

**Capitalizing CIALCA's 15 years  
of multi-actor, multi-stakeholder,  
actionable and adaptive research  
support for inclusive and sustainable  
knowledge ecosystems in the Great  
Lakes Region**



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# Executive Summary

Born out of integrating multiple interventions working in the Great Lakes Region, the Consortium for Improving Agriculture-based Livelihoods in Central Africa (CIALCA) has been conducting applied research and supporting collaborative efforts of international and national organisations working in the agricultural sector. It has been generating information and scientific and practical knowledge about different parts of the agricultural sectors in Burundi, Eastern Democratic Republic of Congo (DRC) and Rwanda and to a lesser extent in Uganda and Tanzania. In addition, due to its continuity and intensive capacity development efforts, the knowledge and the science generated by CIALCA has been spreading for more than a decade and is currently being utilised by many researchers working in the Great Lakes Region.

CIALCA is also an evolving entity that adapts to the needs and realities of the Great Lakes Region. In its 15 years journey, it formulated, implemented and reformulated various integrations of management visions, research, education, and innovation approaches to make the best contribution to improving agricultural-based livelihoods in the Great Lakes region, especially in Burundi, DRC and Rwanda. Focusing on regional integration of research and delivery activities on agroecological, socio-economic farming system research in the early years, CIALCA shifted its efforts to science capacity building, especially in agroecological and sustainable intensification. Between 2013 and 2016, it steered towards integrated system approaches and leveraged the innovation systems research to continue supporting sustainable intensification efforts of national systems. Since 2017, CIALCA shifted its approach towards being a broker and strategic supporter of great challenges and invested in entrepreneurial farming, ICT for agriculture and integrated agricultural systems for nutrition.

CIALCA efforts contributed to the generation of technical and scientific knowledge targeting development in the Great Lakes Region through 110 publications from 379 authors since 2006. In addition, CIALCA nurtured a multi-actor, multi-stakeholder, actionable and adaptive research ecosystem. Leveraging the novel systems science knowledge of CGIAR, more than ten demand-driven, co-developed innovations, cutting across technologies, good practices, research

methods, agricultural innovation strategies, CIALCA contributed to the regional and national capacity to research and innovate.

To assess CIALCA's contribution to regional and national capacity to research and innovate, CIALCA has commissioned a study on the "Contributions of CIALCA to Technical and Scientific Knowledge Ecosystem of Agriculture-based Livelihoods in the Great Lakes Region". The study measured the CIALCA's contribution to the overall technical and scientific knowledge ecosystem about agricultural livelihoods in the Great Lakes Region and explored how CIALCA influenced efficiency, inclusivity, and sustainability of technical and scientific knowledge generation capacity. It used state-of-the-art evidence synthesis and social network analysis methodologies and deployed text mining procedures and 13 network statistics presented in the [full report](#).

This brief shares some of the study's key findings and summarises the study conclusions. We formulate the findings based on the crucial research management questions for international and national interventions in agricultural and food systems. We hope the brief and study report will contribute to capitalising on CIALCA's fifteen years of multi-actor, multi-stakeholder, actionable and adaptive research support experience for efficient, inclusive and sustainable knowledge ecosystems in the Great Lakes Region.

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## To what extent did CIALCA contribute to the scientific and technical knowledge about agriculture in the Great Lakes Region?

Since 2006, CIALCA has generated between 11 to 36% of all empirical technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region (Figure 1). While the average contribution of CIALCA to empirical publications about agricultural livelihoods in Burundi was 25%, it was 16% in DRC and 15% in Rwanda. CIALCA influenced pub-

lications were also critical among publications in the Great Lakes Region. It constituted 21% of all empirical cross-country publications between Burundi, DRC and Rwanda and 24% of all empirical cross-country publications between Burundi, DRC, Rwanda, Tanzania and Uganda. In brief, CIALCA's most important niche was actionable, empirical research.

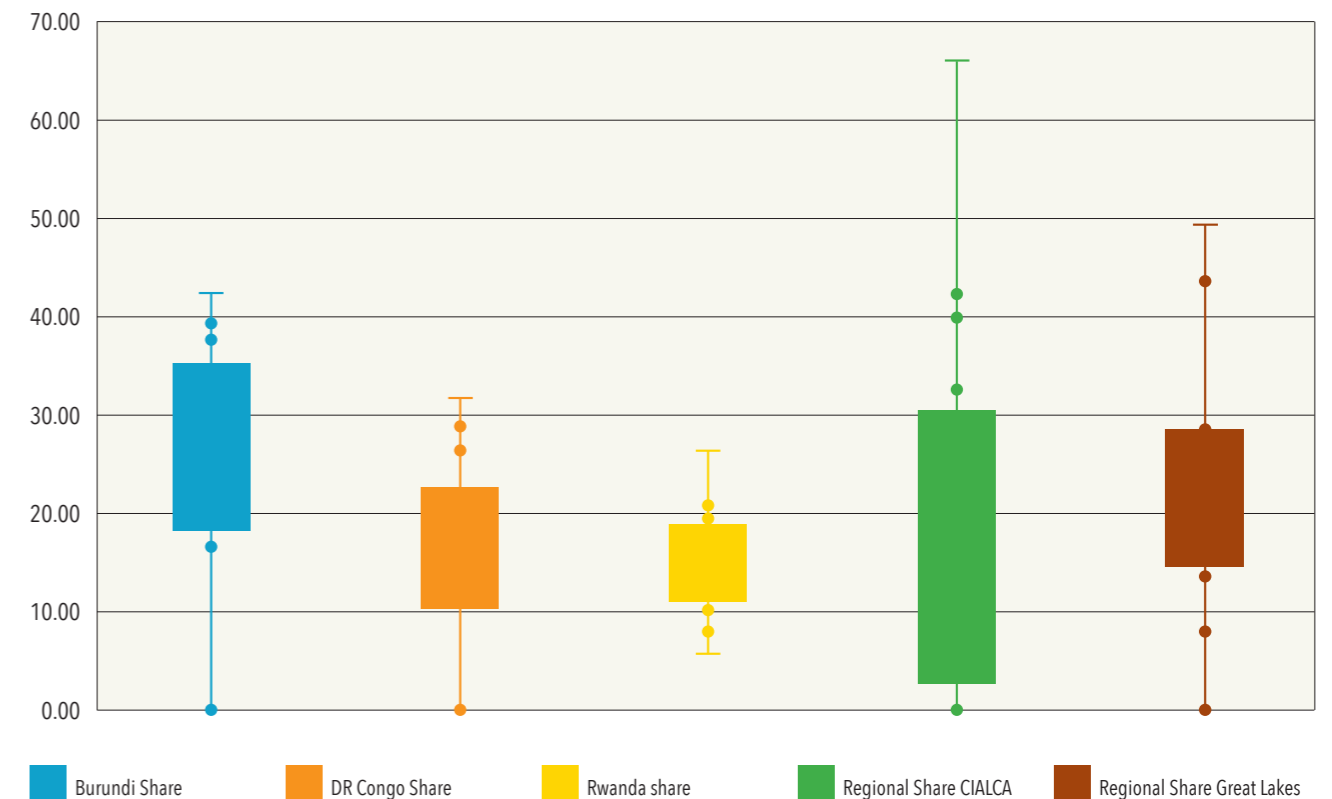


FIGURE 1: Contribution of CIALCA Influenced Publications to Overall Empirical Technical and Scientific Publications in the Great Lakes Region BETWEEN 2006 AND 2020. A point presents the share for a specific year.

## How has CIALCA contributed to regional and national capacity to research and innovate in the Great Lakes Region?

CIALCA's publication network has been very dynamic since 2006 (Figure 2). Network formation among the researchers generating technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region dominated network deformation over the years. Except for 2007 and 2014, the clusters in the networks have grown either by increasing the number of authors in the group or merging with other clusters. A core cluster sustained itself below a minimum threshold from its foundation in 2012 until 2020. In brief, despite short term slowdowns, CIALCA has sustained

and nurtured a core research and science cluster and different integrated clusters of researchers producing technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region.

The study findings informed other crucial research management questions. We summarise the most essential three below without details. More detailed information about the findings that lead to the answers can be accessed in the entire [study report](#).

## What was the CIALCA contribution to the overall technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region?

CIALCA has contributed to overall technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region through knowledge generation and dissemination. The knowledge generation capacity of CIALCA has increased over the years with some short periods of slowdowns. The knowledge was not limited to the authors it funded. The technical and scientific knowledge CIALCA has generated benefited the technical and scientific community working on agricultural livelihoods beyond the CIALCA funded authors.

In relative terms, the contribution of CIALCA to knowledge generation was proportional to the resources it invested. CIALCA neither failed nor bested other initiatives in terms of its quantitative performance. However, CIALCA has been very important for generating empirical technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region. In addition, CIALCA has been more efficient than the average of other initiatives in disseminating the knowledge.

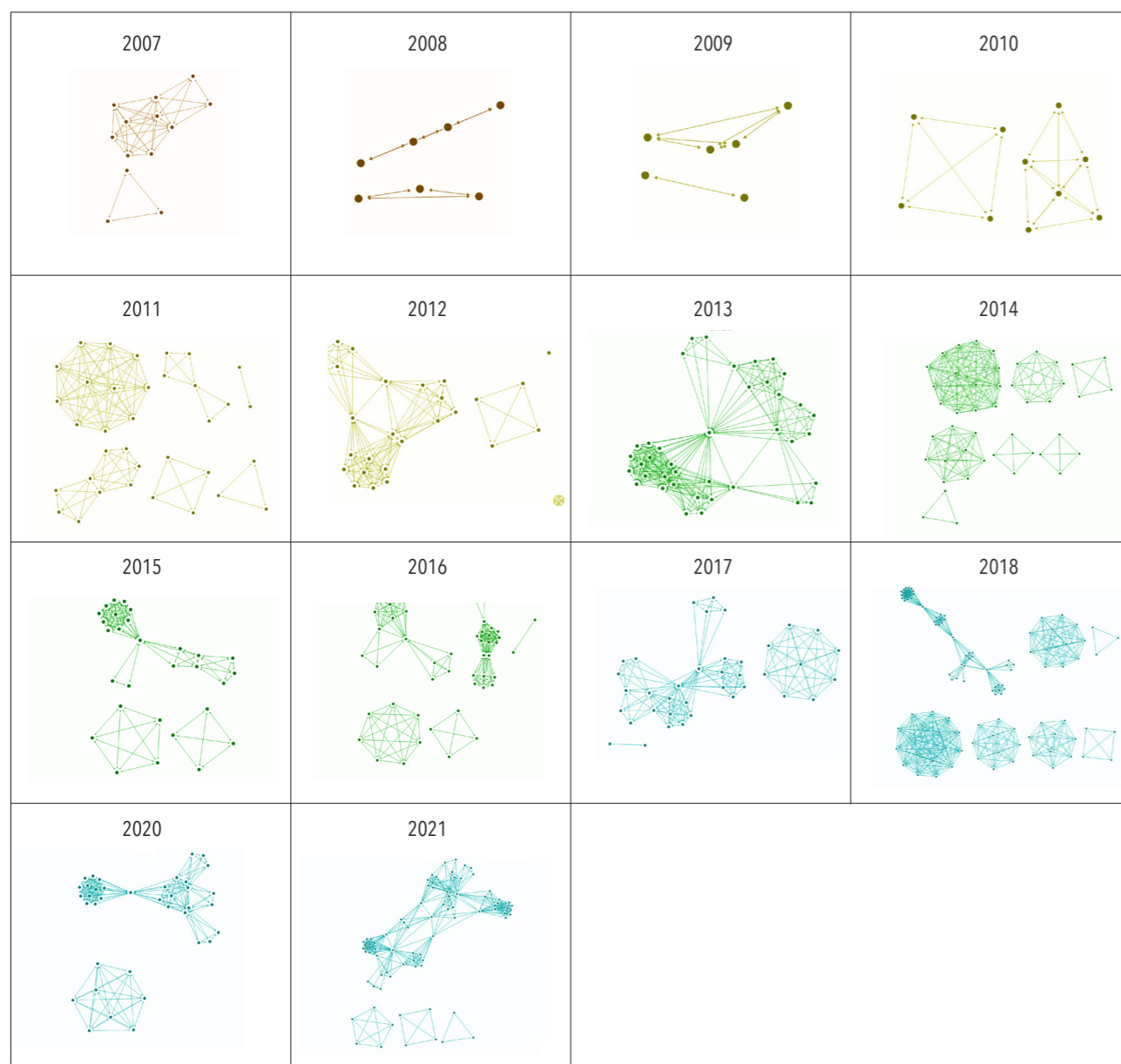


FIGURE 2: Network Maps of CIALCA Influenced Networks across CIALCA Lifespan. Colours present the phases.

## Did CIALCA contribute to the inclusivity of technical and scientific knowledge generation about agricultural livelihoods in the Great Lakes Region?

CIALCA has enabled many authors to produce technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region. The number of authors in the overall CIALCA generation increased consistently. However, the contributions to overall technical and scientific knowledge

generation about agricultural livelihoods in the Great Lakes Region were led by a few CIALCA champions. There has been no clear trend for decentralisation of CIALCA contributions, and the champions did not change significantly over time.

## Did CIALCA enhance the sustainability of technical and scientific knowledge generation about agricultural livelihoods in the Great Lakes Region?

CIALCA has contributed to sustaining a core international and interregional technical and scientific agricultural livelihood related knowledge community working in the Great Lakes Region for almost a decade. Although CIALCA management vision, research and education and innovation approach have changed dramatically across the years, the community

sustained itself without major disruptions. Across the years, the community interacted with other knowledge groups for short periods via a few key brokers. Some members of these other communities joined the core community making the community larger.

## Conclusion

The study concluded that CIALCA has contributed to the generation and dissemination of technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region and across its lifespan, made significant contributions to sustaining it. It also increased inclusivity in quantitative terms and helped create a sustainable international and regional knowledge community. However, it could not fully realise its full potential to make the technical and scientific knowledge ecosystem significantly more robust and inclusive. Focusing on technical and scientific knowledge about agricultural livelihoods in the Great Lakes Region as an ecosystem of multi-actor and multi-stakeholder networks and targeting capacity, inclusivity and resilience of the networks can be an optimum next strategy for achieving CIALCA's full potential.

