



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



THE ADLAND MODEL: TRANSFORMATIVE EXPERIENCES AND LESSONS IN HUMAN CAPITAL DEVELOPMENT IN LAND GOVERNANCE IN AFRICA

Pamela DURAN DIAZ, Walter Timo DE VRIES, Uchendu Eugene CHIGBU
Chair of Land Management, Technical University of Munich, Germany
pamela.duran@tum.de

**Paper prepared for presentation at the
“2019 WORLD BANK CONFERENCE ON LAND AND POVERTY”
The World Bank - Washington DC, March 25-29, 2019**

Copyright 2019 by author(s). All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Abstract

ADLAND “Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa” is a research model based on strategic partnership for scientific, academic support in capacity development in land management in selected African universities. Grounded on the principle that African universities could act as decisive nodes for knowledge creation and exchange, a network of universities from the global North collaborate with them in developing human capacity.

ADLAND activities include capacity development workshops, research writing workshops with jointly written scientific papers, curricula development and review, and staff exchange to enhance knowledge transfer. The outcomes of such activities have successfully involved in the past 15 months more than 200 participants from 24 different African countries. With this perspective, Africa is becoming a place rather than a subject of research and education.

Key Words: Africa, Capacity Building, Collaborative Research, Responsible Land Management, NELGA



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



1. Introduction

The ADLAND “Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa” project, developed in support of the action program “Strengthening Capacities for Land Governance in Africa (SLGA)” of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and in close cooperation with the Network of Excellence on Land Governance in Africa (NELGA), executed a series of successful activities in the period of November 2017-February 2019, with the aim of boosting collaboration among African institutions.

In the context of vulnerable land due to migration, environmental risks, tenure insecurity, weak governance, intense urbanization and scarcity of resources – including land-, the impact of academic research in land management through human capital development has been successful in ADLAND project. To do so, the project has built a network of 6 Northern partners and 11 academic institutions widely distributed over the African territory (Chigbu, de Vries, Duran Diaz, Schopf, & Bendzko, 2018). The overall aim of advancing the concept and praxis of responsible and smart land management in order to address the African land policy needs, has been achieved through the development of a strong network of collaborative research in the form of research development workshops, writing workshops, lecturer exchanges, and conferences, based on the specific needs of each collaborating node. With this in mind, research results could –and should- be actively used to trace evidence-based land policies.

ADLAND makes use of the partnership of the 25 African universities and research institutions linked to NELGA to go in line with African needs while reinforcing the collaboration between nodes.

2. The ADLAND Model

2.1. Aims and Objectives

ADLAND is a research model of education for capacity development in the field of land management. It is based on the multidimensional scientific concept of Land Management which states that interventions in land management (ΔLM) relate to changes on governance (ΔG), land, property, real estate, land use law (ΔL), socio-spatial relations (ΔS), economic opportunities/dependencies (ΔE), perceptions/beliefs (ΔP) and behaviour (ΔB) (de Vries & Chigbu, 2017).



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



On the other hand, according to the African Development Bank Group, “in 2014, over 60% of people in Africa lived in rural areas and relied on agriculture for their livelihoods, and women in Africa made up at least half of the agricultural labor force” (African Development Bank, 2016), thus investing in human capacity in the field of land management would provide direct benefits in socio-economic transformations.

With six partners¹ of complementary expertise in the fields of land management, land tenure, land policy, land and property valuation, GIS, Geo-information, science, land administration, urban planning, property management, land-use planning and land informatics, ADLAND seeks to boost collaborative research and assess policy needs in and across Africa.

The general aim of this project has been to consolidate a steady collaboration among African institutions in order to enhance the creation and transfer of knowledge, data and experiences in the field of land management in Africa. This multidisciplinary strategy of skills development and sharing, in which researchers and academics act as a bridge between different stakeholders from practitioners to policy makers, upholds a transformative sustainable process towards land governance. In this sense, the Network of Excellence on Land Governance in Africa (NELGA) operates as a solid platform for ADLAND capacity building activities, as the consortium of partners team up with selected institutions² affiliated to NELGA, which act as hubs with centripetal force that attract participants from the whole region.

The main objectives of ADLAND go in line with the outputs of the action programme “Strengthening Capacities for Land Governance in Africa (SLGA)” by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in the sense that it should be:

- Be demand-driven
- Result in practical/measurable outcomes
- Relate to the guidelines and curricula in land governance in Africa
- Establish training and education capacities
- Set up practice-oriented research

In addition to developing very concrete collaborative research outputs in the form of jointly written and edited articles, books and research proposals, the collaborative development simultaneously enhances the capacity and strengthens the experience of both African and

¹ The consortium of partners are: the Technische Universität München, Universität der Bundeswehr München, Leibniz Universität Hannover, University Twente ITC, KTH Royal Institute of Technology, and Swinburne University of Technology.

² The affiliated NELGA nodes are: Kwame Nkrumah University of Science and Technology (KNUST) from Kumasi, Ghana; Namibia University of Science and Technology (NUST) from Windhoek, Namibia; Ardhi University (ARU) from Dar es Salaam, Tanzania; and Institut d’Enseignement Supérieur de Ruhengeri (INES) from Ruhengeri, Rwanda.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



European researchers to act as knowledge development and dissemination centres. The outputs will increase the visibility of the research centres in their respective countries and internationally. Furthermore, by centralizing the activities around the theme of responsible and smart land management two sides can better connected: both the normative, political and public administrative side of land policy and land governance, along with the more technical, methodological, and tools-oriented side of preparing and executing land interventions.

2.2. Major activities

To reach the aims and objectives of the project, a series of capacity development activities were traced.

- **Consultation missions:** Extensive and targeted discussions and interviews focused on areas of improvement in scientific and academic activities, which serve to the purpose of making the project demand-driven.
- **Curricula studies:** University-targeted studies to improve selected Bachelor, Master and Doctorate programmes in land education, to relate to the “Guidelines for the development of the curricula on land governance in Africa” (Land Policy Initiative, 2016).
- **Capacity development workshops and equipment-use training in land education:** Refresher courses to provide skills training to practitioners, to address the objective of establishing training and education capacities.
- **Research development and publication writing workshops:** Aimed at researchers on specific land management, land governance, land policy research topics in Africa in order to generate measurable outcomes in terms of joint research and publications.
- **Lecturer exchanges:** To ensure that Africa becomes a hub of knowledge creation and exchange rather than a subject of study, researchers from African institutions go to the partner universities in Europe to enable teaching skills and a two-way knowledge transfer in land policy and land governance.
- **Conferences and publications:** To strengthen scientific dissemination, data sharing and a specialized oriented feedback, as well as a means for monitoring and evaluating the impact and outcomes of the project.

The focus of these activities was on Smart and responsible land management, deepening in the topics on land administration, real estate, land valuation, land governance, land consolidation, tenure responsive land use planning, and urban and rural development, based on the area of expertise of each member of the consortium of partners and the specific needs of the hosting collaborating African node.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



2.3. Implementation

Concretely, 20 activities were planned to take place between December 2017 and July 2019. By February 2019, 18 out of the 20 planned activities were executed.

Table 1. Overview of ADLAND activities with location, topic, dates and number of participants (Authors, 2019)

	Activity	Location	Topic / Theme	Period	Participants
1	Consultation 1	Ghana	Research & training needs	Dec'17	
2	Consultation 2	Tanzania	Research & training needs	Dec'17	
3	Consultation 3	Namibia	Research & training needs	April'18	
4	Consultation 4	Rwanda	Research & training needs	Dec'17	
5	Curricula study 1	Eastern Africa (ARU)	Land administration	May'18	1 M / 2F
6	Curricula study 2	Western Africa (KNUST)	Real estate market analysis and valuation	Sept'18	4 M / 0 F
7	Curricula study 3	Southern Africa (NUST, UZ)	Land governance / Land law	Oct'18	12 M / 7 F
8	Refresher course professionals 1	KNUST / Ghana	Land consolidation	Jun'18	13 M / 6 F
9	Refresher course professionals 2	INES/Rwanda	Land administration	May'18	13 M / 7 F
10	Research development WS 1	KNUST / Ghana	Tenure resp. LU planning	Jun'18	14 M / 5 F
11	Research development WS 2	INES/Rwanda	Responsible Land Management	Aug'18	20 M / 3 F
12	Research development WS 3 / Conference 1	Ethiopia/Bahir Dar	Land governance	Nov'18	30 M / 9 F
13	Research writing workshop 1	NUST/Namibia	Land management	Aug'18	14 M / 3 F
14	Research writing workshop 2	ARU/Tanzania	Urban development	Aug'18	10 M / 5 F
15	Lecturer exchange 1	UBM / ARU	Land consolidation	Nov'18	1 M / 0 F
16	Lecturer exchange 2	ITC / KNUST	Smart land management	Nov'18	1 M / 0 F
17	Lecturer exchange 3	KTH / NUST	Land valuation	Jan'19	2 M / 0 F
18	Lecturer exchange 4	TUM / INES	Responsible Land Management	Nov'19	1 M / 0 F
19	Conference 2	ARU/Tanzania	Responsible Land Management	July'19	~ 50
20	Publication	Munich	Advances in Land Management	Jan-Jul'19	~ 20

Based on the consultation missions, tailor made activities were designed in order to respond to the immediate academic and scientific needs of the collaborating African institutions, in terms of staff, technical skills, exchange possibilities, research outputs, and core programmes to-be-improved or developed.

For instance, the consultation mission in Ghana revealed the need on updating professionals in land consolidation and smart land management tools, hence ADLAND implemented a refresher course on Urban and Rural Land Consolidation for major construction and infrastructure projects and its applicability in African countries, especially when customary land rights are applied. 19 participants from Ghana, Zambia, Zimbabwe and Sudan joined. Simultaneously, a research development workshop on Tenure Responsive Land-Use Planning was conducted with the aim of identifying research gaps on Land Governance in Africa, where participants formulated collaborative research topics and set-up the platform “Network of Land Governance Researchers in Africa” for individual and group collaborations to seek for alliances in terms of peer-review journal publications, research project fund proposals, policy brief publications under the topics of



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



collaborative land governance, land policy formulation, loss of agricultural land, and data base documentation. 19 participants from Ghana Nigeria, Zambia and Zimbabwe joined. Additionally, the curricula of the MSc. Land Governance and Policy, MSc. Facilities Management and PhD Land Management were reviewed with the participation of 4 researchers from Ghana. The activities were hosted and coordinated by Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi.

The consultation mission in Tanzania showed the need to receive support in the process of paper writing and publishing, thus a research writing workshop on the topic of Urban Development aimed to develop advanced publishing skills was conducted in order to produce scholarly outputs and build research collaboration amongst participants. With 15 participants from Tanzania, Ethiopia, Kenya, Rwanda and Uganda, 15 abstracts were drafted through interactive lectures, group discussions, individual presentations, peer-2-peer feedback sessions, and dedicated write time, on the following topics³:

Topic/Working title
Consequences of Failure of Cadastral System Legislation to Recognise Customary Land Tenure in Africa
Assessment of General Boundary Subdivisions for Effective Land Administration in Kenya
Spatial Data Infrastructure Implementation Methodology for Africa
Evaluation of Agriculture Land Classification (and Mapping) to Reduce Land Use Conflicts in Rwanda
Challenges to the Documentation of Customary Land in Pader District in Northern Uganda
Land Acquisition and Aggregation Practices in Tanzania: An Evaluation of the Impacts on Neighbourhood Functionalities
Financing Land Acquisition in Tanzania: Aligning Legal Requirements and Practices: Case of Selected Projects in Dar es Salaam
Financing Modalities in Land Acquisition for Urban Developments in Tanzania
Assessment of the Response of Mt. Kilimanjaro Remotely Sensed Vegetation Phenology and Ice Cap to Climate Change
Land Use Changes and Tenorial Conflicts in Rural Tanzania: Synergies between Policy, Climate Change and Social-Cultural Shifts
Causes and Spatial Implications of Violating Building Space Standards in Mwanza (Rock) City
The Need for Spatial Data Infrastructure for Sustainable Development in Tanzania

³ To ensure data protection and intellectual property, only the provisional titles of the produced abstracts are mentioned in this paper.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Effectiveness of Development Control Mechanisms in Regulating Housing Development: The Case of Nkuhingu Community Centre, Dodoma

Land Market and Livelihood Strategies among Small-holder Agro-Pastoralists in Peri-urban areas: The Case of Mbaya Cita, Tanzania

Implication of Land Formalization on Peoples Land Tenure Security

Additionally, the curricula of the following programmes on BSc in Land Management and Valuation, BSc in Urban and Regional Planning, MSc in Urban Planning and Management, PhD in Land Administration were reviewed, with the help of 3 participants from Tanzania. The activities were hosted and coordinated by Ardhi University (ARU) in Dar es Salaam.

The consultation mission in Namibia showed the need of a follow-up writing workshop, as well as the lack of requirement to conduct an ADLAND conference in the node, as the host institution is organising a conference on Land Governance for the Southern African node. As a result, a research writing workshop was implemented, in which each participant used their own manuscript or draft paper to complete throughout highly interactive task-oriented short sessions aimed at developing different sections of the paper, from topic conceptualisation, abstract writing, literature review, methodology, results, discussion, conclusion, references, and presentation, to putting the pieces together. Participants were grouped in expert domain for them to provide a specialised oriented feedback. 17 participants from Namibia, South Africa, Malawi, Zimbabwe, Zambia and Botswana drafted 13 papers on the following topics⁴:

Topic/Working title
Implementation Opportunities and Constraints for Smart Land Use Schemes in South African Local Municipalities: Insights from Limpopo Province
Deconstructing the Orientation of Agriculture in North-Central Namibia's Communal Lands
Evaluation of Customary Land Act of 2016
Competition-Stability Nexus in the Banking Sector in Zimbabwe (2009-2016)
Land Readjustment in Urban Zimbabwe
Reflections on the Engendering Process in Teaching of Land Law and Property Relations Course
An Investigation into the Level of Efficiency in Residential Market in Zambia
An Evaluation of Land Governance Systems of Tribal Land in Botswana
Analysis on Human and Organisation Behaviour Factor as Basis for Spatial Data Sharing in LA Institution in Namibia

⁴ Ibid.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Property Finance Function in Namibia - Towards an Evidence Based Research
Effects of Urban Land Use Regulation on Property Values in Windhoek West
Development of Crowd Funded Markets and Regulations
Utilization of Land Revenue for Human Resource Capacity Development

This activity was hosted by Namibia University of Science and Technology (NUST) in Windhoek.

Furthermore, the curricula review originally intended to take place in Namibia, was shifted to Zambia after the University of Zambia acknowledged their need of having a curriculum development workshop, for which they counted with extra funds from Deutscher Akademischer Austauschdienst (DAAD) in order to involve the regional institutions:

- University of Zambia (UNZA)
- Copperbelt University, Zambia (CBU)
- University of Lusaka, Zambia (UNILUS)
- Zambia Centre for Accounting Studies (ZCAS)
- University of Zimbabwe (UZ)
- Namibia University of Science and Technology (NUST)

With the participation of 19 people from Zambia, Zimbabwe and Namibia, they learnt how to develop a specialised post graduate program in Land Governance and Property Rights in Africa.

The consultation mission in Rwanda revealed their need to update their staff in the use of GIS for Land Administration, hence ADLAND conducted a refresher course on Responsible Land Management with a special focus in GIS and Remote Sensing for Land Administration. The training was adapted to the level of participants after an initial survey. The topics covered were cadaster versus land administration, land tenure, rural and urban land consolidation, land readjustment, slum upgrading, eviction versus expropriation, technical and legal aspects of a modern official real estate cadaster making use of geo-information, GIS and remote sensing for land-use planning. Furthermore, the 23 participants from Rwanda, Burundi, Democratic Republic of Congo, Ethiopia, Kenya, South Sudan and Uganda visited the Land Administration Office in Musanze, the District Land Office, INES Survey Lab, and joined a community working day organized by the host institution. Also, a research development workshop on Responsible Land Management took place, in order to establish the current state of research on land in Africa and the possible tools and software for African research, as well as to seek for collaboration and project possibilities. Four joint proposals were generated among the 23 participants from Rwanda, Burundi, Democratic Republic of Congo, Ethiopia, Kenya, South Sudan and Uganda. These activities were hosted and coordinated by the Institut d'Enseignement Supérieur de Ruhengeri (INES) in Ruhengeri.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



In addition to the original proposal plan and making use of the Annual General Meeting of the Eastern African Land Administration Network, an e-Learning training took place in Kampala, where tools such as edX and Creyoco were shared in order to develop three joint e-Learning project concepts for land administration and responsible land management. The training had 27 participants from Uganda, Ethiopia, Kenya, Burundi, Democratic Republic of Congo, South Sudan, Tanzania and Rwanda, and was coordinated by Makerere University.

Also, a research development workshop on “Strengthening policy-research linkages on Land Governance in Africa” took place in Addis Ababa, Ethiopia, as a part of the NELGA Continental Research Event, where 12 selected abstracts developed in previous ADLAND activities were presented. The activity counted with 39 participants from Ethiopia, Nigeria, Zambia, Namibia, Zimbabwe, Ghana, Tanzania, Sudan, Sierra Leone, Rwanda, Democratic Republic of Congo, Uganda, Kenya, Chad, Cameroon, Liberia, Gambia, Gabon and Mauritania.

Regarding the staff exchange programs, 5 participants took part. Under the topic of Responsible Land Management, a lecturer from INES (Rwanda) went to TUM (Germany), where he lectured in the Master’s Programme Land Management and Land Tenure in the academic module of “Land Management in Theory and Practice”. He also made use of his research stay to discuss and draft a PhD proposal. Under the topic of Land Consolidation, a lecturer from ARDHI (Tanzania) did a stay in UBM (Germany) and also lectured in the master’s programme at TUM, on Land Economics and Global Framework of Land Management. Under the topic of Smart Land Management, a lecturer from KNUST (Ghana) did a stay in ITC (Netherlands), where he contributed to the mid-term review of their master’s programme, will lecture in the course “Responsible Land Administration”, worked on a research article, and participated at the ITC PGM Research Presentation Sessions. Under the topic of Land Valuation, two lecturers from NUST (Namibia) went to KTH (Sweden), where they analysed the curriculum of the MSc Advanced Valuation and Analysis, give a lecture on Real Estate Valuation Issues in Namibia in the Master’s programme, and drafted a collaborative research project (or joint article). Furthermore, financed by NUST, one of the selected lecturers did an additional research stay at TUM in order to work on a PhD proposal.

A total of 202 participants, out of which 54 were female (26,7%) from 24 different African countries took part in the executed activities until February 2019.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019

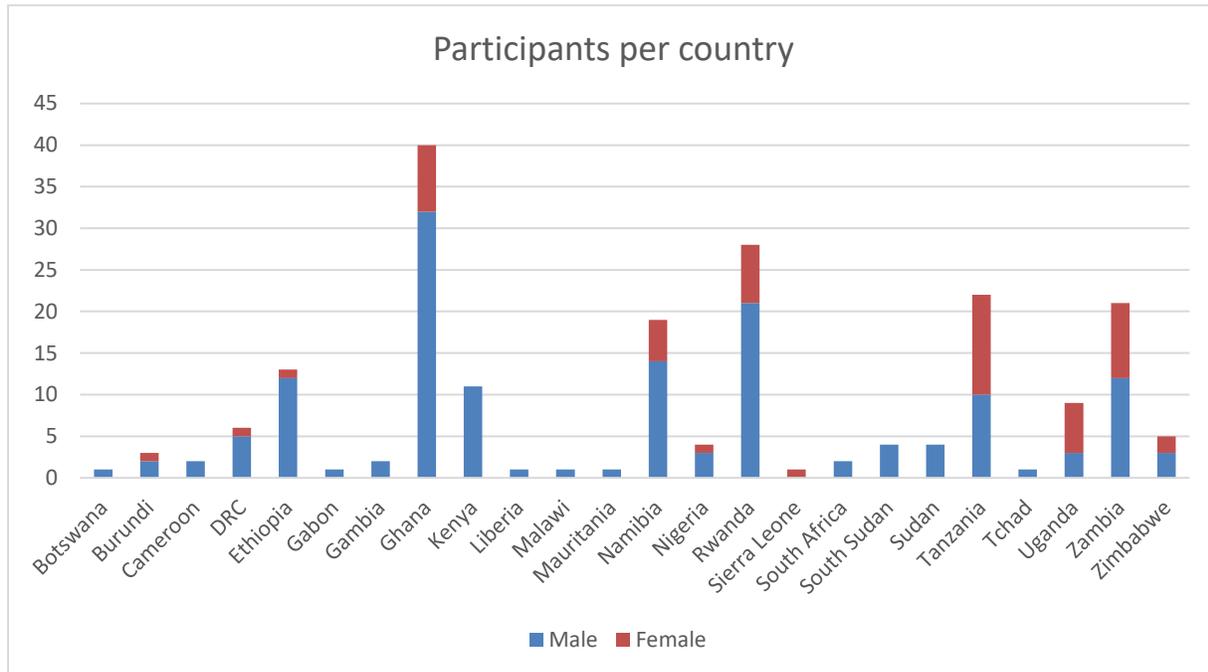


Figure 1. ADLAND participants per country (Authors 2019)

3. Challenges and lessons learnt

Challenges in terms of administration, coordination and logistics have been faced. With such an international network, reaching unanimous agreements that would comply with several countries' legal frameworks has been proven difficult but achievable.

A dynamic communication between partners, collaborators, participants and sponsor is crucial to encompass such a broad territory.

Women's inclusion is a principle recognized in ADLAND activities. However, a gender-balanced participation has been proven difficult to achieve despite sending the invitation to women academics in which the gender balance aim is expressly stated, the number of female participants is still significantly low compared to the male participants. This issue is directly related to the already considerable lower academic positions filled by women. Attempts to manage it locally in the first activities in order to attract more female participants in further activities has been proven successful, yet insufficient since empowering women on access to land should start by granting women access to education and research in land.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



4. Conclusions and way forward

The remaining activities are:

- The final conference in Zanzibar in July 2019, which will be fused with the EALAN (Eastern African Land Administration Network) Annual Group Meeting.
- The ADLAND book “Responsible and Smart Land Management”, which aims to showcase the new empirical findings on the conceptualization, design and evaluation of land management interventions in Africa. It will not only deliver empirical data and cases for use in future research, it will also provide the basis for a new land management theory that could act as a new teaching resource. Hence, it will continue contributing to human capacity development for the field of land management. The writing process is taking place with 16 authors from 12 African countries (and Germany) confirmed to date.

ADLAND has been a learning process and a transformative experience in human capital development in land governance in Africa. With the previous lessons being assimilated, we can state that ADLAND is reaching its aim of enhancing knowledge transfer and collaboration between NELGA nodes while developing human capacity with measurable outcomes. Moreover, ADLAND has an active role on consolidating Africa as a place rather than a subject of research and education.

5. Acknowledgements

ADLAND activities are supported by grants from the GIZ under the NELGA project, which is supported by the German government under the program “Strengthening capacities for land governance in Africa (SLGA)”.

On behalf of ADLAND team, we would like to express our gratitude to the Local Organisation Committees in our collaborating institutions for their help in hosting and organising local activities.



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



6. References

African Development Bank. (2016). *Feed Africa. Strategy for Agricultural Transformation in Africa*. Abidjan: African Development Bank Group.

Chigbu, U., de Vries, W., Duran Diaz, P., Schopf, A., & Bendzko, T. (2018). Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa: the ADLAND Model. *World Bank Conference on Land and Poverty. March 19-23*. Washington, D.C.

de Vries, W., & Chigbu, U. (2017). Responsible Land Management - Concept and application in a rural territorial context. *Flächenmanagement und Bodenordnung*, 65-73.

Land Policy Initiative. (2016). Guidelines for the development of the curricula on land governance in Africa. Addis Ababa: LPI.