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Co-creating land governance research agenda by, for, in, and on Africa: Experience of Network of Land Governance Researchers on Africa (NELGRA)

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ABSTRACT

Africa and Africans' response to the challenge of spearheading innovative research and in formulating comprehensive policies on land governance are very recent. Across the continent, the African Land Policy Centre (ALPC) has emphasized and prioritized knowledge acquisition and capacity development on land governance especially through its Network of Excellence for Land Governance in Africa (NELGA). Notwithstanding the strides made through NELGA, there are still gaps at both the regional and local levels in terms of impacts in developing research capacities in land governance. In the context of land governance, research networks are inter-connected groups who are dedicated to academic research in and on a specific subject or focus on the emerging paradigms of land management. Over the years, many institutions have been targeted with capacity building packages on land governance, with little focus on the researchers themselves and how their self-built research networks could be useful in promoting good and sustainable land governance. This paper argues that one of the strategies for facilitating the development (and/or expansion) of African research portfolios is the operation of semi-formal to informal research networks focusing on individual researchers that can enhance collaborations among African researchers to improve cocreation of knowledge based on locally observed and scientifically investigated scenarios.

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Introduction

The challenges to local development in African countries takes various forms. Being a continent that depends on natural resources, poor governance of land and natural resources has long been identified as a big setback at various levels – national, regional, and local. Poor and inequitable access to land and natural resources and the low dearth of knowledge about land/property rights remain serious challenges all communities in Africa face. These setbacks can be classified as a governance and capacity development challenge, and which requires urgent multiple stakeholders' perspectives and transdisciplinary research-based interventions across the region. It is a challenge that cannot be left to politicians and policymakers alone. All persons, especially researchers are supposed to engage in finding solutions to improving the situation.

African-wide responses to the challenge of achieving innovative research and policies on land governance are relatively new (Chigbu, Paradza, & Mwesigye, 2019). At the continental level, a formidable structure exists as African Land Policy Centre or ALPC (and its Network of Excellence for Land Governance in Africa or NELGA initiative). The ALPC provides guidance on building the knowledge base on land governance in the continent. The ALPC is the first institution to launch a holistic and comprehensive program in generating and disseminating land governance knowledge in Africa. Supporting the NELGA initiative (a program of ALPC) is the ADLAND¹ model "which advances the concept and praxis of responsible and smart land management, in the context of, and for, being able to address the African land policy needs" (Chigbu, de Vries, Diaz, Schopf, & Bendzko, 2018, p. 4). Despite these ongoing academic and research collaborations, there are still gaps at the regional-to-local levels in terms of impacts in building research capacities in land governance, and how to facilitate improved research outputs around the continent. To achieve improvements in the research outputs in Africa, it is important that the efforts of the ALPC (and NELGA) be better translated into concrete outcomes. This would not be realistic unless African researchers are directly involved in the building and dissemination of knowledge on land governance at various levels of learning in Africa. Indeed, African researchers with the benefit of local experiences must drive the land governance research agenda to offer Africa context solutions. This is what makes research networks relevant to land governance education and capacity development in Africa.

Within various disciplines, "research networks have emerged to connect researchers who are physically separated, to facilitate sharing of expertise and resources, and to exchange valuable skills" (Hagen et al., 2011, p. e243). "They provide a platform upon which new collaborations can take place, to stimulate innovation processes, and creating breakthroughs in the topic of interest" (Thomsen, 2014, p. 3). This paper argues that one of the strategies of or for facilitating the development (and expansion) of African research is the operation of research networks that can enhance collaborations among African researchers to improve the co-creation of knowledge based on locally observed and scientifically investigated scenarios. These kinds of networks even in social forms have facilitated health improvements in many cases through formal and informal social interactions (see Thoits, 2011). They are also relevant in improving educational outcomes, technological transfers, and other wellbeing effects (see Darling-Hammond, Flook, Cook-Harvey, Barron, & Osher, 2020). In the context of land governance, research networks are interconnected groups who are dedicated to academic research in and on a specific subject related to the paradigms of land governance (Chigbu et al., 2018).

The objective of this paper is to summarily present the co-creation process, which led to the establishment of Network of Land Governance Researchers of Africa (NELGRA), and to present a case for the creation of research networks in Africa for and by African researchers. In the next sections of the paper, the relevance of networking theories and

its connection with academic research (in the context of Africa) is discussed. The third major section of the article presents the strategic trust of NELGRA and the processes leading to the formation of the research network. The last section presents the conclusion to the study and highlights the way forward in sustaining this research network and extending opportunities for other land governance researchers across Africa and beyond its core formation group.

The co-creation concept is diverse. It has been "proliferated, being associated and invoked with many diverse topics and application areas, including design and development of new goods and services" (Ramaswamy & Ozcan, 2018, p. 196). The study presented in this article contributes to ongoing discourse on the co-creation of knowledge platforms for researchers involved in the development of society (Esquerra & van der Hel, 2020). Co-creation concept and practice that dominate the literature have focused on business processes, brand and value creation, teaching and learning, research protocols, and design products (see Bovill, 2020; Sales-Vivó, Gil-Saura, & Gallarza, 2020). This study goes beyond the mere interactional creation (which is well known in literature) to the cocreation of a platform for land governance researchers to network. To operationalize this study, the study relied significantly on the proceedings of the International workshop – ADLAND-KNUST Research Development Workshop held in Kumasi, Ghana from the 4 to 6 June 2018. This study critically documents the participatory processes and outcomes of the workshop and how NELGRA was co-created as an outcome of the workshop proceedings. The workshop consisted of multi-level African land governance researchers who are seeking knowledge and sustainable collaborations, and how to secure appropriate funding opportunities to support these endeavors. Based on the nature of the data used, the study adopts a descriptive narrative approach in order to vividly present all the processes that were part of the workshop proceedings. These narrations were then critically posited within the wider literature on academic networking theories and discourse. The details further presented in therefore a nuanced discussion between the practical processes used in the Research Development Workshop and also extant literature on African context research networks. The rest of the paper is therefore structured as follows: Section 2 discusses networking theories and academic research nexus within an African context; Section 3 describes the co-production processes leading to the emergence of NELGRA; Section 4 discusses land governance agenda as a co-product, while Section 5 presents the conclusion of the study and the way forward.

Networking theories and academic research nexus: The African context Academic research networking from the perspective of literature

Academic network and collaborative activities are occurring under a variety of arrangements including formally structured agreements between parties as well as informal social networks of members within the network. The concept of networking had long been applied in disciplines such as social science, psychology, and business studies. From a socio-psychological perspective, network refers to a set of actors (individuals or organizations) connected by a set of ties, which can be of a more or less formal nature (Borgatti & Foster, 2003). In the view of Muijs, West, and Ainscow (2010, p. 6), networking encompasses "at least two organisations working together for a common purpose for at least some of the time". They further opined that, "joint activities between actors from different organisations within the network" is termed as collaboration. One key motivator of networking and collaborations in recent times, is the perceived benefits of collaborative activities as necessary in business and in schools inspired by an increased need for innovation and quality output to withstand international competition where networks can help reduce exposure of organizations to risk and uncertainty (Borgatti & Foster, 2003). It is also necessary to ensure that basic standards are developed, understood, and enforced in order to guide the activities of the members in every network.

Indeed, there are a number of theories underlying the concept of networking and collaboration. For the purposes of this paper and in line with its objectives, constructivist organizational theory, and social capital theory are briefly discussed as these theories resonate with the goal of the paper. The constructivist theory as a basis of networking posits that organizations are sense-making systems that create shared perceptions and interprets reality. As such, each organization to some extent has its unique perception of reality within its local context. According to Muijs et al. (2010, p. 6), the sense-making function of the organization and the ability to construct its own perception of reality is very critical for the effective functioning of the organization. However, the organization in this context may run the risk of becoming myopic in its outlook as the shared perception of reality may be closed to the external influences thus leading to a disconnection with alternative realities and the external environment of the organization (Muijs et al., 2010). In the view of Nooteboom (2004), the "myopic problem" requires that, the more complexity and uncertainty in the organization's environment, the more there is the need to collaborate for the organization to develop the required competencies and skills to cope with the complexity and the impacts. The development of these competences in every organization cannot be done independent of the individuals that make up this organization. Hence, organization-to-person competencies matter, and so are person-to-person centered competencies.

Furthermore, the social capital theory is also important to the present discourse of the co-creation of knowledge. This theory emphasizes the value of networking and collaboration in building social capital. Within the context of social capital, resources embedded in a social context are accessed or mobilized for purposive action (Lin, 1999). Thus, the value of networking and collaboration is anchored on the ability to tap the resources held by other actors and this increases the flow of information within the network (Muijs et al., 2010). Social capital can help spread innovation and knowledge creation that is more open and adaptive to change (Hargreaves, 2004). The social capital theory as a basis for networking has benefits, which transcends beyond the individual members. The benefits are both an individual and collective good (Muijs et al., 2010) for all the persons within its ambit that have similar attitudes, traits, and behaviors, and in our particular context, the beneficiaries are direct participants and their affiliated institutions.

Besides, the value of networking and collaboration produce the network power. According to Booher and Inner (2002), network power, as a concept is the collective ability of linked agents to alter their environment in ways that are advantageous to these agents individually as well as collectively. This power emerges because participants in a network focus on a common task by bringing their various energies and expertise to develop shared meanings and ethical rules intended to increase the probability of solving a problem. The power increases as participants identify and build on their interdependencies geared at creating new potential and in the process generates innovations and creativity, which is tailored to resolving the particular problem. The innovation and creativity then become the hallmark of adaptive change and constructive joint actions aimed at solving social problems (Booher & Inner, 2002; Muijs et al., 2010). Thus, the NELGRA network long-term objective is to build the network power of land governance professionals that will lead to innovations and creativity in land governance research in Africa. By recognizing the interdependencies of land management professionals in terms of experiences and professional orientations from various socio-cultural and political environments of land management, individuals and collective constructive joint actions can help resolve land governance problems in Africa.

Furthermore, experts have asserted that, network power is consistent with Giddens classification of power – power of ideas and power of action (Booher & Inner, 2002; Faul, 2015; Hackling & Fynn, 2016). Thus, the network power depends on the flow of ideas from the network medium and on the power of action from individual participants within the network. Therefore, individual agents are able to exchange ideas on a particular subject or research agenda and based on that, act on these ideas by researching on such ideas as individuals or smaller groups within the larger network. However, network power is enhanced when the following conditions prevail. First is diversity. Diversity means that agents or participants within the network should have different socio-cultural orientations and political consistency, with a full range of interests and knowledge that are relevant to the research agenda. These differences should reflect the lived experiences, the expertise of participants, diversity of values, resources, geography roots, and information (Booher & Inner, 2002). Second is interdependence. This implies that agents should have something to offer that others want to utilize in resolving the problem at stake. This could be leveraging of expertise and exchange of experiences. The third condition is that there should be authentic dialogue. This means the exchange of ideas through the network medium should both be accurate and trusted by all agents to allow network agents to take full advantage of the diversity and interdependence (Booher & Inner, 2002).

We have used both the constructivist and social capital theories to illustrate the fact that, peer-to-peer networking and collaboration is equally as important as organizational networks and collaborations. The value of social capital created among individual academics and their respective organizations builds the network power that allows participants in the network to gain first as individuals, second, as organizations, the network as a whole, the society, or a combination of these. Thus, in the area of land governance, the growing population and rapidly expanding urban settlements and economic activities in the African continent, compound the land problem, which cannot be fully understood from a myopic perspective as described by Nooteboom (2004). It will require, the combination of multi-level competencies to critically understand some of the emerging complexities in the land question to be able to proffer functional solutions. As embraced by the constructivist theory, collaborative research has become an imperative tool for the researchers in the field of land management to be able to tap into the knowledge and experiences of colleagues across the globe. NELGRA can be said to fall within this theory since it engenders a collective research agenda for the co-creation of knowledge by Africans, for Africans, in Africa, and on Africa. Through the collaborative activities at the individual level with the sole purpose of knowledge creation and sharing, the wider institutional level collaborations become much easier and sustainable. The individual researcher's capacity development is better enhanced through openness and networking to an external community in both formal and informal ways.

In all this, members of these networks should be committed to cause change and ready to contribute expertise toward developing solutions that are innovative and tackle the critical issues of society. NELGRA (which emanated from the ADLAND research activities) is necessary to create social capital which benefits both individual members through knowledge sharing, joint fund application, materials sharing, and the collective good where the organizations where the network participants are members will potentially benefit from increased experience and knowledge of its staff. This ultimately will advance the objectives of ALPC and NELGA. As opined by Muijs et al. (2010, p. 10), "knowledge lies in different minds, both individual and collective, and therefore networks are needed to increase effectiveness". The typical academic/research problems faced by the land sector in Africa – especially the paucity of reliable data for policymaking to improve scenarios of lack of access to land, land tenure insecurity, weak land governance structures and the lack of approaches that are locally adaptable - are evidence that research networks are necessary in the continent.

The African context of research networks

Land governance, in African societies where customary and statutory tenure systems are still actively mixed in practice, demands knowledge building on the best practical and operational arrangements to support its sustainable development. This implies that improving land governance in the continent requires direct associations between individuals involved in the subject. Hence, why this paper considers land governance and networking worthy of investigation. According to Chigbu, Enemark, and Zevenbergen (2020), the few active networks dedicated to land governance or land-related research in Africa include NELGA, the Eastern African Land Administration Network (EALAN), the African Urban Planning Research Network (AUPRN), African Model Forest Network (AMFN), Network for Industrially Contaminated Land in Africa (NICOLA), African Mining Network (AMN), and Association of African Planning Schools (AAPS).

EALAN network is a platform where selected academic institutions with an interest in land administration education in the Eastern Africa region come together for the betterment of the profession, and the provision of public goods and services. It has been in existence for 11 years now and has chalked significant achievements including the establishment and administration of the Journal of Land Administration in East Africa and, the comparison and harmonization of Bachelor (BSc), Masters (MSc), and Doctoral (PhD) programs across the East African region. NELGA is established to anchor a program for training and research on land policy development, implementation, and monitoring in Africa, and to foster cooperation of African governments and institutions on land-related issues. The AUPRN was established in 2013 to join researchers, planners, policy makers, and post-graduate students in the broad area of African urban studies, and urban planning issues in the continent, to enhance the interdisciplinary study in the field of African Planning Studies. The AMFN was established in 2009 with support from the Government of Canada. The AMFN's mission is to facilitate the development of Africa's forest wealth and diversity. NICOLA is a forum for promoting cooperation between industry & mining, academia, regulators, and service providers. The AMN was established to develop and build relationships across Africa's mining sector and give the world a preview of what is happening in mining in Africa. Table 1 presents the characteristics of these land governance or land-related research networks in Africa, and their unique operational locations, purposes and focal areas are highlighted.

All of these major networks (and many unmentioned minor ones), either have links to the universities that offer educational programs in land administration and land management (and other land-related programs) or are industry based. However, they share one thing in common. That is, the interest to engage in knowledge generation and dissemination, as well as research in land resource development in Africa. Most of them operate in ways that do not specifically or directly encourage person-to-person networking toward the goal of capacity building in land governance. This is why NELGRA, which was an outcome of a co-creation process, emphasizes co-creation (or co-production) as a major thrust in developing a platform for scientific research and knowledge creation. It centers around the researcher himself or herself and creates room for the sharing of personal research and professional experiences across various aspects of land governance, and to build momentum for the future paradigm shifts.

The method of co-production leading to the emergence of NELGRA

NELGRA is an outcome of a co-production process done as part of the methods for conducting a research development workshop (RD-Workshop) conducted at the Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana. The International RD-Workshop, entitled, ADLAND-KNUST Research Development Workshop, was part of the series of collaborative activities funded by the Consortium named ADLAND (Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa). ADLAND is an agency mobilized by the German Corporation for International Development (GIZ) to provide capacity development support to the

Table 1. Characteristics and differences of land governance networks.

Network	Location	Purpose	Focal Area
EALAN – 2013	East Africa – Tanzania, Ethiopia, Rwanda, Uganda, Kenya, RDC, Burundi and South Sudan	Academic and knowledge exchange	Country/Institutional
AUPRN – 2013	South Africa with 17 partner institutions	Urban research and capacity building	Multiple partners – researchers, planners, policy makers,
AMFN – 2009	Cameroon, Congo, CAR, Rwanda with secretariate in Canada	Development model forests in Africa	Governments through Forest Departments
NICOLA	South African based with over 25 company membership	Platform for the development, application and dissemination of sustainable practices, knowledge, and technologies	Industry & mining, academia, regulators, and service providers
AMN	South Africa	Develop and build relationships across Africa's mining community	Mining companies focus
NELGA – 2016	Ethiopia with over 50 partner institutions	To strengthen human and institutional capacities	Institutional Focus – Universities and institutions of higher learning
AAPS – 1999	57 planning schools in 18 African countries	To facilitate the exchange of knowledge among African planning schools	Institutional focus – planning institutes, departments and

Source: Authors Construct.

NELGA program. The criteria for the selection of the academics and practitioners to participate in the workshop was based on their membership of NELGA institutions. The ADLAND organized the workshop in collaboration with the KNUST during the period of 4 to 6 June 2018. The engagement processes and outcomes of the workshop (i.e. emergence of NELGRA) is considered in the next sections.

Approach to co-production

The debate concerning co-production approaches is ongoing (Roth, Socha, & Tenenberg, 2017). Hence, there is no correct or incorrect way to co-produce transformative research agenda, projects, or outcomes (Mauser et al., 2013). In the context of the situation of NELGRA, a co-production approach is designed to motivate participants to identify research needs on land governance in Africa, and to find ways of addressing them. The workshop targeted African researchers who are seeking knowledge sharing on how to engage in research collaborations, publications, research networking, and strategies for seeking research funds from global and international development organizations in the areas of land and related sectors (see Table 2). A participatory, but rapid approach to coproduction was adapted (see Figure 1).

The rapid approach to the co-production was adopted due to the short span of the workshop (3 days). The rapid approach to co-production can be used in cases where participants come from various geographies and have limited time to resolve a problem of general interest (Chigbu et al., 2016). The challenge of creating pathways to sustainable land (and natural resource) governance was of common interest to all participants, and the 3-day timeframe for finding a path to contribute to improving this challenge in Africa posed a limitation. The co-production process involved five steps: (1) stakeholder familiarization; (2) joint framing of the workshop themes that reflect needs assessment in the context of land governance challenges in Africa; (3) co-patterning of questions, which if well answered could translate solutions to the challenges jointly framed; (4) co-delineation of the possible answers to be debated issues; (5) co-prioritization of the best responses to debated questions, and co-adoption of the most suitable response to be translated into a manageable project.

Every step of the co-production process was interactive in nature and participants shared experiences and partook in breakout group work tasks, group presentations,

Table 2. Selected demographic profile of the participants.

		Ge			
Research Institutions	Country	Male	Female	Total	
Kwame Nkrumah University of Science and Technology	Ghana	12	2	14	
University for Development Studies	Ghana	2		2	
Kumasi Technical University	Ghana		1	1	
Federal University of Technology	Nigeria	1		1	
Kaduna Polytechnic	Nigeria		1	1	
African Institute for Agrarian Studies	Zimbabwe		2	2	
Wa Polytechnic	Ghana	1		1	
Technical University of Munich	Germany	1	1	2	
University of Zambia	Zambia	1		1	
University of Twente/ITC	Netherlands	2		2	
Total Participants		20	7	27	

Source: Authors' compilation, 2018.

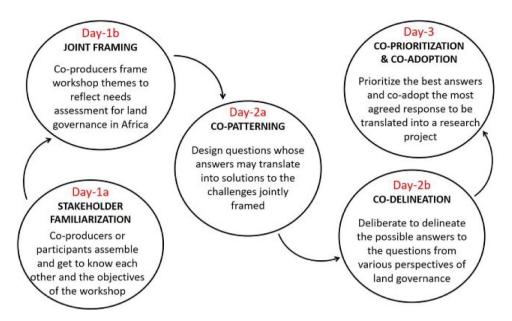


Figure 1. The rapid co-production process adopted during the workshop (Authors' illustration).

moderated discussions, and excursions. The workshop was structured to enable the participants to take center stage in workshop discussions and deliberations. The stakeholder *familiarization* and *joint framing* sessions were conducted on the first day. It allowed for individual networking and group *familiarization* with the individual aspects of all participants' interest in land governance research. This was done using *the expert metrics* strategy (Figure 2).

The expert metric strategy used in this co-production is based on Orekhova, Tilinska, and Karrar (2015) expert metric assessment which was in this case adapted for the purpose of identifying the core expertise of participants as part of the co-facilitation involved in the familiarization of people (in this case participants in a co-production process) based on their research expertise rather than other metrics such as gender, race, ethnicity, place of work (to mention a few). It is important to note that the expert metrics were not merely used as an icebreaker to open the sessions on the first day. It was considered as a core part of the entire process. All participants had to write their expert areas and orally communicate their perspectives on that subject area in the context of developing a research agenda for Africa. Both the stakeholder familiarization and joint framing sessions lasted half-a-day each (Day-1a and Day-1b).

The *co-patterning* and *co-delineation* were done on the second day (Day-2a and Day-2b, respectively). The *co-prioritization* session was conducted on the third day (Day-3). During each session, two participants were nominated – one as the facilitator, and another to summarize the proceedings. Each day, all common resolutions reached, were firmed with individual and group commitments for the actualization.

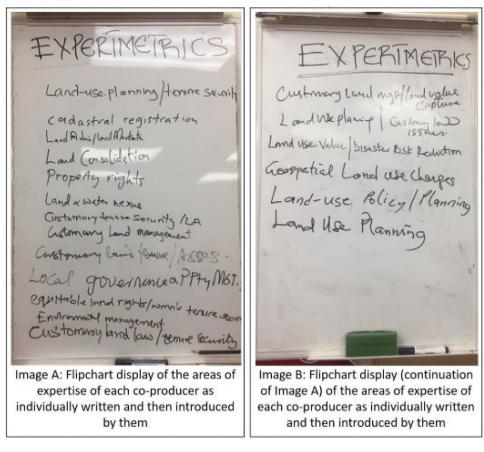


Figure 2. Represents the various expertise of the co-producers as listed by them during the stakeholder familiarization session (Authors' photos).

Summary of tools, resolution, and the emergence of NELGRA

At different sessions of the co-production a mix of tools were used, including visioning, storytelling, visual charts, brainstorming, ideas mapping, documentations, prioritization of opinions, and voting. The participants used visual charts and storytelling to introduce themselves openly to co-participants to ensure familiarization. The stakeholder familiarization session involved open storytelling - a situation where each participant openly discussed their interest in land governance and their interest in the co-production workshop. This allowed all co-producers to get acquainted to each other and the various aspects of other participants' involvement in land governance situations in Africa. The following activities and resolutions were key to co-producing NELGRA as a research network.

• Framing a land governance agenda and the needs in Africa: This aspect is focused on identifying research gaps on land issues in Africa. Participants focused on thematic issues on land governance in Africa. They also focused on identifying

- a platform for the participants to engage in researching the gaps identified. The emerging question then became: how do we pave a path toward improving knowledge building (and knowledge sharing) in land governance research? These discussions were intense, but participants finally reached consensus to engage in an agenda that would promote knowledge and a research agenda about land such that, as they directly put it, it would lead to "improvement in land governance by Africans, for Africans, in Africa, and on Africa" (Participants resolution, 5 June 2018).
- Visioning and brainstorm on themes that reflect gaps on land governance research in Africa: After several deliberations (see Section 4 for details) several research themes were identified (and many eliminated) before the participants agreed on four major areas for collaborative research. The five areas are: collaborative land governance, land policy formulation, loss of agricultural land in urban areas, land database documentation, and land as a source of revenue mobilization. These themes represent the future state of research on land governance in Africa. The participants made individual and group commitments to collaborate with each other on researching these themes.

Figure 3 shows the strategy for visioning and brainstorm on themes that reflect gaps in land governance research in Africa. It also represents the tool of facilitation as employed in the co-production process.

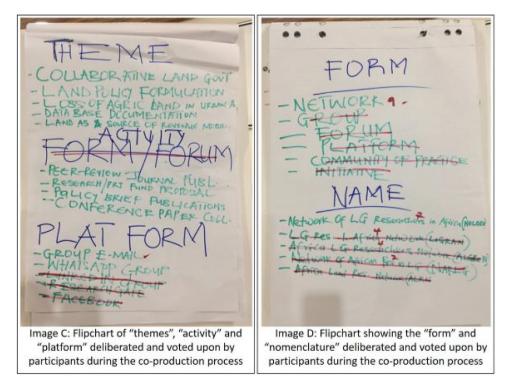


Figure 3. Images of tools used in democratic decision-making during the co-production process (Authors' photos).

- Possible tools for research on land in Africa and the emergence of "NELGRA": Determining the activities through which the participants can collaborate with each other was necessary. This led the participants to engage in devising an appropriate platform for such collaborations (both individual and group). Concerning activities, the participants agreed on four key activities - including to collaborate in peerreview journal publications, research project proposal, policy brief publications, and conference paper collaborations. The Image C (in Figure 3) is a representation of the themes, forms of activity, and platform for action deliberated upon by the participants. Concerning the form of collaboration, the participants voted (after discussing the several options shown in images C and D in Figure 3) to work as a "Network" to be known as the "Network of Land Governance Researchers in Africa (NELGRA)". Based on these activities, participants reached a joint agreement to collaborate on future activities. The participants agreed to work using group e-mail, and in addition, they agreed to form a WhatsApp Group as an initial platform for communication.
- Expert metrics for rapid stakeholder analysis and clustering: The use of expert metrics allowed for a rapid survey or judgment of the expertise of all participants based on direct, written and spoken, the introduction of their expert areas in the domain of African land governance. This allowed for a rapid or immediate clustering of participants by the co-facilitators to create three separate groups in an effort to produce a research agenda on land governance in Africa. It worked as a strategy for team building and group formation.

In general, the organization, procedure, and outcome of the co-production workshop is highly indicative of a demand-driven event in Africa. Although the ADLAND research proposal to GIZ was initially designed to explore the emergence of feasible and fundable joint research proposals, it also resulted in the co-production of NELGRA as a new networking platform on land governance research in the continent. The participants agreed to use NELGRA as a platform for collaborative knowledge building, knowledge sharing, and the execution of independent and collaborative research on land governance in Africa. Specific activities that the participants have accepted to commit to include individual and joint research collaborations, individual and joint conference paper collaborations, individual and joint peer-review journal article publications, and individual and joint research project fund writing collaborations.

Land governance research agenda (by, for, in, and on Africa) as a co-product

Co-production usually leads to a series of outcomes that are concrete and definable. This means that it must lead to a co-product. Some specific phases of the NELGRA coproduction, process – i.e. joint framing, co-patterning, co-delineation – served as rapid needs assessment on the state of land governance in Africa. The co-prioritization and coadoption phases led to the design of a solution-oriented tool, which led to the formation of NELGRA. This co-production process served both as an Inventory phase of the need for finding solutions to Africa's land governance challenges, as well as devising an approach to mitigating those challenges from a capacity development lens. Within this context, it is the emergence of a land governance of both research agenda and NELGRA (as a platform for carrying out that agenda) which are co-products of the entire process.



Land governance research agenda of NELGRA as a co-produced knowledge

Even though there are some initiatives to promote land governance research in Africa, the African Land Policy Initiative (now African Land Policy Centre) was the first institution to launch an African-wide program meant at generating and disseminating land governance knowledge in the continent. On this basis, it is fair to assert that African-wide responses to land governance are relatively new, and ongoing. The African Land Policy Centre recognizes that "Good quality research on land is essential for the contextualization, analysis and understanding of key land issues, the achievements and shortcomings of existing land administration policies, systems and programmes" (African Land policy Initiative, 2016, p. 51). To contribute in addressing this gap, the participants engaged in a research agenda that can inform land policy to improve some of the critical challenges that are prevalent in Africa's land sector. Therefore, the participants split in three groups to deliberate on suitable research agendas. These separate agendas were then collectively reconciled and agreed upon as the frontline agenda on land governance for and on Africa and this is displayed in Figure 4.

Inferences from the three research agendas drawn from the separate groups is indicative that irrespective of differences in academic backgrounds, institutional affiliation, expertise, or region, there is full similarity in what the participants considered to be the needs of Africa in land governance. Differences only appear when discussions shift toward what should be the priority or specific approach to addressing the land challenges. As a result, it was easy to agree on the research agenda based on the key issues identified from the separate group agendas. The challenge related to the measure to be taken or how to approach it (Figure 5)

Figure 5 provides a summary of all the key points identified by the participants as part of a renewed research agenda for land governance in Africa. It was on this basis that the participants conceived the need for a network for land governance research as a means for conducting - [while networking collaboratively, individually and freely, without institutional biases] - research on land governance to influence and inform land policy in

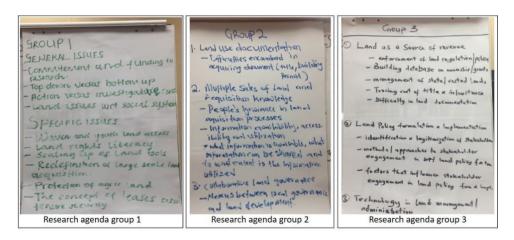


Figure 4. Flipchart documentation of the research agendas that emerged from group works (Authors' photos).

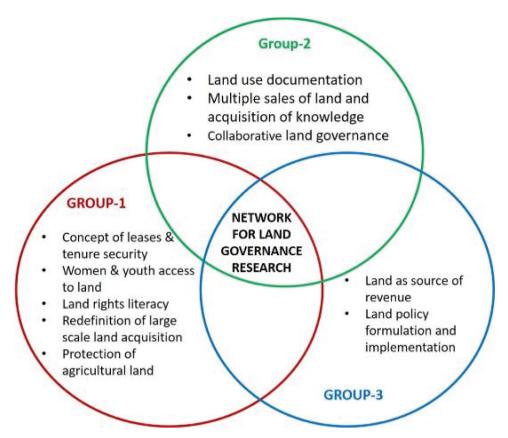


Figure 5. Summary of research agenda co-produced by participant and how they informed the formation of NELGRA (Authors' illustration).

a positive way in the continent. It was the search for the means of implementing this idea that led to the formation of NELGRA.

NELGRA as a unique platform for researcher-to-researcher networking in Africa

Chigbu et al. (2020, p. 1) recognized the critical land-related challenges that make it imperative for a renewed effort to "improve the mode of academic networking to scale up land education in Africa." These challenges, which are militating against inclusive development in Africa, include the lack of access to land, land tenure insecurity, ineffective land administrations systems, inefficient land governance, and the lack of approaches that are locally adaptable to solving the local problems in the continent (among many other landrelated challenges). The premise behind the research development workshop that inadvertently led to the co-production of NELGRA was to reassess land governance knowledge toward contributing to solutions to these challenges. Being a newly formed network, it will not be fair to judge its progress based on concretely change-induced outcomes in the African land governance research. However, it has been positioned on a path that would allow it to contribute to a niche area in the land governance domain in the continent. Considering the number of land problems stalling inclusive development in Africa, it has become imperative to explore all possible options for action. Hence, dealing with these impediments calls for networking beyond the existing institutional platforms (e.g. university-to-university or organization-to-organization) in the continent. The concept of NELGRA (re)introduces the importance of the individual (that is, the land governance researcher) in networking toward finding viable constructs for land governance solutions in Africa.

In comparison to all other existing networks in Africa, this is what makes NELGRA unique (Figure 6). The shaded portions in Figure 5 are indicative of the current features of the notable land-related networks in Africa. By comparing NELGRA to AMN, NELGA, AMFN, NICOLA, EALAN, and AUPRN, some of its niche characteristics can be discerned. First, apart from being a pan-African research network, it is globally (but individually) focused on its membership; and in collaborating with other researchers in its guest to sourcing ideas for improving land governance challenges in Africa. This would motivate its members to have the freedom to seek knowledge, as well as a direct capacity development of members as they tap from global networks to enrich their activities.

Potential of NELGRA to contribute to land governance knowledge in Africa

Since the formation of NELGRA as a research network, it presents promising potentials for deepening knowledge creation and sharing among African land governance researchers. Networks for collaborative research are already widespread in the medical and engineering professions. Since similar networks are few in Africa, especially on land governance research, NELGRA remains an innovative trust to integrate different levels of enthusiasm among young and older African land governance researchers and allow for team projects and mentorships within different cultural orientations. Indeed, there is a lot of benefit to

	Different characteristics of land-related academic and research networks in Africa										
Notable networks in	Land governance focus			Sectoral focus		Geographical focus		Membership mode			
Africa	Land	Water	Forest	Mineral	Rural	Urban	Regional	Africa-wide	Global	Individual	Institutional
AMN											
NELGA											
AMFN											
NELGRA											
NICOLA											
EALAN											
AUPRN						5					

Figure 6. Characteristics of NELGRA in comparison to other land-related networks in Africa (Authors' illustration).

working in large numbers: it helps to complete projects quickly and harness benefits from transdisciplinary perspectives. Land governance research thrives on transdisciplinarity with researchers' professional orientations spanning law, geography, economics, planning, finance, anthropology, geomatic engineering, and public policy among others. The ability of NELGRA to sustain its current momentum presents a promising future for land governance research in Africa.

In understanding the complexities and variations of African land tenure systems, different levels of collaboration and collaborators are essential. However, it is extremely difficult to swiftly identify the collaborators in the discipline of land governance. NELGRA presents an opportunity for bringing various researchers together on a single platform to cope with the fast-evolving research landscape. Beyond the network of people, the network of ideas in creating essential nexuses is extremely relevant as well. The informality in operationalizing the various communications outlets of NELGRA presents lots of flexibility for interactions. NELGRA in the long term should be able to develop soft skills: human skills, technical skills, and social skills, to engage in conversations for land governance research, and to exchange beneficial ideas.

Conclusion and way forward

It is important to acknowledge that NELGRA was co-produced as a result of NELGA activities. There is still the need for responses to land challenges in Africa to align with the changing role of land and natural resource tenure in all countries to improve knowledge management strategies and approaches toward a pro-poor land and natural resource agenda. Achieving this would enhance capacity development on land governance by prioritizing education and research in the continent. The NELGRA concept of networking recognizes that, institutions aside, it is individuals that will form the building block of knowledge-creations (including knowledge sharing) and the enhancement of research capacity on land issues by, for, in, and on Africa.

From the study presented in this paper, one can conclude that research networks are essential to knowledge formation and dissemination. NELGRA paves the way toward operationalizing land governance research collaboratively. With such a platform, African land governance researchers can collaborate in exploring potential research areas and in jointly putting up convincing proposals that have the potential to attract funding for land governance research. The commitment of NELGRA to build capacities of its members, share knowledge, and to execute joint and/or individual projects, marks another era of a giant move to advance land governance research through paper publications, conference presentations, proposal writing, peer review, and project implementation. NELGRA, for instance, has the potential to increase momentum among land governance researchers in dealing with some of the pressing governance issues bedeviling the land sector in Africa. Since similar land governance initiatives are institutionally based, NELGRA allows for individual researchers to create their private collaborations and strive for sustaining them.

This co-production event has led to the development of an African centric research agenda and the initiation of a network (i.e. NELGRA), to follow-up the operationalization of the adopted research agenda. Taking a co-creation approach the workshop was essential in acknowledging that divergent views or central points may characterize

academic research, but particularly highlighted the need to create mergers to develop a research agenda that is relevant for Africa, by Africans, on Africa, and in Africa. However, to succeed in advancing such collaborative research on land governance, there is the need to acquire the necessary tools and funds for land research in Africa. Subsequently, such research outputs may be communicated through a series of outlets, including practitioners' guides, policy briefs, research papers, and/or edited books.

Lastly, networks such as EALAN and NELGRA represent two cardinal aspects of land governance knowledge building in Africa. While the former is institutional membership based and regional in its mission, the latter is individual membership-based, research focused and African-wide in its vision. This paper has focused on NELGRA because of its uniqueness as the only emerging network with a specific vision to promote land governance research with/by/at individual membership. Membership in NELGRA has the potential to increase participation in land governance research and build research capacity in Africa. For this to happen, this paper recommends that NELGRA comes out with shortterm goals while maintaining its long-term ambitions. To improve on its impacts, there is the need to broaden its coverage beyond Africans in Africa, by incorporating collaborations with non-Africans who are researching in Africa, on Africa, or African land governance researchers based abroad. Addressing the African land question lies largely in the wealth of joint effort of all stakeholders including researchers operating at different levels of collaboration and on diverse collaborative platforms.

Administratively, NELGRA is currently managed by three volunteer administrators with no specifically designated leadership positions. This approach was accepted by inaugural NELGRA through their online WhatsApp group as a starting point toward setting up a core administrative team. So far, this style of operation has been successful in ensuring that NELGRA is represented in critical land governance events in Africa. NELGRA's operations and output have a policy effect on land governance and knowledge creation. For instance, making funding available to increase research for a better appreciation of the land question within Africa's development narrative is critical. As an individual level collaborative actions, a potential setback to the NEGRA overall success will be resource constraints. Thus, the emergency of this research group drives up the need for governments and bodies within the African continent to dedicate resources for land-related research and dissemination of findings. By this, policy makers will contribute and own the solutions emanating from African researchers. It is expected that, the activities of NEGRA will positively impact the understanding of the complex land problem on the continent and facilitate policy formulation that resonates and reflects local context.

Note

1. ADLAND stands for Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa.

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No potential conflict of interest was reported by the authors.

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