non-state water provision from water kiosks. This means that contrary to what we might expect, considering the emphasis the water literature puts on formal water connections, formalized hydraulic citizenship (Anand 2017) can prove more constraining than beneficial when individuals lack the capability to apply the appropriate amount of pressure to make the water flow. This central point underscores the limited efficacy of formal recognition of the right to water through a grid connection without the capacity to activate infrastructural powers effectively.

#### **4. The Inequity of Mega Projects-Oriented Employment: Is Gender Equality an Issue of Interest in Construction Projects in Tanzania? The Blinder Oaxaca Analysis**

*Felician Andrew Kitole & Theobald Frank Theodory, Mzumbe University – hybrid from Dodoma*

The promotion of gender equality in the realm of employment is of utmost importance in the endeavour to mitigate income inequality and alleviate poverty. This chapter examines the employment inequity in mega projects in Africa using the Tanzania's famous standard gauge railway as the case study, with a specific focus on gender-related concerns and their associated consequences. The overarching objective of this chapter is to enhance consciousness, foster discourse among relevant parties, and provide factual support for policy-making and implementation. Moreover, it seeks to rectify gender disparities and promote fairer distribution of employment opportunities within large-scale projects, with the ultimate aim of alleviating poverty and promoting sustainable development in Tanzania. The study that informs this chapter employed a mixed-methods approach, integrating quantitative analysis and qualitative exploration, with the objective of identifying gender disparities, comprehending their underlying determinants, and providing insights for policy interventions that promote fair and inclusive employment outcomes in mega development projects. Moreover, the Blinder-Oaxaca model was used to examine the extent of gender representation and wage disparities whereas qualitative components focused on the experiences and perceptions of individuals involved in the project. The results of this study have significant policy implications as they underscore the necessity of implementing specific interventions aimed at fostering gender equality and inclusivity within the context of mega project employments.

#### **5. Local contestations and the struggle for survival amidst large-scale infrastructural projects in Kenya. The case of the Kesses 1 solar energy project**

*Frankline Ndi, University of Bonn – hybrid from Lund*

Across Africa, promises of modernity and prosperity are used by governments and investors to mobilise community support for infrastructure development such as large-scale renewable energy projects. But such promises, in particular those in the form of corporate social responsibilities do not easily sail through or are sometimes back-pedalled. Using the Kesses 1 Solar Energy project as a case study, this article shows how the energy investor appears to be struggling to deliver on its promises – and how this has provoked local contestations against the solar project. Unlike in previously documented cases in Kenya where energy projects have faced local push backs predominantly linked to lack of clarity over land rights, flawed land consultation processes, contestations over land, and other issues, including tribal and clan politics, this present contribution argues that communities are not necessarily against the solar project per se; rather their main concern is how to be involved in, and to benefit from it, through for instance, employment and corporate social responsibility schemes. The study suggests the need for the energy investor to address community concerns relating to the project, and to respect all promises specified in the MoU signed with communities. Failure to do so might downplay the anticipatory local benefits of large-scale infrastructures, and possibly generates political questions around the future of rural Africa hosting these projects.

## Panel D045: Nature-based Solutions and Green Grabbing in Tanzania – Lab 2

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*Felix Mantz, University of Hawaii at Manoa*

### **1. Land Grabbing through Unliveability: Necrosapes and Slow Violence in the Expansion of Conservation Regimes in Tanzania**

*Felix Mantz, University of Hawaii at Manoa*

Land grabbing is a persistent and highly-dynamic global phenomenon whereby people's power over lands are alienated through multiple and ever-changing strategies. This paper examines these shape-shifting strategies that continue to deprive people of land, livelihoods, and autonomy. Specifically, it draws on interviews, archival research, and document analysis to study land grabbing for conservation in Tanzania. The paper focuses on the ongoing Maasai dispossession from Ngorongoro Conservation Area (NCA). Drawing on slow violence and necropolitics, this paper argues that land grabbing in NCA works significantly through mechanisms and tactics that make environments hostile and landscapes unliveable for inhabitants. These include, among others, the denial of social service, prohibition of specific livelihood strategies, preventing market access, exposure to dangerous wildlife, and climate change. Complementing more overt and direct forms of violence through eviction and police force, these mechanisms constitute strategies of land grabbing that are indirect, covert, structural, and slow but no less devastating in their impact. Scholars interested in land, coloniality, and autonomy, as well as activists and allied organizations must work to carefully trace, identify, and uncover these hydra-headed tactics of land grabbing in order to support and defend projects of rural autonomy, decolonization, land back, and resource sovereignty.

### **2. Understanding Sustainable Future Pathways of the Land Grabbing, Climate Change and Neoliberal Conservation in Loliondo Game Controlled Area: What we Have Learned so Far?**

*Gileard Minja, Mwenge Catholic University*

There is growing concerns and debates about land grabbing, nature conservation dynamics, and indigenous people's welfare, particularly in Africa (Minja et al., 2022). The discussions have mainly focused on large scale land deals and direct foreign investment in food and biofuel production (Benjaminsen et al., (2011). It is however, land grabbing debates and drivers related to neoliberal conservation projects, small-holder farmers and pastoralist have been less studied and the future pathway is uncertain (Bluwstein et al., 2018). In Tanzania, land alienation through investment is eminent in agriculture, conservation, mining and tourism. This is the case of the Loliondo Game Controlled Area (LGCA) covering an area of 4,000 km<sup>2</sup> within the Loliondo Division of the Ngorongoro District in the Arusha Region of northern Tanzania. At the LGCA pastoral Maasai communities are suffering consequences of capital accumulation, dispossession and forced eviction (Brockington et al., 2012; Minja et al., 2022). The situation is accelerated by climate change with implication on biodiversity conservation and pastoral communities' welfare. Using political ecology lens this paper document lesson learnt from land-use conflicts, climate change, neoliberal conservation in the LGCA to understand future

pathways. Besides, the paper suggests possible nature-based solutions to support human wellbeing and biodiversity conservation.

### **3. Land Grabbing for Green Conservation in Tanzania: The Rights of Communities on Access to Wildlife Resources in Burunge Wildlife Management Area**

*Joan Tang'are & Enock Makupa, University of Dodoma*

Recently, communities' lands in the global south were relocated for wildlife conservation with the promise of achieving sustainable conservation and improving communities' welfare. However, there is insufficient knowledge of the impact of land grabbing for conservation on local communities' access to wildlife resources. The study is based on the survey data from 356 respondents, in-depth interviews, focus group discussions, and observation conducted in four villages forming the Burunge Wildlife Management Area in northern Tanzania. Statistical software (SPSS version 26) and NVivo were adopted to analyze data. The results demonstrate the decline of communities' access to and use of wildlife resources from 95% to 62% when compared to before and after the establishment of Burunge WMA in 2006. Findings also indicate communities were allowed to access wildlife resources that hold less value compared to the time before Burunge WMA. The resources that were highly accessed included firewood (64%), fish (62%), euphorbia grass (51.1%), and tree branches (29.3%). We argued that land grabbing for green and wildlife conservation instead of enhancing sustainable interaction of people and nature, disconnects communities in accessing significant wildlife resources that are valuable in improving the welfare of communities forming Burunge WMA. Reconciling conservation and welfare of the local community provides a better chance to ensure the sustainability of green and wildlife conservation in the study area and beyond.

### **4. An investigation of carbon trading implications on local community livelihoods in Mbulu District, Tanzania**

*Gideon Matekele, University of Dar es Salaam*

Carbon trading schemes are touted as sound climate mitigation options. They are also hyped for their poverty alleviation and livelihood improvement potential. This study sought to explore the implications of a carbon trading project on local communities' livelihoods in two villages of Mongo wa Mono and Yaeda Chini in Mbulu District, Tanzania. The objectives of the study were to explore the local community's perception of the project and examine the contribution of the project to the local community's livelihoods. The study employed a mixed methods research design. Data were collected through semi-structured interviews (n=91), in-depth interviews (n=14), focus group discussions (n=2), documentary review and field-based observations. Findings show that the carbon trading project has registered several benefits including restoring the environment in the project area, cash payments used to pay for education and health costs among villagers, finance for infrastructural projects like classrooms and health facilities, as well as employment to youths as game scouts. However, the study found complaints about restricted access to natural resources, limited carbon sales information, and disagreements on payment distribution and expenditure. The study recommends active local community involvement at all levels of decision-making and implementation to enhance project ownership and inclusive benefit sharing.

## Panel D056: Institutions, Local Agency and Nature-based Solutions I– Lab 6

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*Samantha Day, King's College London*

### **1. Nurturing Nature: Assessing Community Perspectives on Ecotourism Initiatives for Conservation in Lake Duluti Forest Reserve**

*Getrude J. Kimario, University of Dodoma*

The paper explores the intricate web of political ecologies surrounding nature-based solutions, focusing on ecotourism as a pivotal tool for forest conservation. Employing an interdisciplinary approach, the research investigates the intricate interplay between environmental policies, socio-economic factors, and community perceptions influencing the implementation of ecotourism initiatives for forest conservation. The study, centered on Lake Duluti Forest Reserve, analyses community perspectives through qualitative and quantitative methods, assessing awareness, interest in engagement, and perceived benefits from ecotourism initiatives. Significant socio-demographic factors such as age, occupation, education, and gender emerge as key influencers of awareness. Additionally, residence area, gender, age, and occupation significantly impact community engagement and participation, with occupation being a non-significant factor. The study reveals that the age group of 36-50 expresses a high percentage of disagreement on the benefits derived from ecotourism implementation, suggesting limited community benefits. Overall, the research underscores the profound influence of socio-demographic factors on ecotourism initiative implementation, emphasizing the need for tailored conservation and engagement strategies. This nuanced understanding contributes to addressing socio-economic and political challenges in aligning nature-based solutions with community perceptions.

### **2. Exploring the Willingness of Community Engagement in Community-based Tourism within the Agroforestry Ecosystem on the Southern slopes of Mount Kilimanjaro, Tanzania**

*Heriely D. Lemunge, Wilhelm Kiwango & Iddi Mwanyoka University of Dodoma*

This paper explores the political ecologies surrounding nature-based solutions, specifically community-based tourism (CBT) centred on geosites. It explores the interplay between environmental policies, socio-economic factors, and community dynamics, aiming to explore CBT's potential as a sustainable strategy for ecological conservation and community development. The study assessed community willingness to participate in CBT initiatives in the agroforestry ecosystem near Kilimanjaro National Park, Tanzania, analysing factors influencing engagement, perceptions of ecological benefits, economic prospects, and social implications of tourism development using quantitative and qualitative methods. The study found that younger individuals aged 19-35 have the highest awareness of CBT based on geosites in the agroforestry ecosystem. Factors like information, investment and income in CBT development did not significantly impact participants' interest. The lack of knowledge, limited resources, trust, unequal benefit sharing, and conflicts within the community can deter the success of CBT programs, negatively impacting the ecological conservation agroforestry ecosystem and tourists' experience. The study suggests that conflict resolution mechanisms, community dialogue, and cooperation can promote CBT and strategic ecological conservation of the agroforestry



ecosystem. Understanding these associations can help tailor ecological conservation awareness campaigns and engagement strategies, particularly among younger generations. This approach bridges the gap between political ecology and CBT, promoting not only environmental protection but also community resilience and empowerment.

### 3. Silence and Legitimacy-making of International Environmental NGOS (IENGOS)

*Samantha Day, King's College London*

In this paper I look at multiple ways in which silence forms part of the processes of what I describe as 'IENGO legitimacy-making', in the context of forest protection in Cambodia. Silence is commonly thought of as the absence of transparency (transparency being commonly linked to legitimacy) in power, and as oppression of those who are subjects of power. In this paper, I focus on the multiple ways in which it works to both secure and remove power amongst IENGOS and their audiences. This look at silence beyond disempowerment, follows work by a number of poststructural feminist scholars (Parpart in Ryan and Flood 2010, Gal 1991, Mahoney 1996,) which demonstrate how silence gains different meanings and has different material effects within specific institutional and cultural contexts and can be an avenue of power. By applying Foucauldian analyses of power to my empirical research in Cambodia, I identify various ways in which silence appears and dominates the discursive realm of forest protection in Cambodia, and investigate what these mean for IENGOS, democracy, and pluralism in forests.

## Parallel session 2

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Time: 14.00-15.30

### Hybrid Panel D067: Experiences, Issues and Ethics of Research and Community Engagement in Protected Areas in India – Lab 1

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*Akshay Chettri of Kalpavriksh, India and Shruthi Jagadeesh, University of Colorado Boulder – hybrid from Dodoma and Lund*

Wildlife and biodiversity conservation in Indian Protected Areas (PAs) was born from laws and practices introduced with British colonization. Post-independence, the management of PAs has largely continued to be the realm of the state, a model of biodiversity conservation that resembles many other former colonies. This, coupled with the lack of tenurial and access rights among local and land-dependent communities has created a range of issues around PAs which are multi-faceted, and largely discriminatory to local people. Conservation has thus been understood and experienced in different ways by different actors. Critical conservation literature, especially that coming from political ecology, has bolstered community assertions that interventions in Protected Areas need to diversify beyond the state. This is also beginning to be reflected in global conservation policies, and in work by many BINGOs around PA conservation. Increasingly, a need has been felt to bring together diverse actors involved in these interventions so that there is a dialogue on approaches to management of protected areas. The issues are especially relevant to youth

engagement in PAs as increasing importance has been given to ensuring youth perspectives and rights in Sustainable Development Goals and the recently institutionalised Kunming Montreal Global Biodiversity Framework, 2022. This need has also been highlighted by Indigenous communities and their allies around the world.

This workshop will seek to provide a space for different actors, including early career research scholars, academics, and young member of Non-Government Organizations to talk about their interventions in PAs in India, the issues and challenges they face, as well as their individual negotiating spaces and ethics as they approach these interventions. The workshop will comprise of one 90-minute session. The first half will be a group discussion and sharing that will address specific themes and issues around:

- (i) Non-recognition of rights of local people in Protected Areas and their criminalisation and dispossession
- (ii) Interface of caste, race, religion, gender, age and ethnicity with conservation and its impacts
- (iii) Relationships between wildlife, biodiversity and local communities, and the role of conservation laws in changing ecologies
- (v) Reflections on ethics, responsibility and accountability with power hierarchies of doing research and working in Protected Areas

The second half will be a more open-ended discussion around the politics of working in PAs in terms of our own positionalities. This will include specific written inputs from lawyers, journalists and others who work in PAs in India. The final output of the workshop will be to co-create a booklet or framework on ethics of work and research around protected areas for a wider audience.

The unique opportunity of having this workshop in POLLEN in Tanzania and Lund, will allow for new perspectives, interventions, and collective thinking around how we can re-imagine interventions in conservation spaces around the world.

Co-hosts and discussion leads (name, designation and e-mail):

1. Ananda Siddhartha, PhD Scholar, Wageningen University, [ananda.siddhartha@gmail.com](mailto:ananda.siddhartha@gmail.com)
2. Anwasha Dutta, Senior Researcher, Chr. Michelsen Institute, Norway, [anwasha.dutta@cmi.no](mailto:anwasha.dutta@cmi.no)

## **Panel D068: Protected Areas, Conservation and Society in Southern Africa I – Lab 2**

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*Emmanuel Sulle, Aga Khan University*

### **1. From Decolonising to Liberating Conservation in Africa**

*Emmanuel Sulle, Aga Khan University*

In recent years, researchers, activists and Indigenous Peoples and local communities in Africa have called for systems change in the conservation sector which is not only facing

the twin challenges of climate change and biodiversity loss but more importantly, the growing pressure to address human rights violations carried out in the name of conservation. African people have witnessed the decades of conservation policy under colonial administration and post-independence governments which have led to untold dispossessions and human rights violations. The majority of the affected groups are the Indigenous Peoples and local communities whose customary lands and territories of life were subsumed by top-down protected areas in an attempt to “protect” nature from them. As a result of these long sufferings, Indigenous Peoples and local communities have remained resilient, forged strong alliances and have recently secured several gains. One of the notable successes is the recent explicit recognition of “Indigenous and traditional territories” in their own right, as a third pathway beyond protected areas in the 30x30 target of the Kunming-Montreal Global Biodiversity Framework. On the backdrop of these little gains, this paper argues that it is insufficient to decolonize African conservation because such efforts still leave the sector on the hands of few elites of independent states. Instead, the focus should be about systems change in the African conservation by forging strong alliances which aims to liberate and democratize conservation sector by taking back control over the sector from elites and entrenched colonial structures.

## **2. Expansion of the protected areas for whose rights: Narration from Mkungunero Game Reserve, Tanzania**

*Theresia Philemon, University of Dodoma*

Believable protected areas reflect the western idea of separation between pristine nature and human-modified habitats. However, this conservation strategy has caused the propagation of resource use conflicts involving rights between conservation authorities and the local communities throughout the world. But for whose right, is the expansion of the protected areas? This is a critical question that calls for an adequate redress which is currently missing. This paper aims to analyze the impact of conflicts and power struggle over conservation of the Mkungunero game reserve (MGR). Through qualitative approach this paper is assessing how conservation decisions are reached. Data collected through focus group discussions and in-depth interviews were analysed using thematic analysis. The results suggested that protection of the MGR is being unfairly executed by the responsible government agencies. Largely due to exclusion of the adjacent communities in making critical decisions, eviction of the community members from their lands, and destruction of their properties. The findings further, indicated that power over conservation of the MGR is greatly vested to the government conservation authority over other institutions with stake in conservation. This has gone to the extent of vandalizing community properties including religious and school buildings. It is thus, pertinent to conclude that power dynamics in the protected areas manifest conflicts between conservation authority and adjacent communities. We therefore recommend for meaningful involvement of adjacent communities in decision making in the conservation of the MGR.

## **3. A (free)hold on land: Conservation and commercial land tenure in post-independence Namibia**

*Frowin Becker, Ongava Research Centre; Romie Nghitevelekwa, University of Namibia*

As a primarily semi-arid country, Namibia’s commercial agricultural sector is contemplating the feasibility of hitherto conventional farming practices. Up until recently this convention

has been centered around livestock. Over the last few decades, arguments to transition to wildlife-based agricultural business models, under the banner of conservation, have strengthened. Conservation's reinforcing role in neo-colonial land appropriation, especially in Africa, is under growing scrutiny, which is especially pertinent given the global conservation strategy to conserve 30% of the planet by 2030. From a southern African socio-political perspective, the reproduction of historical inequalities within conservation and the wildlife economy has already been described and documented for South Africa – whose decades-long occupation and governance of Namibia have interwoven the countries' economic, political and social landscapes. Within this context, using public databases, we endeavor to quantify aspects of conservation's ongoing contribution to land (in)equity on a national scale. This study will fill an important knowledge gap by critically assessing how wildlife-based land use in Namibia (under the umbrella of conservation) and commercial land tenure intersect, and how this might (mis)align with the country's land reform resolutions.

## Panel D056: Institutions, Local Agency and Nature-based Solutions II – Lab 6

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*Danstan Mukono, University of Dar es Salaam*

### **1. The interpretative flexibility of usefulness of mangrove restoration as Nature-based-Solution in Guinea-Bissau**

*Joseph Sandoval, Wageningen University and Research*

Nature-based Solutions (NbS) are recognised as one of the key strategies for adapting to and mitigating climate change. NbS projects have spread worldwide reaching local and indigenous group who depend on the use of 'nature' for their survival and livelihood. However, it is unclear how these local and indigenous groups perceive and use NbS and to what ends are NbS useful for them. I present a case study in Guinea-Bissau where abandoned mangrove swamp rice polders (i.e., rice cultivated in soil previously occupied by mangroves) are subjected to mangrove restoration as NbS to promote food security (through biodiversity) and carbon sequestration. Based on 18 months of ethnographic fieldwork, I explore the interactions between the project and farmers and the farmers' local knowledge and practices on mangrove restoration. I show how the usefulness of mangrove restoration is interpreted differently by actors due to diverging interests. The farmers used mangrove restoration to meet their own needs which are not necessarily compatible with the project's goals. This reinforces the importance of recognising local knowledge, practices and interests in the design and implementation of NbS projects.

### **2. From policy to practice: analyzing the efficacy of local government institutions in combating mangrove degradation in Pangani, Coastal Tanga, Tanzania**

*Ruth I. Mwanja, Kalista H. Peter and Mohamed K. Said, University of Dodoma*

Like many other countries, Tanzania has established various local government institutions (LGIs) to solve the problem of mangrove degradation. The question is how LGIs have influenced the management of mangrove degradation. This paper aims to understand

whether the established LGIs have improved the management of mangrove forests and reduced degradation in Pangani-Tanga, Tanzania. Data for this paper were collected through structured interviews from 358 respondents in selected households, complemented with in-depth interviews and focus group discussions (FGDs) from key informants (government officials, and local leaders of community conservation groups). This paper found various LGIs that were involved in managing mangrove forests, from district to village levels. The institutions include the District Environmental Office, District Forestry Office, District Fisheries Office, District Land Office, Wards and Village Councils as well as Beach Management Units (BMUs). LGIs play various roles that have improved the management of mangrove forests through various activities such as the provision of education and training on mangrove conservation. The paper also found that LGIs promote community participation in restoration programs of mangroves. However, it was found that only 39% of the respondents were involved in decision-making and engaged in various management activities. LGIs face various challenges such as limited funds, high demand for mangrove products, and conflicting interests. The paper concludes that LGIs have slightly improved the management of mangrove forests in Pangani, nevertheless, there are challenges. We recommend community-led programs for the long-term health of mangrove forests. Conservation programs for mangroves should also consider alternative sources of income for the community. **Keywords;** Mangrove degradation, local government institutions, management practices

### **3. Seeing through intersectionality lens: A qualitative exploration of REDD+ everyday subjectivities in rural southern Tanzania**

*Danstan Mukono, University of Dar es Salaam*

This article (re)conceptualise REDD+ through intersectionality lens to explore social differentiated subjectivities in Southern Tanzania. It draws on the experimentation of a carbon project in two selected villages in the Lindi district to explore how the intersection of multiple social dimensions and inequality through the production of REDD+ spaces and lived subjectivities to the forest-dependent communities. So far, there is less theorization of REDD+ schemes under Community Carbon Enterprises (CCE) within a complex social structure in Tanzania. The paper contributes to power relations scholarship mirrored through the intersection of power structures like class, gender, and age shaped the everyday experiences of REDD+ subjects. An extended case study illustrates the ways intersectional axes of power were contested, negotiated, and lived through multiple performativity and practices of everyday subjectivities to negotiate and contest exclusions that produced new carbon forestry spaces with restricted access and use of forest livelihood resources.

## **Parallel session 3**

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Time: 16.00-17.30

### **Panel D066: Resources, Investments and Rural Livelihood Futures in Southern Africa – Lab 1**

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*Ronald Ndesanjo, University of Dar es Salaam*

## **1. Exploring food security implications of stalled large-scale agricultural investments among smallholder households in Tanzania**

*Ronald Ndesanjo, University of Dar es Salaam*

The world is facing unprecedented land inequality, especially in Africa where smallholder farmers lose land in favour of elites and large corporations (ILC, 2020; Oxfam 2019). Small-scale farming produces a major share of the food in Africa (WB, 2019) but increasing land inequality is a major obstacle to food security (ILC, 2020; Oxfam, 2019; Wagerif and Guereña, 2020). The overall objective of the study was to assess how land rights and access following cancelled land deals affect smallholders' livelihoods. We apply a reformulated Sustainable Livelihoods Framework (Natarajan, et al. 2022) to interrogate the food security implications of cancelled large-scale agricultural investments among households in three case studies. We employed a mixed methods approach and a multi-case study design to address three main questions: how do households perceive their food security within the context of cancelled large-scale agricultural investments? has the food security situation been impacted positively or negatively by the investment processes? We collected data from smallholders' households on and around three cancelled agro-investments including a sugar-cane project in the Coastal Region that had its land rights revoked in 2016 and two oil palm projects in Kigoma that have not been operational since inception in the mid-2000s.

## **2. Decolonization of land formalization to address the gendered-land rights injustices in Tanzania**

*Rehema Kilonzo, Bupe Kabigi, Kelvin Haule & Grace Msoffe, University of Dodoma*

Land formalization being introduced in Africa since 1990s by Western land tenure epistemicists was expected to improve security of land tenure and gender rights. By replacing customary land tenure systems, which was viewed as inferior and inefficient, advocates of formalization (World Bank and De-soto), expected it to address land rights coloniality of men over women. However, over thirty years of its implementation, debates are mounting questioning its relevancy and usefulness to address injustices. Others have associated it with new forms of exploitations through land grabbing and large-scale land investments. This paper examines the role of land formalization in addressing the land rights injustices between men and women in Tanzania. Through mapping historically, we shed lights in terms of how, when, and why land formalization emerged and grew during colonial and post-colonial periods. Lastly, we demonstrate areas where land formalization failed in addressing the gendered-land rights injustices (men's dominance over women) in Tanzania. We use data from case studies of land formalization projects in Mbalari district. The findings show that despite the sustenance of land formalization since colonial and post-colonial eras, it has hardly addressed the land rights injustices. There are diverse tangible gaps in land ownership between men and women; most women cannot inherit land or register jointly with men. To address these land rights injustices, decolonization of land tenure epistemology is significant.

## **3. Impact of Forest Governance Reforms on Sustainable Forest Management and Livelihoods: A Case of Biharamulo Forest Reserve**

*Barnabas Msolini Msongaleli, University of Dodoma*

Reforms in forest governance are anticipated to provide the most effective solution to challenges associated with sustainable forest management. Using the Biharamulo forest reserve as a case study, this research examined people's opinions and attitudes on reforms in forest governance and their influence on the surrounding communities' livelihoods. This study explored the attitudes and perceptions of local communities to determine how forest governance reforms affected their means of subsistence. Data were obtained through a review of the papers, interviews, and a household questionnaire. The results showed that, on average, 77.6% of respondents support reforms to forest governance. The governance reforms were significantly influenced by factors such as age, income level, education level, forest cover, and the degree to which people relied on forests. Although highly contentious, community empowerment and accountability initiatives influenced local populations' attitudes and views of forest governance reforms in different ways. Because they maintain that the reforms did not involve devolving forest resources, they have become unsupportive of forest governance reforms. The study suggests that to influence people's behavior regarding forest conservation, the government and other conservation actors must ensure active user participation in addition to strict law enforcement and conservation education. Keywords: forest conservation, reforms, perceptions, community participation, empowerment, accountability.

#### **4. The 'Colonial Hangover' of Ornamental Industry in Southern Africa: Experiences from the sub-region**

*Diana Rodríguez Cala, Coventry University*

The ornamental industry is the fastest changing and most diversified within the horticultural sector worldwide. Southern Africa's role globally is deemed incipient and still immature, except for South Africa, a well-positioned player. As with any industry, its development engenders a complex web of trade-offs related to the spatial and cultural transformations it demands. This contribution draws upon research and life experiences in several Southern African countries to unpack these trade-offs from socio-environmental stances. The ornamental industry is growing as an opportunity for employment, occupational therapy and enjoyment in cities. Stakeholders are diverse across private, government and non-profit remits. However, white-owned businesses are the most influential, whereas black-owned businesses show higher legal informality and vulnerability. The sector's conception and operation reproduce colonial and Apartheid legacies of classist and racist inequalities, put increasing pressure on the already scarce water resources, and pose risks associated with biological invasions, plagues and pollution. Tackling those challenges needs a systematic strategy of grounded collaboration among stakeholders. Such an agenda would have to be decolonial and participatory to address the reproduction of historical oppressions while valuing indigenous knowledge, stewardship and capacities and nurturing respect to foster social, economic and environmental sustainability and justice across the industry.

## **Panel D068: Protected Areas, Conservation and Society in Southern Africa II – Lab 2**

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*Barnabas Msolini Msongaleli, University of Dodoma*

## **1. Are we missing synergies between conservation and development objectives? Insights from the outreach program adjacent to the Serengeti National Park**

*Barnabas Msolini Msongaleli, University of Dodoma*

Understanding the constantly changing aspects of conservation's costs, benefits, and rights is attainable in large part by perceptions. To identify outreach program challenges and their plight on livelihood support, this study examined the perceptions of communities adjacent to Serengeti National Park. The theory of social representations and logistic regression were employed to provide an understanding of how communities perceive the relationship between conservation and development. A household questionnaire, interviews, and a review of the documents were used to collect data. Our findings revealed that there had not been enough thorough community consultation to determine pertinent and successful wildlife conservation initiatives that would enhance residents' livelihood. Due to this anomaly, the outreach program was unable to sustain the livelihoods of the local population. This was made worse by a lack of knowledge about the social implications of conservation, particularly concerning the current benefit-sharing systems and the involvement of the local community in decision-making. The study recommends enhancing pathways that consider meaningful and active community engagement and establish viable synergies between livelihood options and conservation. Keywords: wildlife conservation, outreach program, perceptions, community participation, benefit-sharing.

## **2. Park-urbanism of the Serengeti Ecosystem: How Sustainable is it?**

*Augustino Mwakipesile & Kashimbi Kihara, University of Dodoma*

The new wave of conservation development has seen mushrooming of tourism enterprises in the Serengeti Ecosystem (SE) which covers Serengeti National Park (SNP), Ngorongoro Conservation Area (NCA) and several Game Reserves (GRs) and Game Controlled Areas (GCAs). The number of tourists continue to grow annually with a plan to attain 5 million tourists coming the year 2025 from 1.5 million tourists in 2019/2020. With its prominence as among the best wilderness destinations in the world and continued tourism marketing efforts by the Government, the SE has attracted booming of investors and visitors. This has necessitated the need for more beds in terms of tourism lodges and camp sites in the park. This has raised debates on what is conserved and for whose benefit since the park is becoming urban. The General Management Plans are caught unaware due to emerging authoritarianism practices and the prominent campaign of "Tanzania: Royal Tour" where tourism and conservation are core. In this article, I argued on four questions; what are the drivers? What dangers are there? Would SE accommodate increased volumes and density which endanger its integrity? What are viable options and can these options guarantee the future of SE?

## **Panel D022: Politics, Climate Change and Justice in the Global Majority – Lab 6**

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*Meenakshi Singh, Aga Khan Rural Support Programme*



## **1. Navigating Climate Coloniality: Balancing Global Commitments and Economic Sovereignty in the Pursuit of Sustainable Development**

*Fadhili Bwagalilo, St. John's University of Tanzania*

Despite global efforts to reduce carbon emissions, major players such as China and the USA often resist committing to these efforts. This resistance places a disproportionate burden on the global majority, as these nations willingly embrace carbon reduction measures. This disparity raises concerns about justice in the fight against climate change, as the global majority risk becoming markets for clean energy technologies while compromising their energy economic/industrial development. Examining the situation through a political ecology lens reveals that these countries are positioned to offset emissions from major carbon emitters, transforming into markets for supposedly cleaner technologies. Additionally, economic and industrial development of the global majority is jeopardized, as valuable natural resources, like lithium and rare earth metals, are leased to Western companies focused on clean energy. This synopsis therefore advocates for a critical examination of climate change terms and conditions before ratification by the global majority. Emphasis is placed on prioritizing economic development from natural resources over compromising industrial growth for the sake of reducing carbon emissions. It calls for these nations to reassess their commitment to global agreements, ensuring that economic and industrial development remains a central focus while contributing to the broader fight against climate change.

## **2. Women Pioneering Solar-Based Irrigation: Fostering Climate-Smart Agriculture**

*Meenakshi Singh, Aga Khan Rural Support Programme*

Agriculture is one of the sectors most severely impacted by climate change. For irrigation, alterations in rainfall patterns, characterized by delayed onset, erratic occurrences, and extreme downpours, have compelled smallholder farmers to abandon agriculture, seeking livelihood in cities or alternative sectors. While investing in groundwater-based irrigation in water-rich floodplains is a prudent solution, the lack of a reliable and economical energy source to lift groundwater remains a hindrance. Decentralized Renewable Energy Solutions, particularly solar-based irrigation pumps, have demonstrated significant effectiveness in such regions, providing crucial irrigation support to crops and bolstering agricultural productivity. However, most of these solutions are currently designed and implemented without the involvement of women. Consequently, the transition to clean energy in agriculture will exacerbate gender inequality unless women actively participate in and lead the implementation of DRE solutions. This paper presents findings from an ongoing pilot project in Bihar, India, which champions women-owned and managed, solar-based irrigation systems. The systems operate on an enterprise model where groundwater is pumped using solar energy and provided to farmers at a specific water charge. The emerging women entrepreneurs are in a stronger position to enhance the resilience of both their families and the agricultural economy to climate challenges.

## **3. Decolonising the Politics of Climate Change: Critical Explorations of the Climate Change Regimes in Selected African Communities**

*Olusegun Michael Ogundele, International Research Centre on African Culture and Knowledge Systems*

As Climate change events continues to be on the increase, scientists, politicians and business moguls, are expanding the Climate change discourse on the world centre-space. The quest for Climate solutions, and targets directed towards reducing global warming effects and mitigating the extreme weather scenarios caused by Climate change are obviously been led by the Euro-American coalition under the 2015 Paris Agreement. In addition to this politics of Climate solutions and the quest for climate justices, pseudo-imperial climate change movements are being established to further advance various political interest of the Euro-American coalitions under the Paris Agreement. This is evident in the annual climate change conference that has been characterized as a high-level political platform of the big billionaires and multi-corporations who are the principal agents of polluters and financiers in the oil and gas sectors; also acting as the primary agents leading the solution pathway to mitigate climate change effects, reduce greenhouse gas emissions and in the energy transition pathways. In fact, the 28th Conference of Parties to the United Nations Climate change conference provided an exemplary event of debates among the world polluters and their financiers on climate justice and ending fossil fuels production. This paper will therefore explore the efficiencies and implications of the Euro-American coalitions, and the pseudo imperial climate change movements targeted at reducing climate change effects in African countries; interrogate the political economy of climate change mitigation efforts in African communities; and explore the political and resource control in the climate change regimes in African communities. In doing this, we will adopt a Marxist historical dialectics and materialist approach in decolonising the climate change regimes and in providing critical explorations to why the 2015 Paris Agreement cannot guarantee just futures and sustainable environment in African communities.

#### **4. Climate crisis and inequality: navigating the interconnected challenges of the twenty-first century**

*Moti Daba, Independent Researchers*

The climate crisis and inequality are deeply interconnected global challenges that have far-reaching consequences on societies, economies, and ecosystems. Available evidence shows that the relationship between the climate crisis and inequalities is referred here collectively as “social inequality” characterized by a vicious cycle. This cycle whereby initial inequality causes the vulnerable groups to be affected disproportionately by the adverse effects of the climate crisis, resulting in greater subsequent inequality. This study investigates the intricate relationship between climate crisis and inequality, recognizing their interwoven impacts on societies worldwide. As global temperatures rise and extreme weather events intensify, marginalized communities often bear the disproportionate burden of these changes, exacerbating existing social and economic disparities. This study explores the multifaceted dimensions of climate-induced inequality, considering factors such as unequal access to resources, differential vulnerability, and disparate impacts on livelihoods. By examining case studies and existing research, this paper seeks to illuminate the complex web of interactions between the climate crisis and inequality, aiming to inform policymakers, researchers, and advocates in developing holistic strategies for climate resilience and social justice. Through a comprehensive analysis, the study aims to contribute to the ongoing discourse on building equitable and sustainable solutions to address the urgent challenges posed by the climate crisis. Finally, the article points to the way developing analysis can be helpful policies to address relevant decisions on the climate crisis and mitigate its impact on inequality, which requires a comprehensive and

collaborative approach that considers the unique circumstances of both developing and developed countries. In addition to this, some policy conclusions will be developed for effective strategies.

## Opening plenary session

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Time: 17.45-19.15

### Towards Plural and Just Futures – LRB 004D

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The official opening of the POLLEN24 conference will be held as a joint hybrid plenary with hosts at each of the venues joining a call broadcasting from all three venues simultaneously. Participants at all three conference sites will be in plenary, for Q&A during the hybrid session.

During the opening plenary, we will invite one scholar at each of the sites to give a short reflection on their experience of political ecology research in their context and what are the exciting directions they see the field heading in.

To close the opening plenary, we have a final message from the local organisers (also including logistics).

*The session will be moderated by Mathew Bukhi Mabele, Mine Islar and Maritza Paredes*

#### **Speakers**

##### **Anwasha Dutta**

Anwasha is a political ecologist and critical social scientist focusing on biodiversity conservation, forestry, and conflict in South Asia, with emerging research in Eastern Africa and northern Europe. Her work has notably contributed to understanding soft and discursive green militarization practices; the implications of global conservation targets (especially target 3) in non-compliance contexts; the complex relationships between displaced people and their environments through the conceptualization of 'displacement ecologies'; and foregrounding gender and labor in conservation, among other areas. Anwasha is also engaged in research, policy, and practice related to transformative justice and decolonization, with a focus on global forestry and conservation policies, including REDD+ and nature-based solutions.

##### **Adeniyi Asiyinbi**

Adeniyi is an assistant professor of geography at the department of Community Culture and Global Studies, University of British Columbia, Okanagan Campus. His research focuses on the political ecologies of forests, climate change and development, including interests in forest conservation and carbon forestry in West Africa and the governance of wildfires in western Canada. He has a PhD in geography from King's College London. His works have been published in *Annals of the American Association of Geographers*,

Political Geography, Geoforum, Journal of Political Ecology and Environment and Planning A.

**Grettel Navas**

Grettel Navas is a political ecologist working on toxic pollution, public policy and environmental justice. She is assistant professor at the Department of Political Studies at the School of government, University of Chile & Associate Lecturer of the interdisciplinary Master's Degree in Planetary Health from the Universitat Oberta de Catalunya (UOC) in Barcelona, Spain. Grettel completed her PhD at the Autonomous University of Barcelona being part of the ENVJustice project. She holds a Master Degree in Socio- Environmental Studies (FLACSO- Ecuador) and a Bachelor Degree in International Relations (National University of Costa Rica). She is an active member of the Latin American Political Ecology Group (CLACSO-Abya Yala) and part of the Direction and Coordination Group of the global Environmental Justice Atlas (EJAtlas) that documents environmental conflicts and resistance movements worldwide.

11  
JUNE



## Roundtable 2

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Time: 09.00-10.30

### **D043: Heritage, Ontoepistemological Justice and East African Pastoralist Communities – LRB 004D**

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*Jim Igoe, University of Virginia; Saitoti Parmelo, Association for Law and Advocacy for Pastoralists (ALAPA); Miriam Matinda, Tumaini University Makumira*

This roundtable draws from a three-year collaborative field project, which engaged concepts and practices of heritage in pastoralist lifeworlds. Our findings turn on heritage concepts that are place-based, quotidian, and socio-ecological. As such, they stand in stark contradiction to the concept of “outstanding universal value” essential to UNESCO World Heritage and top-down separations of cultural, natural, and intangible heritage. We use ontoepistemological to indicate the inseparability of being and knowing in heritage systems that turn on collective and reciprocal reproduction of people and place in capaciously holistic terms. These align with Mary Hufford’s formulations of “deep commoning,” which she argues are essential to “critical heritage work on resource frontiers.” They also concur with Kyle Powys Whyte’s (2015) insistence that Indigenous epistemologies are inseparable from place-based being in intergenerational systems of reciprocal responsibility between humans and other than humans. Heritage, in these terms, is crucial to the “collective continuance” of Indigenous peoples and their lifeworlds. After summarizing our research findings on heritage, we will turn to the philosophical and institutional roots of World Heritage in East African pastoralist homelands during the transition from colonialism to independence. We will then World Heritage's evolution in these contexts, highlighting its connections to ontoepistemological injustices and human rights violations. We will finish with a discussion of Afro-Indigenous alternatives to hegemonic heritage systems. Works Cited Hufford, Mary (2016) Deep Commoning. *International Journal of Heritage Studies* 2(8): 635-649. Whyte, Kyle (2016) Indigeneity. In: J. Adamson et. al. (eds.) *Keywords for Environmental Studies*, New York University Press.

## Parallel session 4

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Time: 11.00-12.30

### Hybrid Panel D027: Political Ecology of Connectivity and Conservation I – LRB 004D

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*Ananda Siddhartha, Wageningen University & Sayan Banerjee, National Institute of Advanced Studies – hybrid from Dodoma*

One of the impacts of human actions on the environment has been the division of landscapes and natural systems into spatially isolated parts, commonly referred to as fragmentation (Hobbs et al. 2008). Such fragmentation has been detrimental to the mobility of wildlife (Bennett 1998, 2003) and pastoralists (Said et al. 2016). To counter further fragmentation, ‘connectivity conservation’ has now become a widely used conservation tool and buzzword, especially in countries with high densities of humans and wildlife. To protect or restore connectivity for wildlife or pastoralists, one has to engage with and account for changes in land use and associated tenurial regimes. Agriculture is often identified as a common threat to both the mobility of wildlife and pastoralists. While the idea of restoring connectivity is captivating, how one goes about it can prove to be challenging (Crooks and Sanjayan 2006) considering the implications to the various actors in a landscape labelled as important for conservation or pastoralism, and who will benefit and who will lose in the process. Through this panel we aim to bring together researchers and activists who are critically looking at the politics of connectivity conservation for wildlife and pastoralists and its relation to land use for agriculture.

#### 1. Imposing connectivity for elephants in the Sigur plateau in South India

*Ananda Siddhartha, Wageningen University and Research – hybrid from Dodoma*

The increasing interest and importance given to corridors and connectivity for biodiversity conservation has led to a variety of ways by which land is set aside for them, through easements, acquisition or other means. While doing so is no easy task, it often discounts how these landscapes have been ‘fixed’ over time for different forms of capital accumulation. Using developments in what is now notified as the Sigur elephant corridor in Tamil Nadu, South India as an empirical case, this article uses David Harvey’s idea of the spatial fix as a point of departure to explore multiple fixes in this landscape. It highlights how different conceptions of conservation, land and resource use during the colonial period and in independent India have shaped and continue to shape this landscape. Among the uses of this landscape over different periods have been timber extraction, agriculture, a cattle-based economy and wildlife tourism, which have overlapped in interesting ways. Recently, judicial intervention through a ruling by the Supreme Court of India brought about a new dimension to this landscape that appears to have privileged its ecological value over capital accumulation. This article will unpack what impact this recent ruling in favor of an elephant corridor has had on agriculture and tourism-based livelihoods in the landscapes.

## **2. Community-based wildlife conservation and the production of a rural actor in southern Tanzania**

*Lucius R. Mugisha, University of Dar es Salaam – hybrid from Dodoma*

The manner in which community-based wildlife conservation (WCBWC) interventions have shaped thoughts, actions and practices of rural people in southern Tanzania is not clear. CBWC in Tanzania is actualized through Wildlife Management Areas (WMAs)—which are part of the village land earmarked as wildlife corridors, connecting different ecosystems. This article is based on ethnographic data collected from village communities around Mbarang’andu and Kimbanda WMAs—which form part of Selous-Niassa Wildlife Corridor, connecting Selous Game Reserve in Tanzania and Niassa National Park in Mozambique. Evidence indicates that, although framed around the narrative of community participation, WMAs reproduce conventional views which represent rural people as traditional, homogenous and less productive as a conducive condition for fortress conservation. This assumption has two important implications for rural subjects. First, is a wish by experts to produce rural conservation actors who would abandon conventional productive activities—livestock keeping, crop farming, charcoal burning, bush meat hunting, etc.—in favour of conservation friendly activities for ecotourism and basic income payment (BIP). Secondly, are the struggles by rural actors to retain their identity by (re)claiming access to conserved yet very productive land for crop farming and livestock keeping. It concludes that rural actors in southern Tanzania are both conservation actors and producers of livelihoods through crop farming, livestock keeping, hunting etc. CBWC interventions therefore ought to optimize both rather than choose conservation of ecosystems over production of livelihoods.

## **3. Centering social and ecological uncertainties in conservation prioritization modeling in East Africa**

*Ryan Unks, Institut de Ciència i Tecnologia Ambientals ICTA-UAB, Univ Autònoma Barcelona – hybrid from Dodoma*

Ecological models of wildlife habitat connectivity and carbon sequestration have been at the center of spatial planning in landscape approaches to conservation practice in pastoralist lands in East Africa. The increasing prevalence of modeling and other spatial prioritization practices raise a number of new concerns because past conservation interventions have commonly overlooked pastoralists’ values, relations with, and knowledges of wildlife and land. I examine the uncertainties and gaps that wildlife conservation prioritization models produce and reproduce in spatial representations of complex socio-ecological relationships. I present a synthesis of these uncertainties and gaps in the most commonly applied data and modeling practices alongside analysis of scientific publications and conservation practitioner grey literature, and describe the ways that models have been used to inform spatial planning in East Africa. I highlight the implications of spatial planning practices, and the data, models, and analyst choices they rely on, for procedural, distributional, and recognitional aspects of interventions that have taken place in different contexts where pastoralism is the primary livelihood of communities. I discuss the politics of how models are deployed in planning at different scales, and modeling as an interface between transnational actors and pastoral communities.

#### 4. Legal and Policy Interpretation of Connectivity Conservation in India

*Ishika Patodi and Akshay Chettri, Kalpavriksh Environment Action Group – hybrid from Dodoma*

While the need for wildlife corridors has been identified in order to establish and maintain connectivity between habitats, in the context of conservation laws and policies in India, the definition, interpretation and implementation of laws and policies pertaining to 'connectivity and corridors' is still ambiguous. India follows a protected area approach to conservation, and has focused on conservation of flagship species, such as 'tigers' and 'elephants'. Their habitats have been earmarked for conservation, and statutory protection is provided through the Wild Life (Protection) Act, 1972 (WLPA) and other such laws. A critique to existing laws and policies has been that they have, to a large extent, overlooked landscape connectivity, as the focus has been towards securing pocketed habitats through the creation of National Parks, and Wildlife Sanctuaries. However, there are specific legal and administrative provisions under the WLPA, Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Biological (Diversity) Act 2002, and Environment (Protection) Act, 1986, and various guidelines by the Ministry of Environment, Forests, and Climate Change (MoEF&CC) that are seen as tools for securing habitat connectivity. This paper looks at the definition and interpretation of the laws and policies that have taken to wildlife connectivity in India and what are the available legal spaces that facilitate such conservation. It also dives into the interface with various stakeholders in conservation, primarily in terms of use, access and management of such areas. The paper also looks at how the Indian judiciary has played a role in interpreting connectivity conservation.

## Panel D061: Religion and Religious Knowledge in Conservation and Development: Past, Present and Future I – Lab 1

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*Peter Rowe, University of Edinburgh*

Scholarship focusing on intersections with gender, race, class, as well as other axes of positionality and injustice, are commonplace in political ecology. However, one aspect that has remained conspicuously absent from the vast majority of political ecology scholarship is religion. Indeed, since the publication of Wilkins' (2021) article 'Where is religion in political ecology?', little, if any, substantive work has been published. This is particularly grievous given the faith positionalities of the vast majority of people across the Global South where 'conservation' and 'development' happens. If political ecology and political ecologists are concerned with 'creating pluriversal and just futures', the inclusion of, and engagement with, religious actors and knowledge is crucial. With this in mind, this session is envisioned as an early conversation in the desecularisation of political ecology (Schulz 2017), drawing concerted attention to the role of religion and religious knowledge in conservation and development. Specifically, this session seeks to critically explore how religion and religious knowledge (broadly conceived) has shaped, and is shaping, conservation and development theory and practise in the past, present, and future, for better or for worse. From visions of an 'Edenic Africa' implicated in the colonial creation of national parks, including Tanzania's own Serengeti (Neumann 1996; 1998), to present day Islamic inspired conservation and development initiatives in Zanzibar (IFEES 2023),



religion has long been linked to conservation and development in both theory and practise. Thus, this call for papers seeks responses from political ecologists, geographers, and others, who, like Wilkins (2021), are asking: where is religion in political ecology? While an East African focus lends itself particularly well to this session, contributions from a diverse range of geographies are welcome.

## **1. Land, culture and religion: change and transformation among the Loita Maasai in Kenya**

*Angela Kronenburg García & Lenaai ole Mowuo, UCLouvain, Belgium*

This paper explores how land demarcation, the spread of evangelical Christianity and changes in Maasai culture connect in Loita, Kenya. We present preliminary findings of ongoing research based on collaborative fieldwork conducted over a period of one month in February-March 2023. Despite several failed attempts in the past, a controversial and politicized land demarcation process to subdivide the land of the Loita Maasai in Kenya was re-started in 2020. These land tenure developments coincided with the proliferation of evangelical churches across the Loita landscape. There is evidence that some churches were built to claim rights to land in anticipation of tenure formalization. Differently from Catholicism, which has a longer presence in Loita, evangelical Christianity is strongly opposed to certain values and practices of what is locally understood to be “Maasai culture”. With more and more people joining churches, the influence of these religious ideas is increasingly becoming evident in changing ways of behaving and relating to each other. To understand the role of evangelical churches in both the land demarcation process and in changing Maasai culture, we zoom in on two cases whereby the building of churches happened in places that were traditionally reserved for holding Maasai ceremonies and constructing ritual settlements (*manyatas*). Should this be interpreted as yet another way of claiming unoccupied land, or is this rather a religious statement against “Maasai culture”? We approach religious organizations both as influencers of ideas and beliefs and as material actors that control resources, land and capital (Wilkins 2021).

## **2. Searching for Religion in Political Ecology**

*Johnathan Bascom; Calvin University*

Why has political ecology neglected religion? Part I addresses this question by way of seven relevant observations: 1: Although the original political ecology (PE) literature was grounded in primary research, today the literature is steeped in secondary research, semantical nuances, and fewer local connections; 2: The PE literature has become so disparate that it's losing coherence as a school of thought; 3: The PE literature which originated in the developing world has lost its birthright and has been heavily coopted by first world concerns; 4: The PE literature has less and less relevance to sub-Saharan Africa; 5: The PE literature is conspicuously silent regarding the dominant religions of sub-Saharan Africa, despite the fact 95.4% of its people claim to be Christians, Muslims, or Jews; 6: The PE literature has not ever – and is not now – connected deeply with religion; and, 7: The PE literature has a lack of a refined understanding of Christianity's deeply nuanced theologies / worldviews of creation and nature. The paper seeks to demonstrate each of these observations. Part II offers my main thesis: Among a plethora of options, the political ecology literature as well as evangelical Christian missionaries and their national church counterparts will find most traction by engaging with distinctly reformed Christian theologies/worldviews that expressly articulates the relationship between faith and nature

as well as advocates for conservation and creation care. The history of missions and their national denominations in the country of Ethiopia provides context to discuss this thesis.

### **3. The role of religious knowledge in conservation and development practice in the contemporary moment; a historical contribution by the Knapp's family**

*Tony Matiko Gesowan and Henry Kianduma; both St Paul University, Limuru*

This paper casts a spotlight on the historical contributions of the Knapp's Family. Throughout history, the Knapp's Family left an indelible mark at the intersection of religion, conservation, and development. At the heart of the Knapp's legacy lies a profound intertwining of Christian beliefs and environmental stewardship. Their historical contributions serve as a testament to the influential role of religious ideologies in shaping attitudes towards land use, resource management, and community development. The Knapp's teachings and actions advocated for a holistic understanding of humanity's role in preserving nature, emphasizing the ethical and moral dimensions of environmental responsibility. Their historical practices serve as a lens through which to assess the efficacy and implications of integrating religious knowledge into modern conservation and development initiatives. Furthermore, this paper scrutinizes the Knapp's approach within the context of current global challenges, such as climate change, biodiversity loss, and social inequality. By drawing parallels between historical practices and present-day dilemmas, it assesses the applicability, limitations, and ethical considerations of incorporating religious knowledge into contemporary conservation and development paradigms. This study aims to catalyze discourse and critical reflection on the role of religious knowledge in shaping sustainable conservation and development strategies. It advocates for a nuanced understanding of the Knapp's historical contributions as a means to inform and guide more holistic, culturally sensitive, and ethically grounded approaches to addressing the pressing challenges of the contemporary world. Through a multidimensional analysis, this paper endeavors to foster dialogue towards a more inclusive and effective framework for sustainable global development.

## **Panel D052: Indigenous Rights and Marginalization Ecologies – Lab 2**

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*Jabulani Shaba, University of Groningen*

### **1. Forced Displacement and Environment in the Great Lakes Region of Africa (The protocol on the protection and assistance to internally displaced persons: Legal approaches and responses in the Great Lakes Region)**

*Juliet Musoke Nakabuye, Uganda Martyrs University-Nkozi*

Forced displacement is an involuntary relocation of persons from their known home region to a foreign region. It creates a status of Internally displaced persons (IDPs)-in a home country or refugee status-in a foreign country. Though many scholars acknowledge that the most common cause of Forced displacement is armed conflict, in the recent past; natural disasters and impacts of climatic changes are taking lead in forced displacement. This discussion paper will concentrate on “the protocol on the protection and assistance to

internally displaced persons: Legal approaches and responses in Great lakes region". This paper will discuss the human rights and protection of disaster induced displacement, major legal challenges to protecting disaster victims and proposed recommendation. The main argument will be about the lack of legal status for IDPs of environmental degradation mostly caused by man-made environmental disasters as opposed to sudden unforeseeable disasters. There is need for well thought legal approaches for environmentally displaced persons, interalia; infrastructural institutional expanse, comprehensive domestic and international monitoring policies, rights training, enforceability mechanism on government (s) non-response to protection of their nationals.

## **2. Decolonial Perspectives on Climate-Induced Displacement in Somalia**

*Umaimah Adan-Ismael, University of Toronto*

In the context of intensifying climate change and conflict, this paper adopts a decolonial lens to examine the intertwined dynamics of displacement in Somalia, with a particular focus on the gendered dimensions. Addressing a significant gap in existing literature, the research explores how climate-induced displacement and conflict impact Somali women, employing an interdisciplinary approach encompassing qualitative secondary analysis, narrative and thematic analysis, spatial analysis, and a decolonial feminist perspective. By delving into the genealogy of Somali women's role as peacebuilders, particularly through the lens of traditional oral poetry, this paper seeks to illuminate historical narratives often overlooked in mainstream discourse. It aims to understand how these narratives, rooted in cultural heritage, influence and shape the responses of displaced Somali women in urban settings, with a specific analysis of IDP camps in Mogadishu and Baidoa. This paper reveals that the confluence of conflict and climate change disproportionately affects Somali women, driving their displacement and necessitating negotiation of multifaceted challenges within urban camps and settlements. A critical examination of the experiences of displaced women brings to light their agency and resilience in the face of adversities, emphasizing the importance of recognizing indigenous knowledge systems and decolonial frameworks in understanding these complexities. Furthermore, the research highlights the historical and cultural context of Somali women's contributions as peacebuilders, with a particular emphasis on the expressive medium of traditional oral poetry. This decolonial framing adds depth to the analysis, enriching the broader discourse on climate change, conflict, and displacement by incorporating marginalized narratives and challenging dominant paradigms. In conclusion, this paper underscores the necessity of an intersectional, decolonial approach for a comprehensive understanding of the intricate realities faced by displaced Somali women. By incorporating the genealogy of peace-building through traditional oral poetry, this paper offers a historical analysis of indigenous peace-building and asks what a similarly decolonial approach to sustainable Somali futures can look like.

## **3. Political ecology, epistemic (in)justice and resource extraction in South Africa**

*Jabulani Shaba, University of Groningen*

This paper seeks to explore the role of mining environmental protest groups – particularly gold mining – in providing new approaches in unpacking the intersection political ecology of extraction and epistemic injustice in South Africa. It seeks to analyse how we can use environmental protest movements such as the Mining Affected Communities United in Action, (MACUA) and the Federation for a Sustainable Environment, (FSE) in

delinking/deconstructing epistemic injustice in localities of resource extraction. In this way, the paper hopes to answer how political ecology can be used as a lens to understand how epistemic (in)justice is unfolding in South Africa's postcolonial localities of resource extraction. Using the communities with the vicinity of the gold mines in Johannesburg, the paper explores the lived experiences of people and how they negotiated environmental pollution. In doing so, the paper seeks to bring to light various local/vernacular ingenuities in navigating chemical toxicities thereby adding a new layer of indigenous political ecologies of resource extraction to the global historiographies of epistemic (in)justices. The paper draws from ethnographic encounters with interlocutors, newspaper archives, gold mining documentaries, mining policy reports and broader secondary literature on natural resource governance, political ecology and the epistemologies of extraction.

## Hybrid Panel LU135: Contested Imaginaries? Eclectic Pathways of Agrarian Change I – Lab 6

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*Irna Hofman, University of Oxford & Michael Spies, Eberswalde University for Sustainable Development – hybrid from Lund*

In debates on agricultural development, imaginaries of agricultural futures tend to be polarised. On the one hand, state actors and powerful corporate, as well as quasi-private organisations favour technology-intensive, scientific modes of agriculture, labelled 'modern' and 'advanced.' Other actors, for instance social movements, counter such narratives and dogmas by promoting smaller-scale, autonomous (sovereign) and less input-demanding modes of farming. However, at times, they have also been criticised of idealising the local. Both groups of actors aim to take on a role as architects of agrarian futures with their own ideals and couch their ideas in terms of resilience and sustainability, particularly in the context of climate change. Who owns the control over, and who governs, future production pathways? How and where do farmers position themselves in these debates, and how do they make sense of these contrasting visions? Whilst some farmers may follow advice of specific actors decisively, others may selectively adopt advice, resulting in a 'middle ground' or 'bricolage' of knowledges. How can scholarly research contribute to account for and appreciate the heterogeneity of agrarian imaginaries? In a hybrid double panel (two panels à four papers), we critically examine these questions. The empirically-rich papers presented in the panel are diverse, spanning the globe: South America; Central Asia; Africa; Southeast Asia; Middle East; and, Europe. The panellists adopt political ecology lenses yet differ in the level of analysis. Thematically, the papers' foci are unique and timely and range from research centred on the digitalisation of agriculture in Ethiopia to a policy analysis regarding the envisioned transformation to plant protein diets in the Netherlands. Cumulatively the panels address and engage the diversity of actors that are implicated and/or involved in the making of agricultural futures, and with what result.

### **1. Exile agricultures: Navigating agrarian change among Tibetan refugees in India and Nepal**

*Hanna Geschewski, Chr. Michelsen Institute (CMI) and University of Bergen – hybrid from Lund*

While agrarian societies of 20th-century South Asia largely shifted from traditional to conventional high-input agriculture in the wake of the Green Revolution, this century is marked by a partial reorientation towards alternative approaches, including organic, natural or agroecological farming (Kinkaid, 2019). These recent trajectories are often portrayed as a return to traditional, local and/or indigenous knowledges and practices, grounded in peasant communities' historical connections to land, environment, and resources, which had been suppressed by "modern" industrial agriculture (Giraldo, 2019). But how do agrarian transformations and the search for sustainable agrarian futures play out in communities that do not have long-term ties to and knowledge of the land they now inhabit and cultivate, such as resettled refugees? Drawing on fieldwork in three agrarian Tibetan refugee settlements in South India and Nepal established in the 1970s, I explore transitions in Tibetan agricultural practices over time, with a particular focus on recent organic farming initiatives and how these have been perceived by the refugee communities. Using a political ecology lens, I examine the complex interplay of actors, knowledge systems, discourses, and experiences that shape how refugee farmers navigate and negotiate agricultural practices, decision-making and aspirations, extending beyond traditional-conventional, local-global, and refugee-host binaries.

## **2. Ambiguous ecologies: Exploring the in-betweenness of agro-alternatives in India**

*Arianna Tozzi, Manchester University and Enid Still, University of Passau – hybrid from Lund*

Across India, smallholder and marginalised farmers are experimenting with alternative forms of agriculture as a response to livelihood uncertainties and ecological damage wrought by commercial and chemical intensive agriculture. *Sendriya sheti* in Maharashtra and *maruntu illai vivacāyam* in Tamil Nadu, both loosely translated as no-chemical farming, involve a plurality of methods, ethics and politics that farmers employ to cultivate different relationships with the land and one another. Yet, while one would imagine that such changing relations position farmers on a path towards 'natural' or certified organic farming, we find that they involve a constellation of seemingly contradictory practices whereby farmers adapt agro-alternatives to make them work for their circumstances. In this paper, we problematise the idea of 'contradiction' in relation to pathways of sustainable transformation, which implies a norm against which 'more ethical' farming is measured. Instead we engage with these practices as ambiguously entangled with the ecologies that sustain them, their sedimented histories and the ethico-temporal constraints of building more liveable livelihoods on the ground. By analysing this ambiguity, we illuminate the in-betweenness of agro-alternatives as spaces of agrarian heterogeneity that are often obscured by simplistic hegemonic discourses on chemical and organic agriculture.

## **3. The politics and practices of avocado cultivation: Exploring contested agrarian imaginaries in Palestine/Israel**

*Fadia Panosetti, University of Cambridge – hybrid from Lund*

This paper explores the politics and practices of avocado cultivation in the Palestinian/Israeli context. In the northern rural highlands of the West Bank, vegetables and citrus trees have been increasingly replaced over the past decade by avocados destined for foreign markets, especially in the Arab World. The Palestinian Authority, together with international organizations, has promoted the cultivation of this high-value crop by presenting it as an opportunity to delink from the Israeli economy and resist settler colonial land dispossession. However, participant observation and semi-structured interviews conducted in the summer 2023 have shown that while some farmers have embraced this narrative and transformed their farm production systems into avocado monocultures in the hope of obtaining higher land returns, others have rejected it. For the latter, opposing settler colonial processes of dispossession and de-agrarianization means restoring agroecological farm production systems where avocados are grown alongside other fruits and vegetables. Centering the voices of farmers with regard to their avocado farming practices, this paper shows how agrarian spaces and subjectivities change not only in relation to state and capital interventions but also to the ways in which heterogeneous Palestinian rural communities interact, oppose, and navigate these processes, thus making choices for their future.

#### **4. Pragmatic progress? Understanding seed choice in a context of rural uncertainty in Tajikistan**

*Irna Hofman, University of Oxford and Michael Spies, Eberswalde University for Sustainable Development – hybrid from Lund*

Since the 1990s, an increasingly diverse and growing number of international and domestic actors has become involved in Tajikistan's seed sector. The imperatives driving their engagement, their objectives, as well as their activities, differ widely, and so do the seeds they propagate and value. As a result, Tajikistan's farming population has been exposed to various seed varieties promoted by these actors that align with specific paradigms of the future of farming: Open pollinated, indigenous seeds to strengthen resilience of the agricultural economy, national seed sovereignty, and food security, to high yielding hybrids that boost output and therewith the commercialisation of farming. How do farmers navigate these pathways? Based on in-depth fieldwork in lowland Tajikistan, we examine the diversity of actors involved, the polarised ideologies, and farmers' seed choices, with a focus on maize and cotton. Many Tajik smallholder farmers adopt a pragmatic approach as they select seeds that generate profits on the short term. While they have to consider a variety of factors, their precarious socio-economic status does not allow them to invest with a long term in mind. Indeed, their pragmatism has to be situated locally; understanding seed choice rationales require contextualisation in a political ecology of uncertainty.

## Parallel session 5

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14.00-15.30

## Hybrid Panel D027: Political Ecology of Connectivity and Conservation II – Lab 1

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*Ananda Siddhartha, Wageningen University & Sayan Banerjee, National Institute of Advanced Studies – hybrid from Dodoma*

One of the impacts of human actions on the environment has been the division of landscapes and natural systems into spatially isolated parts, commonly referred to as fragmentation (Hobbs et al. 2008). Such fragmentation has been detrimental to the mobility of wildlife (Bennett 1998, 2003) and pastoralists (Said et al. 2016). To counter further fragmentation, ‘connectivity conservation’ has now become a widely used conservation tool and buzzword, especially in countries with high densities of humans and wildlife. To protect or restore connectivity for wildlife or pastoralists, one has to engage with and account for changes in land use and associated tenurial regimes. Agriculture is often identified as a common threat to both the mobility of wildlife and pastoralists. While the idea of restoring connectivity is captivating, how one goes about it can prove to be challenging (Crooks and Sanjayan 2006) considering the implications to the various actors in a landscape labelled as important for conservation or pastoralism, and who will benefit and who will lose in the process. Through this panel we aim to bring together researchers and activists who are critically looking at the politics of connectivity conservation for wildlife and pastoralists and its relation to land use for agriculture.

### **1. Vital Connections: Exploring connectivity conservation and wildlife corridors in Tanzania**

*Annette Green, University of Cambridge – hybrid from Lund*

Where protected areas were once considered self-contained and standalone conservation investments, for some decades the focus has shifted towards networks of connected protected areas at landscape scale. The idea of the conservation corridor has emerged in parallel as a tool or strategy for supporting ecological connectivity – in its simplest, most intuitive incarnation, a stretch of land under some form of protection connecting two existing areas of conservation value, often with a focus on facilitating wild animal movement. In this paper, I make connections between the discursive construction of the corridor for conservation in the abstract, and the impacts of on-the-ground corridor projects on the people who live with (or within) them. Drawing from empirical research on a village-scale wildlife corridor project in the Kilombero region of Tanzania, I show how multiple elements – including the ‘mappability’ of the corridor, state-sanctioned spatial planning mechanisms, profit-making motivations of an international volunteer tourism company, and ideas about wild and immutable nature – combine to result in an ecologically questionable but socially intractable conservation space. I argue that corridors for connectivity conservation are not products of the straightforward ‘application’ of scientific knowledge to a landscape. Rather, they can be understood as an assemblage – a confluence of diverse human, non-human and non-living actors – shaped by diffuse and relational power. This analysis helps explain the burgeoning hegemony of the corridor approach, and highlights the need to interrogate intuitively appealing ideas in connectivity conservation in light of grand global visions such as 30x30 and Half Earth.

### **2. Kaziranga National Park: unravelling social injustice in landscape conservation model**

*Eleonora Fanari, Instituto de Ciencia i Tecnologia Ambiental (ICTA), UAB – hybrid from Lund*

Following the international discussion on regenerate and reconnect otherwise fragmented habitats, in the last decades new form of biodiversity managements started emerging under the idea of ‘landscape conservation’. India, with a network of 1014 protected areas, have also shifted its focus from a strict fortress conservation model towards what Baruah (2022) calls ‘zonation model’. This resulted in the establishment of eco-sensitive zones around PAs as well as the notification of wildlife corridors to enable the safe movement of animals, particularly charismatic species such as tigers, elephants, and rhinos. A move that coincided with an increase in frontline personnel in security, who are assigned to patrol outside of protected areas. This paper critically examines the Kaziranga National Park, a Rhinoceros and Tiger Reserve in the northeast Indian state of Assam, to investigate how connectivity conservation is at odds with the needs of local people who inhabit these spaces, raising issues of recognition, justice, and violence. It will do this by unveil the history of spatial injustice experienced in the area, from being a game reserve for the British royals to a rhinoceros and tiger landscape for the largely tourist audience. Looking at these corridors as a green techno fix to solve anthropocentric issues of biodiversity management, it will highlight how connectivity is part of the larger politic of territorial and biopower control, tracing a thin line between post-colonial and neoliberal conservation. Through stories of resistances emerging in the space the research intends to illuminate the economic interest and the hegemonic structures underlying these spatial changes, and the resulting injustices.

### **3. ‘Connectivity’ for whom? Narrating the gendered dynamics of conservation corridors in (post)conflict Karamoja**

*Natalie Carter, University of Cambridge – hybrid from Lund*

With Target 3 (aka 30x30: the commitment to protect at least 30% of land and sea by 2030) enshrined in global biodiversity commitments, countries are seeking to expand localised forms of area-based conservation and enhance the ‘connectivity’ of conservation spaces through corridors. The gendered implications of connectivity conservation are frequently overlooked and understudied. This leads to lack of a nuanced and situated understanding of intersecting inequalities, which may in turn compound and produce uneven topographies of vulnerability in mixed-use landscapes. Research is particularly warranted in (post)conflict Karamoja in north-east Uganda, where embodied experiences of human-non-human relations also intersect with a history of protracted conflict and manifold forms of violence. Adopting feminist political ecology as a central lens, this paper will describe plans for research into the operation of gender (and other intersecting inequalities) in the mosaic of boundaries that makes up the ‘Kidepo Critical Landscape’ corridor. I plan to map the position of gendered actors in this corridor and how they shape it from within, remaining alive to the politics of defining ‘boundaries’ and whether those that align with connectivity ambitions are relevant to (semi)pastoralists’ spatial lives. This will involve narrating the affective geographies of life in the corridor, paying attention to the history of violence and increased vulnerability to human-wildlife conflict. With an ambition to use creative ethnographic and archival research methods, this research seeks to make visible the dynamics involved in corridor creation, challenging dominant imaginaries of connectivity conservation and whose interests it shapes.



## Panel D061: Religion and Religious Knowledge in Conservation and Development: Past, Present and Future II – Lab 2

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*Peter Rowe, University of Edinburgh*

Scholarship focusing on intersections with gender, race, class, as well as other axes of positionality and injustice, are commonplace in political ecology. However, one aspect that has remained conspicuously absent from the vast majority of political ecology scholarship is religion. Indeed, since the publication of Wilkins' (2021) article 'Where is religion in political ecology?', little, if any, substantive work has been published. This is particularly grievous given the faith positionalities of the vast majority of people across the Global South where 'conservation' and 'development' happens. If political ecology and political ecologists are concerned with 'creating pluriversal and just futures', the inclusion of, and engagement with, religious actors and knowledge is crucial. With this in mind, this session is envisioned as an early conversation in the desecularisation of political ecology (Schulz 2017), drawing concerted attention to the role of religion and religious knowledge in conservation and development. Specifically, this session seeks to critically explore how religion and religious knowledge (broadly conceived) has shaped, and is shaping, conservation and development theory and practice in the past, present, and future, for better or for worse. From visions of an 'Edenic Africa' implicated in the colonial creation of national parks, including Tanzania's own Serengeti (Neumann 1996; 1998), to present day Islamic inspired conservation and development initiatives in Zanzibar (IFEES 2023), religion has long been linked to conservation and development in both theory and practice. Thus, this call for papers seeks responses from political ecologists, geographers, and others, who, like Wilkins (2021), are asking: where is religion in political ecology? While an East African focus lends itself particularly well to this session, contributions from a diverse range of geographies are welcome.

### **1. Intersections of Power and Religion: exploring political Ecology through the lens of totemism among Bakalanga (African) Indigenous Religions in Botswana**

*Senzokuhle Doreen Setume; University of Botswana*

The purpose of this article is to explore the role of religious knowledge in conservation and development practices among the Bakalanga ethnic groups in Botswana using totemism as an expression of religion. Many studies have focused on how totemism in among African Indigenous Religions have made strides in the conservations of the environment, but none have focused among the Bakalanga. Using the theory of the social construction of reality, this study adopted a phenomenological (interviews) approach in understanding how Bakalanga of the North-Eastern part of Botswana use totemism as a conservation strategy. While other ethnic groups in Botswana share a totem as a tribe, the study has found out that Bakalanga of Northeast have different types of totems, therefore in totality as an ethnic group through their totems they preserve a number of animals (i.e. Eland, Elephants) and plants. Totemism functions through imposing taboos and prescriptions on human-environment relations. The study concludes that totemic conservation is biased towards animal life while Bakalanga mostly protect plant life through the sacred usage of plants. For example, plants traditionally used as identifiers of graves and other religious rituals are not used for domestic purposes. Furthermore, the study found that though most Bakalanga

are educated and live in the modern world, the fear of the personal consequences of violating totemic taboos makes totemism good conservation strategy in the modern-day Botswana. The study therefore recommends that traditional ways of conservation need to be incorporated by the government in its national conservation strategies.

## **2. Pastoralism and Pentecostalism: Disentangling the religious dimension of changing land tenure/use dynamics in southern Kenya**

*Joana Roque de Pinho; Lisbon University Institute; Stanley ole Neboo; Talek River Water Conservation Association*

Bialecki et al. (2008) once questioned anthropologists' reluctant engagement with Christianity. Recently, Wilkins (2021) pondered the absence of religious actors in political ecological inquiry. We address these concerns by tackling another omission, i.e., how scholarship on environmental change and conservation challenges in Maasailand overlooks (agro)pastoralists' conversion to Pentecostalism. Despite other disciplines' acknowledging spiritual dimensions of human-environmental relationships, and accounts of early Maasai encounters with mainline Protestant and Catholic missionaries (Hodgson, 2005; Rigby, 1981), contemporary analyses of Maasai livelihoods and environments sidestep Pentecostalism as a variable in changing demographics and livelihoods/land uses, responses to climate variability, and conservation outcomes (e.g., Homewood et al., 2009; but see Roque de Pinho et al., 2014 Baird, 2015) – even when confronted with conspicuous faith-related manifestations, e.g., proliferating Kenyan and transnational churches and public religious performances. We use ethnographic data (2002-04, 2011, 2002-23) from two southern Kenyan conservation landscapes to examine entanglements of Pentecostalism with land use/tenure changes. We find that Christian beliefs, religious leaders' discourses and behaviors, and Bible-inspired household dynamics re-shape how (agro)pastoralists relate to the land, conceptually and materially. Around Amboseli National Park, churches' promotion of farming interacts with conservation discourse to redefine the meaning of "land". Around Maasai Mara National Reserve, land demarcation facilitates the penetration of churches through land purchases and donations. With declining reciprocity ascribed to land privatization, urbanization and education, people credit churches with re-creating "unity". Meanwhile, pastors preach against the sin of selling land, mediate land conflicts, and promote tree planting and wildlife conservation. Away from clear directions of causality, this study exposes the complexity of religious-environmental entanglements in Maasailand; and contributes to analyses of interactions between global organized religions and local land changes.

## **3. Reflections on Agriculture and Pentecostalism in Kenya**

*Peter Rowe, University of Edinburgh*

For centuries, Christianity and agriculture have been entangled on the African continent. From Alvord's 'Gospel of the Plow' in Zimbabwe to the 'theology of the soil' advocated by the Church Missionary Society in Uganda, the historic linkages between Christianity and agricultural practise and transformation in Africa are manifold. However, these linkages have not ended with the 'high era' of colonisation and Christianisation. Indeed, the linkages between Christianity and agriculture in the contemporary moment are alive and well. In this paper, I aim to pick up on these threads in the here and now by exploring how Farming God's Way, an agricultural movement steeped in Pentecostal theology, is promoted and practised by one Christian conservation and development NGO in Kenya. First, I

demonstrate how the Farming God's Way training offered by this Christian NGO is framed in a prosperity-laden Pentecostalism that, according to Damaris Parsitau, has moved from the 'periphery to the centre' of Kenya's Christian landscape. Second, despite promises of prosperity, I explore the limits to Farming God's Way implementation in Kenya's drought-stricken central Rift Valley. Here, drawing on interviews with smallholder farmers, I suggest that rather than the 'clean break' from conventional agricultural practise to Farming God's Way that those promoting Farming God's Way envisage, this rupture is complicated by a range of environmental factors.

## Hybrid Panel LU135: Contested Imaginaries? Eclectic Pathways of Agrarian Change II – Lab 6

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*Irna Hofman, University of Oxford – hybrid from Lund*

In debates on agricultural development, imaginaries of agricultural futures tend to be polarised. On the one hand, state actors and powerful corporate, as well as quasi-private organisations favour technology-intensive, scientific modes of agriculture, labelled 'modern' and 'advanced.' Other actors, for instance social movements, counter such narratives and dogmas by promoting smaller-scale, autonomous (sovereign) and less input-demanding modes of farming. However, at times, they have also been criticised of idealising the local. Both groups of actors aim to take on a role as architects of agrarian futures with their own ideals and couch their ideas in terms of resilience and sustainability, particularly in the context of climate change. Who owns the control over, and who governs, future production pathways? How and where do farmers position themselves in these debates, and how do they make sense of these contrasting visions? Whilst some farmers may follow advice of specific actors decisively, others may selectively adopt advice, resulting in a 'middle ground' or 'bricolage' of knowledges. How can scholarly research contribute to account for and appreciate the heterogeneity of agrarian imaginaries? In a hybrid double panel (two panels à four papers), we critically examine these questions. The empirically-rich papers presented in the panel are diverse, spanning the globe: South America; Central Asia; Africa; Southeast Asia; Middle East; and, Europe. The panellists adopt political ecology lenses yet differ in the level of analysis. Thematically, the papers' foci are unique and timely and range from research centred on the digitalisation of agriculture in Ethiopia to a policy analysis regarding the envisioned transformation to plant protein diets in the Netherlands. Cumulatively the panels address and engage the diversity of actors that are implicated and/or involved in the making of agricultural futures, and with what result.

### **1. Recurring discourses and actor's diverse perspectives on the pathways of Argentina's agricultural sector**

*Anna-Maria Brunner, University of Innsbruck – hybrid from Lund*

Against the backdrop of Argentina's recent political shift towards an anarcho-capitalist presidential candidate, the vision of Argentina as the granary of the world—a viewpoint putting forward an economy centered on conventional, export-oriented agriculture and policies aimed at eliminating what is by this political party considered 'inefficient' family farming—has regained prominence. Amidst these changes, robust social movements have emerged in recent years, coalescing around a vision for the agricultural sector based on

agroecological principles. The landscape of future agricultural imaginaries, however, is far from a simple dichotomy; rather, it encompasses numerous shades of grey. This paper embarks on an exploration of this spectrum of visions, revealing shared perspectives both within and between actor groups (e.g., farmers, consumer-activists, researchers, governmental actors, and economic entities), and delves into the underlying (hegemonic) discourses and shaping power relations. Specifically, this research aims to investigate visions regarding the perceived possibility/necessity of co-existence between conventional large-scale farming and alternative niche projects and its implications for visions of a convivial future. This study employs Q-Methodology for a quantitative analysis of actors' imaginaries. Additionally, the paper explores the potential of enhancing traditional quantitative Q-Methodology through a more qualitative analysis to unveil the diverse arguments behind actors' imaginaries.

## **2. (Constrained) imaginaries of smallholders: Perspectives from South Punjab, Pakistan**

*Mehwish Zuberi, Eberswalde University for Sustainable Development – hybrid from Lund*

In December 2022, twelve farmers in Multan district, Pakistan, convened to appraise public agricultural strategies for modernizing and intensifying agriculture. Despite initial skepticism about modernist approaches for smallholder farmers, the participants later mirrored policymakers' paradigms in their proposed alternative strategies. This phenomenon is explored through the lens of “constrained spatial imaginaries”. Spatial imaginaries are understood as collective sense-making processes, particularly in constructing stories about spaces and the material practices that frame shaping agrarian production pathways. These imaginaries, influenced by factors like resource scarcity and historical contexts, often align with the logic of industrial agriculture, reflecting the region's Green Revolution legacy. Focused on South Punjab, Pakistan, the study addresses smallholders' imaginaries, their determinants, and challenges in proposing alternative farming strategies. A mixed methods approach is applied that includes long-term qualitative fieldwork and participatory workshops. The presentation delves into dominant policy paradigms in the region vis-à-vis farmers' perspectives. Results reveal how historical, structural, and livelihood vulnerabilities constrain farmers' imaginaries, leading to pragmatic strategies within existing systems rather than challenging them. We emphasize the need to understand and overcome these constraints to foster agricultural innovation and sustainability in smallholder communities.

## **3. Data for development or development for data? Investigating the push towards digital agriculture in Ethiopia**

*Matthew Schnurr, Dalhousie University; Maywa Montenegro, University of California-Santa Cruz; Glenn Stone, Sweet Briar College; Helina Yeglitu, Independent Researcher – hybrid from Dodoma*

The pandemic has intensified calls for a new Green Revolution built around digital agriculture, a suite of disruptive technologies that seeks to modify and improve farmer behaviour via the flow of intensive farm-level data. This paper presents preliminary findings from a study investigating the impacts of digital agriculture in the Oromia region of Ethiopia. We use the lens of political ecology to analyze over twenty expert interviews undertaken with government officials, digital agriculture start-ups, development donors, and extension agencies, with a particular focus on understanding the vision for how digitizing extension services can impact farmer decision-making. We focus in on two case studies of digital

extension services currently underway in Oromia: The 8028 Hotline, initiated by the Gates-funded Agricultural Transformation Institute, and Lersha (which means 'for agriculture' in Amharic), a domestic start-up seeking to establish itself as a one-stop-shop for digital service provision. Finally, we share some preliminary insights from a three-phase farmer-based methodology that includes a demographic survey, focus groups, and transect walks to showcase farmer perspectives on these new technological platforms. This paper seeks to unravel the complex system of individuals and institutions that come together to privilege digital extension over other agricultural possibilities.

#### **4. The political geographies of the Dutch national protein strategy**

*Willem Boterman, University of Amsterdam – hybrid from Lund*

The supply chains of animal-based foodstuffs (meat and dairy) are completely globalized and constitute a complex web of interrelations, connecting geographies of protein rich crops, such as soya, with geographies of intensive life-stock farming. In the wake of increasing geopolitical tensions and the disruption of supply-chains, food security is back on the agenda in the European Union. As much of food security revolves around the circulation of key nutrients, such as proteins, the EU has asked member states to develop a national protein strategy. This paper investigates the national protein strategy of the Netherlands, an important producer and global exporter of meat and dairy products that largely relies on the import of plant-based proteins from across the globe. Through interpretative policy analysis of policy reports, white papers, and transactions of workshops involving different stakeholders (policy makers, interest groups, industry), this paper traces the origins and legitimations of the protein strategy. Through critical content analysis of (social) media of national and local politicians it situates the national protein strategy in the wider context of agrarian change: the protein transition, and explores how this transition is linked to processes of political and spatial polarization.

## Parallel session 6

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16.00-17.30

### **Hybrid Panel D042: The Lives, Afterlives, and Resurgence of Nature-based Solutions – LRB 004D**

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*Adeniyi Asiyambi, University of British Columbia Okanagan – hybrid from Dodoma*

"Nature-based solutions", particularly tropical forest conservation linked to carbon offsetting, have become a leading policy intervention for climate-change mitigation. From the global scale to the local and back again, the trajectory of land-based carbon offsetting has been uneven and complex. Some projects under the rubric of REDD+ exist mainly on paper, with few ground-level changes in how land and resources are demarcated, valued, and used. Others have recruited land users into new livelihood or conservation-related activities (Huff, 2023; Kansanga and Luginaah, 2019). Some have entailed increased control by central governments or have engendered or empowered local organizations and alliances among state and non-state actors (Astuti and McGregor, 2015a, 2015b; Kashwan 2015; Setyowati, 2020). Many projects that prioritize carbon sequestration have

curtailed resource access by local communities; more than a few have involved violence and dispossession, though the type of local impacts depends on the nature of the domestic political economy (Kashwan 2017; Milne et al., 2018). Even abandoned projects have afterlives that manifest as problematic consequences for local communities, redirecting of state institutions and resources, continuing emission-reduction claims, and greenwashing of extractive industries along the commodity frontiers of the global South).

Political ecologists have been investigating these projects for some time (Cavanagh and Benjaminsen, 2015; Chomba et al., 2016; Fletcher et al., 2017; Lund et al. 2017; Lund and Asiyambi, 2020; Leach and Scoones, 2013; McAfee, 2015). Recent quantitative evidence from conservation scientists vindicates what political ecologists have been arguing: that the climate benefits of most land-based carbon-sequestration projects are greatly exaggerated or nonexistent (Haya et al. 2023). Amplified by press accounts of deception, conflicts of interests, and human rights abuses in forest-carbon projects, these revelations have left nature-based offsetting in disrepute. Many NGOs, academics, and peasant and Indigenous peoples organizations have denounced offsetting. Corporations, wary of bad publicity or legal liabilities, held back from buying "nature-based" carbon credits in 2023, sending traded offset volume tumbling in the voluntary carbon market. Yet forest-carbon offsetting appears to be resurging as states and nonstate actors jostle for net-zero carbon credibility, and as the offsetting of development impact becomes entrenched. Alliances of financiers and conservation organizations hope to rescue the tottering voluntary carbon market by reforming offset certification standards and weeding out "junk" carbon commodities. State actors such as the UAE traverse Africa securing carbon rights on large swaths of territory. Cash-strapped global-South governments seek their share of the promised multi-billion-dollar carbon credit trade. The practices and logics of carbon offsetting find renewed application in the trading of biodiversity credits. Emissions-trading interests seek to expand transnational offset trading as a UN-sanctioned climate strategy, even if governments are at loggerheads over rules for this under Article 6.4 of the Paris Climate Agreement. In this panel, we bring together empirical and theoretical contributions that present local, national, international, or comparative analyses to advance the debates about the political economy and political ecology of nature-based climate interventions.

## **1. The (In)visible Hands of Carbon Markets. The Political Economy of Regulating Carbon Markets in Brazil**

*Claudia Horn, Brandeis University – hybrid from Lima*

Carbon offset markets and Payments for ecosystem services (PES) continue to rise as Global South countries like Brazil regulate them at greater scales, despite the technical and human rights issues critics continue to raise. Political ecology critiques emphasize that market mechanisms displace the burden of climate mitigation to Global South countries, increasing and greenwashing rather than curbing big polluters' gains. They focus on project-level resistance to nature commodification but less on the politics of regulating national carbon markets. This study uses the lens of environmental justice and critical state literature to investigate the extent to which Brazil's national legislation incorporates collective socioenvironmental demands or reproduces the dominance of polluting sectors. When carbon offsets emerged in the 2000s, Brazil's federal government and rural social movements opposed the mechanism, while Amazon state governors and conservation NGOs promoted it. Back then, PES seemed to primarily be directed towards local communities. In opposition to the right-wing anti-environmental backlash, political elites have now embraced market principles almost unequivocally as a "rational" alternative to

populism. While Brazil's 2009 Climate Policy included a national carbon market, the latter was only approved in 2023. The mechanism excludes and, at the same time, benefits the agribusiness sector, which is responsible for three-quarters of the country's emissions. This study examines archival, interview, and media sources to understand the struggles around regulating the carbon market. It considers which interests dominate this process and to what extent marginalized rural actors engage in it to defend socioenvironmental justice demands.

## **2. Shifting forest governance regimes: India's "Green Credits" Programme and the birthing environmental markets**

*Vijay Kolinjivadi, Aditi Vajpeyi, Ritwick Ghosh & Manshi Asher, University of Antwerpen – hybrid from Lund*

In October, 2023, the Government of India under Prime Minister Narendra Modi, launched the Green Credit Programme (GCP), which permits an environmentally damaging development activity to be canceled out by the purchase of a "Green Credit" – obtained by a private individual or corporation engaging in an environmentally "positive" action elsewhere around the country and across one of the eight sectors, ranging from tree plantation, water conservation, sustainable agriculture, air pollution reduction, mangrove restoration, and waste management. To understand the institutionalization of the GCP, we examine legal and policy documents, media sources and other archival information to situate the GCP within changing forest governance architecture in India. We look to understand the specific factors driving the program and how ideas of markets, private innovation, technological interfaces and scale feature in the narratives and institutionalization. The GCP contributes to increasing contestations over land and significant changes in forest governance institutions, namely the Forest (Conservation) Act 1980 and the 2006 Forest Rights Act. We argue that the GCP: a) introduces new language and private actors, complicating already existing burdens for communities demanding recognition of forest rights; b) has a tenuous ecological foundation, and c) contributes to a shrinking trend of democratic governance spaces in India. We conclude that the GCP should be understood as part of a larger governance agenda to shift environmental and social concerns from the State's responsibility to its citizens to a lifestyle choice of private individuals, while also leveraging funding and rhetoric around nature-based solutions for domestic regulatory compliance and to show face in multilateral environmental arenas.

## **3. Political trees – the Great Green Wall and reforestation in Ethiopia**

*Detlef Müller-Mahn, University of Bonn – hybrid from Lund*

The paper takes the pan-African Great Green Wall Initiative and reforestation in Ethiopia as examples to investigate the fabrication of green imaginaries in political discourse. In this context, the image of the tree is presented as epitome of desirable green futures – a world in harmony with nature. Yet, the reality of the Great Green Wall and tree planting campaigns in Ethiopia looks quite different. The positive image of the tree is strategically used to camouflage the negative consequences of tree planting, such as forced labour, dispossession, eviction, human-wildlife conflicts, and disturbed livelihoods. From the perspective of local communities, the „green" future that is promised by these projects is not at all desirable. Explaining this contradiction requires a closer look at the power of green imaginaries, and a critical review of what is meant by „desirable futures": What makes these futures desirable, for whom? The paper presents findings of an ongoing

collaborative research project in several countries of the Great Green Wall, with a focus on Ethiopia.

## Hybrid Panel LI64: Decolonising the Normative Foundations for Political Ecology I – Lab 1

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*Ana Alicia Watson Jimenez, University of Calgary – hybrid from Lima*

Political Ecology is undergoing a big revolution. It is meeting the claims of marginalized groups, along with its critique of the legacies of imperialism and colonialism, challenging an abstract and scientific approach to understand nature. The interminable debates about the nature and scope of environmental rights or the proper metric for a universal distributive justice seem increasingly parochial, privileged and unrepresentative of different environments and the normative contexts in which socio-ecological conflicts develop. Today's Intertwined crisis is asking for solutions beyond sociotechnical imaginaries and hegemonic human-nature relationships, yet decarbonization and biodiversity conservation remains deeply connected with colonial approaches and exclusionary strategies linked with capital accumulation even under the era of "inclusive sustainable development". However, Indigenous, and local populations are resisting and fighting marginalization from different fronts and various strategies. Emphasizing the significance of decolonizing both researchers and the research process, in this session we question the sustainability of current narratives of decarbonization as well as the emerging regime of enclosure and coercive conservation model and uneven development interventions. By exploring the case studies, the aim of this session is to unpack the complex linkages between resource and territorial governance, grassroots identities, as well as between western and indigenous/marginalized epistemologies.

### **1. Unlocking the Potential of Seagrass Ecosystems Through Locally-led Valuation Approaches**

*Chloe King, University of Cambridge – hybrid from Lima*

Blue carbon ecosystems, such as seagrass, mangroves, and tidal marshes capture and store high quantities of carbon dioxide. They also provide a range of other benefits to coastal communities by supporting fisheries, sheltering coastlines, and filtering water. Yet these ecosystems continue to be underfunded and insufficiently represented in marine management policy. Employing the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) value typology framework, the research take a political ecology approach to exploring challenges and opportunities for valuing, financing, and managing seagrass ecosystem services through a systematic map of 56 studies and surveys and interviews with 84 conservation professionals. Results show that in both literature and in practice, monetary and biophysical ecosystem service (ES) value indicators are more prevalent than socio-cultural indicators; instrumental values prevail over intrinsic and relational values; and academic and anthropocentric knowledge systems and worldviews prevail over Indigenous, local, or ecocentric perspectives. The lack of diverse valuation approaches has led to an over-emphasis on carbon sequestration benefits, despite the infeasibility of carbon financing for small-scale seagrass projects. If seagrass conservation efforts are to succeed at scale, then a range of innovative valuation



approaches will be necessary to address equity and justice concerns in enabling community-led initiatives.

## **2. Decarbonized and De-Commonised? Anticipating Unjust Transition in Western Rajasthan**

*Suraj Pratap Singh Bhati, Asmita Kabra and Budhaditya Das, Ambedkar University Delhi – hybrid from Lund*

The Indian government has signaled an imminent shift towards renewable energy in the coming decades. The energy map of India is gradually expected to shift from coal in Eastern India towards wind and solar energy in Southern and Western India. In the coal regions of India, fossil fuel development ushered in industrialization, but also engendered widespread displacement, human rights violations and environmental destruction. This paper examines whether energy transition towards renewables carries risks of impending dispossession and injustices in these new energy frontier landscapes. The development of renewable energy in the Thar Desert area of Western Rajasthan is based on a perception of these lands as empty, barren or waste. This perception has a long history, whereby the colonial and postcolonial state justified projects of nation-building, development and improvement. Thus, the Thar region has been transformed through state projects like firing ranges, nuclear testing sites, canal systems and conservation areas. These have gradually transformed the livelihoods of the local agrarian and pastoral people, for whom the landscape carries deeply textured social, cultural and economic meanings. This paper seeks to explore the social justice implications of a newer form of green grabbing, deriving from climate change mitigation by using the region as ‘green’ energy hubs. Using a political ecology approach, this paper explores how establishment of solar and wind energy units has resulted in the transformation of the landscape in rural Jaisalmer. The entry of ‘green’ energy is creating newer configurations of social and environmental injustices through the grabbing of commons by state and corporate actors. Decarbonisation projects have begun to decommonise the landscape, and are destabilizing existing cultural norms and resource management practices governing these landscapes. In turn, communities are responding through newer alliances and discursive tools to legitimize their prior claims on the commons.

## **3. Amidst Carbon Frontiers: Balancing Conservation and Social-Ecological Inequalities in Northern Kenya**

*Evelyne Atieno Owino - Bonn International Centre for Conflict Studies – hybrid from Lima*

Despite the region's struggle with fragile ecosystems, ethno-political violence, and marginalisation, the emergence of carbon frontiers in Northern Kenya is significant for its development. These economic frontiers aim to combat climate change by promoting conservation and sustainable land use practices through carbon offset projects. Efforts to secure large areas for carbon sequestration can sometimes displace indigenous pastoral communities who rely on these resources for their livelihoods. This can result in the removal of traditional land rights, land use restrictions, and exacerbation of existing inequalities. These considerations raise concerns about the social and environmental consequences of external interventions. The study utilises a qualitative approach to incorporate indigenous perspectives and provide insight into the relationship between conservation efforts, dispossession of land and resources, inequalities, and their impact on socioeconomic vulnerabilities and violence among these communities. The aim is to

provide essential knowledge for making informed policy decisions and ensuring that environmental initiatives do not perpetuate injustices as recognising indigenous perspectives in conservation efforts is essential for achieving the intended outcomes while mitigating unintended consequences.

#### **4. Implementation of industrial ecology principles by manufacturing industries for a Circular Carbon Economy in Tanzania**

*Felichesmi S. Lyakurwa - Mzumbe University – hybrid from Dodoma*

Manufacturing industries are the main polluters of environment with emission of Greenhouse Gases (GHGs) that contributes significantly to the global climate change. Studies revealed the main emitters of GHGs to be the construction, manufacturing, cement production, food and mobility industries which possess high concentration of people, and huge use of limited resources. These industries face a multitude of growing pressures from different stakeholders specially citizens, politicians, and the government who are primary drivers for the industry to improve its environmental performance. Many studies have established that industries facing pressures from stakeholders adopts a more comprehensive environmental management systems including industrial ecology. Hence, collaboration between the industry and primary stakeholders mainly government institutions is critical. It is the interest of this study to uncover several questions pertaining to the industrial sustainability like to what extent does the 4Rs framework have been employed by manufacturing industries? What roles played by government institutions towards implementation of Carbon Circular Economy (CCE) principles? The study intends to: 1) determine the degree of implementation of the 4Rs framework for industrial sustainability, 2) establish drivers for implementation of CCE principles, and 3) examine governments' motivation on implementation of Carbon Circular Economy principles by industries in Tanzania.

## **Hybrid Panel LU315: Diverse Ways of Knowing the Climate: Towards Epistemic Climate Justice I – Lab 2**

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*Johanna Tunn, University of Hamburg & Juliane Schumacher, Leibniz-Zentrum Moderner Orient Berlin – hybrid from Lund*

Climate knowledge – knowledge on the actual and predicted effects of global warming, on the causes and responsibilities for climate change and on transformation pathways – strongly influences climate politics. Reliable climate knowledge plays a crucial role for mitigation and adaptation strategies, and it builds the basis for climate activism, contestations of existing socio-economic structures and claims for climate justice. The dominant mode of climate knowledge production, however, has for the most part neglected issues of epistemic justice and ways of knowing beyond the scientific tradition of the West. Most climate knowledge is produced in narrow technocratic and managerial settings (Knox-Hayes and Hayes 2016), excluding Global South scholars (Tandon 2021) and obfuscating power dynamics and colonial histories (Álvarez and Coolsaet 2020). Based on the premise that diverse ways of knowing and knowledge-making are crucial for climate justice, this session seeks to critically evaluate current forms of climate knowledge production and to advance the debate on more diverse, inclusive and decolonial practices.

### **1. A loss of climate justice? Competing discourses of climate justice in the operationalization of the Loss and Damage Fund**

*Marie Fischer, Universität Augsburg; Angela Oels, Universität Augsburg & Rasmus Noeske, Universität Augsburg – hybrid from Lund*

'How can we explain the speedy establishment of the Loss & Damage (L&D) fund within only 14 months from a discourse perspective? We study the power-knowledge-dynamics in the negotiations about financing Loss & Damage and trace competing understandings of climate justice. From a Foucauldian discourse perspective, we ask: How have competing discourses of climate justice converged to enable the L&D fund's operationalization? We study the wording of the decision text before the background of a comprehensive discourse analysis. The empirical data for our discourse analysis stems from transcripts of video recordings of five meetings of the Transitional Committee charged with producing a decision text for COP28. In addition, expert interviews were carried out to understand their perspective on the final decision text. We trace whose understandings of climate justice were re-iterated or lost in the negotiations. We explore how competing understandings of climate justice are related to conflicting notions of vulnerability and responsibility. We show that the final decision text on the L&D fund and funding arrangements reduces the possibility space for compensatory justice. Our research findings demonstrate a shift towards an increasingly capacity-based understanding of climate justice in the climate regime.

### **2. Embodying and resisting urban heat injustice: migrants' vulnerabilities and grassroots adaptations in el Raval, Barcelona**

*Panagiota Kotsila, Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona (ICTA-UAB); Valeria Cuenca; Manuel Franco; Lourenço Melo & Sam Pickard – hybrid from Lund*

Heat is becoming a central health concern for many European cities whose efforts for adaptation tend to reproduce inequities, sidelining the needs and concerns of those mostly affected. Applying Photovoice participatory photography and in-depth interviews in the central neighborhood of El Raval, in Barcelona, Spain, and through a feminist approach that centers the everyday embodied knowledges of racialized migrant residents, we show how heat vulnerabilities are deeply intersectional. We find labor and housing precarity as well as the limited accessibility to public spaces of heat relief, as principal factors shaping urban heat inequities, which for Majority World migrants are not only driven by the effects of neoliberal urbanism and class-based inequalities, but also the institutionalized discrimination and racism that these groups experience in European cities. In response, we see self-organized spaces and community networks of solidarity emerging as social infrastructures of care conducive to urban climate justice. We thus argue for an urgent redefining of adaptation as a critical metaphor for change, which must address the underlying drivers of injustice that inform it.

### **3. Discursive Contestations in Political and Local Community Narratives on Coal Phase-Down and Clean Energy Adoption in Zimbabwe**

*Achieford Mhondera, University of Zimbabwe – hybrid from Dodoma*

Discourses on energy transitions become a vital battleground in the Global South. This complexity is particularly pronounced in Zimbabwe, where coal remains a significant component of the country's energy production. To navigate the intricacies and dynamics of energy transition processes, it is essential to examine how various stakeholders construct narratives around the phase-down of coal and the adoption of alternative energy sources. This paper employs a qualitative methodology to uncover the diverse and often marginalized perspectives within political and community narratives. It emphasizes the potential of subaltern knowledge to shape alternative discourses that challenge dominant narratives perpetuated by powerful actors in the international energy sector. The study compares political narratives on coal phase-down and clean energy adoption with the narratives of local leaders in the coal-dominant regions of Hwange and Binga in northwestern Zimbabwe. The findings reveal a complex interplay of power dynamics and contestations within the coal phase-down and clean energy adoption narratives. Subaltern knowledge emerges as a crucial force in destabilizing hegemonic discourses, promoting inclusivity, and advocating for a just energy transition. Local communities, often marginalized in decision-making processes, possess valuable knowledge and perspectives that challenge dominant narratives and offer alternative pathways to sustainable energy transition in Zimbabwe.

#### **4. The expert epistemology of climate finance: re-visiting the depoliticisation critique**

*Jonathan Barnes, University College London – hybrid from Lund*

The response to climate change is orchestrated by international organisations, reflecting the shared, global nature of the issue and requirement of a collaborative response. There is an established critique that these institutions are depoliticised (Louis & Maertens, 2021) – where institutions, policies, discourses foreclose or discourage participation in the political sphere. This entrenches hegemonic global minority knowledge at the centre of the climate response. This paper explores the downstream effects of this. When it intersects with national planning. I nuance the concept of depoliticisation, drawing on the South African experience with the Green Climate Fund. I argue that there is an urgency framing, underlaid by scientific and financial rationales, which is willingly enacted by domestic actors. This limits the scope and participation in climate finance, empowering unevenly, rather than voiding politics. This is demonstrated by bringing together the depoliticisation literature with civic epistemology, to clarify how the epistemic geography of climate change in South Africa formulates, contests and deploys knowledge. Certain technical knowledges are privileged, foreclosing political contestation. Equally, there is re-politicisation within the limits of urgency. Other actors dispute or reject the frame, which de-legitimizes climate finance. This resistance is missed in depoliticisation literature but made visible using civic epistemology.

#### **5. Islanding as reimagining: how oceanic fiction challenges dominant narratives of climate doom**

*Charlotte Weatherill, Open University – hybrid from Lund*

Fiction by European artists has long romanticised and sexualised the islands and people of the Pacific, the colonial gaze coding islanders as “exotic, malleable and, most of all, dispensable” (Teaiwa, 1994). This romanticisation is reproduced in climate narratives of the ‘sinking island paradise’, where islanders become the perfect charismatic victims of rising seas (Weatherill 2022). Against and despite these narratives, Pacific authors / scholars / poets have created their own fictions and narratives, of survival and resistance. This paper argues that locating Oceanic counternarratives in fiction and poetry as well as activism and scholarship reflects the power of storytelling in politics. Starting from the argument that climate politics is all based upon imaginaries of future worlds, I argue that looking beyond the stories being told in the centres of colonial power is of fundamental importance for challenging the dominant narratives of climate doom and sacrifice.

## **6. Steward or spectacle? Indigenous knowledge, nature-based tourism and climate change**

*Stasja Koot, Gijsbert Hoogendoorn, Moses JJKumûb and Raki Ap from Wageningen University and University of Johannesburg – hybrid from Lund*

Indigenous peoples are often presented in a spectacular way as ‘stewards of nature and of the climate’ from whom outsiders can learn how to live sustainably. This image has especially been promoted in nature-based tourism. Based on ethnographic research among the San of southern Africa and an analysis of the 30x30 project—in which 30% of the Earth should be preserved for biodiversity conservation by 2030—we show that indigenous peoples and their ecological knowledge are positioned to further elitist conservation agendas based on a neoliberal discourse promoting economic growth through global nature-based tourism. We address two important contradictions: first, while indigenous peoples are presented as knowledgeable stewards of the climate, they are among the least powerful to address climate change. Second, many institutions using this image simultaneously promote nature-based tourism, often including imageries of ‘authentic’ indigenous peoples. Most nature-based tourism, however, remains a strong contributor to climate change because of the high levels of consumption included in tourism, including aviation. Based on these two contradictions, we argue that the position and knowledge of indigenous peoples in the climate debate is merely a new step towards spectacularisation derived from their colonially built-up image as stewards of nature.

## **Hybrid Panel LU305: Infrastructure Sabotage as Future-Making I: De-/Constructive Infrastructure Sabotage – Lab 6**

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*Theo Aalders, Bonn University – hybrid from Lund*

This double panel invites interventions that engage with infrastructure sabotage on the assumption that it cannot be fully understood as a purely destructive practice directed against what the targeted infrastructure produces materially and symbolises immaterially. As infrastructure produces particular visions of the future, infrastructure sabotage is often implicitly understood as an un-making of that future. We therefore invite contributions that explore infrastructure sabotage as a form of future-making in its own right; not as something diametrically opposed to the construction of infrastructure, but rather as a strategy employed by marginalised groups that allows them to enter or alter the political arena in which infrastructure is negotiated. This can include cases around climate justice

movements as discussed by e.g. Andreas Malm, but also more generally about infrastructure sabotage as a strategy of constructive destruction employed by marginalised people around the world and throughout history around topics relevant to political ecology. Potential questions may include: - What are the reasons for social movements to target infrastructure specifically? What are the characteristics of infrastructure that constitute it as an arena of political struggle? - What is the relation between infrastructure sabotage as a material and as an immaterial or discursive practice? Are acts of infrastructure sabotage merely symbolic, or do they have the potential to also directly create material change? - What kind of constructive futures do saboteurs and their supporters connected to the ostensibly destructive practices of infrastructure sabotage? - Under what circumstances does infrastructure sabotage contribute to constructive future-making practices? - What are lessons from historical examples of infrastructure sabotage from across the world? - What are the dangers of infrastructure sabotage as a political strategy, such as fetishization or negative public receptions?

### **1. Weapons of Resilience: Marginalized Voices and Everyday Sabotage in Climate Adaptation Strategies**

*Ana Maria Vargas Falla, Ebba Brink and Emily Boyd, Lund University – hybrid from Lund*

This paper delves into the intricate ways in which residents of marginalized neighborhoods, specifically situated in the swamp of La Virgen in Cartagena, Colombia, employ everyday acts of sabotage as tools of resilience against exclusionary climate adaptation planning imposed upon them that translate into “protection for the rich, eviction for the poor”. Focusing on the residents' lived experiences, we explore how they strategically expand their neighborhoods by filling swampy land with discarded materials, connecting illegally their houses to electricity and water resources, and quietly subverting the official risk maps that designate their areas as high climate risk and "unadaptable" zones. Our study draws on extensive ethnographic observations, interviews, surveys, and focus groups conducted within the community. By engaging directly with the voices of the marginalized, we aim to provide a nuanced understanding of their acts of resistance and resilience in the face of environmental injustice. We argue that residents' sabotage of risk maps emerges not merely as an act of defiance but as a strategic response to navigate the challenges imposed by external climate adaptation policies. Through these narratives, we shed light on the often-overlooked agency of marginalized communities and challenge conventional notions of vulnerability. The paper contributes to the discourse on climate justice by highlighting the creativity and resourcefulness employed by these communities to confront and shape their own destinies within the context of climate change adaptation. In doing so, we advocate for a more inclusive and participatory approach to climate governance that respects and integrates the knowledge and strategies of those at the forefront of environmental challenges.

### **2. Breaking Infrastructure: Acts of Sabotage against Privatization in Colombia**

*Julián Gómez-Delgado, The New School for Social Research – hybrid from Lima*

Together with national attempts elsewhere, the Colombian State created multiple state-owned enterprises in the early and mid-twentieth century that mediated the experience of citizenship. Like no other, the Empresa Nacional de Telecomunicaciones or Telecom (1947-2003) and the Caja de Crédito Agrario or Agrarian Bank (1933-1999) nurtured a distinctive socio-technical experience connecting citizens to the state through a vast range of artifacts, technological devices, and infrastructures—like local branches and telephone switchboards. This presentation draws on oral history interviews and archival research that I have conducted to explore the changing technopolitics of statecraft in Colombia by charting the role of iconic public institutions as they transformed from state-owned entities in the 1930s–40s through their incremental privatization in the 1970s. The presentation will focus on “Telecom,” a company that “reached even where the Catholic priest did not,” as one ex-worker told me. I will provide insights into the material and immaterial promises, the acts of formal and informal sabotage, and the expressions of nostalgia from multiple actors – including public sector workers to politicians and social movement members – who reacted, adapted, and contested the incremental dismantling of this infrastructure and who resignified the process of ruination that resulted from it. For this conference, I will focus on the acts of sabotage carried out against privatization. Among others, I will explore in detail a workers’ strike in the early 90s, in the words of one of my interviewees, “one of the first technical and political acts of sabotage in Colombia.” During this strike, communications were suspended for about 13 days, and, with them, financial transactions, governmental, and other operations were put on hold. The right-wing government of the time brought engineers from other countries who could not “fix” this situation and were also amazed by the “local” knowledge used to break the telecommunication system. The strike was the response to attempts in the 1990s to privatize the company, and it offers lessons about how sabotage has been historically used creatively to (1) negotiate with the state against the privatization of state-owned companies and (2) advance other interests from the labor movement. In a way, and only momentarily, this sabotage was able to postpone another act of sabotage for over a decade –but this one from above, namely, the complete privatization of telecommunication in Colombia fostered by state officials and the capitalist class. Therefore, this presentation aims to theorize sabotage both as a tool and a site with multiple and sometimes contradictory meanings. Following acts of sabotage, this presentation explores the case of telecommunications to illustrate the changing relations among technology, politics, and economic orders to understand the making and the unmaking of infrastructures in the context of the uneven neoliberal transformation.

### **3. Resistance, Remonstrance, and Infrastructure Sabotage in Balochistan**

*Bramsh Khan, Syracuse University – hybrid from Lima*

In this paper, I draw attention to the contemporary social movement, “Gwadar Haq Do Tehreek (Give Rights to Gwadar Movement),” which emerged as a response to the failures of China Pakistan Economic Corridor’s (CPEC) infrastructural project in Gwadar, Balochistan. Central to my inquiry is the thematic examination of the waterways of Gwadar, instrumental in uncovering the underlying grievances of Baloch that fueled the movement. Through this analysis, I identify and elaborate on two critical structural processes that are essential for understanding the dynamics of such an unprecedented movement. First, I demonstrate how Pakistan, through the application of neoliberal theories and research conducted by state-led economic institutions, effectively normalized and depoliticized the infrastructural project of CPEC. This led to the privatization of both the project and Gwadar’s natural resources, particularly its waterways, disconnecting the local communities from

their generational livelihood sources. Second, I delve into the importance of comprehending the movement beyond the mere failure of CPEC. By delving into the complex interactions between the waterways of Gwadar, the livelihoods of its local communities, and their collective resistance against the impact of transnational infrastructure project, I highlight that the infrastructure sabotage orchestrated by the movement speaks of the deep-rooted intersectionality between the historical mistrust of Baloch towards the state and the prevalence of regionalism in Pakistan. These dynamics have historically justified the intervention of an authoritative state and military enterprises under the pretext of infrastructural development or security of the future urban hub, the port city of Gwadar, from what is perceived as the ‘uncivilized’ and ‘uneducated’ native Baloch.

#### **4. Beyond Anti-politics Machine: A Case of Gwadar Haq dho Tehreek and Failure of CPEC**

*Noor Bakhsh, Yorck University – hybrid from Lima*

The main question of this article revolves around questions that James Ferguson’s raised in Anti-politics machine “Are the ‘instrument-effects’, the unintended political outcomes or “side effects” of development projects - that serve as instruments for the state to exercise power, control bureaucracy, and intervene in issues such as poverty or other socioeconomic problems- a common and consistent global pattern within development projects? Is the “anti-politics machine” unique to Lesotho, or is it a typical or even inevitable consequence of “development” interventions?” I analyze these questions in my article by focusing on the case of China Pakistan Economic Corridor (CPEC) and Gwadar Haq Do Tehreek (Give Gwadar Rights Movement) as a political response of local people against CPEC in Balochistan which has a conflictual history within Pakistan. The aim of this paper is to go beyond the anti-politics machine because this framework, though unique, does not discuss the political response of natives after a project fails. Much like the situation in Lesotho, CPEC failed to enhance the lives of residents Gwadar. But what is the aftermath of a failed development project, especially in terms of political response and social movements? is where I depart from Ferguson’s idea. Because, indeed, the failure of developmental projects paves way for the state intervention, but it also creates a ground for a political consciousness among the locals which further leads to a “resistant movement.” By examining the failure of CPEC and the birth of political movement Gwadar Haq dho protests I highlight “collective political consciousness” as one of the potential outcomes of infrastructure projects. This resistance against the ever-existing state oppression, control, and militarization can be theorized as the potential unintended outcome of infrastructure projects.



# Plenary session

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Time: 17.45-19.15

## Dialogues, Encounters – LRB 004D

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As political ecologists, we recognize that all research is political. The field of political ecology has developed in conversation with the world - through learning from social movements and activists. Contributions include (1) highlighting the political nature of socio-ecological relations; (2) through transdisciplinary and participatory action research to have real-world and real-time impact; and (3) through an evolving understanding of how different knowledges and lived experiences need to shape political ecology theorising. This plenary seeks to acknowledge and honor the voices of communities living political ecology through their everyday defense and creation of life. We invite three indigenous speakers to reflect with us on why political ecology can and should matter to creating the world we want to live in.

The session will be moderated by Vasna Ramasar, Deborah Delgado and Iddi Mwanyoka.

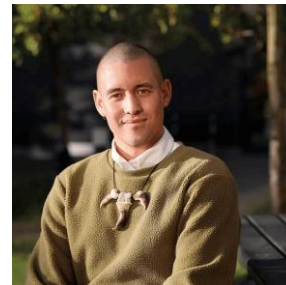
### Speakers:



Marisol García Apagueño is a Kichwa leader from the Tupac Amaru Indigenous community and currently serves as President of the Federation of Kichwa Indigenous Peoples of Chazuta Amazonas (FEPIKECHA). She also previously served on the board of the Coordinator for the Development and Defence of Indigenous Peoples of the San Martin Region (CODEPISAM), a regional Indigenous federation part of AIDSESP.



Endeko S. Endeko from the Hadzabe (hunters and gathers) community. Endeko is a community representative under the auspices of the Ujamaa Community Resource Team (UCRT). He has been a human and land rights activist/campaigner in his community for quite some time now.



Michael Bro is Inuit, born and raised in Ilulissat Nunarput. Michael Bro is an activist, champion of indigenous rights and active in the debate on the decolonization of Kalaallit Nunaat (Greenland). Bro is a representative of the young generation as Permanent Participant for the Inuit Circumpolar Council in the Arctic Council Youth Network and delegate participant at the Arctic Peoples Conference in 2023. Michael is currently studying Arctic Studies at the University of Copenhagen.

12  
JUNE



## Documentary film

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Time: 09.00-09.30

### **D049: Cattle in the Community Forest – LRB 004D**

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*James Robinson, University of Edinburgh*

Human displacement is a troubling characteristic of many conservation interventions (Agrawal & Redford, 2009) and has wide-ranging social and environmental consequences (Cazabat, 2018). Cattle were a rare sight in Tanzania's Kilwa District until 2006 when the state government forcibly relocated thousands of pastoralists, agro-pastoralists and their livestock from an area now part of Ruaha National Park, over six hundred miles away. Officials claimed the evictions were necessary to protect the Ihefu Wetland - an important wildlife refuge and water catchment (Walsh, 2008). One consequence linked to this displacement is the rise of grazing conflicts in Kilwa's community managed village forest reserves. Community members complain bitterly about illegal grazing, which they claim negatively impacts wildlife and scarce water resources. Attempts to prevent forest incursions risk escalating into physical violence. Through interviews with pastoralists, agro-pastoralists, farmers, forest managers and government officials, this documentary explores the causes and consequences of the conflict. While there are large bodies of literature addressing topics of pastoralism and protected area conflict (Yilmaz et al., 2019), herder-farmer conflict in East Africa (Benjaminsen et al., 2009), environmental degradation narratives surrounding pastoralist groups (Brockington, 2001) and the ecological impacts of forest grazing (Mtimbanjaye & Sangeda, 2018), very few studies have investigated these issues in the context of community-based conservation initiatives. This project seeks to address this gap. "Cattle in the Community Forest" (33 mins) was produced as part of a PhD project by James Robinson (University of Edinburgh and RBGE) in collaboration with Tanzanian filmmaker Kassim Mustafa. Documentary film was chosen as a research method to encourage participant engagement, share findings accessibly and to incorporate audience responses into the research process.

## Roundtable 3

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Time: 09.30-10.30

### Roundtable D055: Ignorance isn't Bliss: Narrowing the Epistemic Chasm Between Critical Social Scientists and Conservation Practitioners – LRB 004D

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*Lindie Botha, World Wide Fund for Nature-South Africa; Annette Hübschle, University of Cape Town*

Powerful actors, like international conservation NGOs, are often the subjects of political ecologist's research. Such NGOs are criticised for conservation philosophies and practices which are said to uphold asymmetrical power relations and advance the narrow interests of neoliberal capital - themes likely to be central during the POLLEN 2024 conference. Conversely, practitioners view academic outputs as inaccessible and abstract and indict researchers for superficially "parachuting" in and out of local geographies. Yet, practitioners are largely unaware of social science discourses, including studies that directly, and negatively, implicate their organisations. At best, relations between academics and practitioners are earmarked by ignorance, at worst, hostility. This chasm between theory and practice is untenable. In the Anthropocene, transdisciplinary, grounded and novel epistemic partnerships and pluralistic forms of knowledge production is crucial. Following from last year's Pollen panel "Putting political ecology and critical conservation scholarship to work: dialogue with conservation practitioners," our roundtable sets out to explore the individual, organisational and institutional barriers that prevent robust yet generative engagements between conservation practitioners and political ecology scholars. The facilitators - a practitioner and critical scholar - draw on case studies from divergent contexts to stimulate debate about epistemic barriers and ways to transcend them.

## Parallel session 7

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Time: 11.00-12.30

### Hybrid Panel D035: Putting Critique into Practice: Political Ecologists as Change Agents in Global/Local Wildlife Conservation Practice – Lab 1

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*Sayan Banerjee, National Institute of Advanced Studies – hybrid from Dodoma*

Political ecology has been instrumental in thinking and theorising how power and power-full actors' interplay in the global/local wildlife conservation practices. Political ecology has rightfully critiqued certain kinds of conservation regimes (top-down PA-centric fortress conservation) and developed new ideas of conservation (rights-based, convivial conservation). An increased focus on social science in conservation projects and organisations has also brought political ecology into mainstream conservation narratives. On the other hand, the discipline often remains an academic exercise as the traditional 'power-full' conservation actors carry on business-as-usual global/local wildlife conservation practice with limited or questionable integration of rights, social justice and actual empowerment. The rise in neo-protectionist regimes against the community-led conservation is another testimony that the critiques from political ecology are getting limited reception into the practice of conservation. Here, in this regard, question arises on whether political ecologists can become effective change agents in species conservation efforts. If yes, through what kinds of pathways? Can political ecology principles and political ecologists independently drive global/local species conservation action? What trainings, organisational work and collaborations are necessary for putting the political ecology into practice of conservation? What could be the challenges and limitations to such endeavours?

#### **1. Political ecology for a decolonial conservation future: impact through partnership**

*Robin Roth, University of Guelph – hybrid from Lund*

Political Ecologists have made important contributions to documenting the colonial history and present of conservation practice and policy, clearly outlining how mainstream conservation such as wildlife laws and protected area strategies are implicated in the ongoing dispossession, marginalization, and devaluation of Indigenous Peoples, their practices, and knowledge systems. The critique has been important but critique alone does not result in a more just, sustainable, and biodiverse future. The transformation of mainstream conservation towards a practice more firmly rooted in Indigenous laws, worldviews, governance, and knowledge systems requires an approach that weaves together Indigenous peoples, political ecologists, and conservationists to learn and then act in ways that bring about change. This paper discusses the Conservation through Reconciliation Partnership (CRP; [conservation-reconciliation.ca](http://conservation-reconciliation.ca)) in Canada as one model of a partnership that can help catalyze the momentum necessary to support Indigenous-led conservation and the transformation of mainstream conservation practice. Specifically, I show how the CRP has embraced key tenants of political ecology: power is relational and

multi-scalar, the social and natural are co-constituted, accepted categories of modernity need to be destabilized and transformative change is necessary. Drawing on an analysis of how the CRP works with its conservation partners, specifically Parks Canada, I discuss how politically informed intervention can help stimulate change and support the creation of a 'new normal' of Indigenous-led conservation in Canada. While the goal of a decolonial conservation future is still far from being realized, putting political ecology into practice has moved us towards Indigenous self-determined futures.

## **2. Practicing social change: Transforming colonial conservation in Canada**

*Allison Bishop, University of Guelph – hybrid from Lund*

In Canada, political ecologists have critiqued the ways in which Crown Governments and environmental non-governmental organizations (ENGOS) have used colonial conservation discourse, practice, and structures to obtain land and advance settler goals while legitimizing the state. In 2018, an Indigenous advisory body to the federal government released an influential report advocating for the advancement of Indigenous Protected and Conserved Areas (IPCAs) as "lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance, and knowledge systems" (pg. 35). The report also called upon ENGOS to partner with Indigenous governments in the design, implementation, and management of IPCAs. Today, nearly 70 Indigenous governments have declared IPCAs in their territories, and several national ENGOS have positioned Indigenous-led conservation as central to their mandates. However, a recent report found that most ENGOS are just beginning to learn how to engage with Indigenous governments in ways that "do not reproduce colonial relations and practices" (pg. 7). In response, this paper shares the preliminary results of a participatory action project in which five large-scale national conservation organizations are contributing to an institutional ethnography study that provides a detailed analysis of:

- Specific institutional practices conservation organizations are employing,
- How these practices may open and/or foreclose possibilities for decolonizing conservation, and
- The interventions conservation organizations are attempting to disrupt historical and ongoing colonial harms and their effects.

Co-created with ENGOS and Indigenous practitioners, this study produces actionable recommendations to advance decolonial conservation practices amongst settler conservation organizations.

## **3. Role of political ecologists in bringing together multi-interest groups to mitigate human-elephant conflict in North Bengal**

*Akashdeep Roy and Shalini Sharma, Indian Institute of Science Education and Research (IISER), Pune – hybrid from Dodoma*

The most common method to address human-wildlife conflict is rooted in environmental economics – through compensation against loss. This public money can be significantly reduced and used for village development if the critiques of political ecologists (PEs) are implemented. This project focuses on energized fences and rice beer as they shape the human-elephant conflict (HEC) in the North Bengal region of India. Half the locals who died due to elephant attacks were found to be intoxicated with some form of alcohol. Traditional local alcohol, such as haria and chullu, attracts not only tired tribal workers but also elephants. The state excise department regularly raids the production sites to counter competition and generate state revenue. However, there's no coordination with the forest department. Similarly, the decision-making process of installation of energized fences rests

with the locals and the forest department officials. Still, they seem unaware of the historical corridors and the spillover effects of HEC to the nearby areas – showing complete failure in planning. Another example is the land transformation as a result of individual agency. To escape HEC, locals often convert their paddy fields to tea gardens. However, this action brings leopards closer to their households, increasing human-leopard conflict in the landscape. These scenarios are interlinked through systems theory, where every decision-making agency (individual or state) can be brought together on the same table through workshops, pedagogy, and seminars to work synchronously. Such workshops also discuss alternate livelihood options that do not conflict with other social groups or nonhumans.

#### **4. Does securing land rights lead to better human-wildlife conflict management? Experiences from Northeastern India**

*Sayan Banerjee, National Institute of Advanced Studies – hybrid from Dodoma*

Political ecological analysis of human-wildlife conflict across global South and North show that broader political economic forces across scales and time produce situations where people and wildlife spaces and needs overlap significantly. In the global South, such as India, these overlapping spaces majorly contain historically marginalized communities, such as Scheduled Tribes, Scheduled Castes and Other Backward Classes. Their vulnerability and adaptability towards wildlife related damages often stem from life insecurities such as low levels of financial, physical and human capitals. Having land rights majorly impacts these insecurities for these populations. Thus, as political ecologists, it is common sense to advocate for securing land rights for these marginalized populaces so that their vulnerability towards shocks and damages, including from wildlife can be minimized and on return, human-wildlife coexistence is achieved. In this paper, I discuss two cases of human-elephant conflict, both from northeastern India to show that such linear connections between securing land rights and better human-wildlife conflict management can be challenged. One case centres around the Adivasi/Tea Tribe community of Assam who are socio-politically disenfranchised, land-insecured in an ethnically heterogenous, but hierarchical society. The other case looks into the Naga tribes of the Nagaland state who belong to a politically strong, homogenous, land-secured community. Though both the community experience elephant-related damages, the Adivasi/ Tea Tribe community perceives less conflict than the Nagas and are willing to coexist with the elephants. This work-in-progress article presents this complexity and explores how a political ecologist could work in this situation.

## **Panel D078: Pastoralism and Village Land Forest Reserves in Tanzania – Lab 2**

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*Jumanne Abdallah, Sokoine University of Agriculture*

Across the Global South, governments struggle to identify development pathways that promote livelihoods without increasing environmental problems. Yet, in many developing countries, economic growth strategies increase pressure on land for smallholder livelihoods but fails to provide employment and meaningful livelihood for larger segments of the populations, instead creates new classes of landless and underemployed rural people who have become more vulnerable to environmental and economic shocks and stresses. The LIVEFOR Project is in 3<sup>rd</sup> year of implementation being funded by DANIDA and

in collaboration with Sokoine University Agriculture, Copenhagen University and Mwalimu Nyerere Memorial Academy is questioning current and conventional thinking about the incompatibility of forestry and livestock keeping. This is a pertinent question in Tanzania, which struggle with the above-sketched dilemmas. Pastoralists and agro-pastoralists (PAPs) access to pasture and water frequently end up to conflicts, eviction, fines by government authorities.

The LIVEFOR project aims to uncover and understand the economic and conflict-reducing potentials associated with the inclusion of PAPs in the governance of VLFRs. VLFRs are the focus of this study for two reasons: First, VLFRs represent democratic decentralization of forest governance to village governments. This is a rare and internationally recognized form of forest decentralization that ties the legitimacy and relevance of democratically elected village governments to the flow of costs and benefits from VLFRs to their constituencies. Second, VLFRs offer a unique possibility to study the governance of livestock in forests, because they are formally accepted and included in some areas, which is not the case for other types of reserved forests. The project's overall objective is to enhance understanding of the extent to which inclusion of livestock keeping in VLFRs could reduce conflicts between PAP and farming communities in Tanzania while improving their well-being. Hypothesis: Untapped grazing potentials and water resources in VLFRs offer a sustainable and equitable solution to the livestock-related conflicts in Tanzania.

## **1. Resource Use Conflicts and Resolution in the Establishment of Emboley Murtangos Village Land Forest Reserve in Kiteto District, Tanzania**

*Parit L. Saruni, Mwalimu Nyerere Memorial Academy*

Community-based conservation scholars have contested the "fences and fines" conservation philosophy, which commonly presents a successful win-win scenario model, particularly in managing forests under village lands. Even though there have been some successes in different parts of Tanzania, community conservation areas still have many problems. Critics of development and human rights argue that resource use conflicts should be analysed through a broader historical and policy lens. This study looked at the creation and implementation of the Emboley Murtangos Village Land Forest Reserve (VLFR) in Tanzania's Kiteto District, which led to conflicts, the forced removal of farmers, the death of people, and the destruction of property and human life. To better understand the conflicts, we analyzed the history and processes of establishing the Emboley Murtangos VLFR, the power relations of the various actors, conflict management mechanisms, and the impacts of conflicts on the VLFRs. The results show that the history of the Emboley Murtangos, poor governance, corruption, an inadequate understanding of forest and natural resource conservation, and inadequate facilitation by technical experts all impact the conflict. The prominent people involved in the conflict are pastoralists and farmers, local and central government leaders, and politicians. This study reveals that the significant effects of forest use conflicts include violent conflict, the destruction of properties (crops, livestock, and other infrastructure), which causes the loss of community livelihoods, and forest degradation. The study concludes that forest uses conflicts associated with the establishment of VLFR, particularly those arising from political history and backgrounds, must be resolved as soon as they arise at each stage.

## **2. Rendering Homogenous and Incompatible: Pastoral Grazing in Tanzania's Village Land Forest Reserves**

*Benezet Rwelengera, Sokoine University of Agriculture & University of Copenhagen*

Over the past 30 years, participatory forestry reforms have been attempted across much of the world. Ostensibly, these have been attempts at rolling back the enclosures of forests that characterized the colonial era. However, a vast and still-growing literature documents how the reform has been limited by resistance from forestry bureaucracies hesitant to give up control. In this paper, I examine this conundrum from the perspective of grazing rights. In Tanzania, grazing has been, and continues to be a major use of landscapes with trees. The renowned SULEDO Village Land Forest Reserve (VLFR) epitomizes this relationship. By reviewing policies, legislation, and presidential, ministerial and parliamentary documents, I show how colonial tropes still thrive in national-level governance circles problematizing grazing in all forest spaces. Granted the institutional ambiguities and legal lacuna, the state succeeds in mobilizing homogenizing discourses of incompatibility. These discourses blur the differences between the categories of forest reserves and pathologize pastoralists as the 'other'. The analysis indicates that participatory forestry reforms cannot proceed in the absence of broader decolonization in the understanding of (rural) communities' values and capacities.

## **3. Becoming Farm and Forest Managers to Remain Pastoralists: Maasai's Strategic Use of Formal Institutions during Agricultural Expansion in Northeastern Tanzania**

*Edith Benedict, Sokoine University of Agriculture & University of Copenhagen*

Through the case of Suledo Village Land Forest Reserve (VLFR) in Tanzania's Kiteto District, we investigate whether Community Based Forest Management promotes forest conservation under circumstances of rapid agricultural expansion and unsymmetrical interests among members of the concerned and related institutions. Based on remote sensing, interviews, field observations, and discussions in a Maasai and farmer-dominated village, respectively, we document agricultural expansion since 2001 and use access theory and institutional analysis to show how pastoralists use and influence Suledo VLFR and village government institutions to resist, adapt to, or benefit from this development. Suledo VLFR has become a critical wet season grazing area for pastoralists in both villages, as livestock would otherwise destroy farm crops and generate conflict. Thus, Maasai pastoralists engage in the VLFR institution to (i) protect the VLFR from agricultural expansion and (ii) ensure livestock grazing remains a legitimate forest use. However, pastoralists failed to acquire private land in the farmer-dominated site, so currently, they must negotiate and/or pay non-Maasai landowners to graze their livestock on harvested fields during the dry season. In the Maasai-dominated village, pastoralists used their village government to acquire private farms (cultivated by non-Maasai tenants) and rely on these for dry-season grazing.

## **4. The Use Value of Village Land Forest Reserve to Local Communities**

*Raymond E. Okick, Sokoine University of Agriculture & University of Copenhagen*

Community-Based Forest Management is a global policy that intends to enable communities to manage forests and derive benefits. Using the case of SULEDO Village Land Forest Reserve (VLFR) in Kiteto District Tanzania, the paper examines how communities



use the forest. benefits and management challenges. A mixed-method approach was used which involved forest measurements, household and key informant interviews, and group discussions. Results show that the SULEDO VLFR serves as a pool of forest products and services that benefit the surrounding communities. Some products and services were used by all communities while other products and services were mainly used by some communities, indicating differences in the use-value of the forest among communities. Unauthorized clearing of forest for farming by some community members, encroachment and initiation of extractive activities by outsiders, and the spread of mining activities from nearby areas were the main challenges in the management of the forest which affect the supply of forest products and services. The paper highlights the importance of CBFM for community well-being and the need to balance the supply of forest services and products and the use of the forest by communities and external agents for sustainable forest management.

## Hybrid Panel LU255: Green Transition as Decolonization? I: Decolonizing Conservation and Management Practices – Lab 6

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*Inge-Merete Hougaard, Stine Krøijer, Kathrine Dalsgaard & Lone Kristensen, University of Copenhagen – hybrid from Lund*

In our time, scientists, policy makers and activists cast climate change and environmental degradation as existential threats, rendering green transitions imperative to ensure that human activity is sustainable in the long term. In response, governments, state agencies and civil society associations around the world have embarked a range of initiatives for nature conservation and restoration, resource optimization and climate mitigation. These projects have both anticipated and unanticipated impacts on local landscapes and human livelihoods, and some may even disrupt long-held assumptions and modes of governing land and life. Green transition, and nature restoration projects specifically, may for example entail deliberate human withdrawal from or abandonment of areas of larger or smaller extension. They may involve rewilding of nature and removal of infrastructures associated with industrial agriculture and forestry such as dikes, drainage pipes and other landscaping elements that have historically enabled agricultural expansion and colonization of new lands. Such projects appear as reversals of historical processes, going against a growth paradigm and its reliance on expansion and intensification of production. They may also imply the remaking of relations within state bureaucracies, between statutory institutions, private companies, farmers, foresters and local populations, and between human beings and other species, making room for other forms and genres of knowledge to flourish through the co-creation of future landscapes. This may challenge settler colonial and imperial knowledge hierarchies and ways of understanding what nature and nature management is about. This panel will look at green transition, nature restoration, for example of forests, peat and wetlands and open-ended approaches to nature management through the lens of decolonization theory. It explores cases that involve biophysical, infrastructural and landscape changes, and associated attempts to challenge knowledge hierarchies, historical narratives and engrained perceptions of change. We are interested in the extent to which such processes entail a disruption of legacies of colonial power and processes of settler colonization. Taken together, the panel seeks to create a dialogue about knowledge, decolonization and relations of power in the green transition. The first

session in the panel will focus on the decolonization of conservation and management practices, whereas the second asks how we disrupt legacies of colonial power.

### **1. Rethinking Peatland Management in the Atacama Desert: A Critical Physical Geography Perspective**

*Manuel Prieto, Universidad de Tarapacá – hybrid from Lund*

In the highlands of the Atacama Desert, one can find the bofedales, high-altitude peatland that defy the extreme aridity of their surroundings. Despite being considered "natural" from a traditional scientific perspective, many of these bofedales have been managed by Andean communities dedicated to herding since pre-Hispanic times. These communities have "cultivated" and used the bofedales as a permanent source of food for llamas and alpacas. This approach has not only challenged conventional notions of ecological sustainability but has also debunked "neo-Malthusianism," demonstrating that sustainable coexistence between human communities and fragile ecosystems is possible. This presentation focuses on the role played by these communities in the conservation of the bofedales, challenging traditional conservation perspectives based on exclusion. Through a critical physical geography approach, we seek to explore the socioecological transformations in these ecosystems in relation to issues of extractivism, climate change, and the intersection of environmental racism with ecological degradation. This presentation aims to shed light on the complex interaction between management practices, bofedal conservation, and the contemporary challenges faced by this unique region. Through a critical analysis, we hope to contribute to a deeper understanding of the coexistence between indigenous communities, nature, and industry in the Atacama Desert.

### **2. Limits to wilderness? - negotiations of open-ended nature management in Denmark**

*Kathrine Dalsgaard, University of Copenhagen – hybrid from Lund*

In response to the biodiversity crisis new nature management paradigms are currently to reverse and disrupt the established ways of governing the commons of Denmark. The Danish Nature Agency - which manages the state forests and natural areas – introduces nature projects with the aim to recreate wild nature by so-called untouched forests and 15 nature national parks. A decade-long nature management focused on anthropocentric utility, exploitation, and ideals of effective care of nature is now replaced by an open-ended approach to nature understood as a dynamic, self-managing actor. Within this context the paper examines the attempts of the Nature Agency to ungovern Danish nature. Various conventions and acts oblige the Agency to involve citizens in their projects on the commons and I explore whether citizen involvement and inclusion of local knowledge put a limit to the rewilding of nature. I find that open-ended nature management challenges dominant enactments of nature and ways of knowing among Nature agency professionals and among citizens who are now threatened as one out of many species in the sparse public spaces of Denmark. This way the reconfiguration of nature also gives rise to debates on which species and life forms to protect and grant welfare.

### **3. Community-based natural resources management as conservancies in Namibia: rights are devolved but conservation concepts remain imposed**

*Stéphanie Domptail, Charity Masole, Sakeus Kadhikwa & Martin Petrick, University of Giessen – hybrid from Lund*

Community-based natural resource management (CBNRM) schemes enact the will to move away from enclosure types of conservation and shift rights and responsibilities of wildlife management from the state to local populations since 30 years in Southern Africa. This effort was rooted in the recognition that local institutions and population can manage resources sustainably: an effort of territorial, and knowledge system decolonization. In our case study of two conservancies in Zambezi, Namibia, we argue that the way conservancies are implemented perpetuates colonial power structures and shifts costs of conservation to the local population. In particular, we claim that the concepts of community, conservation and human-wildlife conflicts are rooted in a colonial worldview. Their meaning is not necessarily shared by the traditional authorities (kingdom structure) currently in place as administrators of natural resource use in the absence of conservancies. We look more closely at the case of two conservancies in the Zambezi region. Interview data with traditional and statutory authorities involved in the implementation and management of the CBNRM illustrates our point. As conservation is failing to reach satisfactory livelihood-ecological outcomes, our results shall feed the reflection on alternative philosophical grounds to a collective and sustainable co-existence within nature.

### **4. South-South Technology Transfer and decolonial approaches to knowledge exchange**

*Carmen Séra-Penker, BOKU University – hybrid from Lund*

Sustainable energy transitions are central to climate mitigation as to reduce CO<sub>2</sub> emissions it is necessary to change to more renewable forms of energy. To enable sustainable energy transitions also in the Global South, technology transfer is needed. Therefore, the Global South has been demanding for decades that conditions for technology transfer have to be improved. This contribution looks into South-South Technology Transfer, taking a decolonial approach to the exchange of knowledge. Does the fact that technology transfer is implemented by South-South partnerships mean that the exchange relations are more equal? How do controversies between different types of knowledge surface? Based on preliminary findings from a qualitative systematic literature review, it is analysed if South-South Technology Transfer leads to a disruption of legacies of colonial power and Western domination of science and technology and if South-South Technology Transfer challenges existing knowledge hierarchies through collaborative processes as it changed the direction that knowledge about technology is exchanged in. Drawing on epistemologies of the South and decolonial theory to create dialogue about knowledge, decolonization and relations of power in this example of green transitions, the contribution aims at rethinking relations between states and other institutions as well as local populations involved in technology transfer.

## Parallel session 8

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Time: 14.00-15.30

### Panel D069: Episteme, Competition and Resource Conflicts – Lab 1

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*Estellina Namutebi, Ghent University*

#### **1. The tragedy of existence: an investigation into the human-wildlife conflicts in the Albertine Graben, Uganda**

*Estellina Namutebi, Ghent University*

With the emergence of extractive industries in Uganda's Albertine Graben, most forests were cleared for oil and gas exploration activities. During the forest clearance process, the biodiversity lost its habitat, and thus, wildlife invaded human settlements, creating a human-wildlife conflict. The study was guided by the following research question: How can wildlife conservation be supported amidst the human-wildlife conflict in the era of extractive industries in the Albertine Graben? The study was qualitative, with interviews conducted among key informants and focus group discussions within the Hoima district. The findings show that the Uganda Wild Life Authority supports the existence of wildlife, but no support is given to the human community that the wildlife has aggressively attacked. There is a competition between wildlife and the human community in terms of food security and survival. Wildlife from the family of Cercopithecidae, such as the baboons, loiter within human homesteads, destroying their crops and sometimes their lives. Thus, the conservation activities during extractive industrial activities are in jeopardy, and the grassroot communities who would participate are alienated from their own homes because of the aggression of the animals within their homesteads.

#### **2. Among forests, farmers and film makers in Kigoma: a co-creative perspective on ongoing conflicts and local epistemic justice**

*Karolina Wallin Fernqvist, Swedish University of Agricultural Science*

In Kigoma Region, Tanzania, 35% of the land is under protection. Much of this land is forest reserves with colonial roots and with limited access for local people. The region is also witnessing increased population, increased immigration of pastoralist, expanding agricultural production and grazing, diminishing soil fertility, and increased costs of land and farming inputs. As a result, many people resort to the region's forests reserves to secure their livelihood. This has increased the conflicts between farmers and pastoralists, and between these groups and the government, leading to numerous violent evictions of people from these forests. This takes place within in a global discourse on the need for increased measures to combat climate change, reinforcing colonial contours of resource management and of ongoing conflicts. I wish to explore how knowledge concerning these conflicts can be produced in a way that favours local epistemic perspectives and solutions, by making the research process co-creative, and a joint effort to understand, analyse, and

expose the situation in Kigoma through making a movie about it with a local drama group. Through this, I wish to decentre my role as researcher in the process of analysis and in the narrative produced by it.

### **3. Politics of water governance in Kenya: a political ecology approach**

*John Mwangi, University of Bonn*

Water is a critical component that drives life on earth while its availability is curtailed by both anthropogenic and ecological factors such as population growth, rapid socio-economic development, uncontrolled urbanization, catchment degradation and climate change among others. Water governance systems are characterised by complex, evolving, uncertain and contested structures that impede sustainable natural resources management. Most actors in the water sector operate at different scales and levels, which are difficult to intertwine through conventional research. This underpins the importance of investigating water resources challenges and associated power struggles using a Political Ecology approach. There are three political ecology concepts applicable in assessment of power asymmetries and related conflicts in water governance namely multi-scalar approach, power dynamics and hydro-social cycles. The decision-making processes regarding water, especially in Kenya, take place at three broad scales i.e. local, regional and national having horizontal and vertical orientation. These scales are defined in terms of hydrological scope such as river catchments, watersheds and transnational river basins, which are clearly shown through hydro-social cycle. Water policy formulation and implementation involves power play in various forms such as 'power to', 'power with' and 'power over'. This study applied two concepts of political ecology i.e. hydro-social cycles and multi-scalar politics, to analyse water conflicts in the arid and semi-arid lands of Northern Kenya. The study presents conceptual design and preliminary results of a PhD research between the universities of Bonn in Germany and St. Andrews in Scotland, United Kingdom. **Keywords:** political ecology, water governance, scalar politics, power, hydro-social cycles, decision making

### **4. Urban farmers' contribution to the beautification of Sam Nujoma Road in Dar es Salaam City, Tanzania**

*Hawa Mkwela, University of Dodoma*

Dar es Salaam and other major Tanzanian cities experienced a surge in development projects from 2015 to 2020, particularly in road expansion and construction. In 2015, the country had a total of 7,402 km of tarmac roads, with major roads covering 6,390 km and regional roads 1,012 km. By 2020, major roads increased by 42.6%, and regional roads saw an 80.5% rise, marking an overall 50% increase in tarmac roads during 2015-2020. However, this surge led to urban land use competition, favoring economically viable uses over less profitable ones like Urban Agriculture. Surviving in the city required urban farmers to showcase innovation and prove their significance to city authorities. In Dar es Salaam, a new trend emerged as urban farmers engaged in flower and plant gardening, coupled with selling flower pots along major and regional roads, exemplified by Sam Nujoma Road. Through Focus Group Discussions (FGD), observations, and interviews, this study reveals that urban agriculture along Sam Nujoma Road is tolerated due to its contributions to city beautification and the employment of youths and women. However, securing a more robust land tenure agreement between urban farmers and city authorities is crucial to ensure sustained land security and access. This study sheds light on the valuable role of urban

farmers in enhancing the aesthetic appeal of Sam Nujoma Road and emphasizes the necessity of securing land agreements for the continued positive impact of urban agriculture.

## Panel D015: Epistemologies of the Global Majority I – Lab 2

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*Mitul Baruah, Ashoka University*

### **1. River island epistemes and reimagining the Anthropocene: Cases from the Brahmaputra valley, Assam**

*Mitul Baruah, Ashoka University*

Drawing on fieldwork conducted in Majuli river island in Assam, this paper underscores environmental epistemes that exist alongside disaster and vulnerability and reimagines the Anthropocene through these indigenous epistemes. Located in the middle of the Brahmaputra River and believed to be the largest river island in the world, Majuli has undergone enormous transformations over the course of the 20th century due to the twin processes of flooding and riverbank erosion, resulting in drastic reduction of landmass, and displacement and outmigration of the local population. However, the islanders in Majuli have also co-existed with these crises with great ingenuity. This paper weaves together three different stories – a buffalo herder who inhabits the volatile riverine geographies, constantly moving from one place to another with his large herd; a community devastated by disasters; and traditional fisherfolks who are now switching to different livelihoods due to the depletion of the island's waterbodies. One thing that ties these distinct stories together is the knowledge and wisdom that these characters possess about their local environments – the river, the sediments, and the wetlands – and the ways in which they co-inhabit these fragile geographies. The paper presents the possibility of rethinking the Anthropocene from the perspectives of the river island epistemes in the Global South.

### **2. Political Ecologies of Nature-based Solutions: Indigenous Cosmologies and Contemporary Governance in Uganda**

*Margaret Babiye, University of Kassel*

This study explores the intricate web of climate politics, displacement, and indigenous knowledge among the Batwa of Southwestern Uganda within the context of nature conservation. I argue that while the modern state creates an impression of inclusivity in the formulation of policies and decisions, various machineries of state governance that influence ecological policies and citizenship are used to marginalize and exclude the voices of the Batwa in the governance of nature. My argument challenges the hegemonic rhetoric of the Ugandan state, asserting that climate decisions regarding nature and resources are not truly democratized. The postcolonial state perpetuates elite-centric governance, leveraging colonial structures and leaving marginalized groups such as the Batwa disempowered in mainstream governance. Therefore, this study unequivocally amplifies the marginalized voice of the Batwa, underscoring the importance of recognizing and

integrating their indigenous knowledge and experiences into the formulation of indicators and measures of effectiveness in climate-conservation policies. Moreover, I used qualitative ethnography in data collection to gain insights from the Batwa community. Additionally, political ecology is the main theoretical framework for conceptualizing my empirical analysis. The field findings paint a stark picture of Batwa's lagging participation in governance and decision-making processes, accentuating their voicelessness in the Ugandan government.

### **3. The Post 2020 Global Biodiversity Framework: applying local and indigenous knowledge systems to maintain ecological sanity and socially just futures**

*Olusegun Michael Ogundele, International Research Centre on African Culture and Knowledge Systems*

Indigenous and Local Knowledge systems, (ILK), is critical to conservation of protected areas, game reserves, terrestrial ecosystems and aquatic habitats. Unfortunately, despite the growing trend of ecological researchers and policy makers recognition to the importance of ILK in the global discourse on biodiversity conservation and acknowledging ILK as a rich source of information regarding the status of biodiversity and ecosystem functions, there is limited published literature materials on ILK and biodiversity conservation which might inform the gaps in ILK evidence-based policy making on protection of natural ecosystems, protected areas, parks, and heritage sites. In the same vein, the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services, IPBES, has extensively conducted a biodiversity assessment review reports which has utilized ILK on various segmented alternative approaches, most especially in terms of improving the status of biodiversity conservation; species conservation and ecosystem restoration. Additionally, the United Nations Convention on Biological Diversity, UNCBD, in its 15th meeting of the Conference of Parties agreed to new global targets to improve conservation and protection of biodiversity richness, restore 30% of all degraded ecosystems, and conserve 30% of all waters, seas and land. This new set of global targets is commonly known as the Post 2020 Global Biodiversity Targets, (Post 2020GBF). To achieve this new sets of biodiversity targets, the Post 2020GBF also include provisions to ensure that the best available data, information and knowledge are accessible to decision makers, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities must inform conservation and protection of biodiversity resources. This paper will base the thrust of our research on a theoretical exploration of the importance of ILK to ensure ecological sanity and a socially just future as it is being enshrined in the implementation tools, objectives and theory of change of the Post 2020 GBF.

**Hybrid Panel LU255: Green transition as decolonization? II: Disrupting legacies of colonial power? – Lab 6**

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***Inge-Merete Hougaard, Stine Krøijer, Kathrine Dalsgaard & Lone Kristensen, University of Copenhagen – hybrid from Lund***

In our time, scientists, policy makers and activists cast climate change and environmental degradation as existential threats, rendering green transitions imperative to ensure that human activity is sustainable in the long term. In response, governments, state agencies and civil society associations around the world have embarked a range of initiatives for nature conservation and restoration, resource optimization and climate mitigation. These projects have both anticipated and unanticipated impacts on local landscapes and human livelihoods, and some may even disrupt long-held assumptions and modes of governing land and life. Green transition, and nature restoration projects specifically, may for example entail deliberate human withdrawal from or abandonment of areas of larger or smaller extension. They may involve rewilding of nature and removal of infrastructures associated with industrial agriculture and forestry such as dikes, drainage pipes and other landscaping elements that have historically enabled agricultural expansion and colonization of new lands. Such projects appear as reversals of historical processes, going against a growth paradigm and its reliance on expansion and intensification of production. They may also imply the remaking of relations within state bureaucracies, between statutory institutions, private companies, farmers, foresters and local populations, and between human beings and other species, making room for other forms and genres of knowledge to flourish through the co-creation of future landscapes. This may challenge settler colonial and imperial knowledge hierarchies and ways of understanding what nature and nature management is about. This panel will look at green transition, nature restoration, for example of forests, peat and wetlands and open-ended approaches to nature management through the lens of decolonization theory. It explores cases that involve biophysical, infrastructural and landscape changes, and associated attempts to challenge knowledge hierarchies, historical narratives and engrained perceptions of change. We are interested in the extent to which such processes entail a disruption of legacies of colonial power and processes of settler colonization. Taken together, the panel seeks to create a dialogue about knowledge, decolonization and relations of power in the green transition. The first session in the panel will focus on the decolonization of conservation and management practices, whereas the second asks how we disrupt legacies of colonial power.

**1. Historicizing the carbon forest: colonial rule, scientific forestry and the making of ‘Nigeria’s last rainforest’**

*Adeniyi Asiyanni, University of British Columbia – hybrid from Dodoma*

This paper argues that the conditions of possibility of carbon forestry in ‘Nigeria’s last rainforest’ are tightly linked to the uneven colonial production of forests across Southern Nigeria. Drawing on archival research, ethnographic fieldwork and analysis of program documents and academic literature, the paper develops a historical geography of forest conservation in Cross River area. Focusing on the promise of novelty in carbon forestry and the development of colonial forestry in Southern Nigeria under British colonial rule, the paper traces the historical-geographical constitution of ‘Nigeria’s last rainforest’ in Cross River as both the material site and the mobilizing rationale for carbon forestry in the country. It found that the material and discursive conditions of possibility of carbon forestry in this region are tightly linked to three interconnected processes: i) the colonial reservation and regulation of forests across Nigeria, ii) scientific forestry’s production of forests in Nigeria mainly as timber and, iii) the failure of colonial forest production in Cross River. As such, ‘Nigeria’s last rainforest’ represents what Collins (2019) calls the ‘colonial residue’



in a literal sense. The paper concludes by reflecting on some of the implications of these findings for debates on decolonization.

## **2. Historical possibilities for action? Land use changes and policies in 20th century Denmark**

*Nina Toudal Jessen, University of Copenhagen – hybrid from Lund*

Between 1860 and 1960, Danish agriculture intensified, specialized, and spatially shaped the landscape according to its needs. Peatland and heaths were reclaimed, and fields drained through state supported funding schemes, in what can be characterized as an internal colonization. Today, rewetting and rewilding schemes attempt at reversing this process, however often only slowly or even fail. This paper addresses land use and landscape changes in 20th century Denmark by examining what was possible, permitted, and desired at a certain time and place. By looking specifically at the possibilities for action, it argues for a historically sensitive understanding of how this internal colonization developed because of a wide array of intersecting interests and policies, and in junction with an increasingly specialized knowledge production.

## **3. Damaged drainpipes as decolonization?**

*Inge-Merete Hougaard, Stine Krøijer & Lone Kristensen, University of Copenhagen – hybrid from Lund*

Colonisation and capitalist expansion have historically been aided by landscape interventions such as drainage, dams and dikes, whereby the power to control water and engineer landscapes have supported the creation of states and nations. Ordering space has not only governed the movement of people and resources, but also resulted in displacement and disruption of ecological relations between human and non-human nature. To address global ecological crisis, governments and private actors are increasingly turning towards new environmental management practices, including attempts to decenter the human and create space for other species. In Denmark, the parliament aims to rewet 100,000 ha of previously drained agricultural land, to mitigate climate change and improve biodiversity. By damaging drainpipes and ditches to restore 'natural hydrology', such efforts resemble a reversal of historical colonial landscape interventions. However, the planning and execution of such landscaping projects require a number of modelling, measuring and engineering practices to ensure that water both can flow freely, but also be controlled and not result in unintended flooding in neighbouring fields. Thus, while projects may seem to reverse colonization processes, they reproduce modernist management logics. Yet, resulting landscapes are never fully under control, indicating the partial and patchy nature of decolonizing processes.

## **4. Decolonizing Energy Transition in Thar: Imagining alternatives to existing approaches towards just transition**

*Suraj Pratap Singh Bhati, Ambedkar University Delhi – hybrid from Lund*

The Indian government has signaled an imminent shift towards renewable energy in the coming decades. The energy map of India is gradually expected to shift from coal to wind

and solar energy. In the coal regions of India, fossil fuel development ushered in industrialization, but also engendered widespread displacement, human rights violations and environmental destruction. The Thar desert in Western India is the most densely populated desert in the world. The landscape has acted as a frontier for multiple ruling clans and was further situated as unruly, with the arrival of colonialism in India. This along with newer narratives of desertification, climate change and conservation have put the landscape as a point of their amalgamation, which is also visible in the efforts towards green transition that have come up in the landscape. This paper examines whether energy transition towards renewables in the landscape carries risk towards strengthening the existing concerns and create a new wave of localized re-colonization. I argue that the state interventions in form of energy transition are a result of the historical understanding of these regions, derived from the colonial state. The paper aims to situate and analyze alternatives towards decolonizing existing energy transition approaches.

## Parallel session 9

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Time: 16.00-17.30

### Hybrid Panel LU315: Diverse Ways of Knowing the Climate: Towards Epistemic Climate Justice II – Lab 1

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*Johanna Tunn, University of Hamburg & Juliane Schumacher, Leibniz-Zentrum Moderner Orient Berlin – hybrid from Lund*

Climate knowledge – knowledge on the actual and predicted effects of global warming, on the causes and responsibilities for climate change and on transformation pathways – strongly influences climate politics. Reliable climate knowledge plays a crucial role for mitigation and adaptation strategies, and it builds the basis for climate activism, contestations of existing socio-economic structures and claims for climate justice. The dominant mode of climate knowledge production, however, has for the most part neglected issues of epistemic justice and ways of knowing beyond the scientific tradition of the West. Most climate knowledge is produced in narrow technocratic and managerial settings (Knox-Hayes and Hayes 2016), excluding Global South scholars (Tandon 2021) and obfuscating power dynamics and colonial histories (Álvarez and Coolsaet 2020). Based on the premise that diverse ways of knowing and knowledge-making are crucial for climate justice, this session seeks to critically evaluate current forms of climate knowledge production and to advance the debate on more diverse, inclusive and decolonial practices.

#### **1. Critical heat: a re-examination of thermal ontologies and epistemologies through encounter, embodiment and evaluation in the age of global heating**

*Elsbeth Oppermann (Rachel Carson Center, LMU) & Nausheen Anwar (IDS, Sussex) – hybrid from Lund*

This paper lays out a research agenda that opens up understandings of the thermal in the context of global heating. It critiques the limitations of dominant environmental and

meteorological ontologies and epistemologies of the thermal, prompted by the contemporary moment in which lived encounter and embodied experience with heat extremes is challenging the adequacy of such approaches to examine and communicate the breadth and intensity of thermal meaning. This approach is complemented by a decolonising of thermal ontologies and epistemologies through a foray into other ways of knowing the thermal, drawing on traditional knowledges and local contemporary practices from Pakistan. We will bring these alternative ways of knowing heat into conversation with the latest developments relating to the thermal across multiple disciplines, notably: new materialist philosophies to engage seriously with scientific and analytical understandings of matter/energy dynamics (Walker 2021); recent developments in media studies that examine how the thermal transgresses the physical and conceptual/matter and meaning aspects of communication (Starosielski, 2021); and, literature on embodiment, weathering and the elemental as alternative ways of knowing the thermal (Vannini et al., 2012). Finally, we will position our contribution to refine and expand the conceptualisation of the emerging field of critical heat studies.

## **2. Epistemic injustices in hegemonic narratives on environmental im/mobilities in Chile**

*Hanne Wiegel, CR2 – Centre for Climate and Resilience Research, Universidad de Chile – hybrid from Lima*

The figure of the ‘climate migrant’ has become emblematic of the severe consequences of climate change, discussed in alarmist tones in media, policy and academia. In these narratives, however, the voices of those most affected tend to be silent, if not altogether absent. I explore the knowledge production on environmental im/mobilities in two cases from Chile. One is rural Monte Patria, called the ‘home of Chile’s first climate migrants’ in national media. Here, the community emphasizes the agricultural industry, structural water scarcity, and uneven resource access – rather than climate change – as reasons for engaging in labour mobilities. The second case is Patagonian village Villa Santa Lucía, heavily affected by a mudslide in 2017. Here, the community rejects relocation policies, justified as risk reduction measures, based on a fundamentally different risk assessment grounded in context-specific social representations of nature and human-nature relations. Central to my analysis are affected communities’ sense-making of their environmental im/mobilities, how these differ from and are silenced by hegemonic narratives on ‘desolate climate migrants’ or ‘necessary relocation for adaptation’, and the political and socio-economic consequences of this discord. I end by reflecting on means for decreasing such epistemological injustices as central to enhancing climate (and) mobility justice.

## **3. Digitalising climate futures? A digital justice framework to appraise the platformization of climate adaptation**

*Giovanni Bettini, Lancaster University; Giovanna Gioli, Bath Spa University & Sian Sullivan, Bath Spa University – hybrid from Lund*

Despite the global pervasiveness of digital climate services and ‘climate smart’ development, the digital turn in climate change adaptation remains underexplored and undertheorised in scholarship on the governance and politics of adaptation. We situate the digitalization of adaptation within the long haul of neoliberal failures to financialize nature and aid. Drawing on examples gathered by the Digital Climate Futures project, the paper scrutinizes digital ‘good practices’ that have become a staple for actors at the intersection of climate adaptation, development and disaster risk reduction,

through a novel theoretical approach addressing the non-neutrality of digital interventions and adaptation, as well as the coloniality of their epistemological underpinnings. Digitalization practices often reflect a single epistemological authority that perpetuates long-standing forms of inequality and skewed power relationships. These concerns resonate with critical approaches to adaptation, which emphasise the need to re-embed discussions on adaptation into power relations, avoiding the trap of techno-managerial approaches and the erasure of the role played by colonial histories in shaping vulnerability in the first place. We bring together insights from Political Ecology, Science and Technology Studies, and Decolonial Studies in order to devise a novel framework to study the climate justice implications of adaptation, including in its digital and cognitive dimensions.

#### **4. Contested futures of the Elbe Estuary: knowing, modelling and narrating socio-ecological transformation**

*Jonas Hein, German Institute of Development and Sustainability – hybrid from Lund*

The inner delta of the Elbe estuary south of Hamburg's city center forms a vast terraqueous zone. Land reclamation, dredging of shipping channels and port basins have transformed the delta into an industrialized port landscape. The most recent deepening of the Elbe was designed through complex modelling exercises and declared a 'water-level-neutral development' by Hamburg Port Authority (HPA) and the Federal Waterways Engineering and Research Institute (BAW). Both agencies argued that impacts will be neither visible nor measurable. In contrast, NGOs using counter-modelling claimed that interventions will lead to increased sedimentation, expansion of saltwater-zone, impact biodiversity and increase storm surge risks. While experiential knowledge of few remaining fisher largely confirmed the counter-models from NGOs, the German Administrative Court legitimized the 'water-level-neutral development' concept and underlying hydrological models of BAW and HPA. Based on interviews with actors who were involved in, observed or fought against the intervention, and on content analysis of press articles and webpages, we unravel the complex relations between political economy, modelling-based knowledge production and performativity which characterize future making in the Elbe Estuary. We argue that power asymmetries and discursive selectivities explain why certain environmental knowledges become dominant and shape socioecological transformations whereas others might even disappear.

#### **5. Making (certain) climate futures: Knowledge, power relations and justice in climate models**

*Juliane Schumacher, Leibniz-Zentrum Moderner Orient Berlin – hybrid from Lund*

Climate models have been studied from a social science and Science and Technology Studies perspective, for example in relation to their material basis or the question of how to deal with uncertainties. The temporalities and spatialities of these models and the inequalities they relate to, in contrast, have not received much attention. These, however, show the situatedness, the contingencies and the power relations build into these models and the knowledge they are based on. Also, in the UN context, current practices of producing and selecting climate models and scenarios have been discussed critically, pointing to the economic and normative assumptions they are base on, the forms of climate knowledge the foster and the alternatives they exclude. This contribution will deal with these questions in an explorative manner: Which technologies, practices and forms of knowledge to play a role in 'making' climate models? What is included, what excluded?

Which spaces do these models create, and how are they related to historic or actual power relations? And how can be dealt with these issues from a critical and emancipatory perspective – which alternative ways exist of creating knowledge on different pathways of global warming, without reducing the future to a few narrow scenarios?

## **6. Epistemic Justice and Critical Minerals– Towards a Planetary Just Transition**

*Ronghui (Kevin) Zhou, University of Warwick & David Brown, University of Warwick/University of Cambridge – Hybrid from Lund*

Global transitions to low-carbon energy systems are heavily reliant on the large-scale extraction of critical minerals (e.g. cobalt, lithium, rare earth elements), key components in green technological developments such as wind turbines, solar photovoltaics and electric vehicle motors. However, research has highlighted the multifaceted social and environmental costs of critical mineral extraction and processing across marginalised parts of the Global South, evidencing significant impacts on local people's health, livelihoods, human rights and land-based resources. This paper centres on the role of epistemic justice in a 'planetary just transition', an under-explored dimension of just energy transitions. Through the analysis, we identify three main forms of epistemic injustice in the critical mineral industry: discriminatory epistemic injustice, distributive epistemic injustice and formative epistemic injustice. Building upon multi-scalar and multi-dimensional conceptualisations of environmental justice, we highlight the importance of incorporating epistemic justice into a more comprehensive and inclusive approach to just transitions. Through bringing new insights on knowledge equity in the context of critical minerals, we recommend building upon Education for Sustainable Development framework to tackle the challenges and contribute to extended understandings of a 'planetary just transition'.

## **Panel D015: Epistemologies of the Global Majority II – LRB 004D**

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*Domenique Ciavattone, Memorial University of Newfoundland*

### **1. Good knowledge"? Appreciating plural ways of knowing in coffee agroforestry assemblages**

*Ida Yamaswari, University of Sussex*

This paper focuses on distinctions and interplays between 'Indigenous' and 'modern' ways of knowing within coffee agroforestry assemblages in Aceh Gayo, Indonesia. Rather than categorising ways of knowing based solely on people's ethnicities, I use different forms of socio-material relations to distinguish between 'Indigenous' and 'modern' in farmers' practices. Approaching these practices as performed by assemblages of interrelating humans and nonhumans (Callon, 2007), I argue that 'Indigenous' relations strive for kinship with plants and land. Contrasting 'modern' relations attempt control of nonhuman beings and processes that are treated as objects (Arora et al., 2020). Drawing such distinctions, I attempt to grasp the interplays and overlaps between the two ways of knowing in actual assemblages of farmers' practices. Throughout this investigation my aim

is to privilege relations over categories, in offering an agroforestry perspective on what constitutes “good knowledge” in Aceh Gayo. The latter is based not on farmers’ fascination with ‘modern’ innovations (or with ‘Indigenous’ knowledges), but rather on farmers’ continuous judgement – or learning to learn – for recognising what can count as “good knowledge” through peer-to-peer learning and experimentation. What farmers’ assemblages ultimately afford is a constant dialogue between plural ways of knowing as multiple coexisting forms of socio-material relations.

## **2. Bridging Knowledge Systems in the Peruvian Andes: Plurality, Co-Creation, and Transformative Socio-Ecological Solutions to Climate Change**

*Domenique Ciavattone, Memorial University of Newfoundland*

In the current era of anthropogenic climate change, Quechua farmers in the Peruvian Andes are some of the most impacted by, yet some of the lowest contributors to global warming. Dominant Western systems alone have proven insufficient in tackling the climate crisis, and there have been increasing efforts to elevate and center Indigenous voices and epistemologies when addressing climate change. Researchers and communities are calling for a bridging of knowledge systems, in which Indigenous and Western approaches collaborate to co-create innovative solutions to climate challenges. This research sought to explore methods and successes in bridging Indigenous and Western knowledge systems in Parque de la Papa (Parque) in the Peruvian Andes through five main inquiries: (1) What are ideal, strong methods for knowledge co-creation across epistemic and ontological differences? (2) What are the current methods being employed in the Parque and what are their benefits and challenges? (3) Who are the bridge actors in this process, and what actions do they take to effectuate change via knowledge co-production? (4) What does it mean to truly co-produce knowledge? (5) Is knowledge co-creation possible and effective in the face of climate change? To answer these questions, I utilized a mixed-method approach, employing both Western and decolonial tactics, including: wit(h)nessing; semi-structured, open-ended interviews; auto-ethnography; and co-created reflection sessions. The findings indicate that best methods for knowledge co-creation engage respect, vulnerability and trust, emphasize embodied knowledge exchange, pay attention to logistics, navigate complexities that arise from language differences, utilize tools and visuals, and validate multiple literacies/engage various ways of learning. Many of these methods are already being impactfully employed in the Parque. Findings also suggest that bridge actors are key in facilitating knowledge exchange, and they effect change through engaging and later teaching/sharing what they have learned with others. Successful knowledge co-creation holds different meaning for different actors, but ultimately centers non-dominant systems and complements them with Western knowledges, creates concrete, tangible outcomes and innovations, produces personal changes for individuals involved, and ripples out beyond co-creative processes. This paper concludes that knowledge bridging is indeed effective and valuable when addressing and finding solutions to issues related to climate change in the Peruvian Andes and globally.

## **3. Reclaiming the climate: questioning normative epistemology and the need for situated genealogies in the climate change policies from the global South**

*Paula Alejandra Camargo Paez, University of Sussex\* (starting in September 2024)*

Climate agendas are a site of struggle for epistemological decolonization. This paper aims to address three fundamental topics. Firstly, to present different approaches coming from

the epistemological decolonization and hermeneutical justice in the climate change agenda based on what is proposed by authors such as Sultana (2022), Fricker (2007) and Quijano (2003). Secondly, to present different considerations around the need of situated genealogies in the fight for climate justice, considering the proposals of Meneses (2018) and Santos et al., (2004) and finally, to aim for the need to transform traditional environmental thinking and approaches, considering more autonomous alternatives, especially those coming from social movements and spaces of resistance, taking into consideration the proposals of Faria, Osoegawa (2021).

## Hybrid Panel LU305: Infrastructure Sabotage as Future-Making II: In-/Visible Infrastructure Sabotage – Lab 2

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*Theo Aalders, Bonn University – hybrid from Lund*

This double panel invites interventions that engage with infrastructure sabotage on the assumption that it cannot be fully understood as a purely destructive practice directed against what the targeted infrastructure produces materially and symbolises immaterially. As infrastructure produces particular visions of the future, infrastructure sabotage is often implicitly understood as an un-making of that future. We therefore invite contributions that explore infrastructure sabotage as a form of future-making in its own right; not as something diametrically opposed to the construction of infrastructure, but rather as a strategy employed by marginalised groups that allows them to enter or alter the political arena in which infrastructure is negotiated. This can include cases around climate justice movements as discussed by e.g. Andreas Malm, but also more generally about infrastructure sabotage as a strategy of constructive destruction employed by marginalised people around the world and throughout history around topics relevant to political ecology. Potential questions may include: - What are the reasons for social movements to target infrastructure specifically? What are the characteristics of infrastructure that constitute it as an arena of political struggle? - What is the relation between infrastructure sabotage as a material and as an immaterial or discursive practice? Are acts of infrastructure sabotage merely symbolic, or do they have the potential to also directly create material change? - What kind of constructive futures do saboteurs and their supporters connected to the ostensibly destructive practices of infrastructure sabotage? - Under what circumstances does infrastructure sabotage contribute to constructive future-making practices? - What are lessons from historical examples of infrastructure sabotage from across the world? - What are the dangers of infrastructure sabotage as a political strategy, such as fetishization or negative public receptions?

### 1. Mining Infrastructure in Kenya

*Catherine Amayi Mosi, Kenyatta University – hybrid from Dodoma*

In 2016, the Kenyan government gazetted the Mining Act 2016 to oversee the mining infrastructure in Kenya. This scaled up what was already an aggressive campaign by Western multinationals to explore and extract mineral resources across the country from titanium and coal along the Kenyan coast to oil in northern Kenya to gold in western Kenya and tones of other minerals across the country. While this law gave these mining multinationals the space and the legitimacy to expand their infrastructure, it exploited and

invisibilized the communities that live in these lands thus dispossessing them while also causing irreversible ecological harm. This work will address the sabotage of mining infrastructure in Kenya as a radical and essential framework for creating desirable futures. It will explore the history of mining in Kenya, including the work by anti-mining movements and the critical role they played in disrupting the coal infrastructure despite the militarized response from state, and local mineral brokers and mining companies. The work will highlight some of the resistance actors, for instance, "DeCOALonize movement", which is a Kenyan grassroots anti-mining movement that sabotaged plans to install a coal plant in Lamu, Kenya. Despite the danger and the state's militarized campaign to stop them, they used all resources at their disposal to stage protests, move petitions, litigation and importantly, they disrupted the state's plans, leading to total abandonment. This work will dismiss the idea that infrastructure sabotage is a destructive practice, but rather, a necessary protector of the collective desirable futures, including crucial marine biodiversity as argued by DeCOALonize. Ultimately, the work will explore how sabotaging mining infrastructure has produced and pluralized material change for marginalized communities as it allows them to assert their power within the physical and political landscape.

## **2. The Subversion of Propaganda: What Can an Anarchist Approach to Corporate Media Contribute to Engagements with Infrastructure Sabotage?**

*Elena Salmansperger, independent scholar – hybrid from Lund*

One year has passed since the demolition of Lützerath, a squatted village and autonomous zone in Germany. For over 2 years people blocked the expansion of an opencast lignite mine, among other tactics through sabotaging pumping stations, electricity pylons, and police/ eviction vehicles. Despite claims of "sustainability" industrial mining remains socially and ecologically devastating on multiple levels. Looking at the intersection of ("green") mining infrastructure and resistance, this paper argues that a political ecology of media manipulation contributes to better understanding infrastructure as a terrain of political struggle and sabotage as political participation. Building on ethnographic research in Lützerath and an analysis of local news production through Herman and Chomsky's (1988) "Propaganda Model" this paper explores corporate media as a crucial infrastructure in the production, dissemination, and imposition of (green) capitalist visions of the future, which secure capitalist expansion in the present. Hereby, studying news production and contrasting dominant media narratives to realities from within Lützerath unpacks claims of "symbolism" and "dangerous left extremism" as distractive social management technologies which function through imperial discourse. Understanding the production and delegitimizing function of dominant media narratives around Lützerath's defense may prove useful for further engagement with socio-ecological struggle and sabotage.

## **3. Sabotaging Knowledge-Infrastructure: Challenging hegemonic understandings of colonisation in Aotearoa New Zealand**

*Kyle Matthews, He Whenua Taurikura, Te Herenga Waka – Victoria University of Wellington – hybrid from Lund*

I step away from normative concepts of infrastructure sabotage by presenting a case study of an Indigenous group in New Zealand that sabotaged knowledge-infrastructure by defacing a display at the national museum. The display presented two versions (Māori and English) of the Treaty of Waitangi – New Zealand's founding constitutional document. The sabotage of the English text of this display by Te Waka Hourua – an Indigenous climate



activist group – highlights two important elements of the way that this group approached its act of sabotage. The first is the understanding that how political and ecological futures are built depends on our understanding of the past. By defacing the English version of the Treaty, the group highlighted the differences between the two. These differences raise important constitutional questions about New Zealand’s history of colonisation, and whether a colonial government is the vehicle to guide Indigenous and settler peoples into New Zealand’s future. The second is that these activists, by targeting knowledge-infrastructure - thought in broad rather than specific terms. The infrastructure that they sought to sabotage was not a material instance of environmental damage, such as government institutions, corporations, or fossil fuel infrastructure. Instead, by targeting a display at the national museum they should to shift public understandings – largely hegemonic - of colonisation and settler rights to land, economic activity, and to do environmental damage. I use this act of sabotage as a springboard to explore the value of radical acts – such as sabotage - to social change. I argue that radical acts disrupt, shift, and fracture the colonial hegemonies that drive colonisation. These three dynamics provide a model for activists and scholars to theorise in practical ways how radical acts advance social change.

#### **4. Infrastructure Sabotage as Future-Making: Constructive Destruction and Visibilities around the “Game Galana” Dam Project in Isiolo, Kenya**

*Eric Mutisya Kioko (Kenyatta University) & Theo Aalders (Bonn University) – hybrid from Lund*

In this intervention we make the argument that in order to understand why marginalised people commit infrastructure sabotage, we need to understand infrastructure as a political strategy, rather than as apolitical vandalism. This also means to understand infrastructure sabotage not only as a destructive practice, but also as a constructive practice of future-making. Infrastructure construction projects are understood as “constructive”, as opposed to “destructive” sabotage. We show that the construction of the Game Galana Dam was perceived as a destructive intervention, while the sabotage of the dam was part of a strategy to “construct” a future for marginalised groups in the area. Based on a case-study in Isiolo, Kenya, we show that infrastructure makes power concrete, but also assailable and thus subject of contentious politics.

## **Hybrid Panel LI64: Decolonising the Normative Foundations of Political Ecology II – Lab 6**

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*Ana Alicia Watson Jimenez, University of Calgary – hybrid from Lima*

Political Ecology is undergoing a big revolution. It is meeting the claims of marginalized groups, along with its critique of the legacies of imperialism and colonialism, challenging an abstract and scientific approach to understand nature. The interminable debates about the nature and scope of environmental rights or the proper metric for a universal distributive justice seem increasingly parochial, privileged and unrepresentative of different environments and the normative contexts in which socio-ecological conflicts develop. Today’s Intertwined crisis is asking for solutions beyond sociotechnical imaginaries and hegemonic human-nature relationships, yet decarbonization and biodiversity conservation remains deeply connected with colonial approaches and

exclusionary strategies linked with capital accumulation even under the era of “inclusive sustainable development”. However, Indigenous, and local populations are resisting and fighting marginalization from different fronts and various strategies. Emphasizing the significance of decolonizing both researchers and the research process, in this session we question the sustainability of current narratives of decarbonization as well as the emerging regime of enclosure and coercive conservation model and uneven development interventions. By exploring the case studies, the aim of this session is to unpack the complex linkages between resource and territorial governance, grassroots identities, as well as between western and indigenous/marginalized epistemologies.

### **1. Rural Political Ecology and the Dynamics of Extinguishing Commons in Chitral, Pakistan: A Case Study of Shifting Pastoralist Livelihoods**

*Abdul Wahid Khan, University of Oxford – hybrid from Lima*

This study employs the lenses of Rural Political Ecology and More-than-Human Geography to examine the evolving pastoralist livelihood in the mountainous region of Chitral, Pakistan with a specific focus on commons. Investigating the transformation brought about by factors such as formal education, urban migration, and land privatization, this study reveals the impact on land ownership, societal perspectives, and resistance among pastoralists. The discourse surrounding climate change, perpetuated by educated elites, NGOs, and governmental bodies, contributes to dispossession through conservation initiatives. The paper advocates for recognizing the depth of pastoral knowledge in addressing local issues and highlights the environmental hazards of neoliberal livelihood practices compared to traditional pastoralism. Simultaneously, it delves into the dynamics of commons in Chitral called muzhayo, challenging the dominant Western perspective by drawing on local experiences of agropastoral communities managing their commons and the relationship of the locals with more-than-humans. Exploring the power dynamics related to gender and clan systems, the study critically examines the impact of neoliberal green-grabbing projects and nationalization on the cultural fabric, livelihood, and diverse ecological entities of Chitral through the lens of Rural Political Ecology.

### **2. Frontier Narratives and the Construction of a Sense of Belonging Among Conservation Practitioners in the Manu National Park, Perú**

*Eduardo Salazar Moreira, Victoria University of Wellington – hybrid from Lima*

The management of protected areas is often seen as an enterprise guided by objective knowledge and technical criteria. Even when many conservation practitioners see themselves and their work in these terms, the influence of these experts’ subjective views on conservation interventions is revealed by a growing body of research. The Manu National Park (PNM) in the Peruvian Amazon is a conservation space regarded as ‘legendary’ and ‘mythical’ by biodiversity enthusiasts worldwide, despite its problematic relations with Indigenous communities. Grounded in this case study, my research unpacks conservation practitioners’ narratives about the PNM and their experiences in it. Through a critical analysis of online interviews, archival material and participants’ photographs, and of my experience as a conservation practitioner, I explore how the discourses and practices of conservation affect these experts’ subjectivities. My research shows that, behind a veneer of good intentions and hard work to protect non-human nature, conservation experts’ stories can also reproduce colonial notions of frontier heroism, sacredness and belonging that appropriate Indigenous spaces and erase inconvenient histories. I argue

that justice could be fostered in conservation spaces if more conservation practitioners engaged with a process of self-, collective and cross-cultural reflection focused directly on these issues.

### **3. Understanding contemporary neoliberal mechanisms of forest conservation: A case study on Jaldapara National Park, Duars, West Bengal**

*Priyadarsini Sinha, Jenia Mukherjee and Amrita Sen, Indian Institute of Technology Kharagpur – hybrid from Lund*

Neoliberal conservation mechanisms are transforming the approaches of conservation to forests while driving forest-dependent communities towards a market-strategic livelihood through its institutes of forest and wildlife conservation. In the context of our work, Jaldapara National Park (WB, India) was enclosed as a “Game Sanctuary” in 1941, and then under the Wildlife (Protection Act), 1972 in the year 2012. Jaldapara National Park has been a major part of Duars’ trajectory of colonial extractive capitalism. It has been providing as an ecological resource for the forest communities. The forest villages taken in the study are Kodalbasti, North Khairbari and Salkumar comprises of heterogenic ethnic forest-dwelling communities. Ever since its enclosure as a Protected Area, it has been promoting as a major tourism hotspot, moving away from the initial potential of livelihood generation, tourism here is giving way to the state agency benefits. These forest-dependent communities are thus being excluded, thus depriving them of their livelihood rights to the forest. This study asks “who benefits from forest conservation and at the cost of what?” This ethnographic study using historical political ecology approach explores through the empirical evidence, the emergence of socio-economic-political deprivations around livelihood opportunities being produced through forest conservation institutions.

### **4. Interest Convergence: A Case for Indigenous Legal Theory and Indigenous Supremacy in a Post-Capitalist Age of De-Growth**

*Malika Chatterji, UCLA School of Law – hybrid from Lima*

In light of Luiz Inacio Lula da Silva winning the presidency in Brazil this January, 2023 and his impressive policy change to restore the Amazon, this paper argues we have reached a unique policy moment for realizing Indigenous land ownership and sovereignty. Indigenous legal and political theory are necessary to arrest climate change and to reverse course on the destructive capitalist and colonial economic practices of the last four centuries. Instead of the neo-liberal politics of BRICS and the G20 being the dominant players with the solutions, what is becoming widely apparent and accepted is that it is Indigenous knowledge that must become the leading paradigm, and it is Indigeneity that should have international legal teeth. We are poised at a global moment where the *gesellschaft* is looking to the *gemeinschaft* for answers. Whiteness itself is coming into question as a useful paradigm. Instead of being relegated to “observer status” and the paltry expectation of consultation with the nation-state, Indigenous Peoples now require political power, a vote, a seat at the international table with rights to be able to draft the agenda, to be able to solve global climate change for the world.

## Closing plenary session

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Time: 17.45-19.15

### Just and Plural Political Ecologies: Traditions and Futures – LRB 004D

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Over the last 30 years, the field of Political Ecology has grown rapidly as a result of emerging socio-ecological challenges, actions by social movements, conceptual and methodological innovation, and the diversification of voices, especially from the Global South. Three journals in political ecology – The Journal of Political Ecology/Grassroots, *Ecología Política*, and the Journal of the Geographical Association of Tanzania (JGAT) – invite contributions to an open conversation about "Just and Plural Political Ecologies: Traditions and Futures."

As a run-up to the POLLEN 2024 conference, the Journal of Political Ecology - Grassroots has published a set of short statements about "just and plural political ecologies; traditions and futures". The original call for papers can be found [here](#).

The authors of these statements intend to generate and "open conversation" that will continue through the POLLEN meetings, and afterward. It is the first step in an effort to publish a special volume on the conference topic in three journals: The Journal of Political Ecology; *Ecología Política*, and the Journal of the Geographical Association of Tanzania.

These statements are posted on the website of the Journal of Political Ecology - Grassroots, You may find the statements [HERE](#). We encourage participants in the upcoming conference to review these statements and engage with the ideas in any way they feel appropriate. Although the initial deadline has passed for these short statements, we welcome and will receive additional statements up until the conference dates. However, we may not be able to publish them on the website before the conference.

At the POLLEN 2024 conference, the three abovementioned journals will participate in a plenary session on "publishing for just and plural political ecologies," commenting on major themes from the conference and the role of our journals in disseminating knowledge. Journal editors will form a plenary panel on the last day where they will discuss issues identified across the three locations at the meeting:

- 1) dominant and emergent tendencies in the field, and the promise of just and plural futures emerging from the knowledge practices of political ecology.
- 2) the role of publishing to nurture plural and just socio-ecological futures, and the challenges to advancing a pluralization of knowledge and practice within political ecology.
- 3) the kinds of submissions the journals would like to receive that would promote ecosocial justice and advance the pluralization of practices and knowledges.

## POLLEN24 Dodoma detailed program

After the conference, the journals will emit a Call for short statements as well as article-length manuscripts for a jointly published Special Volume on the topic of "just and equitable political ecologies."

We are excited to engage with activist and academic colleagues in this process of collaborative knowledge production.