



LANDac

The Netherlands Land Academy

BOOK OF ABSTRACTS
LANDac Conference 2019

LAND GOVERNANCE IN TRANSITION

How to support transformations that work for people
and nature?

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1. Inclusive Land Governance: Gender and Migration

1.1 Mobility And Land Governance In Africa: Making The Connections Work For Inclusive Development

Closed session

1.2 Building Land Governance Towards Effective and Inclusive Transformation - from discourse to practice in Women's Land Rights

Closed session

1.3 Policy advocacy for women's land rights: strategies and experiences

Closed session

2. Urban Land Dynamics, Infrastructure and Deltas

2.1 Spatial Injustice in Urban Land Markets in East Africa: What is the Evidence?

Closed session

2.2 Urban land debates in the global South: enclosure and recommoning

The normativity of commoning in Lima's informal settlements

By Andrea Mora, PhD Fellow Urban and Regional Development; Università degli studi di Torino (IT)

In Lima last stage of informal settlements - known as asentamientos humanos in Spanish- many needs are excluded by the current pattern of development. Despite a strong rhetorical support to land titling policy, "aided self-help" housing programs and concessionary urbanism It has not provided adequate living standard to the population. Urban poor thus try to achieve better living conditions by shaping collective paths, defining land plots, creating new collective spaces, building basic infrastructures autonomously, relying on their resource. Public institutions and NGOs have promoted self-organization and self-government of those realities, and they are improving urban spaces and infrastructures held in common, by and for a collectivity. We can consider it a form of constitution of the urban commons.

This presentation introduces and describes how these spaces are produced and organized, revealing the strategy and practice of the population of La Nueva Rinconada, SJM in Lima. Specifically, it presents the case of El Trebol, the most similar pattern of asentamientos humanos in slope areas of this type, created just after the neoliberal turn in 2000 and the influence of other institutional actors involved in the development of the settlement. Understanding the "how" and "what" of strategies and practices of space production is relevant to recognize the kind of normativity accompanies the process of commoning in the last stage of informal settlement in Lima.

Finally, the study reveals the limitation of the constitution of the urban commons. Indeed, is not enough declare commons what is produced by widespread cooperation, or by a push for solidarity and emancipation as it might appear. In El Trebol settlement space production and improvement seem to depend on guided normativity. This guided depends on the purpose of individual formalization of land and full recognition of a precarious situation, without questioning over-imposed pattern of development.

The park where dancing is forbidden: Competing for public space in Lima

Mirtha Lorena del Castillo Durand, PhD Candidate Human Geography and Urban Studies, CEDLA - AMSTERDAM - Pontificia Universidad Católica del Perú - LIMA

Over the last decade, the central areas of Latin American cities have undergone a metamorphosis caused by the development of real estate projects aimed at middle- and high-income sectors. The inner-city areas are becoming highly densified urban spaces that compel different social groups to share or compete for the same public space. In this

context, public space is being gradually captured and privatized to the detriment of lower-income sectors. This presentation reveals the competition for the control of public space in the central areas of Lima after the real estate boom (2007 - 2017). Specifically, it presents the case of the 'Castilla' Park, located in Lince, a central district traditionally inhabited by middle and lower-income sectors. A change in the zoning regulations allowed the construction of luxury condominiums around the park generating the arrival of more affluent residents who began to share the public space with their less affluent neighbors. The study reveals the conflict that followed the municipal authorities' decision to ban recreational activities in the park (such as dancing). Two opposing arguments about the use of the same space were revealed in the conflict: the first, supported by new residents and local authorities, advocated the 'preservation' of green spaces and the imposition of greater public order. The second, supported by urban civic groups and sitting residents, claimed the right to use the park as an open and free space. This study explores the arguments underlying these rationalities, as well as the strategies of the different social groups to de-communize or re-communize public space after real estate renewal processes. The study also examines how the privatization of public space affects the daily activities of the less favored social groups in Latin American cities; and reveals new ways in which the 'urban commons' raises awareness about the necessity of free public space through initiatives of collective action.

Urban sprawl and conversion of agriculture land in Kigali city and its outskirts: implications on land rights of farming landowners

by Ernest Uwayezu (University of Rwanda, College of Science and Technology, Centre for Geographic Information Systems and Remote Sensing (CGIS-UR), Walter T. de Vries (Technische Universität München (TUM), Germany), and Maurice Mugabowindekwe (University of Rwanda, College of Science and Technology, Centre for Geographic Information Systems and Remote Sensing (CGIS-UR))

This study analyses drivers of land use conversion and its impacts on land rights of farming landowners in Kigali city and its outskirts. The main question is whether actors in land use planning preserve potential agriculture land and recognise land rights for people whose livelihood depends on farming, as commended in rules governing urban and rural settlements development in Rwanda. Data sources include household surveys, interviews with actors in urban planning and land management, and observations of land developments in the study area. We analysed land use conversion using multi-spectral Landsat images of 30 m resolution for the years 2000 and 2015. Planned and current land uses were analysed using the master plan and land use plan of Kigali city and neighbouring districts. Results show increasing loss of the potential agriculture land at a rate exceeding ten percent over the period of 15 years. This loss is linked with the lack of integrated land use planning. Decisions on land use conversion are mainly made by urban planners and local government leaders. They prioritise the provision of residential land in response to the growing housing needs for urban dwellers, and expansion of sources of funding for local government through tax levy on residential land. Those priorities are not balanced with the national goals of boosting agricultural productivity and enhancing food Security. Consequences include the escalating displacement and land deprivation affecting the livelihood of farming landowners who forcibly sale the

converted lands due to inability to comply with new land use plans, and increasing food insecurity. Curbing those problems requires a participatory and integrated land use planning which balances the needs of farming landowners and goals of urbanisation.

Dispossessing the dispossessed? The Kenya Slum Upgrading Programme in Kibera, Nairobi

By Sophie Schramm, Utrecht University

Kibera – well known not least since UN-Habitat has pitched it as the largest slum of Africa or potentially even the world – currently undergoes reconstruction through the Kenya Slum Upgrading Programme (KENSUP). The stated goal of KENSUP is to house the current slum dwellers in modern multistory houses that are to be held in cooperative ownership. In emphasizing cooperative housing ownership this approach of the Kenyan Government may appear as an approach to housing as an urban common. However, in fact, in Nairobi the state-capital nexus has since colonialization worked to get hold of land for the benefit of the elites. In the case of KENSUP in Kibera, there is no evidence that this ostensible attempt to formally create communal house ownership will effectively influence the vibrant “informal” housing market of Nairobi. I argue that in Nairobi, where urbanization, urban planning and access to housing are shaped by a calculated deregulation, what matters for dynamics of dispossession and displacement are not just formal or informal arrangements of property, but rather the ways in which they relate to the materiality of built space. While the KENSUP in Kibera ostensibly aims to create housing cooperatives for slum dwellers, it has so far not been a platform for collective action or even urban commoning but it has expressed the vested interests of some actors and further destabilised the precarious position of others. This paper addresses the struggle for access to land and housing in Kibera and through KENSUP. It examines people’s potential to shape events within the KENSUP project and to make use of the permanent uncertainty the project brings about in a context where collective action is largely absent.

2.3 The Urban Land Nexus and Inclusive Urbanization in Africa

Urban Land Nexus in Dar es Salaam and Mwanza Cities in Tanzania

By Kyessi, A.G. and Kombe, W.J.

Over the last couple of decades, debates on the characteristics and nature of the urban land use nexus in cities of the Sub-Saharan Africa have intensified and taken central position in land use planning and management discourses. There has been heated debate on whether cities in the region are effectively and efficiently performing their central functions as engines of socio-economic transformation. The current study has revealed that the protracted urban land use nexus problems that underpin dysfunctionality of the cities of Dar es Salaam and Mwanza are partly attributed to the short term interests associated with unfettered market forces driven by private real estate investments. As may be expected, unregulated land markets on their own have not produced an efficient and properly functioning spatial and socio-economic entities or cities. The state has to play critical role in balancing the interests of the private sector or

the market and place the public welfare at the centre of urban land development and use. Land development trends including the emerging urban form, structure and overall urban scape of the Dar es Salaam and Mwanza Cities suggest the contrary. The challenges emanating from the on-going housing densification in the regularised informal settlements; the amorphous urban form including rapidly sprawling growth in peri-urban areas; the unregulated gentrification and severe basic infrastructure services deficits are some of the manifestations. Current trends suggest that the state is ill-equipped to effectively regulate urban growth during periods of rapid urbanisation and expansion of cities. In both cities, inadequate resource capacities, under-utilisation of the capacity of the existing social actors at the grassroots in land use development control are part of the problem. This, coupled with underdeveloped trunk infrastructure services particularly outside the major trunk (radial) roads which configure the urban structure of Dar es Salaam and Mwanza cities are real impediments to the initiatives to promote an efficient and sustainable urban land use development that can significantly shape and constitute central drivers of the local and national socio-economic development including inclusiveness and overall reduction of poverty.

The role of land and housing supply mechanisms in shaping the morphology of Khartoum city

by Salah M. Osman

Khartoum is the prime city in Sudan , hosting about 20% of the total population of the country. Climate change, and the resultant drought and desertification phenomena geared the urbanization trends in Khartoum since the mid-1970s, but urbanization is augmented by the civil conflicts in south Sudan and Darfur by the turn of the century. Population of Khartoum increased from 784,294 in 1973 to 7,993,851 in 2018; rate of growth reached 11.8% in the 1980s, but is moderated to an annual rate of 3.4%. This fluctuated flux of urbanized population formulated a heavy demand on the urban land and housing supply mechanisms, and elicited several negative socio-spatial repercussions. This presentation aims to trace the role and achievements of these supply mechanisms, and at the same time highlighting the socio-spatial impacts especially at the end of the vulnerable groups and the urban poor. Focuses will be headed to the formation of new social structures and economic relations formulated in the new settlements, in relation to the old and historical settlements of the city. The role of the government in enabling achieve of housing to the different levels of income groups will also be highlighted. The presentation works to formulate policy indicators relevant to each level of income, type of settlement or socio-economic stands rather than the prevailing mono direction policy.

Self-builder landlords, housing quality and access to services in private rental markets in Dar es Salaam and Mwanza

by Manja Hoppe Andreasen

Private rental markets accommodate a significant share of Africa's growing urban populations. In the context of very limited supply of formal rental housing from governments or non-profit social housing agencies, most tenants are accommodated in

rental housing supplied by small and large-scale private landlords. This presentation offers insights on the dynamics of private rental markets, rental housing quality and access to services in informal settlements of Dar es Salaam and Mwanza, respectively the primary and a secondary city in Tanzania. The research is based on recent case studies of newly developing and consolidated informal settlements, where self-builder households engage in incremental construction of owner-occupier housing as well as rental housing catering for tenants with different preferences and ability to pay. The research examines the type and quality of rental housing developed by self-builder landlords and the access to services enjoyed by their tenants. The research explores the motivations and experiences of self-builder landlords engaging in the rental market and their ability and motivations to invest in improvements of housing quality, services and infrastructure.

Spatial configuration and patterns of settlement, segregation and informality in Dar es Salaam, Mwanza and Khartoum

By Sadaf Sultan Khan

Beyond masterplans and urban planning strategies, the form a city often takes is determined by where and how people settle, which in part, is associated with issues of accessibility, mobility, land values and access to services. Lower-income groups often find themselves located in spatially inaccessible and underserved localities or clustering in areas that allow for convenient access whilst compromising on space and permanence. On the other hand, the more affluent have access to areas of the city that are both better connected and better serviced. Thus, the spatial form a city takes becomes critical to understanding the distribution of people and services. This presentation looks at the relationship between the spatial configuration of the city and patterns of settlement, segregation and informality in three East African cities; Dar es Salaam and Mwanza in Tanzania and Khartoum in Sudan. Here, Geographical information systems (GIS) were used to map and layer multiple features at the city scale for all three cities, ranging from population data to street and public transport networks to land values. Changes in population in all three cities were tracked using population data across a ten-year intercensal period for each city; 2002 and 2012 for Dar es Salaam and Mwanza and 2008 and 2018 for Khartoum. Additionally, using Space Syntax methods to analyse the spatial configuration of the cities, this presentation will show how spatial configuration impacts accessibility and connectivity in the city and, how this in turn impacts population densities and distribution, land values, the distribution of services and settlement types. Findings suggest that populations densify to proximate to major thoroughfares and/or close to the city centre; both areas that allow for convenient access to transport links and other services like water and sanitation.

Vacant land versus the urban housing shortage in Khartoum: the case of Khogalab

By Salah M. Osman and Griet Steel

In Sudan, the vast land ownership is in the hands of the government, as secured by the United Nations Registered Land Acts of 1970. The government leases land in subsidized costs - according to the Sites and Services approach - to provide land and housing facilities

to beneficiaries. The main objective of this paper is to analyse the effectiveness of the sites and services approach (publicly known as Housing Plans) in providing affordable, adequate and secure housing for low and middle income residents. We scrutinize the potential of sites and services approach by focussing on the specific case of Khogalab, an envisioned residential neighborhoods at the north-eastern fringe of Greater Khartoum being allotted in 2001 according to this approach. Eighteen years after the first allotment of Khogalab housing plan, there is no actual construction going on. The biggest problem is the lack of water supply and electricity supply. At the same time, as we could also observe in other parts across the city, plots remain empty or undeveloped because the high costs of housing and construction. Original owners have already sold their land. Brokers entered the land market and trends of land speculation is going on. So instead of providing alternative solutions for the urban housing problems in Khartoum, the case of Khogelab shows some of the pressing dynamics in the urban land nexus that need to be further addressed in order to contribute to more inclusive and sustainable cities advocated for at a worldwide scale.

2.4 Dutch Diamonds in the Delta: Towards inclusive and climate proof delta management in the global South

Closed session

2.5 Dynamics of Food and Water Systems in Delta Regions of the Global South

Closed session

3. Community Rights: Climate Change and Natural Resource Management

3.1 Community Forest Rights: What are the Key Conditions for Success?

Rights of people to natural resources and local political economics encounters: case of community forest in Cambodia.

Sopheha KONG, Policy Coordinator at NTFP-EP

For the last few decades starting in late 1990s, Cambodia experiences a natural resources management dynamics in which rights to access to and control of forest given through the formalization of the community forest (CF) or protected areas is being contested in the local and national politics. The management of the CF, now reaching an amount of 610 nationally--covering land areas of 506, 600.1696 hectares--, being depended mainly on local people without or with little material and financial support from the state, have left the majority of the forest being illegally logged for timbers or cleared for agricultural land. The national and local political economics is the de facto mundus operandi for the local government authorities to cooperate in the forest exploitation, rather than the so-called sustainable management. This poses a serious question as to what community forest is all about?

Using a quick survey tool to look at the management problems (particularly illegal logging, forest clearance for land ownership, and the social relation between CF management groups and local government and related government authorities) encountered by some CF and its management groups in Cambodian northern part provinces, in-depth case studies collected when engaged in a development project claiming to bring about economic development and environmental balance for about two years, and tracing the historical roots as to why community forest was created in Cambodia; this paper argues that CF is a failed piloted project of forest management, if reform is not underway.

Revisiting Forest Rights Act, 2006 for rights to Commons in India

Sonali Ghosh¹, Varsha Bhagat- Ganguly², Chandra B. Kumar³

1: Wildlife Institute of India, Dehradun . India

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, as enacted in 2006, has been lauded as a key legal instrument to restore the historically absolved forest rights across India for approximately 100 million of tribal and other forest dwellers, including both individual rights to cultivate land, and community rights over common property resources for conservation and management of the forest.

While the Act has largely been hailed as a paradigm shift towards managing our natural resources, it has faced many road-blocks and hurdles towards actual implementation as the actual implementation of law stems out of some complex socio-ecological settings. To further put a spanner in the works, in February 2019, a Supreme Court Judgement

ordered the eviction of people across 16 provinces whose claim as forest-dweller has been rejected under the FRA¹.

We argue that while the legal policy instruments are in place, the conflicts and contradictions that underpin the actual implementation of law stems out of some complex socio-economic and ecological settings. Whether these rights need to be fulfilled, has largely been the undercurrent, especially when government agencies deal with such cases.

The narrative on 'justice' has largely been treated as a means for 'need fulfilment and for this reason', they must be interpreted in combination with other legal instruments such as those for natural resource management and fundamental rights. The 'justice' and 'resource rights' both need to be looked into, especially through the lens of the State, forest dwellers and the judiciary. Through this presentation, we attempt to identify the gaps and the possible conflicting views that further need to be studied. Case studies and examples are cited from similar setups across global south where such experimentation would have worked.

Operationalizing community forestry laws in Liberia

Cllr Negbalee Warner, Senior Partner, Heritage Partners & Associates, Inc., Monrovia, Liberia & Cllr. Lucia D.S. Gbala, Partner, Heritage Partners & Associates, Inc., Monrovia, Liberia

Liberia is home to some of the largest tracts of West Africa's remaining rainforest. Dense forest covers about 45% of the country, some 4.3 million hectares. After the civil war, the passage of the National Forestry Reform Law in 2006 was the first legal step towards reforming the timber sector to protect and sustainably manage these forest resources. Since then, the Community Rights Law with respect to Forest Lands (2009) and the Land Rights Act (2018) have been passed. They specifically recognize the rights of communities to manage their forest resources and recognize ownership of their customary lands. As research has shown, community forestry often results in better conserved and protected forests.

These laws provide a legal framework for community forests and establish the rights and duties of communities to play an increasingly important role in the management of their forests. Now, implementation and enforcement are the vital next steps towards making community forest working in practise.

For community forest representatives to play their part in this process they need to be able speak and act with the law in mind. However, limited access to the texts of the law and limited understanding of the legal framework are often significant barriers to their active participation. This especially holds true for local communities. For them to be able to constructively use the tools offered by law to enhance community forestry, they need to be able to access, understand and use the laws that establish their rights as well as their obligation for responsible and sustainable forest management.

¹ Visit <https://www.thehindu.com/news/national/supreme-court-order-on-eviction-consistent-with-its-stand-on-forest-rights/article26358075.ece> ([accessed April3, 2019](#))

HPA, together with ClientEarth, have been working with Liberian forest communities (Community Forestry Management Bodies, 'CFMBs') to develop their legal knowledge and skills. We collect laws and make them available for community representatives, online and in hard copy. We provide legal support and convene regular legal working group meetings. These meetings are a space for legal learning and coordination for community representatives and civil society where we provide training, share experiences and jointly develop legal tools. An important part of this work has been building legal skills of community representatives to negotiate forest contracts and jointly developing a model commercial use contract template to support such negotiations.

This presentation will focus on our work with the legal working group in developing this model commercial use contract template. We will focus on the key provisions of the template that are aimed to; i) enhance community legal empowerment; ii) balance community commercial and environmental interests; and iii) provide a responsive, content based dispute resolution mechanism.

Keywords: community forests, legal empowerment, law, customary rights

Negotiating Community Rights to Forest Resources in the Tanganyika Basin in Zambia: Understanding structural power asymmetries in a landscape approach

Freddie Sayi Siangulube, University of Amsterdam

The effectiveness of community resource management and land rights in the Lake Tanganyika Integrated Project (LTIP) has been premised on principles that legally devolved control over demarcated forests to the locals will secure community rights to resources, increase local stewardship and thus create a sustainable management option. Traditionally, the conservation regimes in this region have been centralised through a network of forest reserves and open landscapes under the control of government and traditional authorities respectively. Through stakeholders' advocacy, there has been a recent shift from centralised forest management policy to community engagement in a landscape approach. A study was conducted in this landscape to analyse the engagement of two communities comprising 87 respondents. The objective of the study was to understand how different actors in the community influence decision-making in the negotiation process of forest-land rights and benefits within the context of a landscape approach. The paper also discusses the asymmetries of power and gender within the communities, and how such asymmetries affect access to environmental goods and services. Based on ethnographic work, focus group interviews and historical analysis of forestry policies affecting the Tanganyika Basin, the study validates that through rigorous stakeholder engagement and negotiated common goal entry points for resource use and management, communally managed forests increase stewardship of local resources, thereby creating opportunities to leverage conservation and development. The findings also indicate that decentralisation of forest resource governance is a complex political process, involving (re)distribution of power and requiring strong local administrative capacities. Involving women and youths in decision-making processes increases equitable access to forest resources compared to more centralised options. Finally, the research found that communal forest, while promising a steady flow of ecosystem services arising from sustainable management, has potential to create exclusivity in social

networks that may foster resource use conflicts at inter-community level. The paper concludes that the negotiation process for resource rights takes a long time and requires a well thought out consultative process.

Key Legal Elements for Communities to Manage Their Forest, One Avenue to Secure a Sustainable Future for People and Nature

Nathalie Faure (Senior Law and Policy Advisor, Climate and Forests, ClientEarth)

3.2 Farmer and Indigenous: Access to land and territory in South America, 21st century

Closed session

3.3 Building land and natural resources management governance at community level in Mozambique

Building land and natural resources management governance at community level in Mozambique

José Monteiro, Mozambique CBNRM Working Group

Mozambique is endowed in natural resources, which has an enormous potential to contribute to lift the country's out of poverty. In the last 20 years, the land sector has been pursuing a more inclusive and effective land administration system, focusing on respecting community rights while fostering inclusive land-based investments. Under the same decade, as results of the Southern Africa CBNRM movement, community-based projects have been implemented throughout the country, where the legal implementation of the 20% forest or tourism revenue tax return fee to the rural communities have been promoted. Capitalizing these potential economic opportunities to promote sustainable rural development, requires adequate, efficient and profitable (economically and environmentally) enabling conditions that involves integration of rural communities as key actors, as well as appropriate and functional institutional arrangements that allows sharing, learning and management information for a better decision making on the ground and at policy level. Weak involvement of rural communities is mainly caused by (i) weak capacity of communities to lead sustainable management of land and natural resources; (ii) unavailability of tools that facilitate the planning of the use of land and natural resources at the community level; and (iii) weak institutional structure to support rural communities in the development of nature-based business opportunities. These weaknesses undermine tenure security, benefit sharing, misguide communities and increase deforestation (and resources depletion) in some critical ecosystems, increasing risks for climate change and poverty. This session focuses on building Mozambique's roadmap to empower rural communities on reducing poverty through a rights-based land tenure approach, based on a more strategic and integrated rural development approach that leads to the consolidation of land and natural resources governance at community level.

Recognition of Habitat Rights of PVTGs in India - hurdles in implementation

Ajay Dolke, Member of committee for development of PVTGS, Maharashtra;

Works on livelihood security of PVTGS and other tribes in central India
Yogini Dolke, Director - Society for rural and Urban Joint Activities;

Government of India recognizes a subgroup of tribes namely "Particularly Vulnerable Tribal Groups (PVTG)". These are vulnerable as they are numerically small in numbers; in the range of few hundred to few thousand; primarily hunters and food gatherers and are in pre-agriculture stage of technology; high infant and maternal mortality rate and literacy rates tending towards zero. There are 75 such tribes in India threatened with extinction. Forest Rights Act (FRA) 2006 under section 3.1.e recognises "Habitat Rights" (HR) of PVTGs to address above vulnerabilities and ensure survival of these tribes. Habitat comprises of a large land mass which may extend to number of villages at times more than 50 villages, traditionally governed by community institutions responsible for management of land and other natural resources. These communities derive their food, water, cultural, physiological, emotional and religious needs from the neighbouring forest. Community institutions of PVTGs have been sustainably managing these forest resources for time in memorial. Recognizing habitat rights shall give these tribal groups their rightful place in management of resources. Serious efforts have not been initiated by the government in defining the habitat and the process of recording of habitat rights as envisaged in the act. In absence of recognition of habitats rights have made these regions vulnerable to the land grab lobbies. Diversion of such land to mining, dams and industrial clusters further threatens the existence of PVTGs and push such communities to extinction. This paper looks forward to share how Madia, a PVTG of Maharashtra state in India have been severely affected because of non-implementation of FRA. The paper proposes policy recommendations that could be adopted by the state government for implementation of HR in Maharashtra.

Could Quantification of Deforestation Contribute to Improvement of Land Government?

Aristides Muhate (MITADER/UT-REDD/MRdV)

Land and Natural Resources Governance for Sustainable Land and Natural Resources Management

Anne Girardin (CADASTA Foundation)

3.4 Transforming pastoralist landscapes: the importance of inclusive land management, policy engagement and climate risk management

Closed session

4. Realities of Dispossession, Displacement and Resettlement

4.1 : Accumulation by Dispossession and Land grabbing in Colombia. Dynamics of Conflict and Large-scale Acquisitions

Analysis of the Integral Rural Reform regarding the concentration of land in Colombia (originally in Spanish)

Edwin Jesith Bernal Ramírez, Professor of the Nueva Granada Military University (Colombia).

The purpose of the paper is to analyze the importance of the implementation of the Rural Reform agreed in Havana as a necessary instrument for the consolidation of peace and national reconciliation of Colombians. In fact, the dispute over lands has led to a prolonged internal armed conflict; for this reason, solving the agrarian problems will contribute to reversing the serious damage to human rights suffered by vulnerable populations.

The paper will address the normative components derived from the agreement signed by the Colombian government and FARC in relation to the integral rural reform. The paper also will analyze the implementation mechanisms of the peace agreement in comparison with previous historical experiences in the Colombian context. Additional targets include understanding the role of the integral rural reform in the consolidation of peace in Colombia and analyzing the phenomenon of land concentration in Colombia and its relationship with the implementation of integral rural reform.

Colombia: from the conflict to the territorial peace. Originally in Spanish.

Luis Alberto Higuera Malaver, Lawyer. Ex comptroller for the agrarian sector in Colombia.

Distribution and concentration of the land in Colombia, is one of the causes generating the social conflict. In 2016, the final peace agreement between the Revolutionary Armed Forces of Colombia FARC and the Colombian government pointed to a new Colombian countryside, through a Comprehensive Rural Reform. There are two problems to analyze: 1. How the agreement address the concentration, use and tenure of the soil? 2. Will the current government implement the public policies necessary to complete the agreement? The debate of these questions, and especially the governmental decisions that are reached, or those that have already been taken, will reflect the transition of the governance of land in Colombia, as well as the changes that have occurred in the control of land, as a consequence of the realities of dispossession by violent means throughout the national territory. It is necessary to analyze the government decisions on the wastelands (Baldíos), the ability to configure the Land Fund for Peace, a very necessary element to carry out comprehensive rural reform, and the new alternatives built in the Congress, such as the Areas of Interest for Rural, Economic and Social Development (ZIDRES), which have been the main strategy for cultivating large areas of Soy, Oil palm and Sugarcane, Rubber and Teak, in order to exponentially increase the production of

biodiesel and / or ethanol. The creation of the Strategic Zones of Comprehensive Intervention (ZEI), with a focus on Legality and safety to guarantee productivity is also important. According to the National Constitution Colombia is a multiethnic and multicultural state, which recognizes alternative collective forms of property, for example the Consejos comunitarios of black populations and the Resguardos of the indigenous communities.

Given that the current government of 2018-2022 is in its initial phase, it is necessary to conduct political, legislative, judicial and academic discussion towards the achievement of peace. Colombian society should seek policies and fiscal decisions to comply the agreement. The Comprehensive Rural Reform is the cornerstone, but a new development model is required and new policies of inclusion and equity as well. The practices and modes of land accumulation and consequently their use and exploitation would be completely remodeled.

Key words: Use, distribution and concentration of lands; Social conflict; Integral Rural Reform; Areas of Interest for Rural, Economic and Social Development; production of biodiesel and / or ethanol; Strategic Areas of Comprehensive Intervention; Community Councils; Resguardos.

Agrofuels Expansion and Reduction of Food Supply In Colombia

by Dario Fajardo, anthropologist.

Like other countries with similar conditions of development, Colombia has a decline of agriculture in the economy. This process has two characteristics: 1. The expansion of large underutilized farms wherein crops for export and production of agro-fuels. 2. The decline of crops for food supply. These changes have been associated with external and internal factors such as the transformations of trade in agricultural products from the largest economies, which expanded their exports to the markets of countries that were previously self-sufficient of these goods.

There are basic conditions in Colombia: a prolonged civil war associated to the control of agrarian property, the absence of an agrarian reform, the sub-registration of property and the articulation of the country with the international economy of drug trafficking. The war has affected the peasant communities, which managed to generate up to 60% of the country's food supply. More than seven million people were displaced from the countryside leaving 8 million hectares, so weakening agricultural production and supply of food for the country.

The consolidation of the production of raw materials and exportable goods has taken place, preserving the coffee production (main agro-export), supported by subsidies policies and other incentives along with the cultivation and processing of the coca leaf on the edges of the agrarian frontier

The crops destined to obtaining raw materials for the export have spread over lands previously usurped to peasant communities. Relevant stakeholders have taken advantage of the supply of labor caused by the dismantling of communities. This

expansion has boosted the extension of the agrarian frontier in a process influenced by both national and foreign capitals, which have reversed marginal processes of land reform. These crops have received subsidies of different types and have used lands acquired eventually with resources obtained from drug trafficking or through pressures exerted by paramilitary groups.

Although the gradual entry of transnational corporations into this branch of agriculture has occurred, the sub-registration of property, while benefiting the legalization of drug trafficking assets, also hinders large investments, which also encounter other types of restrictions such as the armed conflict itself and the low endowments of road infrastructure. The expectations of entrepreneurs linked to these productive developments are based on the application of policies and regulations that encourage the incorporation of new lands, the flexibilization of labor relations and the combination with public investments.

"Amnesty to concentration productive "of the 21st century in the Orinoquía? The case of Bioenergy

by Yamile Salinas Abdala and Saskia Sassen

In developing this project, SOMO-Indepaz, after identifying agribusiness and energy multinationals and other conflicts in the regions in Colombia, focused on Altillanura, subregion Orinoquía, which has the potential to become a world food and agrofuels pantry. To that end, we documented the land acquisitions and corporate structures for the operation of the multinationals Poligrow in Mapiripán, Pacific E & P - today Frontera Energy Corporation (Pacific) in Puerto Gaitán (2015 and 2016) and the ethanol production complex (" El Alcaraván Project ") by Bioenergy SAS (Bionergy) and Bioenergy Zona Franca S.A.S. (BIO Z.F), subsidiaries of the Ecopetrol Business Group (GEE), which administers public resources.

The description of the dynamics of land tenure and concentration in the three cases was based on the revision of laws, policy documents, judicial decisions, reports of companies, organizations and media, among other sources. As in the cases of Poligrow and Pacific (2015 and 2016), this report is not intended to assess or question the presumption of legality of land acquisitions in the Orinoquía.

Specifically, we study

- The ethnocide of the ancestral inhabitants between the 1950s and the 1970s by means of the so called "indigenous hunts" (Guahibidas), simultaneously with the arrival of people expelled from the Second World War and the colonization processes, and the arrival of small-scale farmers and displaced settlers from La Violencia. This led to the concentration of land by members of the oligarchy and economic elites, migrants from the interior and foreigners.
- The land grabbing for purposes of money laundering and population and territorial control in the seventies, eighties and nineties (during this time the "First Law of Agrarian Reform" and the Law of Agrarian Reform were adopted -Laws 135 of 1961 and 160 of 1994), by entrepreneurs of the emeralds and founding fathers of the Carranceros and Buitragueños (Víctor Carranza and Héctor Buitrago, alias

Tripas), drug traffickers (Leónidas Vargas Vargas), and former commanders of the United Self-Defense Forces of Colombia (Miguel Arroyave, alias the Arcángel and Daniel Rendón Herrera, alias Don Mario, former commander and former financial chief of the Centauros Bloc (emerging elites). In the "speculative accumulation" (Bioenergy, 2018) the Mapiripán (Meta) and Miraflores (Guaviare) massacres were functional in 1997 for the expansion of the United Self-Defense Groups of Colombia in the Orinoquía.

- The "productive concentration" of "500,000 hectares" (Bioenergy, 2018) in municipalities of the Orinoquía by natural persons and national and foreign economic conglomerates that participated in the implementation of the "Mega-Renaissance of the High Orinoquía" during the government of Álvaro Uribe Vélez and the Politics of the Altillanura (the first phase of the "Master Plan of the Orinoquía") of Juan Manuel Santos's government.

The peasant economy against the new agroindustrial colonization. the Colombian case.

by Jaime Forero Álvarez. Director of the Rural Observatory of the University of La Salle

In the conformation and expansion of the agricultural frontier, the large land holding, dedicated to extensive cattle ranching, has occupied most of the area of agricultural use. The landlords privately appropriate the social surplus value derived from the valuation of the land generated by the endowment of roads and other public goods, which leads to an increase in the property cost, incompatible with the profit rate of the agricultural production, making impossible to purchase lands

The forced displacement of peasants since the fifties of the last century has induced the colonization of the agricultural frontier, part of which has been appropriated by landlords. Given the uncontrolled expansion of the agricultural frontier that reduces the social and economic marginalization of the rural inhabitants of vast regions and encourages illicit use of crops, and given the ecological problem this process involves, the state policy accepts the closure of the agricultural frontier . However, in the last three decades, the state itself has been supporting and promoting the expansion of agro-industrial activity to certain remote areas that have a precarious endowment of public goods, wherein Colombian and foreign industrial agro industries, attracted by the low price of the land, have set up various businesses, among which the projected production of agrofuels stands out. For this purpose, the state has built roads and has allocated subsidies and has exempted taxes. This has been institutionalized by means of ZIDRES Law of 2016, which legitimizes the appropriation of these lands, which are, for the most part, or were, wastelands only adjudicable to small family farmers (according to the legislation valid until 2016). At the same time, with this Law, colonization (agro-industrial) is promoted contradictorily and the legal stability in access to land by peasants is threatened.

Agroindustrial stakeholders have stated that family farming is not viable unless it is associated with large scale production, permitting the use of their lands. But our studies, in one of these areas (the Altillanura) have shown the opposite: the production systems

implemented by small producers (very different from those of agro-industrial) based on the use of family labor and agrobiodiversity (including various animal species and breeds) are much more efficient, in economic and ecological terms, than large-scale agricultural activities. Small scale agriculture has higher profitability, higher income per hectare, its remuneration for the work employed is higher than the salaries paid by agro-industrial companies, and, as a corollary it stabilizes, rebuild and enriches ecosystems.

The Atillanura, an area with very precarious conditions of roads, water and soils, is an example of the great adaptive capacity of the peasant economy to diverse socio-economic and ecosystem conditions; conditions that in large part are frankly adverse. (There are two types of empirical and quantitative support of what is proposed: our research and statistics and secondary sources)

Towards inclusive development: The role of the state in land-based investments politics in post-socialist Vietnam.

Anh Nguyen Quoc, Vietnam National University (Hanoi) – University of Social Sciences and Humanities

This study sheds light on multiple roles of the states in the micro land-based investment politics that largely explain inclusive outcomes of these investments. Drawing from a qualitative case study in Hanoi, this research develops a new analytical concept of “developmental local state mediators” which refers to those at the local/grassroot level who mostly are members of both the state and the society, and directly responsible for approving, implementing, interacting and mediating land-based investments. Findings highlights tactical strategies adopted by the developmental local state mediators in land-based investment promotion and conflict resolution/prevention in the “political game” among state-capital-resistance in the context of post-socialist countries like Vietnam. Findings also indicate immediate inclusive outcome of land-based investments in Vietnam is possible if developmental local state mediators can successfully embrace the autonomous will of the state while also embed with different demands of a variety of competing groups in affected community.

Land grabbing and accumulation by dispossession in Colombia. The case of ZIDRES

Álvaro Germán Torres Mora. University of Helsinki. National University of Colombia.

There is an association between Land grabbing throughout the world and the crisis of food and biofuels. The acquisition or use of large scale of lands has a connection with the cultivation of flexible crops, namely, those ones that are multipurpose, for example Oil palm, Sugarcane and Soy.

Relevant stakeholders are acquiring and using those lands that were previously used for small scale agriculture in order to tailor them for implementing large agroindustrial projects, considered more profitable. The states have often backed such mechanisms, heavily incentivizing the use of their lands for attracting foreign investments, according to the international trends. Such process does not always follow the rules of markets, since the states take part of it, privileging the large scale projects.

Land grabbing in Colombia is aligned to the global patterns. Biofuels have reached remote zones of the country such as Altillanura, in the eastern flatlands. At the same time the Colombian state is currently creating the Zones for Rural, Economic and Social Development, wherein public lands will be used by large agroindustrial investors, even though such lands are intended for agrarian reform and adjudication to poor peasants. The benefits for local populations are still not clear and they are likely to be turned into salaried workers.

Key words: Land grabbing, accumulation by dispossession, biofuels, Special Economic Zones, Zones for Rural, Economic and Social Development.

Land governance in protected areas, the case of the paramos at Andes mountains.

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A paramo is a special ecosystem located approximately over 3000 meters above sea level in the Andean mountain range. It has unique species including bushes, espletias and Andean bears among many others. The paramo ecosystems are truly important for the whole country, as they are the source of the fresh water that supplies most of the main cities in Colombia.

In 2018, the Colombian Congress adopted a national Act in order to regard the paramo ecosystems under the scope of protected areas and, therefore, to establish a special regime of land governance. Such policy measure took the large number of peasant and indigenous communities living and growing subsistence crops in the paramos into consideration. In addition, other economic activities undermine the paramo ecosystems on a larger scale, such as mining and medium commercial crops.

On one hand, some anthropic activities could generate impacts that break the balance of the environmental services in the paramo ecosystems, on the other hand it is not possible to avoid the human presence in those protected areas. Thus, it is a major necessity to design a land policy having the sustainable agriculture as a primary aim.

In Colombia, most of the rural lands have no formal title, meanwhile the land authority has been very slow and inefficient facing this problem. Consequently, lands in paramo areas will most likely remain informal for a while, despite the Paramos Act gives five years to issue the titles.

In this context, we have several questions to discuss in the paper: Could communities make a land governance scheme even if they do not have immediate access to formal title? How to create a policy that refrains outsiders from making economic activities against the community land governance plan? Is there any chance to coordinate a transition from impacting activities to positive and suitable activities for the environmental services in the paramo ecosystems?

4.2 Increasing Farmland Concentration in Central and Eastern Europe - Causes, Challenges, Consequences

Approaches to Managing the Excessive Concentration of Agricultural Land-Use in Ukraine

Oleksandr Krasnolutsky, PhD., State Service of Ukraine for Geodesy, Cartography and Cadastre

Land use of agroholdings in Ukraine is of considerable interest for research, since the functioning of such large-scale economic structures can carry significant socio-economic risks for the sustainable development of rural areas. Agricultural holdings are exclusively business projects that, due to the high degree of industrialization and the application of advanced technologies, create a relatively small number of jobs in rural areas, thereby destroying the traditional rural socio-cultural environment. Currently, the 70 largest agricultural holdings in Ukraine control about 5 million hectares, or almost 15% of the country's arable land. Most of them have a complex multilevel hierarchical structure that functions as a single financial and economic mechanism. The alienation of corporate rights to enterprises that use land is outside the sphere of state influence or regulation, which allows the actual alienation of land or the right to use it together with companies without the transaction of alienation of land. In the frame of the research, a database of landowners and land users was created, which includes almost 240 thousand records. The conducted research showed that in most regions of Ukraine, the share of arable land used by the largest land users (with an area more than 1000 hectares) exceeds the 35% threshold, which is a sign of monopolization of the land lease market. There is a need to limit the further economic concentration of land resources in corporate agricultural enterprises. The tools of the corresponding policy can be: abolition of tax privileges for enterprises of holding companies or their differentiation depending on the size of the land the companies possess; provision of a separate statistical account of the results of activity of enterprises of agrarian holding formations within the limits of a separate group of statistical reporting.

Indirect Corporate Agricultural Land Use in Ukraine: Distribution & Consequences

Dr. Andrii Martyn, National University of Life and Environmental Sciences of Ukraine

Nowadays various countries of the world widely tend to impose different restrictions on the market of agricultural land, depending on the geographical features, historical and cultural peculiarities, as well as the legal traditions, which have been established for centuries. It is a common practice to introduce a set of regulation mechanisms for the agricultural real estate market such as the restrictions on land acquisition for foreigners, some territorial restrictions, restrictions of the land area being under one person's control, preferential rights on land purchasing in case of its selling, the ban to change land use, etc. As a rule, such regulation policy is aimed at preserving the traditions of agricultural industry, promoting as wide land ownership distribution as possible, and ensuring the economic sovereignty of the state concerning the food provision issues, etc. With regard to the agricultural land use of Ukraine, in recent decades the so-called "secondary land use" phenomenon has become rather widespread. This refers to the

case when a corporate enterprise is considered to be a nominee land user, while in reality it is the parent company itself that runs actual control. Taking into account such a tendency, the structure of agricultural holdings and the land in their possession should be observed more thoroughly. In the long term this phenomenon has to be regulated, in order to govern the economic concentration of land resources. When the problem of secondary land use by holding companies continues to be neglected, it could cause state failure to control its agricultural real estate markets, which bears the risk of increasing monopolization regarding access to land resources in rural areas.

Do land rental markets contribute to efficient land allocations? Ukrainian experience

Vasyl Kvartiuk, Leibniz-Institute of Agricultural Development in Transition Economies (IAMO)

This study analyses how agricultural land rental market contributes to the efficient land allocation in Ukrainian agriculture. For the last two decades, Ukraine has been struggling to introduce land sales market. Nevertheless, agricultural production has grown substantially in the recent years. We assess how current land relations in Ukraine have contributed to agricultural growth. In particular, we examine whether agricultural land tends to flow towards better skilled agricultural producers, thus, improving agricultural efficiency. Utilizing a rich panel of the Ukrainian commercial agricultural producers for 2007-2012, we examine the determinants of participation in the land rental market. The evidence suggests that the proclivity of renting in more land is negatively associated with the total factor productivity implying that large farms use land ineffectively. In addition, the incentives and strategies to rent in land appear to depend on the farms business model, legal form and regional land inequality. The results call for aligning land rental prices with the value of marginal product of land and for improving institutional infrastructure of the land rental market.

Access to land for new generations

Willem K. Korthals Altes, TU Delft

In 2019 a new European funded Horizon 2002 research and innovation action has started on *The opening of rural areas to renew rural generations, jobs and farms (RURALIZATION)*. In this project 18 partners² from Central and Eastern Europe, Northern Europe, Southern Europe and Western Europe work together to develop knowledge to break the trend of rural decline. One of the work packages (WP) is on access to land. This WP addresses not only legal and policy arrangements, which will be studied both general and in depth, but also the study of land market trends, including issues of farmland concentration in Central and Eastern Europe, and study and development of current and novel innovative practices of providing new farmers access to land. Focus group discussions will be held

² TU Delft (coordinator, NL), Terre de Liens (FR), ILS – Institut für Landes- und Stadtentwicklungsforschung (DE), Xarxa de Custòdia del Territori (ES), University of Wrocław (PL), Shared Assets (UK), Hungarian Academy of Sciences (HU), Kulturland (DE), University of Calabria (IT), Consulta Europa (ES), Centre National de la Recherche Scientific (FR), Pro Vértés (HU), University of Debrecen (HU), De Landgenoten (BE), University of Turku (FI), National University of Ireland Galway (IE), Eco Ruralis (RO) and Teagasc (IR).

in areas to study whether innovative practices may provide solutions in other contexts as well. This will be done in a wider context of a project which also encompasses foresights studies, and a study of experiences of rural newcomers and new farmers, and policy design and assessment. The project will be presented and participants of the session will be invited to share their ideas on aspects that may be relevant to take on board in the study in order to produce more relevant results on developing responses on the issue of increasing farmland concentration in Central and Eastern Europe and its causes, challenges and consequences.

'Land Grabbing' in the Post-Socialist Era? The Role and Impact of Intermediary Elites in Eastern European Transitional Democracies: A Romanian Case Study'

Suzanne Verhoog, PhD-student VU University Amsterdam

Eastern European countries are largely targeted for 'land grabbing' by (inter)national investors and oligarchs. Specifically Romania seems to be severely targeted. Several resources confirm that currently 30-40% of Romanian arable land is in the hands of EU (20-30%) and non-EU countries (10%). However accurate data is still missing. Land fragmentation, fuzziness in land property relations, weak legislation, underdeveloped land markets, Romania's high soil fertility, often referred to as 'black gold', and low land prices seem to have further contributed to this land grabbing phenomenon. EU-membership only seems to have worsened the situation. EU farm subsidies like the Common Agriculture Policy (CAP) created an extra stimulus for international investors to invest in farmland. Recent media and scholarly research has started to report on so-called 'middlemen' brokers in facilitating land transactions in Eastern Europe. These land entrepreneurs seem to have already been involved in land practices right after the collapse of communism, hereby directly profiting from post-communist fuzziness in rural property relations. Based upon theoretical insights I have identified them as a relative fluid group of '*intermediary elites*', hereby revealing the thin line between intermediaries and elites. So far no research was found that touches upon the role and interconnectivity of established nomenclature elites and newly emerging elites in land practices in post-communist Eastern Europe. Data-collection takes place by conducting semi-structured interviews, combined with a Social Network Analysis in order to reveal these informal networks. I have formulated the following research question: '*How do intermediary elites operate, interact, and organize themselves in their (patronage) network(s) within and between local, national, regional and global levels in large-scale land acquisition (LSLA) practices in post-communist transitional Eastern Europe, and what is the societal and environmental impact on smallholders?*'

Farmland (de)concentration in the bioeconomy: The case of Eastern Germany

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The transition to the bioeconomy relies not only on significant advances in technologies, but also on a sufficient supply of renewable resources, including agricultural biomass. In Germany, where imports of biomass for material applications currently amount to 60

percent, this transition challenges agricultural production systems and agricultural structural change at large. Especially in Eastern Germany, characterized by larger agricultural structures and a well-established chemical industry as the major demander for non-food biomass, the projected increase in demand for agricultural biomass may entail a further concentration of agricultural land. In those regions, the farm size showed a steady increase after the Reunification, currently averaging 224 ha per farm, compared to 45 ha in Western Germany. In 2005-2016, the number of farms in Germany decreased by 30 percent, while the average farm size increased by almost 30 percent to 66.70 ha. However, in the last decade, the decrease in the farm number has been markedly slowed down. In three Eastern German states with the largest agricultural enterprises, this decrease has been even reverted due to a number of new farms and spin-offs from large enterprises. Literature attributes this development mainly to the effects of (dis)economies of scale in a strong economic infrastructure. Against this backdrop, the study draws attention to these effects as facilitators of land (de)concentration given a growing demand for agricultural non-food biomass. It is assumed that with the phasing out of the most measures that support agricultural bioenergy by 2020, non-food biomass production will become an attractive option for farmers. The study employs scenario analysis and dynamic programming model of Computable General Equilibrium to anticipate possible structural implications of non-food biomass production. The results suggest that under conditions of diseconomies of scale and higher biomass demand, land concentration may be reduced, opening business opportunities for new and smaller farms.

4.3 Beyond the 'conflict-fetish' – land disputes and structural agrarian questions

La Sécurisation foncière rurale à l'épreuve de la modernisation. Essai d'analyse systémique de l'ingénierie institutionnelle de certification des droits fonciers coutumiers au Sud-Kivu (RD Congo)

Doctorant Joël BARAKA AKILIMALI, Université Catholique de Louvain, UCL.

La recherche est menée dans un contexte général de la rareté croissante du foncier à travers le monde. Ce contexte est marqué par les accaparements des terres entraînant des réformes foncières et agraires de plus en plus problématiques notamment sur les modalités d'accès à la terre face à l'expansion du modèle marchand dans le foncier rural. Ce contexte général a conduit à l'interrogation du problème de la sécurisation foncière rurale idoine notamment au niveau local du Sud-Kivu, dans l'Est de la République Démocratique du Congo. La recherche pose le problème de l'avenir des droits fonciers coutumiers sur les terres des communautés locales. Il s'agit des terres qu'elles habitent, cultivent ou exploitent d'une manière quelconque, individuellement ou collectivement, conformément aux coutumes ou aux usages locaux face aux dispositifs nouveaux de la modernisation en général et du paradigme de la modernisation en particulier. La recherche part du constat problématique lié aux mutations législatives en cours en RDC et des contradictions des diverses réformes politiques en sus d'une situation foncière empirique, hautement conflictuelle, dans la province du Sud-Kivu, dans l'Est de la RDC. Elle pose l'hypothèse selon laquelle, à défaut pour l'Etat d'opérer une réforme foncière législative claire depuis plusieurs décennies; les acteurs non étatiques (ONGs et ASBLs)

au Kivu en général et au Sud-Kivu en particulier opèrent des programmes d'innovations institutionnelles par le bas profitant de la nouvelle Constitution de 2006 pour implémenter une gestion foncière décentralisée à base coutumière. La recherche se penche alors sur 3 études des cas d'organisations locales impliquées dans les innovations institutionnelles notamment APC pour le territoire de Kalehe, ASOP pour le territoire de Walungu et IFDP pour le territoire de Kabare en collaboration avec les entités coutumières locales et la Province. La question centrale tient à connaître dans quelle mesure les innovations proposées par les acteurs de terrain et leurs partenaires constituent-elles une voie originale de limitation des accaparements des terres pour la sécurité pérenne des droits fonciers au-delà de l'approche légaliste de la « concession foncière » protégé par le certificat d'enregistrement et celle de la « propriété privée » classique. De façon pratique, la recherche ambitionne de démontrer au plan théorique que la modernisation foncière axée sur la certification et/ou la formalisation des droits fonciers dits informels ou coutumiers tend à servir les postulats idéologiques néolibérales dominantes. Cela conduit alors à la remise en question du sens, de l'enjeu et de l'opportunité de la réforme foncière en RD Congo en l'inscrivant notamment dans le débat de la « transition ». Au plan empirique, la recherche entend, au-delà du discours modernisateur de type techniciste mettre systématiquement en évidence la *dimension politique* du travail des acteurs non étatiques et de leurs partenaires au Sud-Kivu (par le bas) ainsi que des programmes et politiques publiques des réformes foncières en général en RDC (par le haut). La recherche est essentiellement qualitative.

When local realities turn unreal. The problematic certification of the Batwa's land rights in Burundi

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The Batwa are a Burundian minority ethnic community commonly known as the first inhabitants of the land (*abasangwabutaka*). Hunter-gatherers, they traditionally moved from one place to another in search of game and forest produce. Therefore, the Batwa did not delimit their lands, unlike their fellow sedentary Bahutu and Batutsi. With the transformation of forests in protected reserves, Batwa community lost the source of their livelihoods. This aggravated their discrimination as bush people, made them landless, and pushed them to serfdom. Most of those who tried and obtained land for agricultural activity were victims of spoliation by their neighbours, with the complicity of administrative or judicial officials. Today, the majority of the Batwa community are found in isolate herb shack areas, mainly originating in state-owned land. The luckier have been granted better housing through NGOs and church assistance projects. Both categories find difficulty to grow crops however because their parcels hardly suit for their houses.

Whereas it is normal and even promoted for other Burundians to have their lands registered at the communal land office, the latter is at best much wary when it comes to demands by Batwa people. The reason is the land they occupy is of state origin, whereas this category is excluded from the competency of the communal land office. On the other hand, the administration is suspicious of Batwa's likeliness to sell the land if registered. Drawing on the examples of Ngozi and Mpanda communes, my paper seeks to show how localized land registration is adding to the longstanding structural violence that Batwa community has endured, and how this hampers their access to land property, yet

conceived of a fundamental right by the Constitution of Burundi and international human rights instruments that the state ratified. Their case is little spoken of in studies related to land registration.

The company is acting like a bad stranger: landlord/stranger relations in Sierra Leonean land lease concessions

Caitlin Ryan, University of Groningen

The vibrant literature on autochthony and land tenure engages with the social and political relations tied up in land. Throughout West Africa, land tenure is mediated through landlord/stranger relationships based on descent and land access is distributed through patron/client relations. My research findings from communities in Northern Sierra Leone with land leased to large-scale agribusiness projects found that communities often expressed the lease agreements as an extension of landlord/stranger relations. Through a discussion of investment companies as 'bad strangers' this paper reflects on how land investment deals are challenging some broader dynamics of landlord/stranger relations in Northern Sierra Leone. This is particularly evident in the ways that elders as landlords are blamed by members of the community for bringing 'bad strangers.' It analyses how the failure of the investment deals to deliver on promises and perceptions of promises leads to feelings anger, dis-trust, and sadness directed at the companies for acting like 'bad strangers' and landlords for bringing them. The aim is to demonstrate how stranger/landlord relations are reassembled in the implementation of deals, and to discuss the potential implications of this for how authority functions in rural Sierra Leone, how the functioning of rural authority matters for the 'state' and international investors.

Espaces sacrés et le foncier dans le territoire de Shabunda : comprendre une gouvernance locale hybride complexe

Par Josaphat Musamba Bussy³

La littérature disponible et/ou les recherches menées sur le foncier en RD Congo au cours de deux dernières décennies, abordent très peu ou presque pas la question d'« *espaces sacrés* » mais focalisent davantage sur celle d'accaparement des terres et tous les conflits qui en résultent ; celle de sécurisation et gestion des conflits fonciers (...). Par contre, sur base des matériaux exploratoires et à compléter, nous avons constaté que ces « *espaces sacrés* » sont soumis aux normes et/ou à des dynamiques aussi bien institutionnelles que légales parfois coutumières rendant ainsi complexe la gouvernance foncière ; ensuite résistant et/ou échappant, à certains égards, au phénomène d'accaparement des terres dans certaines zones rurales forestières.

Cette recherche vise à creuser davantage afin d'avoir une compréhension beaucoup plus approfondie de la complexité des dynamiques d'un coté dans les espaces sacrés et autour desdits espaces de l'autre coté, afin de favoriser d'autres approches des gestions des aires protégées et des forêts.

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4.4 Displacement, dispossession and defence strategies around land

Fostering tenure security and resilience for Bedouin communities in Area C of the West Bank

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The land designated as Area C in the West Bank remains crucial for a future State of Palestine. It constitutes more than 60% of Palestinian territory, an estimated 300,000 Palestinians live in it, and a much larger number depends on its natural resources for their livelihoods. Development in this area is tightly controlled by the occupying Israeli authorities: negatively for Palestinians through means such as limiting or refusing permits for construction of individual buildings and services, and by issuing demolition, eviction and seizure orders in relation to buildings constructed without a permit; and positively for Israelis through the systematic establishment, expansion and financing of settlements and the unlawful exploitation of natural resources on appropriated Palestinian land.

There are approximately 30 000 Bedouin living in 172 communities in Area C, who can trace their origins and nomadic herder way of life back to 7th century southern historical Palestine. They lost their original lands in the Tal Erad desert in the Naqab (Negev) following the 1948 Arab-Israeli war; and have over subsequent decades been subjected to numerous additional human rights violations, which threaten to destroy the Bedouin way of life in Palestine. In contrast to this, there has been increasing awareness of the immense importance of sustainable pastoral development in other parts of the world. Research has shown that, in many contexts, nomadic and semi-nomadic pastoralism are the most viable, suitable and resilient means of livelihood available. There is also a growing understanding of the positive ecological contribution that this form of agricultural production, when given recognition and adequate support, can make.

Despite multiple, seemingly relentless pressures, grassroots defense strategies combined with support from multiple local and international role players have enabled many of the Area C Bedouin communities to maintain their robust (albeit highly threatened) foothold, resisting forced relocation into closely settled, urban environments. The stakes are high. Given access to secure tenure and institutional support, the Bedouin of the Area C could play a hugely positive role in increasing food security and future development in Palestine. However, success in their struggle to maintain their way of life is by no means guaranteed. This paper will discuss the challenges, importance and prospects of defending and promoting the tenure security and resilience of Bedouin communities in Area C in the West Bank; and propose policy measures and strategies for achieving this.

Hidden displacement: impacts of farm conversions to game farming in the Eastern Cape and KwaZulu-Natal, South Africa

Marja Spierenburg

This contribution analyses the impacts of conversions of commercial – mainly white-owned – farms to wildlife-based production on access to land for farm workers and dwellers in two South African provinces. Farm dwellers are those who work and/or live on farms they consider as their home, but do not own. They depend on informal arrangements with landowners for access to land. In post-apartheid South Africa, the state attempted to formalize farm dwellers' land rights, but simultaneously deregulated the agricultural sector, which stimulated land concentration and land investments, and changed social relations on commercial farms. These contradictory interventions impact negatively on farm dwellers' abilities to access to land on commercial farms. The contribution furthermore demonstrates that conversions to wildlife-based production constitute one response by landowners to the changes in the agricultural sector, but also play a role in struggles about identity and belonging in post-apartheid South Africa. These conversions are presented by proponents as a 'win-win-strategy' for nature conservation and development, yet research shows that they contribute to losses of employment opportunities and increased displacement of farm dwellers. Processes and patterns of farm dweller displacement as well as farm dwellers' responses differ between the two provinces, and these differences will be discussed as well. The findings presented in this contribution emerged from a collaborative research project on farm conversions involving the VU University, the University of Cape Town, and the University of the Free State.

Kenya's rural communities resisting corporate disenfranchisement and the influence of external catalysts

Maaïke Matelski, Postdoctoral researcher, Radboud University Nijmegen

With the rise of capitalism and the influence of the global land rush, rural populations in Kenya have come under increasing pressure from corporate claims on land and attempts at dispossession. This has exacerbated an existing (post-)colonial situation in which land was (re)distributed to large land owners and powerful political actors. Small scale farmers and other land users face increasing threats to their livelihoods, often in the name of economic development. They have resisted the most immediate threats through various short-term tactics, from staging demonstrations to petitioning local politicians. The results of these tactics however have been temporary at best and counter-effective at worst, as marginalised groups often lack the means to organise their resistance in a more transformative manner.

Based on fieldwork in two locations in Eastern Kenya, this paper will discuss the influence of two catalysts that have enabled some of these local community groups to formalise their resistance and heighten their profile. The first factor concerns the influence of the provisions granted in the 2010 constitution, including the right to participation and the process of decentralisation, which grants more influence to local politicians. The second factor concerns the growing influence of professional land rights advocacy organisations, which endeavour to connect local land rights activists, both with each other and with international activist networks. Empowered by the new political framework and the increased international attention for land struggles, professional advocacy organisations have assisted threatened communities to access new forms of support and redress,

including institutions such as the National Land Commission, and transnational environmental and land rights movements. The paper will cover a number of these recent developments, and discuss the effect of this heightened profile on the rural Kenyan communities seeking to secure their socio-economic rights.

Mining in Kenya's Coast: Stakeholder interactions in processes of resettlement and compensation

Selma Zijlstra, PhD-candidate Radboud University

As a result of the attention to the global land grab and an increased awareness of communities about their rights, companies are increasingly pushed to adhere to human rights standards in processes of investment, relocation and dispossession. Hence, blunt land grabs have been making place for processes of displacement and compensation that are negotiated in a web of relationships between companies, communities, civil society organizations and government. These relationships are often dynamic and fluid, with stakeholders adapting pragmatically to new situations, and are not easily interpreted in merely conflict-related terms. Yet they are also fraught with irregularities and unequal power relations. Advocacy organizations, alongside or together with the communities they say to represent, are crafting resistance strategies that in turn provoke counter-strategies of business. This leads to shifting alliances between communities, companies and civil society. In a setting where the government tends to be largely absent in enforcement of the law or even playing a counter-productive role, the outcomes of displacement processes are case-specific and dependent on how relationships evolve.

This paper investigates two cases of displacement and dispossession in mining investments at Kenya's coast with differing processes of interaction. While in one setting the resettlement and compensation processes are shaped in formal ways by following procedures and guided by international human rights standards, the other setting is characterized by informal and ad-hoc processes of oftentimes individual one-to-one meetings between community members and companies. This has consequences for the way relations develop, strategies of civil society and communities are crafted and outcomes are shaped. The paper will discuss the interactions between stakeholders in the two processes and seeks to identify commonalities and differences between the two cases.

"I Have a Right!" - Women's Empowerment and Land Rights in Northern Uganda

Hannah Sturm , Research Masters Student "International Development Studies" at University of Amsterdam

In Uganda women have always been vulnerable to lose access to and control over land. Within a postconflict setting such as Acholi in Northern Uganda, discriminatory land practices and customary gender roles act as a double-edged sword against women's social and economic empowerment, and increase tensions between formal and informal landholding structures, policy and practice. In the aftermath of the Lord's Resistance Army insurgency, scholars identified drivers of gender inequality in land rights and developed strategies to empower Acholi women. Feeding into ongoing academic debates

on gender and land governance in transition, this research investigates how women advocate, negotiate and claim their land rights as part of a broader process of change, women's empowerment and collective action in present-day Uganda. Based on primary field research using a mixed methods approach, we find that within a countervailing context of post-conflict trauma and cultural forces that sustain gender inequality, empowerment and change is observed on different societal levels, which also spills over to women's land rights. Women's individual strategies to secure access to and control over land include accepting secondary land rights, formally securing shared rights and pursuing individual land ownership. On the community level, women expand their impact on land governance through collective action and massive awareness rising while claiming their rights through formal and informal justice mechanisms. The high number of women taking the lead in these activities indicates their increased agency to fight their vulnerability and the structural constraints on the realisation of their land rights. Based on these findings, the article closes with recommendations for building further on women-led initiatives, focussing on their strategies and establishing new links for participation in community and district level decision making on land policies.

4.5 When do displacement and resettlement end? The temporalities of dislocation, socio-political engagement, and sustainable development

Unrest or the making of a resilient community? Exploring the collective agency of people affected by the LNG project in northern Mozambique

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The discovery of large liquified natural gas (LNG) reserves in the Rovuma Basin, off the coast of northern Mozambique has unravelled severe uncertainty about the future of communities in the province of Cabo Delgado, leading to unrest in the region. The leading companies; Anadarko and ENI plan to resettle over 500 households from their homes, and relocate another 952 from their farming and fishing livelihoods, promising financial and livelihood compensations, employment opportunities, and infrastructural development. Now, close to nine years following the gas discovery, several households have already lost their homes and/or livelihoods to the companies' work. However, very little has been achieved in terms of communities' employment, livelihood compensations and infrastructural development.

In 2018, we conducted a ten-week participatory field research in Cabo Delgado, which included household interviews and focus group discussions with more than 100 residents of four affected communities, and held institutional interviews with 16 organisations active in the region. The results revealed that the existing unrest in Cabo Delgado is partly fuelled by communities' fear of potential long-term negative impacts of the LNG project on their livelihoods including; increased land scarcity, reduced access to main sources of sustenance, inadequate employment opportunities, and marginalisation of women and other vulnerable groups. Recently, the unrest has escalated into armed violence against

the companies, so far injuring six Anadarko workers and leading to the death of one of the workers of an Anadarko contractor.

Through the lens of the community resilience framework, this article investigates the extent to which the unfolding unrest in Cabo Delgado is a form of collective agency by groups currently marginalized from the LNG developments, to compel the project to align their activities with community needs and priorities. With this case study, we critically engage with unrest and violent protest as a manifestation of community resilience. (300 words)

Keywords: unrest, collective agency, community resilience, LNG, northern Mozambique

Problems and Prospects of (Voluntary) Resettlement of Households Affected by the Development of New Yogyakarta International Airport (NYIA), Indonesia

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Majority of the affected households by the development of NYIA have joined resettlement through two schemes, *i.e.*: voluntary resettlement and government sponsored resettlement. Another group of affected households are with no need to join the resettlement as only their farms are appropriated by the project. The first scheme offers the affected households to purchase government lands on which they construct their new houses under the supervision of the government. The second scheme provides full furnished houses for free to the landless and farm laborers who have lost their livelihood sources. The land is provided by the local government whereas the building and furniture is delivered by the central government. Two years after resettlement there are many socio-economic and environmental problems emerging in the newly built settlement. The presentation would compare various problems in different resettlement schemes (*i.e.*: the voluntary resettlement, the government sponsored resettlement and the non-resettlement), and assess their prospects and sustainability based on a set of household survey data conducted in 2018. The presentation would conclude lessons learned from different resettlement sites under the new scheme of land acquisition by a state owned company called *ganti untung* or profitable compensation.

Whither the burden? The camp as driver for development in long term refugee hosting regions.

Bram Jansen, Wageningen University

The paper explores new forms of international engagement with refugee hosting regions. It builds on the analysis of protracted refugee camps as hybrid spaces, with fluid and permeable boundaries, that provide socio-economic opportunities and have the potential to be drivers of development.

The impact and effects of protracted refugee camps on their host environments has been the subject of much academic attention since the late 1990s. Such camps have often been viewed as isolating and secluding spaces, while host societies perceived refugees as a

burden and a security threat. This lead to claims for mitigation to compensate for the presumed temporary pressures that these camps place on their local environments. Recent analyses, however, posit such camps as more long term hybrid spaces, with fluid and permeable boundaries, that provide socio-economic opportunities and have the potential to be drivers of development, particularly in marginalised environments. This paper focusses on how forms of humanitarian governance emanate from such camps and come to impact on their host environments, and increasingly co-govern and co-shape socio-spatial relations beyond the boundaries of the camp and the initial targets of humanitarian concern. The paper analyses how new forms of international engagement materialise in these refugee hosting regions, and how discourses and programmes that regard protracted camps as opportunity for development relate to contemporary migration concerns and debates.

When do displacement and resettlement end? The temporalities of dislocation, socio-political engagement, and sustainable development

Kei Otsuki, Department of Human Geography and Spatial Planning, Faculty of Geosciences, Utrecht University & Nikkie Wiegink, Department of Cultural Anthropology, Faculty of Social and Behavioral Sciences, Utrecht University

As a way to introduce our panel theme and focus on temporalities of displacement, we aim to problematize the current approaches to the analysis of development of and engagement with people displaced due to conflicts, infrastructure development, and other economic activities and disasters. In many cases, displaced people are clustered and relocated in new forms of settlements in both rural and urban areas. These new settlements profoundly transform landscapes and people's socioeconomic conditions. While much attention has been paid to adequate compensation and livelihood restoration in the planning for and immediate aftermath of resettlement, the protracted processes toward sustainable place-making have attracted little scholarly and policy attention. How do actors involved in resettlement, such as governments, investors, affected populations, civil society organizations, and academics, understand this process in terms of temporality? When does their commitment start and when and how does it end? When is resettlement considered to be "over"? And what does sustainable development mean in such a context?

Using our primary research experience in resettlement projects created due to extractivist displacement (Tete) and conservation displacement (Gaza) in Mozambique, we outline what we mean by temporalities and open discussions for other cases to find different patterns of engagement and transformations.

Making Space and Time in Egypt's Land Reclamation Projects

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Large-scale land investment projects displace and re-settle people, which influences how these settlers make the spaces they inhabit and contribute to the final promise of such infrastructural projects (Larkin, 2013; Anand, Gupta and Appel, 2018): the sustainable, long-term resettlement of people. In Egypt, as in other countries, population growth has driven desert reclamation since the 1950s. This process creates migration zones with settlers selected by the government and one of the most challenging aspects of Egyptian land reclamation has been to ensure long-term settlement. Studies that have looked into the division of state and non-state spaces often set up conceptual boundaries between those inhabiting state spaces and those consciously avoiding them by creating what Scott (2009) refers to as non-state spaces. This study documents how settlers contribute to spatial and temporal constructions of infrastructural form, negotiate land and water resources, and organize re-settlement and community in Egypt, enhancing the sustainability of re-settlement projects (Harvey and Knox, 2015).

Scholars unpack boundaries between state and non-state spaces and highlight the agency of everyday subjects in reconfiguring space and time. This study taps into theories of state and non-state space (Scott), governmentality (Foucault, Rose), subjectivity and performativity (Butler) in examining the processes that shape everyday resource management in Egypt's land reclamation zones. The paper presents the case studies of two reclamation areas, one along the El Salam Canal in the Northern Delta and one in the Western Desert of Egypt. The study connects theories of state space and microgeographies of resource management with concepts of sustainability in land use and settlement. Development imaginaries and settlement discourses project settler subjectivities that often do not conform to local realities and underestimate the challenges of temporality and sustainability in settlement processes. We show how the messy, contingent struggle to create livelihoods in challenging rural environments generate subjectivities that are improvised in place, fluid and locally specific. Settlers depend on renegotiating the original terms of settlement, often significantly modifying the concepts of organization and structure that inform reclamation planning. We argue that the non-state spaces generated within the state spaces of re-settlement do not necessarily oppose state goals, but can overcome planning shortfalls and represent sustainable settlement of reclaimed areas.

Key words: Re-settlement, reclamation, Egypt, resource management, sustainability, subjects, agency, state/non-state space

4.6 Everyday experiences of 'development' and 'dispossession': understanding longer-term impacts of megaprojects

Women's voices, mother's choices: A gendered analysis of resettlement for infrastructural development in Uganda

Annemarie van der Meer, Wageningen University & Research (WUR)

Based on ten weeks of ethnographic fieldwork, this paper provides insight in the long-term experiences of Ugandan women who were resettled with their families from the riverbanks of the Nile to a relatively isolated, up-hill village in 2001 due to the construction

of the Bujagali hydropower dam. Existing research on resettlement for development (and specifically dam) projects tends to either lack a gender perspective or (and perhaps falsely) portray women merely as victims of development. However, gender is of crucial relevance in our understanding of (the consequences of) displacement and resettlement processes. This paper puts women's own views and lived experiences first and focuses both on the ways in which resettlement has shaped women's daily lives, and on how these women have (re)acted in response to their resettlement. I demonstrate how, in many households, gender dynamics between husbands and wives have changed significantly after resettlement. Many men withdrew from household engagement while women became even more active 'agents' for and within the family and were specifically also transforming what it means to be a 'good mother'. Worried most about being (un)able to maintain a livelihood especially for the sake of their children's basic needs and education fees, women have taken upon themselves the role of (the only) breadwinner, in addition to continuing to be caretakers of the household and the children. Simultaneously, women conduct (silent) acts of resistance against their husbands, navigating through their 'room to manoeuvre' within and despite existing boundaries in their everyday lives – in this case posed by an interplay between a patriarchal society and a development/resettlement setting.

A political ecology of the Bujagali project: social inequalities and spaces of change.

Evita Ouwerkerk, Wageningen University

National development policies are increasingly based on a strategy of *antipolitics*, in which a techno-economic rationality legitimizes large-scale development projects by focusing on their contribution to economic growth and modernization for the country. Even though these projects have major implications for the livelihoods of local people, this strategy of antipolitics limits their role in democratic decision making and ignores context-specific power relations that induce social inequalities. This ethnographic research studies one of these projects - the Bujagali Dam in Uganda, part of a bigger industrial and hydropower development scheme of the national government - and is concerned with how the project's implementation influences the political agency of impacted people and impacts social inequalities.

Analyses of the gathered data shows that major pressure on local people has been executed, which left no room to debate the construction of the hydropower dam and factories in the area and limited debates to compensation issues. Moreover, impacted people had to rely on an already existing corrupt system to make claims. Over time, *spaces of change* occurred when they had the opportunity to bypass this system, facilitated by a NGO. However, these spaces disappeared again when this actor left the development process. Social inequalities are hereby increased, since the outcome of the decision-making process is determined by power relations.

This study sheds light on the hidden political processes and power structures that underlie the implementation of large development projects and the burden this causes for local people. It shows that there is a need for international donors, such as the World

Bank, to improve their accountability systems in order to secure equal access for all impacted people.

Local cultural valuation of the land- and waterscape surrounding the Bujagali power plant: a neglected but important insight

Ezra Litjens, Wageningen University & Research

The Bujagali hydroelectric power station built at the White Nile river is an attempt from the Ugandan government to connect more people to the national grid and bring development to the country. The people who lost land and/or property in this process were given compensation in the form of money, land, and/or housing. To some extent, this covered their losses, however, dispossession entails more than economical and technical matters. Commodification of nature as part of the government's national development plans disrupts people's direct surroundings. For some people the changes have worked out positively but for most the effects of the dam have made life more difficult, and continues to do so. Therefore, with the use of semi-structured interviews and other more interactive methods this research sheds light on people's cultural valuation of their surrounding landscape and the White Nile river and how this is shaped by their experiences of dispossession and repossession as a consequence of the hydropower project. Gaining knowledge about people's valuation of their natural surroundings gives insight into their experiences of disruption and dispossession that goes beyond economic and practical issues. Projects such as the Bujagali dam have to consider the broader local historical and cultural context in which they interfere. Neglecting this aspect results in neglecting local people and their development, since, in this case, many people feel that on the long term they are worse off and the promised development has not reached them. Insight in people's cultural valuation of their natural surroundings also shows their resilience and adaptiveness in their drastically changed, and still changing, livelihoods.

Impact for whom? Conflicting visions of the Masinga dam and reservoir in Kenya

William Clelland (University of Amsterdam)

Large-scale hydropower developments are frequently justified in terms of climate change and other global imperatives. But how are they experienced and understood by the nearby communities whose lives and rhythms they often significantly disrupt? Drawing on five-months of ethnographic fieldwork at Masinga reservoir in Kenya, the research privileges local experiences and longer-term perspectives of this major hydropower development, 40 years after construction work began. Incorporating a survey, extensive semi-structured interviews, and group discussions, a mixed methods research design has been used to examine the visions of planners, the promises of politicians and the views of a nearby community to understand how the Masinga reservoir and associated development discourses have been assimilated locally. The study found that, despite the many issues associated with displacement and dispossession, the gift of water has been overwhelmingly embraced by the community. However, the project has failed to act as a catalyst for subsequent equitable and sustainable development. Past and present conflicts over access to land and water have impacted the capacity of the community to

work together and drive inclusive change. Additionally, the people consider Masinga reservoir from their own local perspective and have not made the connection that the water helps maintain a healthy ecosystem and supports communities across the river basin. The study concludes that for infrastructure projects to stimulate inclusive development, the longer-term impact on social relations must be considered by decision makers. Moreover, development authorities should explicitly increase the visibility of issues faced not just by nearby communities but by a much wider range of stakeholders. With a resurgence of interest in large hydropower schemes in the global South, developing a common vision of what lies beyond a megaproject is critical to achieving equitable and sustainable change.

4.7 Land rights; expropriation and compensation. Recent advances, insights and implementation tools

Land valuation & effective transfer/acquisition – essential for emerging and informal markets.

James Kavanagh – RICS and FIG Comm 9

Acquiring land and property for development can be a fraught and highly contentious issue in industrialised nations and even more so in developing nations where most land & property is held informally. Access to transparent, consistent and current land administrative information is essential for the process of compulsory acquisition to be a success, ensuring fair compensation and the effective transfer of ownership rights to the acquiring body (State or otherwise), this is also a key pillar of the UNGGIM Framework for Effective Land Administration. It is also the basis for a functioning land & property taxation regime and the provision of basic services to citizens. Informal and non-functioning land markets can have devastating economic and social effects on nations resulting in civil unrest, low government revenue generation (and service provision), lack of investment and distorted banking systems.

This presentation will look at how informal markets in land & property operate (RICS research) and explore how the attribution of 'value' can be a powerful 'kickstart' to tenure security and the establishment of legitimate ownership rights. It will also look at global 'soft' law initiatives such as the UNFAO land tenure value guide and GLTN unregistered land value guidelines and how international standards such as LADM & due diligence standards such as ILMS seek to implement policy into practice and can help streamline the transfer process.

Land-Based Finance and Land Grabbing in Taiwan

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The land-based finance (LBF) has become a serious social problem in Taiwan. As we know, the LBF is "a collective name given to a range of instruments by which local governments expand their revenue base and generate funds that will help them realize their service delivery, infrastructure development and maintenance goals (UN-Habitat & GLTN 2016a, iv)." The LBF tool "is premised on the fact that urban land is a key factor of production and an important source of financing for urban development, including infrastructure, social housing and basic services (UN-Habitat & GLTN 2016a, iv)." The instrument of LBF includes not only many different kind of taxes and charges, sale of development rights and public lands, but also land readjustment (UN-Habitat & GLTN 2016a, 14; UN-Habitat & GLTN 2016b; Peterson, 2009; Valerie, Alorro & Goliath, 2017). In addition to urban land readjustment (ULR), the zone expropriation (ZE) is also one of the major ways in Taiwan's LBF programs. Historically, they do collect great revenues for local governments.

However, the untold story is that they also create many serious social problems because they do deprive of property right and human right from landowners. They become land grabbing and create displacement in Taiwan society. It is because ULR and ZE are not only tools for land-based finance but also closely related with power and interest. Who own power to decide the ULR and ZE's zone? Can landowners say no to them? Can the ULR and ZE be justified only by their financial contributions to the government? Can the implementation of ULP and ZE lack of public interest or public purposes? These are important questions should be explored. Unfortunately, the ULR and ZE have become land grabbing which deprive of landowners' property right and human right.

Governance and political contestation in land acquisition and resettlement of informal households in Kigali, Rwanda.

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In many cities in the Global South, land acquisition for urban redevelopment, land readjustment and resettlement are frequently framed as innovative approaches to eradicate informal settlements, increase the housing stock, improve the living environment and more generally support Master Plan implementation. Although such approaches are often justified in terms of public interest, their implementation cannot be successful without the participation of affected households. This paper investigates the means and ends of resettlement and compensation of households for their property losses and the attitudes and responses of affected informal households based on two cases of resettlement in Kigali, Rwanda. Findings show that different socio-economic and institutional factors affect the diverse responses and attitudes of households to the offered compensation. The main factors influencing resistance behaviour are the lack of participation in compensation decision-making processes, lack of transparency in the process, and the perceived livelihood impacts. Despite the legal requirement for participation of affected people, decision-making processes are still made behind closed doors. In response to the lack of invited spaces where issues related to displacement and compensation can be discussed transparently, the affected households stake their claims through community mobilisation and judicial recourse where they raise their concerns

and struggle for their rights and fair compensation. Critically, households affected by such processes see opportunities to take part in decision-making around these issues as fundamental to their futures.

Urban displacement and inclusion. Key findings and recommendations from the Global Report on Internal Displacement 2019.

Christelle Cazabat, Internal Displacement Monitoring Centre

The Internal Displacement Monitoring Centre (IDMC) is a non-governmental organisation working under mandate of the United Nations General Assembly to report on internal displacement at the global level. Since 1998, the organisation has published annual estimates of the number of internally displaced people (IDPs) in the context of conflict and violence, disasters and infrastructure development in approximately 150 countries and territories. In 2019, IDMC's flagship annual report, the Global Report on Internal Displacement (GRID), will focus on displacement to cities around the world.

IDMC's proposed contribution to the session will highlight key findings and recommendations from the GRID 2019 to shed light on the growing phenomenon of urban displacement in Africa. These will include estimates of the number of affected people, an overview of the key displacement risks in urban settings, measures of the main impacts and policy options to address them. The presentation will showcase innovative tools to assess the risk of displacement linked with floods and other natural hazards likely to hit vulnerable cities in the coming years and decades. Concrete examples of the consequences of urban displacement on affected populations and of good practices by national and local governments in different countries will be shared.

Displacement from rural to urban areas poses specific challenges but can also present opportunities for displaced people, other urban dwellers and local authorities. Seizing these opportunities requires a good understanding of the scale, drivers, patterns and impacts of the phenomenon, and longer-term vision on the risks of future urban displacement. This presentation will compile useful information for policy makers and practitioners in affected areas with the ultimate ambition of supporting practical options in the short and medium term.

5. Land Governance and Agribusiness

5.1 Cooperation and Conflict in Inclusive Agribusiness: The impacts of Chain Integration on Food Security and Local Development

Decentralization and development: can local governments contribute to sustainable development through inclusive agribusiness?

Etienne van Duuren, Utrecht University, MSc Sustainable Development

In 2013, extensive decentralization measures were implemented in Kenya, granting county governments a significant amount of power. Simultaneously, inclusive agribusiness has taken off in several Kenyan counties as a method to spur sustainable development, leaving an opportunity for county governments to involve themselves in the development of their locality. Although it is increasingly recognized that local governments should play a major role in achieving sustainable development, their potential for contributing to sustainable development through inclusive agribusiness is barely known. Therefore, this research analyzes how Kenyan county governments contribute to sustainable development through inclusive agribusiness. In order to analyze these contributions, qualitative data is gathered in two Kenyan counties: Makueni and Nandi.

The findings of this research include a variety of ways in which local governments can contribute to sustainable development, which mainly take place through the creation of an enabling environment for inclusive agribusiness. For example, by stimulating high-value crops, offering environmental trainings and providing agricultural inputs, local governments may contribute to alleviating poverty, protecting biodiversity and increasing food security respectively. However, when such interventions overlap with interventions of other actors in the value chain, tensions may arise. Additionally, it was found that a strong role for local governments in inclusive agribusiness models gives local communities a sense of ownership over projects, thus potentially reducing land conflicts. Furthermore, whether local governments can successfully contribute to sustainable development is shaped by its context. Crucial contextual factors include the institutional quality of the national government system, the local government's discourse on sustainable development and the agro-ecological characteristics of the locality. It is therefore concluded that the ideal role for local governments in inclusive agribusiness models is best to be determined per case, as contextual factors determine what role a local government is able to play.

Waves and legacies: the making of an investment frontier in Niassa, Mozambique

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Recent literature indicates that (northern) Mozambique, with its perceived relative land availability and accessibility, and growing foreign interest by large-scale land investors, is a potential frontier area. This paper examines frontier emergence in Niassa, the most north-western province of Mozambique. We focus on the actors that drive rapid land-use change, i.e. the companies and farmers that invest in large- and medium-scale commercial agriculture and forestry. We are interested in their investment trajectories but also in their life histories, their mobility, their strategies, and the decisions they make, to understand why these actors invest in Niassa and how they are doing that. The work presented here is based on interviews conducted in 2017 and 2018 in Maputo city and Niassa, and on-site observations in Niassa during visits and stays at plantations, farms, company offices and factories around the provincial capital of Lichinga as well as in more remote areas. More than 50 interviews were conducted with large-scale transnational companies, foreign commercial farmers, and medium-scale Mozambican entrepreneurs, as well as with government officials, NGOs and other relevant actors. We show how 'investors' form a heterogeneous group with different backgrounds, motives and business practices; that investing in Niassa is an ongoing struggle with more failures than successes; that Niassa has seen many waves of investors coming in to Niassa since the end of the civil war (1992); and that the most recent wave emerges from within Niassa yet builds heavily on the legacies of previous waves.

With this 'ethnography of investors', we address an important gap in the 'land grab' literature, which has overwhelmingly focused on the experiences of local communities. The more recent scholarly interest in exploring partnerships between smallholders and investors through more inclusive business models could greatly benefit from an in-depth understanding of the motives, history and diversity of investors.

Smallholders marketing strategies, and implications on their livelihoods and food security

James Wangu, PhD Candidate, IDS, Utrecht University

Considerable studies that have researched the impact of smallholders participation in agricultural value chains or interventions on local livelihoods and food security indicates a lack of proven causal relations. Furthermore, scholars debate on the effect between smallholder agriculture and local welfare is inconclusive. Yet, development actors and governments continue to actively support smallholder agriculture as a way to bolster rural growth, poverty alleviation and enhancing food and nutrition security (FNS) in sub-Saharan Africa (SSA). By assessing the farmer-market linkage dynamics, this paper aims to contribute to this debate and policy reforms for an increased positive outcome of smallholders agricultural investments. We believe that smallholders are heterogeneous in terms of their farming goals, and market attitudes. Hence, have different reaction towards the available marketing opportunities, which in turn influences their market choice/s. This has different implications among individual smallholders. This evident smallholders and market relations contradict the development interventions' specific market prescriptions as favourable media to address local livelihoods and food security needs. Against this background, and drawing from a case of dairy smallholders in rural

Kenya, we aim to unravel motivations for smallholders adoption of a specific or marketing strategy/ies, and subsequent outcome on their FNS.

The impact of Nucleus estate model on local communities livelihood in North-Western Ethiopia

Senait Worku, Utrecht University

The majority of poor people in Ethiopia are composed of small-scale farmers dwelling in rural areas and depending on agriculture for a livelihood. Addressing rural poverty in many parts of the world is believed to be mitigated by pro-poor business models in which the private sector can play a significant role. Subsistence production, low input utilization, lack of credit and poor market integration are among the challenges smallholder farmers face that trap them into the poverty cycle. Smallholder farmer engagement to markets is believed to ease the challenge faced by the farmers and bring local development in rural areas by enhancing farmers access to inputs, credit and markets. This paper is based on a case study conducted in West-Gojam Zone of Amhara Regional state of Ethiopia which explores how Nucleus estate model changes different part of the society's livelihood and natural resource utilization by looking into first how the local community are engaged in the business model and how the different form of engagement affects their livelihood.

Cooperation and Conflict in Inclusive Agribusiness: The impacts of Chain Integration on Food Security and Local Development

Ellen Magnus (Utrecht University)

5.2 For better or worse: Agri-food systems transforming land governance needs and outcomes

Formalization of Land Rights, Agricultural Production and the Dynamics of Class Differentiation in Rural Tanzania"

Howard Stein, University of Michigan, Ann Arbor; Kelly Askew, University of Michigan, Ann Arbor; Rie Odgaard Danish Institute of International Studies (retired) and Faustin Maganga, St John's University, Dodoma, Tanzania

Rural Tanzania is currently witnessing a multiplicity of interventions aimed at "modernizing" agriculture. SAGCOT has designated a third of the country open to investors. Using land for equity and private-partnership arrangements, they are pushing modernization through contract farming. Modernization is also aimed at encouraging subsistence farmers to better integrate into agri-food systems. For these purposes, the government in cooperation with bilateral, multilateral and NGOs are rapidly formalizing village and individual farmer boundaries in the belief that generating titles allow farmers access to credit enhancing their participation in input and output and land rental and transaction markets. At the same time, they will protect the land rights of women and poor farmers and attract investors which will generate new livelihood opportunities for small scale farmers. Others argue that the focus on formalization misses the main sources of poverty, and inequality in rural Tanzania, which include landlessness, the inequity of land distribution and poorly operating markets and other rural institutions.

Formalization can institutionalize inequalities in land ownership including the exclusion of women. Between 2010 and 2015 an interdisciplinary team of researchers undertook more than 2000 household surveys covering 40 villages in eight districts in the regions of Manyara, Mbeya/Songwe, Dodoma and Kigoma along with hundreds of semi-structured interviews with key players (small-scale farmers, pastoralists, hunter-gatherers, large landowners, NGOs, government officials, World Bank officials, bankers and donors) aimed at assessing the impact of formalization on production, market participation, incomes and land ownership patterns. Between 2016 and 2018 we returned to hundreds of the same households for a second survey roughly five years after the first interviews. The findings from this project will be used to document and assess the impact of these measures on production, gender and class differentiation in rural Tanzania including an analysis of the participation in agri-food systems.

What is a “legitimate” use of land? History, discursive power and elite capture in post-apartheid South Africa

Tracy Ledger, Public Affairs Research Institute – University of the Witwatersrand, Johannesburg

Land reform has been a politically contentious issue in South Africa for the past twenty-five years. Despite calls from various parties that the primary goals of land reform should be historical redress and social justice, and that land is needed for purposes apart from agriculture, the South African government has continued to insist that land reform must not disrupt existing patterns of agricultural production, nor cause any anxiety to foreign investors. Even among large parts of civil society, there is a clear view that there are only a limited number of legitimate uses of land, and these are primarily agricultural activities of a very particular kind, for a very particular purpose.

As a result, land reform ‘beneficiaries’ have almost exclusively been forced into a position where the only option available to them (since the state by and large controls their access to resources) is to participate in value chains where the balance of power is heavily tipped in favour of the highly concentrated agro-processors and supermarket chains. The resulting failure of many of these farms is generally viewed as being entirely the result of the failings of the beneficiaries in question, rather than reflecting the poor terms on which they are incorporated into these value chains. My work in this area indicates that the possibility of adverse incorporation is seldom, if ever, considered by either government officials, or the general public or by the beneficiaries themselves. This paper presents findings from research work undertaken over the past five years as to why this may be the case, tracing the historical and discursive foundations of what constitutes “proper” agriculture and a “proper” farmer, and the implications that this has for land reform in contemporary South Africa.

Connecting smallholders to markets: how territorial markets can support land-based livelihoods

Sylvia Kay, Transnational Institute

What kinds of markets work for smallholders? How can positive relationships be built between markets, investments, public policies, and land-based livelihoods to strengthen food security and nutrition? This panel contribution will address these questions by drawing on the work of over 50 civil society and social movement participants who engaged in a two year policy negotiation process on Connecting Smallholders to Markets at the UN Committee on World Food Security, resulting in the adoption of a series of policy recommendations in 2016. This process unveiled that most food transits not through global value chains but through territorial markets rooted in local, national and regional food systems. These territorial markets are distinguished by a number of features including the fact that they i) are inclusive and diversified; ii) perform multiple economic, social, cultural and ecological functions; iii) are often more remunerative for smallholders, providing them with a greater degree of autonomy and control; iv) enable a greater share of the wealth to be retained, returned and redistributed at farm level and within local economies; v) may be informal, formal or somewhere in between; vi) include embedded governance systems; and vii) are spaces where political, social and cultural relations play out and where people interact according to varying degrees of interdependence and solidarity. Special attention will be given as to how social movements and public policies can support these territorial markets, both by strengthening them where they already exist and by opening up new spaces for these markets to take root and flourish. This shows that struggles for democratic land control and struggles for sustainable and just agri-food systems are closely interconnected.

Women's access to markets, constraints and opportunities

Marc C. A. Wegerif. Human Economy Programme, University of Pretoria, South Africa.

It is well known that women small-scale farmers face discrimination when it comes to access and rights to land. Less discussed in the land sector, is how they also face constraints in market access that can limit their opportunities and benefits from land that they do gain secure tenure rights to. This paper critically examines how markets work or not for women small-scale farmers. Common approaches, such as value chain development that has become ubiquitous among development organisations, are examined. Out of this, experiences and suggestions of what works for women small-scale farmers are shared. The paper draws on existing literature and field work in Tanzania and South Africa with their very different agricultural sectors.

The findings show that value chains may assist some groups of farmers, but tend toward adverse incorporation with small-scale farmers in highly unequal relations with buyers. They bring less benefits to women small-scale farmers than other market options that are overlooked by most development interventions. Women farmers are finding and creating their own market alternatives that are more socially embedded and appropriate to their scale and nature of operations.

For land rights and land governance interventions to be successful in bringing development benefits, not least in reducing poverty and inequality, they need to be accompanied by support for food systems and markets that work better for women and other small-scale farmers. We can learn what kinds of markets these are by looking at

what women and other farmers organise for themselves outside state and NGO interventions.

Financialisation and the invisible restructuring of the agriculture and land sectors

Ward ANSEEUW (ILC/CIRAD), Perrine BURNOD (CIRAD), Antoine DUCASTEL (CIRAD), Markus GIGER (CDE)

The African agricultural sector is undergoing a period of restructuring characterized by the emergence of new production and finance models. These new models have come into being as a result of heightened involvement by a new category of actors external to the traditional agricultural sector such as commercial banks, agricultural engineering firms, management companies, and investment funds who wish to diversify their business portfolios. The main drivers of these actors are risk management and profit maximisation, part of a financialisation process. Based on extensive empirical work (mainly in South Africa, Mozambique, Kenya, and Madagascar), this article will first summarize the trends of these production and finance models and then examine the impacts of these restructurings on the agricultural and land sectors.

Financialisation of agriculture is resulting in a multi-dimensional concentration not only through acquisition (of land and assets) but also through control strategies throughout the agricultural value-chain (shares, contracts, etc.). The large disparity in the control over financial, social, and crop resources creates too great an imbalance for the farmers to be able to negotiate on an equal footing with the macro-actors, who generally impose their models and vision on them. Beyond the acquisition of land by these actors (and the well described consequences on livelihoods, food security, loss of land etc.), these trends have core impacts on the overall structure of the farm and land sectors reducing farmers to the role of service providers, on land they occupy and own, but don't control....and leading to major questions regarding land rights, land sovereignty and farmers' status. While these dynamics are very prominent in an established agricultural sector in South Africa, their rollout in other countries seems constrained with adapted models already mushrooming.

In the shadow of tree crops: Exploring the relationship between smallholder tree-crop expansion and subsistence food production

Malin Olofsson, University of Amsterdam

Integrating small-scale farmers into national and international value chains has become a key policy objective of both state and private sector actors to address rural development. The recent emphasis on 'inclusive' value chains and 'inclusive' agribusiness tends to focus on those being included and the terms of their inclusion, often obscuring the broader effects of these processes on other land users and the social relations within which they are embedded. A qualitative study of the relationship between small-scale farmers producing subtropical fruits and nuts and subsistence farmers in the former homeland of Venda, South Africa, is used as a case study to explore the tensions, contradictions and synergies that accompany such 'inclusive' value chain arrangements.

Findings illustrate how the commercialisation of tree crops is accelerating the enclosure of communal land, in turn changing and in the long-term reducing land access for subsistence farmers. This is producing relationships of dependence between subsistence farmers and orchards owners which is strongly gendered. In the absence of capital to develop the land allocated for orchards, conditional access is being granted to subsistence farmers by orchards owners who have obtained exclusive access rights to land. These arrangements function on the basis of a symbiotic relationship whereby subsistence farmers 'clean' and 'protect' the orchards in exchange for gaining access to land to plant maize. In the long term these changing land-use patterns stand to render the subsistence farmers vulnerable to losing access to land and thereby increasing the risk of food insecurity. These findings raise critical questions about the role of customary authorities in land governance in the face of expanding commodity markets and inclusive development strategies more broadly.

Keywords: smallholder, subsistence farming, food security, agricultural value chains, land rights, land use, land governance.

Inclusive Agrarian Transformation Model in Nepal

Purna B. Nepali, Dharm Raj Joshi, Mahesh Bisukhey, Prakash Baral

Agrarian transformation refers to alterations of structure and function in an agrarian society. Accordingly, agrarian society is not only changing rapidly from primitive to advanced forms but also gradually transforming the lives and livelihood of the people. However, the resource-poor remained unable to accommodate with the pace of agrarian transformation and thus are further marginalized because of historical, structural and institutional barriers to access resources, innovations etc.

In addressing the rural poverty and inequality, Agenda 2030 for Sustainable Development requires rural and agrarian society transform rapidly in a way that can create inclusive development opportunities for all. Similarly, inclusive rural transformation is critical component of inclusive economic growth to protect the interests of marginalised communities focusing on accessing natural resources, technological capability, and diversified livelihood opportunities.

With the Sustainable Agenda 2030, there are several platforms and initiatives such as Land 2030 for global partnership; Strategic Initiative Agenda 2030; The Global Donor Working Group on Land; and Land Tenure Security Monitoring in the SDGs; for defining the innovative ways of promoting inclusive rural and agrarian transformation.

The main purpose of this paper is to generate, analyze, synthesize and disseminate theoretical and practical knowledge on how agrarian transformation can contribute to inclusive transformation and development- as well as people centered policy making process in 21st century through the up-scaling and out-scaling of global best practices.

It is expected to contribute in devising the inclusive agrarian transformation model in South Asia considering agrarian justices. This should address issues - inclusive property rights, tenure security, equitable access, due compensation, & efficiency. Global land

based justice and initiatives become inclusive tools for transformation. Hence, Nepal's agrarian transformation requires reorientation to theoretical underpinnings of social equity and inclusive agrarian transformation differentiated policy in the service of social justice in Nepal, South Asia and the global community.

Key Words: Inclusive transformation, Land 2030, Agrarian Justice

5.3 The roles of interdisciplinary research in sustainability transition of palm oil production

Intercropping in oil palm plantations in Central Kalimantan: an interdisciplinary study on smallholder livelihood strategies.

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Aritta Suwarno, Post-doc at Environmental Systems Analysis, Wageningen University

Peter van der Meer, Associate lector Oil Palm and Tropical Forests, Van Hall Larenstein

Maja Slingerland, Associate Professor at Plant Production Systems, Wageningen University

Oil palm is commonly known as a monoculture crop, industrially grown in large-scale plantations. In particular in new expansion areas, this can have detrimental impacts on biodiversity and livelihood opportunities. However, smallholders often combine their oil palms with crops like banana, durian, pineapple, black pepper, or various vegetables. For them, dependency on a single crop in a volatile market and changing climate is risky. Intercropping can enhance income- and food security, especially during the maturing phase before oil palms start producing. There are also indications that intercropping supports biodiversity and increases land use efficiency. Moreover, intercropping often allows for a more flexible use of land, providing access to benefits for multiple users. Conversely, current debates on sustainable oil palm mainly focus on intensification through best management practices rather than diversification. If smallholder's preference for intercropping is not taken into account in interventions to promote sustainable palm oil, such as RSPO certification, this may hamper their inclusion in the supply chain. The SenSor project takes an interdisciplinary approach to study oil palm smallholder's livelihood strategies, combining insights from social, environmental and agronomic science. In a recent study in Central Kalimantan, Indonesia, we examined the impact of RSPO certification on smallholder's livelihoods by comparing management practices, yields, incomes and conditions of nature between certified and non-certified oil palm smallholders, and between monoculture and intercropped plantations. Discussing the results of this research, we will elaborate a future research plan to study smallholder's options and preferences to practice intercropping, in order to examine how this impacts access to benefits and inclusion in the supply chain, as well as environmental impacts. This research requires an interdisciplinary methodological framework to assess the socio-economic and cultural meaning of intercropping, the agronomic possibilities and constraints, power relations in the supply chain, and consequences for the environment.

Why do oil palm farmers choose for intensification or expansion? Does certification make a difference?

Maja Slingerland, Plant Production Systems group, Wageningen University
Annisa Maghfirah, former Master student, Wageningen University

In Jambi province, Indonesia we did qualitative research on the factors affecting oil palm smallholders choice to intensify or to expand their plantations. RSPO and ISCC certification schemes were proposed to the smallholders. Both schemes support intensification, promoting better management practices to increase yield and income per hectare. In return smallholders need to refrain from expansion in forest or peatlands. Plasma smallholders that started oil palm cultivation in a transmigration program with technical support, good planting material and formal land titles made different choices than spontaneous migrants that first worked as labourers and gradually planted their own fields with lower quality seed, no technical support and no formal land titles. Plasma smallholders mainly bought additional similar plasma fields with high yield potential and quality fruits that sell for high prices at the mill. Spontaneous migrants mainly bought cheaper low quality land such as peat lands or degraded forests from local villagers. These lands often still needed to be cleared and planted. Due to lack of capital they decided for cheap and lower quality planting materials and often refrain from adequate management. As a result they get low yields and low quality fruits selling at low prices. Their land use title provided by the village are not formally recognised. They know that their practices lead to low revenues or even financial losses but their main aim is to secure land for their children, not to cultivate oil palm for an income. Certification schemes therefore have no meaning to them. Firstly, they disqualify for certification as they lack formal land titles and cleared vulnerable areas. Furthermore their low quality planting material makes it difficult to get higher yields and prices. Plasma farmers adhered to certification to assure continuity in selling their fruits for the highest price in future even when competition would increase. They changed to better management practices, mainly to increase fruit quality and decrease fruit rejection rates by the mill.

Interdisciplinarity for a transition towards more sustainable production of palm oil

Birka Wicke (Copernicus Institute for Sustainable Development, Utrecht University)
Ari Susanti (Faculty of Forestry, Universitas Gadjah Mada)

Sustainability challenges of oil palm expansion in Southeast Asia continue to be high on national and international policy agendas and public debates. This is the result of very rapid increases in palm oil production in the last three decades mainly through land expansion which is facilitated by government policies and market incentives. This was done with the assumption of increasing demand in the future and lucrative financial returns. While the environmental and social impacts of oil palm plantations have been studied in detail, most studies have separately addressed the various impacts, or looked at solutions for one isolated impact or only from one perspective. However, there are many links between impacts and feedback mechanisms, and therefore solutions must take a comprehensive perspective on them. Interdisciplinary approaches and methods can help to provide such a comprehensive perspective by better accounting for links between impacts, scale and time and thereby increase the effectiveness, feasibility and

adoption of newly proposed solutions. In this presentation, we will provide an overview of interdisciplinary approaches and methods which have been used and how these approaches and methods can play a role in making palm oil production most sustainable. Our results are based on a literature review and will elaborate on common disciplines covered, methods of integrating disciplines, gaps among regions in interdisciplinary research and the challenges of interdisciplinarity.

5.4 The Future of Agriculture: Land and (Food) Production in a Context of Climate Change in Sub-Saharan Africa

Crop insurances for maize farmers and the importance of functioning of landmarkets in Tanzania

Meine Pieter van Dijk, Erasmus University of Rotterdam in the Netherlands

Climate change and the resulting increased drought periods contribute to farmers' problems in Tanzania, but their core problem is low agricultural productivity. Farmers need to move from traditional to hybrid seeds. Private sector organizations (commercial and non-commercial) initiative to help them by providing crop insurance. Between 2011 and 2014, the Swiss Capacity Building Facility (SCBF), a non-governmental organization (NGO), funded four projects in Tanzania aiming to introduce crop insurances for maize farmers in Tanzania. The Weather Index Insurance (WII) promoted through these projects uses satellite images to determine whether drought prevailed in the area concerned. If so, the farmer is compensated for the damage. The project contributed to the training of thousands of farmers in the three regions studied.

To assess role of the land market in Tanzanian a survey under maize farmers has been undertaken of in total 200 farmers. In each region a sample of farmers has been interviewed (using cluster sampling with the villages as sampling unit then farmers' households were also selected at random), to analyse the impact of the crop insurance introduced with the support of SCBF and its effect on the household's income and assets and on agricultural productivity. Most farmers do not know how much they pay for the insurance, but they are generally positive about it, since the insurance offers a feeling of security and the intermediary organizations reduce the loan in case of a crisis. If successful the farmers want more land and one fifth of the sample has been able to lease land or additional land. This points to functioning land market. Positive effects were found by comparing data for the first and the second year.

An innovation perspective to climate change adaptation in coffee systems

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Climate change is expected to have strong implications for smallholder coffee farmers and implementing adaptation measures would lessen their vulnerabilities. Adaptation measures have been identified in literature, but how these can be implemented remains unclear. Current certification programmes have the potential to provide guidance on how sustainability criteria can be addressed and taken up by farmers. We identify climate change adaptation options, their scale of application, and the necessary implementation steps. We show that implementation complexity strongly increases with the degree of climate change. With modest climatic changes, incremental adaptations might suffice, but more substantial climatic change will require radical social-institutional changes for adaptation uptake and interventions. For the majority of smallholders the implementation of any measure is largely constrained by a lack of access to knowledge networks and training material, organisational support, and (mainly financial) resources. A landscape approach that encompasses collective action and coordinated cross-sector planning can overcome some of these barriers. Certification approaches can facilitate a move in this direction. Yet, the implementation of transformative adaptations requires visioning, realignment of policies and incentives, and new market formations. This entails a repositioning and revision of certification schemes to allow for more effective adaptation uptake for the benefit of smallholders and the environment.

The Political Economy of Maize Investments in Sub-Saharan Africa

Romy Santpoort (LANDac, Utrecht University)

One of the most important global challenges of our time is meeting future food needs and tackling hunger and malnutrition. Climate change and frequent climate extremes are considered as key drivers of increasing food insecurity in vulnerable areas and are expected to only exacerbate the problem in the future (FAO, 2018; Wheeler & von Braun, 2013). Increasing temperatures and droughts have been found to have negative impacts on the production of one of sub-Saharan Africa's most important staple crops, maize (FAO, 2018; Hoffman, Kemanian, & Forest, 2018) and is expected to have severe impact on people's food security (Tesfaye et al., 2015). As a result, the demand for maize and other food crops has increased and has been an important driver for the global land rush. Over the past decade, more land in sub-Saharan Africa is being used for the production of maize (FAOSTAT, 2019) and more large-scale investments by both foreign and national investors are being made in the region (Landmatrix, 2019).

This study will focus the complex reality of these investments in sub-Saharan Africa's main staple crop, the main drivers of these investments and the potential impacts on local food systems. Initial fieldwork from a scoping study in Kenya will shed light on three research questions: who are the investors and why do they invest in maize production? How did the investment impact local patterns of land use and ownership? And how did the investments impact local livelihoods? Through a political-economy lens, this study will make an attempt to connect the global dynamics of maize production with their impacts on local food systems in sub-Saharan Africa.

Customary Land Tenure and Food Production: Impacts for Food Security [Tentative Title]

Baslyd B. Nara, University of Twente-ITC

Continuous global efforts are being made towards land tenure security to encourage investments and enhance production. This includes facilitating food production through largescale and subsistence farming depending on the context. This paper contributes to these efforts by investigating customary land tenure disparities between subsistence settler and landowner farmers, based on gender and social status among others in northwest Ghana. It uses focus group discussions, key informant and institutional interviews; and satellite images. The research reveals inherent disparities, drivers and implications confronting subsistence farmers especially settlers and women in the area. These challenges negatively affect farming on tenure insecure shrinking farmlands, creating food insecurity at the household level with likely national and global ramifications. Also hitherto unrestrained farming, building and transfer rights to settler heirs are changing even though the land use and land cover change satellite images show insignificant physical expansion of settlements especially in the rural areas. The conclusion is that increasing uncertain customary land tenure and service arrangements have negative implications on food security of all subsistence farmers especially settlers and women. Meanwhile, it is evident that improved household food security of these farmers depends on improved land tenure security. In suggesting tailor-made innovative ways of addressing the challenges, the fit-for-purpose approach should be adapted since that is affordable, fast and designed to meet the people's needs with the involvement of all stakeholders. This should be done using the available customary institutions, practices and mechanisms and; legal institutions and processes to aid current generations renegotiate land tenure and service arrangements to ensure its security for all.

Keywords: customary land, tenure arrangements, land tenure security, subsistence settler farming

6. Land Governance in Practice: Approaches and Tools

6.1 Facilitating Transition: How to Enable Inclusive Land Governance change and Why It Matters

Closed session

6.2 Multi-Stakeholders Platforms: a Transformational Arena Fostering & Scaling-Up Local Innovation.

Putting heads together – a systematic literature review of knowledge exchange and joint learning in food & business multi-stakeholder platforms in sub-Saharan Africa

Edith van Ewijk and Mirjam Ros-Tonen, University of Amsterdam

Food insecurity and the marginal position of smallholders in food value chains are key challenges in many low- and middle-income countries in sub-Saharan Africa. In order to increase food security and make agricultural value chains more inclusive, donors, governments and researchers increasingly stimulate partnerships between a wide variety of actors, in which knowledge brokering, exchange and co-creation play a central role. Despite the growing body of literature on multi-actor and cross-sector learning in these partnerships, it is insufficiently clear what factors and institutional dynamics affect their outcomes. Based on a systematic literature review, this paper aims to document existing evidence of knowledge co-creation processes in multi-stakeholder platforms in sub-Saharan Africa, highlighting setting and context; characteristics of knowledge and learning platforms and brokering activities; scale and factors influencing knowledge brokering and co-creation processes in learning platforms. Findings show, first, that multi-stakeholder initiatives focusing on learning come under different names, including innovation platforms (IPs), learning platforms and communities of practice. Second, many of them are initiated by Dutch researchers, as a result of Dutch government policies grounded in the “polder model” that explicitly stimulate multi-stakeholder platforms. Third, exchanging and combining different kinds of knowledge have resulted in joint learning and finding solutions to persistent challenges – although a bias may exist as projects tend to report less on failures. Fourth, attention for external factors, more systematic changes and scaling up of these initiatives is generally limited. Fifth, researchers fulfil different roles in learning and innovation platforms, including capacity building, facilitation, reflection and learning. Finally, most platforms are donor driven, resulting in sustainability being a key challenge. The results imply that more attention is needed to how platforms can be sustained beyond project cycles by embedding in local institutional landscapes and alignment with actors operating at higher scale levels.

Key words: systematic review, knowledge exchange, co-creation and brokering, multi-stakeholder platforms, learning platforms, innovation platforms, food, agriculture.

A MULTI-STAKEHOLDER APPROACH TO ADVANCING WOMEN’S LAND RIGHTS USING THE SDGS FRAMEWORK: EXPERIENCE FROM TANZANIA

Godfrey Massay- Landesa

The adoption of the Sustainable Development Goals (SDGs) in 2015 has inspired actors to use the SDGs to advance specific agendas of interest at the national and global level. The actors who are working on the land sector have, in the spirit of leaving no one behind, organized themselves in advocating for data collection on tenure security, land law reforms, reclassifications of indicators, as well as localization of the indicators in national development plans. In Tanzania, Landesa in collaboration with the Ministry responsible for Gender established a Multi-stakeholder Platform on Women's Land Rights in order to generate discussions and exchanges that encourage and support the government to take responsibility and to act more effectively and quickly to support women's land rights.

One year since the establishment of the Multi-stakeholder platform on Women's Land Rights, there is sustained awareness and discussion among stakeholders, commitments to collect sex disaggregated data on land ownership, and the Government has started collecting data on perception of tenure security, to mention the few. This paper highlights the milestones and lessons one year on since the platform was established. It also proposes better ways to replicate the model and the broader ways it can be used to improve land governance at the country level.

Promoting Good Land Governance Practices through Regional Dialogue Platforms in the IGAD Region

Addis Teshome, Swiss Development Cooperation, Global Program Food Security (GPFS)
Peter Sidler, Swiss Development Cooperation, Global Program Food Security (GPFS)

Land plays a central role to both the livelihood and economic well-being of people in the IGAD (Intergovernmental Authority on Development) region. The African Union Declaration on Land Issues and Challenges in accordance with the Framework and Guidelines on Land Policy in Africa mandates Regional Economic Communities (RECs) to convene periodic regional dialogue platforms to facilitate experience sharing, lessons learnt and dissemination of best practices in land policy formulation, implementation and monitoring based on Member States' experiences. This is important in enabling the achievement of regional socio-economic development, peace and security, and environmental sustainability. The IGAD Land Governance Regional Dialogue Platform was established in 2017 under such continental overarching initiative. These regional dialogues seek to bring civil society, the private sector and other stakeholders to interact with the Member States and as such creating new pathways for national dialogues to emerge on land governance. So far, two regional dialogue platforms were organized aimed at promoting good land governance and land policy convergence among Member States. The Platforms were also space to establish a mechanism for continuous dialogue and co-operation among IGAD Member States on land governance and related issues, enhancing their capacity to manage land within a regional context, consistent with the Africa Frameworks and Guidelines. The engagement of member countries at different platforms have created increased demand for improved land services delivery at country level. Member States received trainings on conflict sensitivity in land administration, understanding of gender in land governance and the formulation of national land policies upon their requests. Such platforms will contribute greatly in ensuring a common

reference frame to guide and facilitate the formulation of reliable land policies which provide for secure and equitable access to land and natural resources, gender integration, conflict reduction and ensure sustainable human development and political stability in the region.

The Forests Dialogue (TFD): Process-driven Multi-Stakeholder Platforms for Sustainable Forest Landscape Management.

Gary Dunning, Bethany Linton, with TFD at Yale University, School of Forestry and Environmental Studies.

Created in 1998, the Forests Dialogue (TFD) provides international forestry leaders with an ongoing, multi-stakeholder dialogue (MSD) model to develop mutual trust, share understanding, and locally collaborate solutions to global challenges, achieving sustainable forest conservation and landscape management.

TFD's mission is to reduce conflict among stakeholders concerning use and protection of vital resources in forested landscapes. In nineteen years, TFD has brought together nearly 3,000 diverse actors to work through competing forest landscape issues. TFD utilizes the MSD model to progress from building trust among participants to achieving substantive, tangible outcomes in the form of management plans, platforms, or policy recommendations. Our successful model is proven by participants' commitment to advocate for and work to implement consensus-based outcomes.

Through an iterative process of background research, roundtable discussions, and facilitated dialogue(s) through a selection of local stakeholders, TFD acts as a neutral platform to assemble representatives from civil society, private sector, CBO's, and public sector to define and deliberate, solutions to landscape and forest challenges. TFD is governed by a steering committee composed of diverse leaders and practitioners representing key stakeholder perspectives from multiple sectors around the world to guide MSD's with the experience of international best practices. The steering committee is responsible for identifying funding sources and program partners that benefit from the MSD process, improving land management.

Partnered with local organizations, TFD supports the establishment of MSP's to bridge private sector, civil society, and traditional and governmental authority actors for greater transparency and more representative landscape management as competing issues of land use and development find themselves increasingly at odds. Whether the MSP is in Russia independently continuing its tenth year of dialogues, or in Tanzania continuing in it's second, TFD's methodology of process-driven MSD's catalyzes and supports representative decision-making bodies for greater transparency and sustainability in vulnerable landscapes.

Strengthening multistakeholders' platforms as a tool for improved land governance: the experience of ILC's national engagement strategy in Tanzania

With the current world rush for resources struggle to accumulate natural resources including land, it is imperative to recognize land as a governance issue. Land governance concerns rules, processes and structures through which decisions are made about the use of and control over land, the manner in which the decisions are implemented and

enforced, and the way that competing interests in land are managed⁴. In that case there is close connection between land and the state's political economy for which land tenure systems determine the power structure of the society. Weakness in land governance systems in sub-Saharan Africa countries including Tanzania are the main sources of many governance problems. Among other land governance challenges in Tanzania for example, large scale land-based investment and weak land administration institutions are critical.

National engagement strategies (NES) initiated by International Land Coalition (ILC) members focus on people-centered land governance and embrace the concept of "multistakeholder's platforms" (MSP) as a mechanism for tackling the above challenges. NES are now established in many countries where ILC members operate, and is the major platform for bringing members together, developing a common strategy for engaging on land issues with different actors, and key priorities and activities for this. At the same time, projects and programs that feed into the NES also have lower-level MSPs with similar objectives.

In Tanzania, the concept of MSPs is not new. For example, the Tanzania Natural Resource Forum (TNRF), a non-governmental organization based in Arusha, has for many years supported working groups on different thematic areas, and local and national level MSPs as a means to positively influence policy and practice in the natural resource sector including improved governance and accountability. Additionally, TNRF through ILC's Community Land Protection co-learning initiative⁵, a year-long peer-to-peer learning initiative that encourages land actors to test and scale innovative ideas and experiences, TNRF has supported community level dialogues in Tanzania for strong bylaws as promulgated by Namati⁶ in Uganda, Liberia and Mozambique. The MSPs are mainly clustered under the land-based investments components of the NES.

This paper presents the different layers of MSPs that TNRF and other actors are involved in, in Tanzania as part of NES implementation – their successes and their challenges. It will include a summary of the Tanzania NES (one of the largest in the ILC NES portfolio) including its development, together with lessons learned from the experiences of two district-level MSPs (Chemba and Kilwa districts) as platforms for open dialogue and the way these platforms have helped to resolve land governance challenges. It will indicate how important it is for community members, government institutions and private sector to have roles in these in order to ensure sustainable management of natural resource for intra- and inter-generation utilization – and the contribution of the Community Land Protection Initiative to this.

This paper is important for understanding the dynamics of diverse interests in land governance and possible mechanisms of balancing and converging varied interests to bring about productive dialogues on such as land-based investments. It will highlight how MSPs can play a role for opening space for dialogue at different levels, mobilizing,

⁴ Palmer D, et al, September, 2009 – Towards Improved Land Governance, Land Tenure Working Paper 11 (Available [here](#))

⁵ Community Land Protection Co-learning initiative

⁶ Namati is an organization

connecting and building capacity of stakeholders both horizontally and vertically, and influencing a more enabling policy environment.

Lessons can be learned for application in other ILC NES and similar platforms. Civil society organisations and other actors will be able to adapt, replicate or upscale the experiences to other areas to ensure that different stakeholders both public and private are able to agree and allow community interests in decision-making to prevail and help them protect their land and natural resources for intra- and inter-generation benefit. Multistakeholder dialogue complements various country initiatives under the natural resource and land sectors ranging from government processes including the land policy review process.

Key words: Multistakeholder platforms (MSP), national engagement strategy (NES), Tanzania, community, land governance, dialogue

6.3 Actor perspectives on landscape scenarios: Linking sectors through integrated landscape governance for people and nature

Visualising the Future of Mosaic Landscapes: Participatory Spatial Scenario Building in a Mixed Cocoa-Oil Palm Area in the Eastern Region of Ghana

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Mosaic landscapes are structurally complex and multifunctional and provide multiple ecosystem services relevant for rural livelihoods. Due to a growing population, climate change and the expansion of agricultural commodities, the future of mosaic landscapes has been a source of scientific and societal concern. In the sparing-sharing debate evidence and arguments abound in favour and against maintaining mosaic landscapes, but remarkably few of these take the views of farmers and other landscape dwellers into account. This study addresses this gap in a mixed cocoa-oil palm area in Ghana's Eastern Region. Employing participatory scenario development it generates insights into farmers' perceived changes and desired future landscapes and the actions considered necessary to achieve these. Results show that landscape actors are aware of the state of the landscape and changes that have occurred therein, with the participatory maps coming close to actual landscape composition and spatial configuration. Contrary to assumptions underlying most of the sparing-sharing debate, farmers' desired landscape is largely similar to the current situation, characterized by increasing homogenization due to expanding areas of commodity crops, as oil palm and cocoa represent the major source of stable income. Farmers however acknowledge drawbacks such as decreasing food-crop land, reduced availability of provisioning ecosystem services such as non-timber forest products, and declined presence of shade trees, and consider forest conservation and tree planting important. The findings challenge the prevailing assumption that small-scale farmers in the tropics prefer mosaic landscapes. Policy implications include greater enforcement of forest conservation policies and support to on-farm tree planting.

Keywords: Mosaic landscapes, participatory spatial scenario development, cocoa, oil palm, Ghana

Weaving Institutional Tapestry for Landscape Management and Conservation: The Case Of Kilombero Valley in Tanzania

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The Kilombero Valley is a large wetland landscape in South West Tanzania. Over the last 20 years, the environment and society in the valley have radically changed, as a consequence of strong demographic growth, improved infrastructure, land clearing for small scale farming and grazing, and a scatter of small and large agricultural investments. The valley, once famous for its wildlife resources, has lost extensive natural habitat while the agrarian economy has boomed mostly in an unplanned fashion. Public management and administration have struggled to keep pace with the social and environmental change and the competing land interests. The valley used to be centrally managed for its game population. It was also designated in 2001 as a wetland site of international importance under the Ramsar Convention. The existing legal framework for wetland management is rooted in classical protected area concepts. There have been several attempts at strengthening environmental management and conservation measures across the landscape. These have intensified over the last few years. As a consequence of these efforts, there is now a better understanding of wetland environmental services but this technical knowledge has not yet informed a sufficiently coherent and shared vision among the stakeholders across the landscape. This requires an institutional capacity to reconcile different interests and to sustain the intensive, long-term and deep administrative process required to harmonize multiple sectorial agendas. The country's institutional capacity to do so needs a long-term development perspective. The recently formulated Integrated Management Plan for the valley aims to preserve the core environmental services of this landscape. It wants to provide a pathway to establish a coordination framework and to evolve a long-term institutional mechanism for collaboration across sectors, leveraging local resources as the key medium term factor of progress.

Implementing South Africa's First 'National Spatial Development Framework': An Exploration into its Required Spatial-Economic, Behavioural and Institutional Transformations.

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Dr Elsona van Huyssteen, Council for Industrial and Scientific Research, Stellenbosch, 7600, South Africa.

Four years ago, the national Department of Rural Development and Land Reform (DRDLR) embarked on the preparation of the first National Spatial Development Framework (NSDF) for South Africa. This first NSDF had to (1) ensure that a decisive break was made from the country's inherited Apartheid landscape of spatial and economic injustice, and (2) put in place a guiding framework for a vibrant, productive and just South Africa. Key in this regard was to ensure *national-scale* redress in term of access to, and ownership of *land* and *other resources*, while also guiding and supporting the creation of robust and resilient *settlements* and *regional and local* economies.

This first NSDF is nearing completion and being readied for submission to Cabinet, after which implementation will begin. While the preparation of the framework, and attending to the inputs and concerns of a wide body of stakeholders was no easy task, it is nothing in comparison to what its implementation will require.

In this paper, two members of the consultant team that supported the DRDLR in preparing the NSDF, engage and explore the massive and decisive changes that the implementation of the NSDF will require (1) *on the ground*, in terms of settlement and land development, land ownership and land-use, given climate change predictions and the shrinking availability of water and productive land, (2) *in the institutional domain*, in terms of the roles and responsibilities allocated to different spheres and sectors of government, and (3) *in behaviour*, in terms of how State and non-State actors undertake their spatial and economic development tasks and activities, and relate to, and collaborate with each other. While it may be regarded as a unique situation, this exploration of the South African case is sure to speak to similar urgently required transformations in other countries.

Mapping land use transformations: the Kumasi case

Frank van Rijn (Netherlands Environmental Assessment Agency)

6.4 Land & The Role of the State: Increasing Transparency and Accountability

Enacting legitimacy : the performance of state and non-state actors in local land registration in northern Uganda

Josh Maiyo, Doreen Kobusingye, Mathijs van Leeuwen, CICAM Radboud University Nijmegen

In the Acholi and Teso regions of northern Uganda, state legitimacy is highly contested. Weak governance structures, tensions between customary and statutory regulation, and the legacy of a North-South divide originating in colonial times create a situation in which state and non-state authorities compete for legitimacy. The complexity of 'legitimacy' possibly most strongly manifests itself around land governance. How authorities deal with land issues has important consequences for citizens' appreciation and acceptance of state authority. Over the last two decades, the Uganda government has introduced a series of important land reforms to deal with tenure insecurity and land disputes, resulting from long-term displacement, large-scale land concessions by the government, and unclearness about the status of customary tenure. These reforms notably promote decentralization of land administration, and enable the acquisition of Certificates of

Customary Ownership for customary land. But what do current land governance practices and reforms mean for the legitimacy of the state? How do they transform citizens' images of the state, in light of historical perceptions of exclusion of people from the North, and ongoing contestation around customary land? And how do development organizations' interventions to enhance local government capacities for land services provision and to promote particular understandings of legitimate authority feed into such dynamics of legitimation? Our paper presents the findings and preliminary analysis of a research project conducted in the first half of 2019, building on ethnographic fieldwork and participatory theatre in Acholi and Teso (sub-)regions of Uganda.

Toward Sustainable Peace: The socio-ecological dimension of the adopted Extractive Industry Transparency Initiative in Indonesia

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Marjanneke J. Vijge	Utrecht University
Bettina Bluemling	The University of Queensland
Frank Biermann	Utrecht University

Poor governance in the extractive industry sector in Indonesia has resulted in adverse socio-ecological impacts. Sustainable peace considers socio-ecological dimension a paramount measure. The Extractive Industry Transparency Initiative (EITI) is a global standard that seeks to increase transparency in this sector and improve governance quality through enhanced participation and accountability. This article explores the extent to which the EITI process in Indonesia might contribute to improving the quality of mining governance. It does so by examining both the societal and the ecological improvements that EITI may provide. Based on data from observation of mining governance in Indonesia and analysing EITI-Indonesia reports and its multi-stakeholder dialogue processes, we conclude that, although the process initiated by EITI Indonesia has contributed to improving the extractive industry government system related to state revenues, EITI has not significantly contributed to terminating the vicious cycle of social-ecological violence. The underlying factors are, first, that the adopted EITI standard does not go far enough in terms of increasing transparency; most companies are not obliged to disclose whether they paid the mine reclamation guarantee fund due to the applied threshold. The EITI does not disclose how the government spend the fund, and also withholds mining contract documents and its cadaster. Second, the EITI multi stakeholder forum falls short in terms of inclusiveness when it comes to the interests of the next generation and nature. Third, the lack of local actors' capacities to utilise the EITI report. Thus, we conclude that the EITI's transparency has not thoroughly established a governance system that is sensitive towards socio-ecological impacts of mining practices. The article provides key insights into the pathways towards sustainable peace, i.e. a situation in which violence against nature and humans is absent, together with the presence of positive qualities which support humans and nature to realise their potential.

6.5 Geo-information management for land administration: innovation, transitions and stability

WHEN INNOVATION MEETS INSTITUTIONS: LAND RIGHTS DOCUMENTATION IN GHANA

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Documentation of land rights can ensure tenure security and facilitate smooth land transactions, but in most countries of the global south this has been difficult to achieve. These difficulties are nested in the nature and ways that land documentation processes are carried out, and they manifest in high transaction cost, long transaction times and procedural inflexibility.

In response to these inefficiencies, innovative approaches of tenure documentation have been conceived at global level and are being promoted in many countries of the global south. Little is known yet about how such innovative land tenure documentation approaches fit in specific contexts and how different actors may view them. The implementation of innovative approaches becomes even more challenging in the African setting which is characterised by legal pluralism and administrative hybridity.

Using qualitative methods of data collection and analyses, this study explores how innovation in land tenure documentation takes place within the statutory and customary institutional land context of Ghana in the case of Meridia's initiative to implement innovative approaches. We found that the real innovation dwells in how promoters of innovative approaches negotiate existing land institutions by handling the challenges and making use of the enablements through a number of adjustments to the documentation process and products. We found that innovative approaches are able to overcome administrative challenges compared to legal challenges and they thrive on the flexibility of customary tenure institutions alongside the interpretative flexibility of some laws. Although innovative approaches seem to enhance tenure security, the extent to which land documentation certificates generated through such processes can be used as a legal document is still unclear.

Transforming land tenure regimes? Fit-for-purpose approaches to land rights mapping

Monica Lengoiboni*, Christine Richter*, Paul van Asperen* & Jaap Zevenbergen*

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The 2000s have seen a growth in the number of initiatives, that aim to not only increase the speed, ease, and affordability of land rights recording by use of digital (often mobile and web-enabled) mapping technologies (de Vries et al; Hendriks, et al, 2019; Lengoiboni

et al, 2019), but also aspire to 'capture' land rights based on local communities' established land allocation processes and spatial understandings, especially in regions of comparatively weak state capacity and influence. The discussions in land policy and development circles and the surveying profession about how to best typify these initiatives are ongoing and reflective of the contestations over the longer term aims and values to guide land governance and societal development. We refer to these initiatives as fit-for-purpose (FFP) approaches to reflect their emergent character, where both "fitness" and "purpose" become defined during the process of documentation, surveying and database design. Based on a closer look at this interplay for six of such initiatives we identify a set of commonalities and differences in organizational and technical terms, as well as a number of cross-cutting challenges. Based on this analysis, we argue, that the emergent nature of these initiatives is characterized by an ongoing calibration and re-calibration between application context (purpose) and technical design (fitness) in negotiation with existing land governance institutions. This calls for different forms of 'in-process evaluation' rather than input/output or co-variance type of evaluations. The four cross-cutting challenges, that we identified, can form conceptually relevant entry points to such in-process-evaluations of FFP initiatives.

Hendriks, B.; Zevenbergen, J.; Bennett, R., et al (2016). Scaling up pro-poor land recordation: findings and consequences of four cases. Annual World Bank Conference on Land and Poverty "Scaling up Responsible Land Governance," Washington DC, March 14-18, 2016.

Lengoiboni, M., Richter, C., Zevenbergen, J (2019). Cross-cutting challenges to innovation in land tenure documentation. *Land Use Policy* 85: 21-32.

de Vries, W.T., Bennett, R.M., & J.A. Zevenbergen (2015) Neo-cadastrals: innovative solution for land users without state based land rights, or just reflections of institutional isomorphism? *Survey Review*, 47 (342): 220-229.

Land governance in transition: the case of the Hellenic Cadastre

Evangelia Balla, PhD Candidate, University of Twente of Twente, ITC.

The commencement of the development of the Hellenic Cadastre System (HCS) in 1995 aimed to introduce a new land conveyancing system, comprised of a land registry and cadastre part. The new system, which was designed at the cutting edge of the geo-information technology at that time, would replace the existing paper and person based deed system, the Registrations and Mortgages System (RMS), which was introduced in Greece, in 1836. After 24 years, the HCS is operating for almost one-third of the country's total property rights. Furthermore, in the current time, the bulk of cadastral surveying, forest mapping and land registration projects are in progress in 84.6% of the country's area (62.2% of total property rights), while the milestone for the completion of the Cadastre has been set to June 2021.

The current presentation will provide a descriptive overview of a research undertaken at the Department of Urban Planning and Geo-information Management of the ITC at the University of Twente. It will further provide insights which are the purpose and the main objectives of the new HCS, which assumptions guided its introduction and how did some

of these assumptions change over time. Furthermore, it aspires to present how do the main actors involved in the introduction of HCS, perceive the promises and greatest risks related to the development of this new geo-information technology, as well as, the anticipated and observed societal changes in the short and long run. Overall, the new HCS, is not simply a new geo-information technology: it's a large scale formalization land rights programme, which affects the biggest part of the Hellenic society: consequently, it changes the people-State-land relationship, and generates tensions among people, as well as, between people and the State. Thus, this presentation will provide an overview how the introduction of the new geo-information technology of the HCS contests an existing "land tenure status quo", with the outcomes and benefits it intends (and promises) to produce.

Tenure Security through the Namibian Communal Land Administration System

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Communal land rights registration began in 2003 following the enactment of the Communal Land Reform Act No. 5 of 2002 which provides for the administration of communal land. Thereafter, the Ministry's efforts in registration was complemented by the support of the Millennium Challenge Account Namibia (MCA-N) through Communal Land Support (CLS).

Currently, the Communal Land Rights Registration (CLRR) project under the Programme for Communal Land Development (PCLD) has since 2013 been jointly funded under a Basket Fund by the Namibian Government and the German Government through the Development Bank (KfW) and European Union.

In order to ensure secure storage and processing of land rights information, Namibia Communal Land Administration System (NCLAS) was developed NCLAS is made up in Microsoft SQL Server and ArcGIS and it is a national system with different modules used to store, manage and process land right records for the registration of land parcels. The system also provides for the management of Appeals Management (AMS) for processing cases of appeals against decisions by the board and Lease Billing and Cost Management System (LMBCS) used to aid the collection of revenue through lease fees. NCLAS contains reporting functionalities that allows reporting on performance management, and monitoring & evaluation including application tracking during registration. Furthermore, NCLAS is used as a reference point for inheritance, obtaining loans from some financial institutions through the land right, dispute management and resolutions.

With over 120,000 land rights registered thus far, the new challenge now is to ensure that the analog filing system is complimented with digital filing of an estimated 245,000 land rights in Namibia. Further it's to also strengthen the security of certificates and maintain up to date data.

Building Urban Land Information Management System in PostgreSQL, for the case of ETHIOPIA

Abraham Kelilo and Firaol Befikadu, Civil Informatics Centre, Ethiopian Construction Design and Supervision Works Corporation, Addis Ababa, Ethiopia

Population growth and rapid urbanization in Ethiopia have created an exponential increase in the demand for urban land. As a result, the information requirements for land administration and management have tremendously increased. This paper describes the steps for a building database prototype for urban land information management system for the case of Ethiopia which is aimed for an efficient and effective way of managing both spatial and non-spatial urban land administration data. This research project will develop a central database in PostgreSQL to be used to retrieve, update and store the required data using a user-friendly graphical interface which is designed by Visual Basic.NET programming language. System requirement and specification is devoted to a system design which incorporates the intended system behaviour using a use case diagram, logical design of the system using a class diagram. The design system is validated and tested via sample data which can store, retrieve, and update the required data as per the user requirement. After deploying urban land information management system as a final product of this research project, land registration and related activities at municipality level became more efficient and effective as a result, citizens would be satisfied by service delivery of the municipality. The existing problems in land and real estate ownerships registration will become automated. Furthermore, any data related with the system can be stored in the database which will be ready for more analysis as to be able to use by policymakers, urban planners for the purpose of sustainable development of urban area infrastructural developments and land use policy.

Keywords: land administration and land management, prototype, PostgreSQL, programming language, urban land information management system, Ethiopia

6.6 Dynamics of Due Dilligence: Conditions for Responsible Land Based Investment

Closed session

6.7 Land governance, administration and law-making

How Can Senegal's Public Administration Create Sustainable Area Development In Its New Urban Triangle Dakar - Thiès - Mbour ?

LIFTcities, Marius Stehouwer

The Area and its Challenges

The triangle Dakar – Thiès – Mbour defines the boundaries of Senegal's new urban area (4,000 km²), already hosting the country's new international airport and with planned hosting of two new sea harbors. The area houses new business zones, a toll highway road, a high speed railway line and hotels It has been planned that the population size in the direct environment of the international airport, will grow strongly, to 0,9 million people. The local population is concerned that they will hardly share in the profits and

employment creation. Local authorities feel inadequately equipped to safeguard and create 'public value'. Authorities at higher levels recognize the area's challenges. Ecologically the area is in degradation by the cutting of trees, and local population's village wells are dried up because water is pumped up by newly arrived larger economic operators. The land development is blocked by a stalemate in the land situation. This 'deadlock' has been caused by the recent buying of land by external speculators who anticipated on an expected 'land value jump'. They informally bought land from the local rural population with 'the blessing' from the local authorities but without a formal national endorsement and registration. In reality, the development of the area doesn't take off and the land value jump doesn't occur.

Building Blocks for A New Practice of Public Governance

Senegal's public administration is assisted, by LIFTcities and its partners, to practice planning for area development with at least the following characteristics: • Spatial area planning that takes into account parameters such as hydrology, public space and social housing • Close consultation with civil society and private sector (SDG-17) • Well-grounded on a financial plan in which public administration 'captures' the land value jump for public expenditure

Examining e-Governance: A study of Land Records Management System in India

Ms. Gaurika Chugh, Research Scholar, Centre for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi.

E-governance is considered as one of the key imperatives in realising the idea of good governance in our country. This article embarks on whether the use of information and communication technology in the area of land records can be a substitute to good governance. The primary rationale behind this work is to study the system of land records in India and the various reforms initiated by the state to bring transparency and efficiency in the system of land records and by the study of various reforms like 'Strengthening Revenue Administration and Updating of Land Records' (SRA and ULR), 'Computerisation of land records' (CLR) and 'National Land Records Modernization Programme' (NLRMP), this article will underpin what are the shortcomings that are standing in the way of ensuring 'good governance' in the domain of a robust land record management system in the country.

Influence of Transparency of Land Administration on Land Markets: Case Study of Turkey

Umit Yildiz, University of Twente- Faculty of Geo-Information Science and Earth Observation (Visiting Scientist), General Directorate of Land Registry and Cadastre, Turkey

Land is a scarce resource and has a big share in economic and social life of both developing and developed countries. In the past, having talked about land markets only buying, selling, developing, renting or securing activities about land rights might have come into mind. In addition to these activities, especially in developed countries land markets have evolved with new forms of complex tools like capital market instruments based on real properties or financial instruments based on land rights or backed by

collaterals. Total global land and improvements value in the World in 2017 is estimated as US \$ 228tn with a 5 percent real terms increase relatively with the previous year [savills,2017]. According to the Rogers and Koh, global average in real property investments in the overall investment portfolio is %32. [29] Due to the fact that land is a scarce resource, consequences of development level of land markets should be monitored well for making analysis about social, political, economic or other issues.

Although there is not an absolute standard for measuring the development level of land markets in the World, some indicators can be identified for this purpose. A well-functioning land administration system can be evaluated as one of the main data sources for figuring out the situation on these indicators like number of sales, transaction volume of real property investment markets, diversity of land-based instruments and the amount of foreign direct investments on real property.

Securing property rights for all is the most crucial issue in every phase of land markets' development period. In terms of transactions on both land and land rights or complex commodities regarding land, good governance is essential for the protection of rights. Good governance concept can be evaluated as a framework for well-functioning land administration and transparency is widely recognized as a core principle of good governance.

The making of land laws – The Case of Timor-Leste

Bernardo Almeida

In any country, lawmaking is a complex and fairly chaotic process. However, the specific characteristics of lawmaking in developing countries – such as lack of resources, poor regulations of the legislative process, and weak legal culture and political accountability – make their legislative processes particular and require a specific analytical framework when being studied. Using the lawmaking process of land-related legislation in Timor-Leste as its main case, this presentation proposes an analytical framework for the study of lawmaking processes in developing countries, highlighting the main points that must be studied.

The main conclusion of this presentation is that the process through which legislation is drafted, debated, and approved matters; if the process is bad, one cannot expect to have good legislation. On the other hand, the lawmaking process will never be perfect, especially in the conditions experienced in developing countries, and inaction in search of the perfect process is often worse than a pragmatic approach to lawmaking.

This presentation argues that, while lawmaking is burdened by a number of problems and dilemmas for which there are no definitive solutions, it is possible to study this process and find pragmatic ways to improve it. Steps such as mandatory pre-drafting research, debate of policy-options documents, public consultation in various formats throughout the drafting process, monitoring and evaluation plans, and professional translation units would significantly improve lawmaking processes and therefore land-related legislation in developing countries. While good legislation is not a guarantee of a better and fairer formal land tenure systems, it definitely helps.

7. Land Governance and New Technologies

7.1 Uniting global and hyper-local data for land

Closed session

7.2 Land Lost In Translation: Interactive workshop

Closed session

7.3 New Responses to New Challenges: A Land Technology Sandbox

Utilizing Mobile Applications and an Open Platform for Documenting and Managing Land & Resource Rights

Anne Girardin, Cadasta Foundation

Founded in 2015, Cadasta is committed to empowering individuals, organizations, communities, and governments with the information they need to make data-driven decisions to secure land rights and improve resource governance. Cadasta has developed a digital tools and approaches to:

- help partners efficiently document, analyze, store, and share critical information,
- support neglected and marginalized populations not served by formal land systems to document their land and resource rights,
- assist land governance actors to push laws and policies forward in order to integrate the most vulnerable populations in the formal system.

Through our paper and presentation, we will first highlight how the Cadasta Platform has been designed to create a transparent cloud-based platform supported by mobile applications to collect and manage land rights related data. Furthermore, the platform allows for the management of spatial data, and tracking of metrics and key indicators through dashboards. The platform provides stakeholders the ability to share data based on permissions, allowing a greater understanding of the land information landscape, increasing tenure security and providing necessary data for planning and decision making

We will highlight our experience with a specific partner, CMAP, which has trained members of the Port Harcourt, Nigeria Waterfront communities to capture and update structures using high-resolution satellite imagery, household and utilities information, as well as training staff members of the office of the Surveyor General of the State to the use of the Cadasta tools for editing, managing, printing, and challenging information such as existing registered and non-registered rights, easement roads, utility services and risks zones.

ChromaWay Brief for LandAC Conference

ChromaWay is a leading blockchain software provider in the land registration, commercial and residential real estate market, and the mortgage industry. Our work with

numerous land registries in Europe, North America, and Asia will enable LandAC conference participants to benefit from lessons learned from past projects. ChromaWay provides open-source blockchain technology solutions which include Postchain, the consortium database that utilizes blockchain protocols to synchronize data across multiple organizations and Esplix, a robust smart contract/secure workflow application.

The smart contract/secure workflow tool coordinates and verifies agreements (e.g., land agreements) and business workflows (e.g., property conveyance) by using smart contracts. Smart contracts *“are a set of promises, specified in digital form, including protocols within which the parties perform on these promises.”* Participants in a smart contract log their commitments to a blockchain. These commitments move the contract forward in a workflow. At any one time the state of the contract can be reviewed, and what commitments the participants have made. If need be, these commitments should hold up as evidence in a court of law.

The application of this technology is highly relevant in a developing economy context where these tools can be paired with both central land registry survey and conveyance processes and local land documentation initiatives. In the case of central land registries, smart contract-based technology can be used to support the conveyance of land transactions (e.g., transfers, lien releases, etc.). Local land documentation initiatives can benefit by utilizing a transparent, secure method for maintaining a local registry.

For the session, ChromaWay will deliver a short lightning talk introducing the audience to its technology, and then lead participants through a case study of how to use blockchain in the context of a property transfer. Components of the case study will include:

- Distribute a modeled land transaction process (e.g., property transfer) (10 minutes)
- Distribute the modeled process as a smart contract (5 minutes)
- Demo the modeled process as a smart contract using an application (10 minutes)
- Answer questions (5 minutes)

“Drone technology”

One of the main reasons why the formalization of land rights is in many countries experiencing seemingly insurmountable backlogs is that conventional techniques of land surveying require a considerable level of specialized skills and instrumentation. Hence only relatively few adequately credentialed professionals are facing the challenge of catching up with the formalization of land rights. Furthermore, the services of the credentialed organized professions are generally unaffordable for many people who do not have their land rights formalized.

The emergence of Global Navigation Satellite Systems (GNSS) in the early 1990s and more recently of drone and appropriate mapping technologies presents opportunities to drastically improve the efficiency of land surveying operations while at the same time reducing the required minimum skills for the performance of reliable and accurate land measurements. The use of drones in combination with Global Navigation Satellite Systems and the Structure from Motion mapping technique provides for local and decentralized production of geo-spatial products with extremely high levels of accuracy

and resolution. From previous work in Albania and the Philippines we know that particularly the high resolution changes the game in the use of maps because it widens the user base to include all levels of skills and education. While the abovementioned technologies are rapidly being integrated in well established best practices and efficient procedures, their official adoption as a legitimate method of mapping and surveying is being hindered by either a total lack of a regulatory framework or by irrational compliance requirements arising from concerns regarding safety and privacy issues.

Micro Aerial Projects LLC has pioneered the use of drones and the Structure from Motion (SfM) mapping technique in cadastral surveying for some ten years now. After having demonstrated the efficiency and appropriateness of drone technology first in Albania and subsequently in the Philippines, we are currently enjoying the support of the Omidyar network to build drone surveying capacities in Ghana and Colombia and ultimately to promote and support the implementation of drone-friendly policies to accelerate the rate at which land formalization backlogs are being addressed.

Drone technology can best benefit society if it is embraced in a rational, enabling regulatory framework. To create such frameworks policy makers, need to be familiar with the operational aspects as well as the potential benefits of this technology.

Our participation would facilitate a realistic “ground level” familiarization of real-life operational scenarios in drone surveying for property rights. The aim would be a better understanding of drone technology aspects by relevant policy makers in both NGO and government sectors. We could draw on experiences in Albania, the Philippines, Ghana, Namibia and Colombia.

Poster presentations

“Uncharted waters”: Capturing the physical and socio-spatial phenomena of water accessibility in Fada N’Gourma, Burkina Faso

David Immer, Research Master Student at University of Amsterdam

As towns in sub-Saharan Africa are rapidly urbanizing, providing equal access to water presents an alarming challenge. Indeed, current literature suggests that access to water is highly conditional on a person’s location within a town. While previous research studied the extent of water access inequality in urban sub-Saharan Africa, the spatial phenomena which lead to unequal access to water have not yet specifically been analysed. This research project fills this gap by studying the physical as well as socio-spatial phenomena of water accessibility. For the purpose of this research, a spatial phenomenon is understood as a place-specific social or physical phenomenon that impacts water accessibility. Acknowledging the dialectic of the social and the physical, this research project adopts a political ecology perspective. For the analysis, a mixed-methods approach consisting of in-depth interviews and a survey has been conducted in the town of Fada N’Gourma in Burkina Faso. Multiple perspectives of water users and water managers have been taken into account to provide a holistic picture. As a result, the paper identifies different physical and socio-spatial phenomena that impact water accessibility. For instance, clustering of water point infrastructure is a socio-spatial phenomenon, while land elevation is a physical spatial phenomenon that is found to impact water accessibility in the town. Other factors that have been identified are population size, land-use strategies and governance structures. While current water infrastructure planning in Fada N’Gourma focuses solely on population size, the findings suggest that a more holistic strategy is required in order to achieve equal access to water. Therefore, the paper provides a framework for incorporating the identified spatial phenomena into future water infrastructure planning.

Keywords: water accessibility; spatial phenomena; political ecology; Burkina Faso

Agriculture Exit for Land Accessibility: Farmer’s Professional Conversion, Is It the Solution in the Northern Rwanda?

Mireille Mizero (Univerité de Liège)