AFRICALICS

THE AFRICAN NETWORK FOR ECONOMICS OF LEARNING, INNOVATION, AND COMPETENCE BUILDING SYSTEMS

BIBLIOMETRIC ANALYSIS OF SCHOLARLY OUTPUTS AND COLLABORATIONS FROM THE AFRICALICS VISITING FELLOWSHIP PROGRAMME (2015–2024) REPORT 18TH JANUARY 2026

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AfricaLics Visiting Fellowship Programme Report

1. Introduction

The AfricaLics Visiting Fellowship Programme (VFP) is a flagship initiative of the AfricaLics network aimed at strengthening research capacity in the field of innovation and development studies across Africa. With financial support from the Swedish International Development Agency (Sida), the programme has been running for over a decade and forms a core part of the broader AfricaLics Research Capacity Building (RCB) programme and efforts. It is designed to support African PhD students and early career researchers working on innovation and development-related topics by providing opportunities for academic training, mentorship, and international exposure. Since its inception, the VFP has supported 39 scholars, with 5 more having been enrolled in February 2025. The VFP is complemented by training through PhD academies and possibilities for presentations and feedback during AfricaLics conferences. All in all, more than 276 PhD students benefited from AfricaLics training and mentorship between 2015 and 2024. Through these activities, the network has aimed to significantly contribute to the development of a vibrant and growing community of African researchers engaged in innovation studies.

Fellows in the VFP are selected from diverse institutions across the continent, allocated mentors from the AfricaLics and Globelics networks and provided with online and onsite academic support including a three month's study visit at a host university for focused study and academic engagement. Compared to the AfricaLics PhD academies, the VFP provides more in-depth support to selected PhD students over a longer period, and there are now clear indications that it has played a pivotal role in enhancing research outputs, fostering scholarly collaboration, and increasing the visibility of African innovation scholarship in global academic and policy spaces.

This report presents an assessment of the VFP's impact on publications of the participating fellows, as the AfricaLics network reflects on achievements at the end of the RCB's second phase. Reports on results from support for publishing rendered through the PhD academies and research conferences have also been completed.

1.2 Objective of the Report

As the AfricaLics network concludes the second phase of the Sida-supported Research Capacity Building (RCB) programme, this report aims to provide evidence-based insights into how the VFP has influenced the academic trajectories of its participants, specifically focusing on research publication and scholarly collaborations within and beyond the AfricaLics community.

2. Methodology

The methodology adopted in this study follows a mixed-methods approach, integrating both quantitative and qualitative techniques to assess the scholarly productivity and academic

development of fellows who participated in the AfricaLics VFP between 2015 and 2024. This approach was chosen to capture the breadth and depth of the programme's impact on research outputs, co-authorship networks, and thematic alignment with innovation and development studies in Africa.

2.1 Data sources

Data were collected from multiple sources. First, publication data were obtained from the AfricaLics Secretariat. These included records submitted by fellows listing their scholarly outputs over the review period. These records provided a foundational dataset for initial bibliometric assessment. Second, a structured online survey was administered to former VFP fellows to verify and complement available information on the number and type of peer-reviewed publications they had produced with support from the programme.

The survey was sent to all past and current members of the AfricaLics network who had presented at either a conference, a PhD academy, or been through the VFP. This report only refers to the data received from the VFP alumni, while information on scholarly outputs from presentations at AfricaLics PhD academies and conferences is presented in separate reports. The survey also explored the perceived influence of the programme on the academic visibility and development of participating scholars. To improve response rates and ensure broader participation, follow-up reminders were sent via email to all alumni. To validate and enrich the survey and Secretariat data, an extensive bibliometric search was conducted using academic databases such as Google Scholar, ResearchGate, Scopus, and African Journals Online (AJOL). These searches aimed to retrieve metadata on journal outlets, and citation counts. Particular attention was paid to the diversity of publication outlets, research topics, keywords, and citation impact.

2.2 Data analysis

The publication data were cleaned and formatted to ensure consistency and eliminate duplicates. Simple non-parametric statistical measures were used to calculate the number of publications per fellow, average number of articles per cohort, and citation counts. The clean data were disaggregated by gender, institutional affiliation, and region to identify trends and variations across different categories of fellows.

To assess the thematic diversity of the research conducted by fellows, the research topics investigated by the fellows were reviewed and categorized into key domains within innovation and development studies. These thematic areas included agricultural innovation, low-carbon development pathways, sustainable energy transitions, STI policy and governance, gender and innovation. This classification allowed the study to reflect on the extent to which the VFP has contributed to inclusive and transformative innovation systems in Africa.

The study also included an analysis of the type of journals in which AfricaLics VFP alumni have published permitting reflections on issues related to publishing strategies and guidance.

2.3 Citation Counts Analysis

Citation counts analysis was conducted to evaluate the scholarly impact and visibility of publications by AfricaLics VFP alumni. This method involves quantifying the number of times each publication has been cited in other scholarly works, using databases such as Google Scholar and Scopus. Citation metrics indicate the reach, relevance, and influence of the fellows' research outputs within the global academic community. The analysis helps to identify highly cited papers, thematic areas gaining traction, and the extent to which AfricaLics-supported research contributes to shaping innovation studies discourse. Both total citation counts and average citations per publication were used as proxies for scholarly visibility and influence. Only publications in which the programme had a direct and identifiable influence are included in this list. While scholars may have published other articles, those without a clear contribution from the VFP have not been considered here.

2.4 Co-occurrence analysis

Co-occurrence analysis was also employed to identify the thematic structure and intellectual focus of the publications by AfricaLics VFP alumni. This method involves mapping the frequency and co-appearance of keywords within the titles, abstracts, and author-supplied keywords of the published works. By analyzing these relationships, the analysis reveals how concepts cluster together, highlighting dominant research themes, emerging topics, and the interconnectedness of ideas. The resulting clusters provide insight into the core areas of scholarly attention and the evolution of research priorities among AfricaLics VFP fellows.

2.5 Co-authorship Analysis

Finally, co-authorship analysis was used to examine the collaborative patterns among researchers affiliated with the AfricaLics Visiting Fellowship Programme. By mapping co-authored publications, the analysis identified fellows who have worked with other researchers, revealing the structure and extent of scholarly collaboration within and outside the network. This method provides insights into knowledge exchange, interdisciplinary linkages, and the emergence of thematic partnerships, offering a deeper understanding of how the programme fosters academic cooperation and builds research capacity across Africa. This co-authorship analysis includes publications which the fellows have made with other scholars from the broader AfricaLics network

2.6 Limitations of the Survey

Some limitations were encountered during the study:

- **Incomplete response coverage:** Most VFP fellows responded to the survey, but since a few of the VFP fellows did not respond to the survey, the results may not fully represent the entire population of fellows. Non-response from these fellows could indicate that they were experiencing delays in publishing.

- **Underreporting of publications:** Some respondents may have omitted certain publications or failed to attribute them to the VFP, either inadvertently or due to memory recall limitations.

To mitigate these limitations, a triangulation strategy was applied, cross-referencing self-reported publications with online bibliometric data and conducting extensive online searches. This approach enhanced the reliability and completeness of the publication dataset analysed. Hence the three main sources used for the triangulation were the following: a) publication records maintained by the AfricaLics Secretariat, b) online structured survey, and c) online searches.

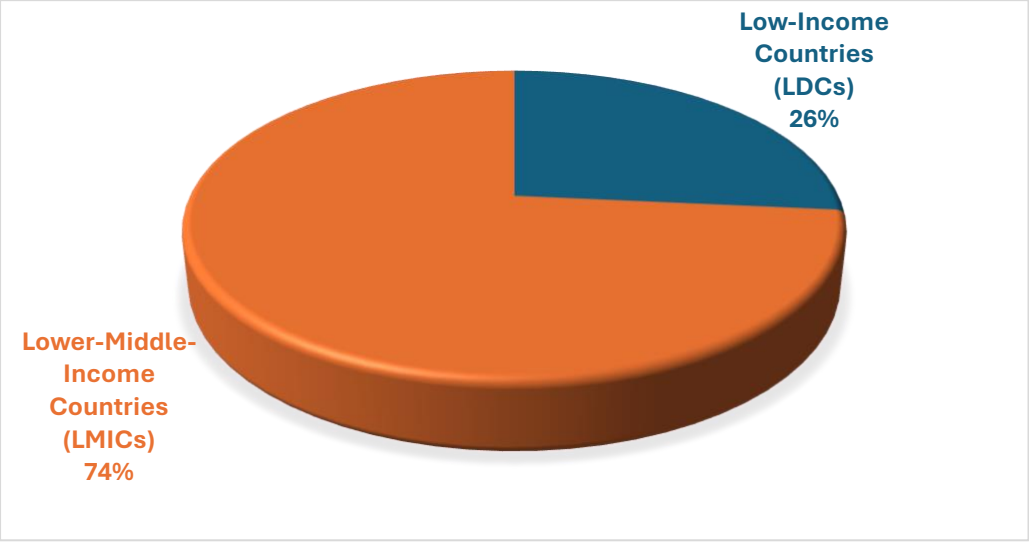
3. VFP participants 2015-2024.

The overarching goal of AfricaLics is to support scholars in producing high-quality dissertations, contributing to policy-relevant knowledge, and preparing for professional careers in academia, industry, or government. The Programme aims to support African PhD students from low- and lower-middle-income countries by enhancing their research and academic competence in innovation and development. Against this background, this section provides an overview of the scholars who have participated in the VFP from 2015 – 2024.

3.1 Categorization of AfricaLics Visiting Fellows 2015-2024 by Country Income Group

Figure 1 shows the representation of participants by World Bank income group, which provides insight into the programme's reach and equity.

Figure 1: Participation of AfricaLics Visiting Fellows by Country Income Group



3.1.1 Predominant Representation of fellows from Lower-Middle-Income Countries

Most fellows in the dataset (66%) come from lower-middle-income countries such as Nigeria, Kenya, Ghana, Benin, and Cameroon. These countries generally have more developed higher education systems compared to low-income peers but continue to face significant challenges in research funding, scientific infrastructure, and the translation of knowledge into innovation policy (Garcia & Crawley, 2024, Lundvall et al., 2011). The programme's engagement with these countries indicates a strategic focus on building systems where foundational research capacity already exists but where there is still considerable need in terms of strengthening research on I&D for sustainable development.

3.1.2 Strong Inclusion of Low-Income Country Fellows from certain countries

Fellows from low-income countries (26%), mainly Ethiopia and Uganda, are well represented. These countries often experience deeper structural constraints, including limited funding, fewer international networks, and weaker institutional research support systems (Bello et al., 2021). The inclusion of fellows from these contexts underscores AfricaLics' commitment to equity and its recognition of the importance of targeted support for scholars in under-resourced settings. Strengthening research capacity in these countries is essential to achieving inclusive development and building indigenous innovation systems. Meanwhile, the AfricaLics VFP programme has more limited outreach to low-income countries in conflict and to Francophone and Lusophone countries.

3.1.3 Absence of Fellows from Upper-Middle and High-Income Countries

The absence of fellows from upper-middle-income or high-income countries is consistent with the programme's core mission. AfricaLics targets countries where innovation and development systems are still evolving and where researchers face substantial barriers to producing policy-relevant knowledge. This targeted inclusion strategy aligns with calls in the literature for inclusive innovation policy approaches that focus on local contexts and marginalized voices (Chataway et al., 2014; Cozzens & Sutz, 2012).

It is, however, important to note that an increased number of students from upper-middle countries in Africa in the VFP could potentially help generate new synergies and support the development of innovation and development as a field. As current funding does not allow for direct participation of students from upper-middle and high-income countries, close collaboration with innovation and development research communities in South African universities (including University of Johannesburg and Wits University) currently constitutes the main avenue for strengthening these synergies. Examples of such collaboration include e.g. the hosting of VFP fellows during their three-month study stay, hosting other AfricaLics events such as PhD academies and conferences, developing and conducting joint research activities,

and providing employment opportunities for alumni from AfricaLics e.g. in the form of post-docs).

Efforts by the network to develop Research Coordination Areas (RCAs) are a relatively new activity aimed at further increasing collaboration with relevant research environments in these countries[1].

From the above analysis, AfricaLics VFP is well-aligned with its stated objectives by focusing on researchers from low- and lower-middle-income countries, where innovation ecosystems are either weak or still developing. The programme's role in enhancing the research quality, academic networks, and career trajectories of African scholars is particularly vital within the contexts of countries with historically limited institutional support.

3.2 Gender Distribution among the VFP participants

Gender representation among fellows is a critical indicator of the programme's commitment to inclusivity and equitable capacity development.

3.2.1 Male-Dominant Participation Patterns

Among the 39 fellows, 58.0% are male, while 42.0% are female (see Figure 2 below). While the programme shows commendable progress in fostering female participation in research, the data still reveals a gender gap of nearly 17 percentage points. This reflects a broader pattern within higher education and STEM-related fields across Africa, where women remain underrepresented due to systemic barriers such as limited access to research funding, gender bias in academia, and family-care responsibilities (Bello et. al., 2021; African Union, 2016).

3.2.2 Increased inclusion of Women in STI Research Training

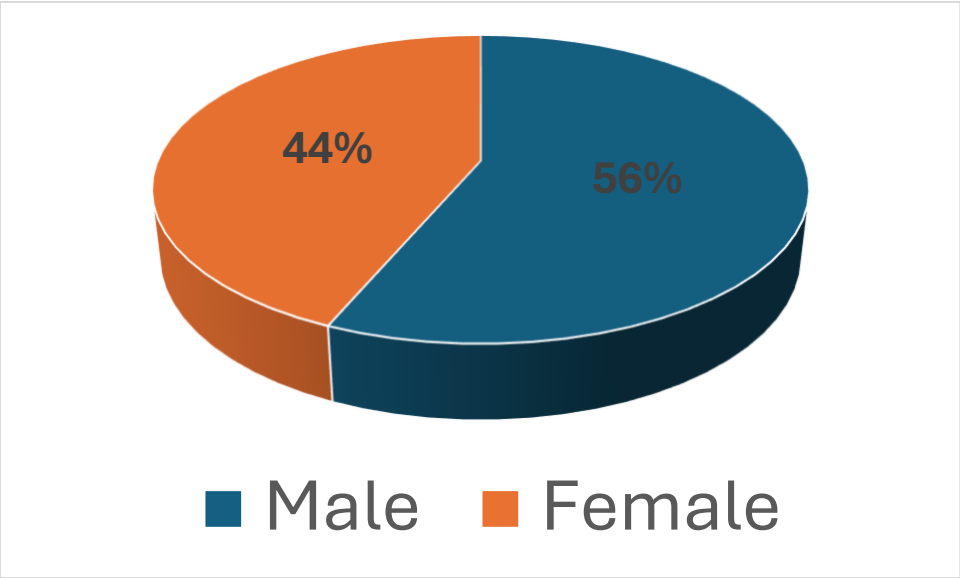
Despite the imbalance, the fact that over 40% of fellows are female is encouraging, especially in a field traditionally dominated by male researchers. This indicates that the AfricaLics VFP is actively contributing to closing the gender gap in Science, Technology, and Innovation (STI) research and leadership. This inclusion helps diversify the innovation research ecosystem and may also help ensure that policies informed by fellows' research become more gender-sensitive and inclusive. It is worthwhile noting, that the AfricaLics RCB programme – including the VFP – has used affirmative action to help ensure increased participation by female scholars since its inception, but additional targeted outreach,

[1] A notable example is the STI Measurement in Africa RCA, which has fostered collaboration among VFP alumni, AfricaLics scholars, and partner institutions in South Africa such as the Human Sciences Research Council's, Centre for Science, Technology and Innovation Indicators (CeSTII).

mentorship, and post-fellowship support for female researchers could further help close the gap and enhance the retention of women in STI careers.

All in all, however, the conclusion provided here is that the AfricaLics VFP is contributing meaningfully to building a gender-diverse pool of innovation scholars in Africa.

Figure 2: Gender Distribution Table (all VFP participants, 2015-2029).



4. Results and Discussions

This section presents and discusses the key results from the bibliometric analysis, including the citation counts analysis, the co-occurrence analysis and the co-authorship analysis.

4.1 Publication Output by Cohort of AfricaLics Visiting Fellowship Programme

The AfricaLics Visiting Fellowship Programme (VFP) not only provides an academic community for knowledge sharing but also plays a crucial role in encouraging the publication of research papers. This analysis examines the number of journal articles produced by PhD scholars during or after their participation in the VFP, allowing us to evaluate the impact of the fellowship on post-PhD scholarly productivity. It should be noted that the listed articles represent publications to which the programme made a direct intellectual contribution. While some scholars may have published additional works, only those outputs that reflect a clear and attributable influence of the VFP are included here. The data presented in Table 1 below

reflects the scholarly publication outcomes of African PhD students who participated in the programme.

4.1.1 Sustained High Research Productivity in Initial Cohorts (2015-2018)

The cohorts from 2015 to 2018 demonstrate the highest productivity, accounting for 61% of the total number of articles published by the 39 fellows. The 2018 cohort stands out with the highest publication-to-fellow ratio (2.50 articles per fellow), suggesting that the programme was particularly impactful for that group in terms of research output. These early cohorts may have benefited from stronger post-fellowship mentoring or more time to publish after the programme.

4.1.2 Declining Research Output Trends (2019–2022)

From 2019 to 2022, there is a noticeable decline in publication intensity, with cohorts in this period having published fewer articles per fellow. While some output is still evident, such as in the 2021 and 2022 cohorts, the lower productivity may be linked to the global COVID-19 pandemic, which disrupted academic timelines, fieldwork opportunities, access to resources, and overall research productivity. The pandemic's impact likely constrained fellows' ability to finalize or publish their research promptly.

4.1.3 Output from Recent Cohort (2023–2024)

The publication outputs from cohorts from 2023 and 2024 show a further drop, with very few publications recorded. However, students in both cohorts are still active, and as such, the number of publications is likely to increase in the coming years. The programme should pay particular attention to the continued monitoring of publication levels in these cohorts, and if the number of publications does not increase as expected, investigate the reasons for this.

In all, the AfricaLics VFP has had a demonstrable positive impact on academic publication output, particularly for earlier cohorts. The decline from 2019 to 2022 appears to coincide with the disruptions of the COVID-19 pandemic, which affected the research ecosystem globally. The programme should continue monitoring the performance of all cohorts, while paying particular attention to the more recent cohorts. Depending on the outcome, post-fellowship publishing and mentoring support may have to be intensified to sustain and enhance the programme's impact.

The programme may also track not just publications but also longer-term career and policy engagement outcomes in line with the programme's broader mission to build innovation and development capacity across Africa. The AfricaLics Secretariat's ongoing efforts to regularly update the membership database of fellows and to document impact stories from past participants (see further details on the AfricaLics impact site, in the flip-book, and this video) represent commendable initiatives that contribute meaningfully to tracking progress and showcasing the programme's long-term impact. These efforts could be complemented by a

more regular and systematic harvesting of data from the internet using new technologies available for this purpose.

Table 1: Publication Output by Cohort of AfricaLics Visiting Fellowship Programme

Cohort	Published Articles	Total Fellows	Average Articles per Fellow	% of Total Articles
2015	13	6	2.17	22.81
2016	12	5	2.40	21.05
2018	10	4	2.50	17.54
2019	5	3	1.67	8.77
2020-21	5	5	1.00	8.77
2022	7	6	1.17	12.28
2023	2	6	0.33	3.51
2024	3	4	0.75	5.26
Total	**57**	**39**	1.46	**100**

Note: Due to the Corona pandemic, the 2020 cohort (three students) only visited Denmark in 2021 together with the 2021 cohort (two students), so these two cohorts are merged in the table.

4.2 Thematic Categorization of AfricaLics VFP Research Topics

Using co-occurrence analysis, we reviewed the different research topics covered by the AfricaLics Visiting PhD Fellows and grouped them into 12 main themes. This allowed us to organise the research topics into clear, meaningful categories. It also gives the understanding of the broader thematic areas studied by the fellows as well as the intellectual structure of the research domain. The results show that the fellows worked on a wide range of important issues that support the programme's goal of promoting innovation and development that benefits society. The summary of these themes is shown in Table 2.A major focus is on agriculture and agribusiness innovation, addressing value chains and rural development. Studies on technological capability and learning examine firm-level innovation and indigenous knowledge creation, while research on entrepreneurship, SMEs, and firm performance explores business dynamics in resource-constrained environments.

The fellows also contribute to understanding national and sectoral innovation systems, advocating for context-specific models suited to African realities. Gender, inclusion, and women-led innovation is another key area, emphasizing the need for equity in innovation policy and practice. Themes such as social capital and indigenous knowledge highlight the importance of traditional systems in shaping innovation behavior and resilience.

Environmental concerns are addressed mainly through studies on energy and climate change innovation, focusing on low-carbon transitions and sustainable technologies. The area of food processing and product innovation examines value addition and livelihood diversification. Emerging themes include organizational innovation, especially in public institutions, and value chains and industrial policy, which inform strategies for economic upgrading.

Although fewer in number, studies on health innovation and intermediaries explore collaborative platforms in healthcare, while digital innovation and business models capture Africa's evolving digital economy. Together, these themes demonstrate the programme's contribution to interdisciplinary, policy-relevant, and Africa-centric innovation research.

In all, the thematic spread of AfricaLics VFP research areas shows a strong alignment with contemporary innovation and development theory and policy. The diversity highlights AfricaLics' contribution to building a new generation of researchers capable of informing evidence-based STI policy for sustainable development. Collectively, these thematic areas illustrate the diversity and depth of research supported by the AfricaLics VFP, highlighting its contribution to advancing context-specific, policy-relevant, and interdisciplinary scholarship across the African continent.

Table 2: Thematic Categorization of AfricaLics VFP Research Topics

Theme	No. of Topics	% of Total
Agriculture and Agribusiness Innovation	13	15.48
Technological Capability & Learning	12	14.29
Entrepreneurship, SMEs & Firm Performance	11	13.1
Innovation Systems and Ecosystems	7	8.33
Gender, Inclusion, and Women-led Innovation	7	8.33
Social Capital, Institutions & Indigenous Systems	6	7.14
Energy and Climate Innovation	6	7.14
Food Processing and Product Innovation	6	7.14
Creativity, Human Capital & Organizational Innovation	5	5.95
Value Chains and Industrial Policy	5	5.95
Health Innovation and Innovation Intermediaries	3	3.57
Digital Innovation and Business Models	3	3.57
Total	84	100

Note: some articles focus on more than one topic, hence the number of topics covered is bigger than the number of articles published by the VFPs.

4.3 Journal Distribution of VFP Fellow Publications

The AfricaLics VFP supports PhD candidates in their efforts to publish in diverse journals, ranging from international, peer-reviewed outlets to regional and open-access platforms.

The analysis of the data regarding distribution of journals in which the VFP fellows publish reveals three main trends (please see Table 4):

4.3.1 High-Quality and Indexed Journal Engagement

The journal with the highest number of articles published by VFP fellows is *Innovation and Development* (6 articles), a well-regarded Taylor & Francis journal indexed in Scopus and Web of Science, focusing on inclusive innovation and development policy (See Table 4). The frequency of the use of this journal documents that a number of VFP fellows align well with the international literature on I&D. This supports the overall mission of AfricaLics, which is to develop a vibrant research community on I&D in Africa. Similarly, *African Journal of Science, Technology, Innovation and Development*, published by Taylor & Francis, is also a popular journal among the fellows. A total of five articles by VFP fellows were published in this journal, which is also Scopus-indexed. The regional journal is known for providing a platform for policy-relevant STI research in Africa.

Journals such as *Energy Research & Social Science* (1 article) and *Agroecology and Sustainable Food Systems* (1 article) are Q1-rated (top quartile) in their respective fields, reflecting high-quality, interdisciplinary research outputs from the programme aligned with climate innovation and food security.

4.3.2 Use of Open Access and Emerging Journals

Several fellows published in open-access and emerging journals, such as *Cogent Business & Management*, *Journal of Innovation and Entrepreneurship*, and *Heliyon*. While some of these journals are less established in impact rankings, they provide accessible platforms and wide dissemination. However, care should be taken with platforms that are not peer-reviewed or poorly indexed, as they may limit the research's academic recognition. It is advised that fellows are regularly sensitised during programme workshops on the importance of exercising due diligence and avoiding publication in sub-standard or predatory journals.

4.3.3 Practice-Oriented and Sector-Specific Journals

Some fellows targeted sectoral journals relevant to agriculture, energy, and food systems. For example, *Journal of Agribusiness and Rural Development, Journal of Food Security, Aquaculture, Energy Research & Social Science and Agricultural Finance Review* (see figure 3). These journals, while sometimes niche, provide strong applied insights into themes like value chains, rural innovation, and agribusiness development (Spielman & Birner, 2008).

The publication record of AfricaLics VFP fellows is diverse in outlets and scope, with a healthy concentration in international peer-reviewed and indexed journals, especially those aligned with innovation systems, inclusive development, and sustainability (see table 3). However, opportunities remain for further strengthening quality assurance, including guiding fellows away from low-impact or predatory outlets and encouraging submission to quality journals in innovation, development, and sustainability studies. Efforts made to discourage this practice during online courses and workshops for the fellows are commendable. Mentors are also told to ensure that students do not target such journals.

Table 4: Journals Where VFP Fellows Published

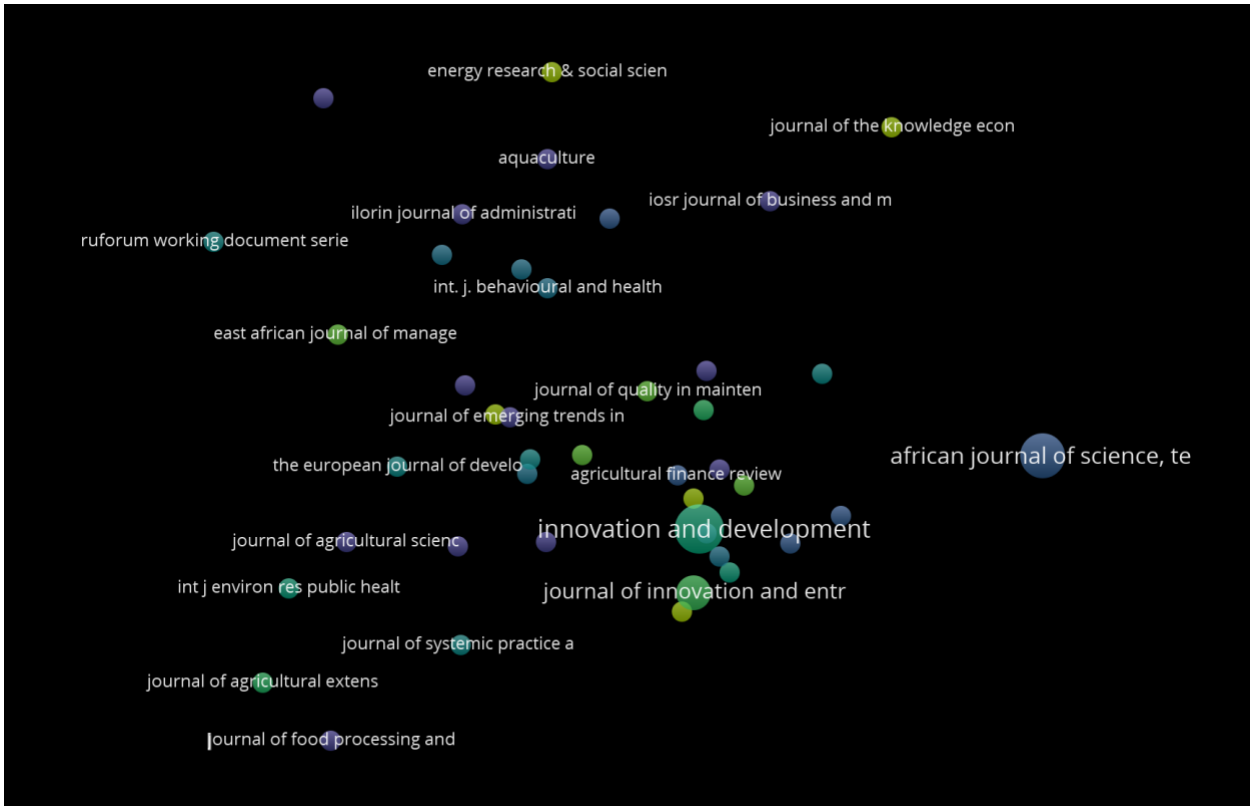
Journal	Publisher	Frequency	Indexing	Q Level (Scopus, 2023)
Innovation and Development	Taylor & Francis	6	Scopus, WoS	Q2
African Journal of Science, Technology, Innovation and Development	Taylor & Francis	5	Scopus, WoS	Q2
Journal of Innovation and Entrepreneurship	Springer	3	Scopus, WoS	Q2
International Journal of Technological Learning, Innovation and Development	Inderscience	2	Scopus	Q3
Technological Forecasting and Social Change	Elsevier	1	Scopus, WoS	Q1
International Journal of Educational Development	Elsevier	1	Scopus, WoS	Q1
Journal of Emerging Trends in Economics and Management Sciences	Scholarlink Research Institute	1	Not in Scopus	Not Ranked
Financing Sustainable Development in Africa	Palgrave	1	Not in Scopus	Not Ranked
Technological Forecasting & Social Change	Elsevier	1	Scopus, WoS	Q1
Strategic Outsourcing: An International Journal	Emerald	1	Scopus	Q2 (Discontinued)

International Journal of Innovation and Applied Studies	Innovative Space of Scientific Research Journals	1	Not in Scopus	Not Ranked
IOSR Journal of Business and Management	International Organization of Scientific Research	1	Not in Scopus	Not Ranked
Polish Journal of Management Studies	Czestochowa University of Technology	1	Scopus, WoS	Q3
International Journal of Behavioural and Healthcare Research	Inderscience	1	Scopus	Q4
Heliyon	Elsevier	1	Scopus, WoS	Q2
Journal of Food Security	Science and Education Publishing	1	Not in Scopus	Not Ranked
Journal of Agricultural Science	Canadian Center of Science and Education	1	Scopus, WoS	Q3
The European Journal of Development Research	Palgrave Macmillan	1	Scopus, WoS	Q2
Journal on Food System Dynamics	CentMA	1	Not in Scopus	Not Ranked
African Journal of Economic and Management Studies	Emerald	1	Scopus, WoS	Q2
RUFORUM	RUFORUM Open Access	1	Not in Scopus	Not Ranked
University of Pretoria (South Africa) ProQuest Dissertations & Theses	University of Pretoria	1	ProQuest	-
Journal of International Management	Elsevier	1	Scopus, WoS	Q1

Aquaculture	Elsevier	1	Scopus, WoS	Q1
Journal of Agribusiness and Rural Development	University of Zielona Góra	1	Scopus	Q3
Agricultural Finance Review	Emerald	1	Scopus, WoS	Q2
International Journal of Learning and Change	Inderscience	1	Scopus	Q4
Journal of food processing and technology	OMICS International	1	Not in Scopus	Not Ranked
Ilorin Journal of Administration and Development	University of Ilorin	1	Not in Scopus	Not Ranked
Journal of Systemic Practice and Action Research	Springer	1	Scopus, WoS	Q3
International Journal of Environmental Research and Public Health	MDPI	1	Scopus, WoS	Q1 / Q2
Stellenbosch University	Stellenbosch University Press	1	Not in Scopus	Not Ranked
East African Journal of Management and Business Studies	Gitoya Centre for Academic Research & Dissemination	1	Not in Scopus	Not Ranked
Uongozi Journal of Management and Development Dynamics	Mzumbe University	1	Not in Scopus	Not Ranked
International Journal of Business Forecasting and Marketing Intelligence	Inderscience	1	Scopus	Not Ranked
Journal of Quality in Maintenance Engineering	Emerald	1	Scopus, WoS	Q2
Cogent Business & Management	Taylor & Francis	1	Scopus, WoS	Q2

Journal of Agricultural Extension and Rural Development	Academic Journals	1	Not in Scopus	Not Ranked
Open Access Journal of Agricultural Research	MedCrave	1	Not in Scopus	Not Ranked
Renewable and Sustainable Energy Transition	Elsevier	1	Scopus	Q1
Energy Research & Social Science	Elsevier	1	Scopus, WoS	Q1
Journal of the Knowledge Economy	Springer	1	Scopus, WoS	Q2
Agroecology and Sustainable Food Systems	Taylor & Francis	1	Scopus, WoS	Q1
Journal of Business and Management Sciences	Science and Education Publishing Co. Ltd	1	Not in Scopus	Not Ranked
Kwame Nkrumah University of Science and Technology (KNUST)	KNUST Press	1	Not in Scopus	Not Ranked

Figure 3: Distribution of Journals Publishing AfricaLics VFP Fellows' Research Outputs



4.4 Fellows with Published PhD Theses in Institutional Repositories

In addition to publishing articles in reputable peer-reviewed journals, several VFP fellows have also made their doctoral research publicly accessible through institutional repositories. This practice enhances the visibility, accessibility, and impact of their work within and beyond academic circles.

Table 5 highlights seven fellows whose PhD theses are archived in the repositories of their respective institutions, which span across various universities and research institutes in Africa. This amounts to approximately 18% of all VFP fellows. The universities and research institutes where VFP fellows have achieved PhD theses include Adama Science and Technology University (Ethiopia), Jomo Kenyatta University of Agriculture and Technology and the University of Nairobi (Kenya), Gordon Institute of Business Science and University of Pretoria (South Africa), and University of Stellenbosch (South Africa).

This trend reflects a growing commitment among AfricaLics fellows to open science principles and knowledge dissemination, contributing to wider academic and policy engagement across the continent.

Table 5: List of Fellows with Published PhD Dissertations in Institutional Repositories

Name	Institution	Publication Outlet
Abdi Yuya	Adama Science and Technology University	Repository
Ann Njeri Kariuki	Jomo Kenyatta University of Agriculture and Technology	Repository
Martin Gachukia Kang'ethe	Jomo Kenyatta University of Agriculture and Technology (Kenya)	Repository
Herberts Nyukuri Wamalwa	University of Nairobi (Kenya)	Repository
Pamela Mreji	Gordon Institute of Business Science, South Africa	Repository
Chipo Nancy Ngongoni	University of Stellenbosch	Repository
Kiconco Stella	University of Pretoria	Repository

4.5 Citation Count and Average Citation per Publication by Year

The citation performance of AfricaLics Visiting Fellowship Programme (VFP) alumni from 2015 to 2024 offers valuable insight into the programme's contribution to building academic and research capacity among African PhD students. This is shown in Table 6. With a cumulative total of 751 citations and an average of 13.17 citations per publication, the data reflect meaningful scholarly engagement and growing academic visibility, particularly among the earlier cohorts. Notably, the 2015 and 2016 cohorts achieved the highest average citation counts, both exceeding 20 citations per publication, while more recent cohorts recorded lower figures, which is expected given the typical time lag required for citations to accumulate. This is commendable since Africa's share of global citations is disproportionately low compared to its share of publications and considering that some studies report an average no. of citations by academics in South-Saharan Africa of only 3.8 (Mitchell et al., 2020). The social sciences and humanities are identified as particularly citation-weak in the international context, though they may be highly influential locally (Pouris and Ho, 2014). Larivière and Costas (2016) also reported that researchers in the first five years of their careers typically record very low annual citation rates, a trend that is likely even more pronounced within the Sub-Saharan African context.

These patterns should be interpreted within the structural context of global North–South disparities in academic publishing. African scholars frequently publish in regional or lower-impact journals due to systemic constraints such as limited access to high-impact publishing outlets, lower research funding, and weaker international networks. These factors often result in lower citation counts, not necessarily as an indication of poor research quality, but rather due to reduced global visibility and underrepresentation in dominant citation ecosystems, which tend to favor Northern scholars and institutions (Bello et. al., 2021).

Despite these challenges, the AfricaLics VFP has played a crucial role in enabling African PhD fellows to produce high-quality, policy-relevant research that is beginning to find its way into global academic discourse. The average of 13 citations per publication is a positive signal, especially for early-career researchers operating in contexts with limited infrastructural support. This reinforces the value of the VFP's capacity-building approach, which combines academic training, mentorship, and international exposure to strengthen the role of African scholars in shaping transformative innovation systems.

Table 6: Citation Count and Average Citation per Publication by Year

Cohort	Total Fellows	Published Articles	Total Citation	Average Citation/Publication
2015	6	13	268	20.62
2016	5	12	248	20.67
2018	4	10	130	13.00
2019	3	5	27	5.4
2020-21	5	5	2	0.4
2022	6	7	66	9.43
2023	6	2	9	4.5
2024	4	3	1	4.67
Total	**39**	**57**	**751**	13.17

4.6 Scholarly Impact of AfricaLics PhD VFP Fellows

Figure 4 below represents peer-reviewed publications authored (or co-authored with other scholars within the network) by fellows of the AfricaLics VFP, accompanied by citation counts. Articles referenced in the text were selected primarily on the basis of their citation counts, as an indicator of scholarly influence. These citation metrics provide a useful proxy for assessing the scholarly visibility and academic influence of the fellows' research outputs. At the top of the list is *Sanni Maruf*'s 2018 article published in *Technological Forecasting and Social Change*, with citation counts of 171. This high citation count underscores the global relevance and scholarly impact of research focusing on eco-innovation in the Nigerian manufacturing sector, which aligns with AfricaLics' broader interest in innovation for sustainable development in Africa.

Other notable contributions include the 2019 collaborative study by *Musambya Mutambala* and colleagues, which explores micro and small enterprises in Africa and has garnered 59 citations. This paper, published in the *International Journal of Technological Learning, Innovation and Development*, reflects the VFP's emphasis on inclusive innovation, particularly in informal and small enterprise contexts.

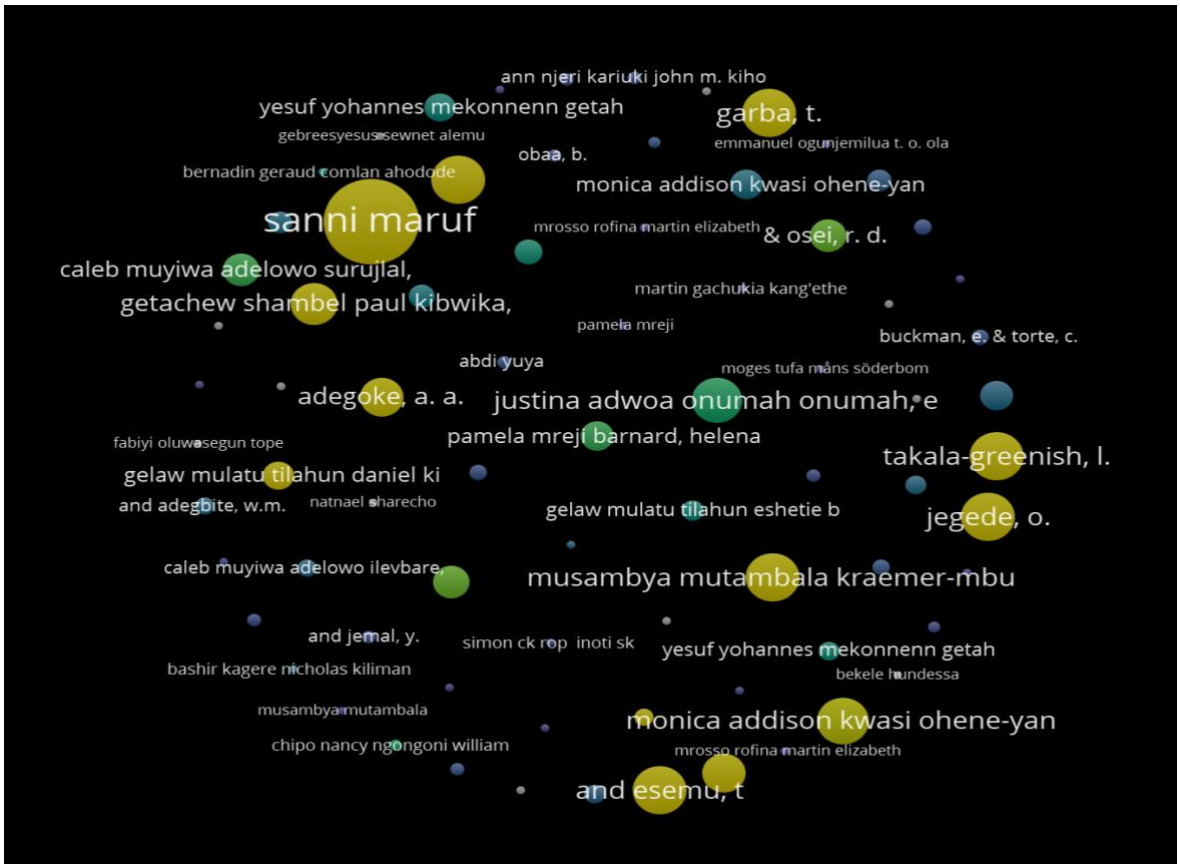
A range of other publications address critical development themes such as gender roles in agriculture (*Monica Addison Kwasi*, 53 citations), production efficiency in aquaculture (*Justina Onumah*, 51 citations), resilience through social capital (*Getachew Shambel et al.*, 44 citations), and health innovation (*Caleb Adelowo*, 39 citations). These works, while varying in disciplinary

focus, collectively underscore the breadth of the VFP's thematic engagement across agriculture, health, entrepreneurship, and STI policy.

The citation performance of these publications highlights the academic productivity and research quality fostered by the AfricaLics PhD Visiting Fellowship Programme. It further demonstrates that the programme equips fellows not only to contribute to scholarly debates but also to influence practice and policy within their respective domains. The spread of citation counts also suggests that while some papers have achieved significant international reach, others are still gaining traction, a typical pattern in emerging research communities.

From the foregoing, efforts to enhance the visibility of VFP fellows' research, through international collaborations, open-access publishing, and inclusion in global networks, will be essential for sustaining and expanding the programme's impact. By addressing systemic barriers to publication and citation, AfricaLics can further support a more equitable and inclusive global research landscape.

Figure 4: Citation Counts of Publications by AfricaLics PhD VFP Fellows



4.7 Thematic Focus of AfricaLics Visiting Fellowship Research: A Co-occurrence Analysis

As part of the assessment of the programme's scholarly output, a co-occurrence analysis of keywords from fellows' published works was conducted. The analysis shows the strength of association between keywords and how concepts are linked within the literature. It also reveals the semantic structure of a research field. The main purpose is to understand the main conceptual structure of the field, revealing trending or emerging concepts.

From this analysis, three distinct clusters of co-occurring keywords were generated. This is shown in Figure 5. Each cluster reflects a concentration of research interests and knowledge domains shaped by the fellows' engagements and training under the programme. Notably, all three clusters converge on Africa as the central focus of investigation.

4.7.1 Cluster 1: Advancing Knowledge on STI Measurement and Research Mapping in Developing Countries

This cluster reflects a strong emphasis on research methodologies that seek to understand and assess science, technology, and innovation (STI) systems, particularly in developing countries. The prevalence of keywords such as *bibliometric analysis*, *systematic review*, and *STI measurement* suggests that AfricaLics Visiting Fellows are actively engaged in synthesizing and evaluating STI research outputs, trends, and gaps. This aligns with the VFP's core objective of strengthening academic capacity by equipping early-career scholars with tools to critically assess their national and regional innovation landscapes. It also highlights the programme's contribution to enhancing empirical and evidence-based policy engagement in STI for development.

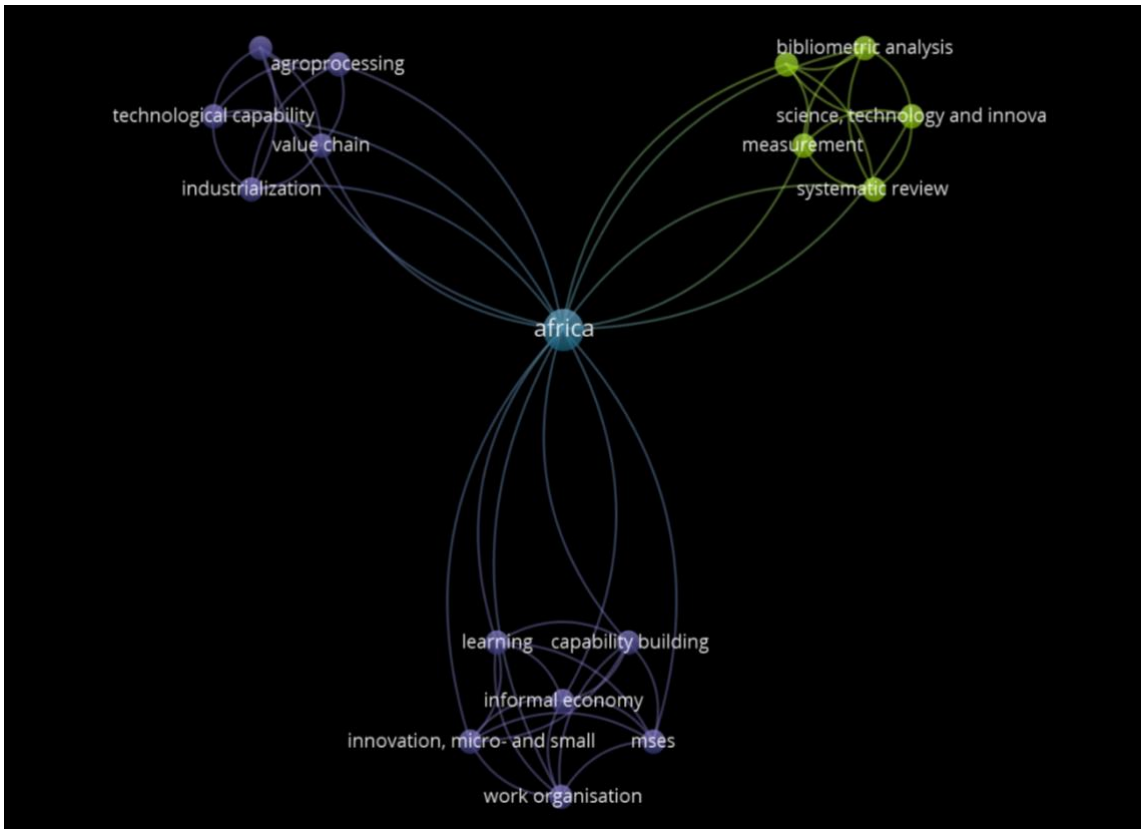
4.7.2 Cluster 2: Innovation and Learning in Informal and Small Enterprise Contexts

The second cluster underscores a focus on innovation processes within micro, small, and medium-sized enterprises (MSMEs), particularly in the informal economy. The keywords *innovation*, *capacity building*, *learning*, and *work organization* reflect the thematic orientation of many fellows toward understanding how innovation unfolds in resource-constrained environments. This resonates with AfricaLics' interest in inclusive innovation and the role of indigenous learning mechanisms within the informal sector. The inclusion of *MSES* and *MMEs* suggests that the Visiting Fellowship Programme has fostered research that addresses practical development challenges by exploring how small enterprises build capabilities and respond to structural constraints. These contributions are critical for informing policy and practice in Africa's innovation systems.

4.7.3 Cluster 3: Building Technological Capabilities for Agro-Industrial Development in Africa

Cluster 3 is centered around the transformation of African economies through agro-industrialization and local production. Keywords such as *Africa*, *agroprocessing*, *industrialization*, and *local production technological capability* indicate a strong interest in building endogenous innovation capabilities within agricultural value chains. This reflects the VFP's role in supporting research that links science, technology, and innovation to industrial development, especially in key sectors like agriculture. The focus on *value chains* also highlights a systems perspective, emphasizing the interconnectedness of actors and institutions in driving innovation for structural transformation. Research emerging from this cluster demonstrates the potential of AfricaLics fellows to contribute to national strategies for industrial growth and food security.

Figure 5: Thematic Clusters Based on Keyword Co-occurrence Analysis of Publications



5 Conclusion and Policy Recommendations

5.1 Conclusion

Based on the bibliometric analyses conducted for this report, the AfricaLics Visiting Fellowship Programme (VFP) has emerged as a critical initiative in advancing research capacity within the field of innovation and development studies across Africa. Over the past decade, the programme has supported a growing cohort of African PhD candidates and early career researchers, fostering a dynamic academic network that promotes scholarly productivity, enhances policy engagement, and strengthens international visibility for the fellows.

Evidence from this report underscores several notable achievements. First, the VFP has facilitated the production of high-quality peer-reviewed publications, particularly among earlier cohorts (2015–2018), with fellows averaging between 2.17 and 2.50 articles each. While a decline in publication output is observed among more recent cohorts (2019–2024), this trend is likely influenced by disruptions associated with the COVID-19 pandemic and the natural time lag inherent in academic publishing. Continued support and monitoring will be essential to maintaining long-term research productivity.

Citation analysis reveals that the programme has also contributed significantly to academic impact. On average, fellows' publications receive 13.17 citations per article, with the 2015 and 2016 cohort achieving an outstanding 20 citations per publication. Although newer publications (2022–2025) have not yet had sufficient time to accrue similar citation levels, these early indicators suggest promising scholarly influence.

The research themes explored by fellows are both diverse and highly relevant to Africa's development challenges, covering areas such as agricultural innovation, energy transitions, gender equity, digital transformation, and technological capability development. This thematic breadth underscores the programme's role in fostering interdisciplinary, policy-relevant research.

Geographically, the programme has achieved broad representation, particularly from low- and lower-middle-income countries including Ethiopia, Nigeria, Kenya, and Ghana. The number of scholars attending the programme from francophone and lusophone countries, has been limited, however. In terms of gender balance, female fellows account for 42% of participants which is more than the average number of female scholars on the African continent. In spite of the positive results, more targeted recruitment and support strategies to further promote gender equity and, if possible, increase outreach to the francophone and lusophone countries could be made.

In terms of dissemination, most? fellows have published in reputable, high-impact journals, including several Scopus-indexed and Q1-ranked outlets. Nevertheless, some submissions to lesser-known platforms highlight a need for improved mentorship in journal selection and research visibility. Encouragingly, the growing practice of depositing theses in institutional repositories aligns with global trends toward open science and knowledge sharing. To build on these achievements and address emerging challenges, the following recommendations are proposed.

6. Recommendations for AfricaLics Visiting Fellowship Programme

To build on the achievements of the AfricaLics Visiting Fellowship Programme (VFP) and to address emerging challenges, several strategic recommendations are proposed.

First, post-fellowship mentorship, and research support could be enhanced. This can be achieved by establishing structured mentorship programmes that assist fellows in refining and publishing their research after completing the fellowship. Organization of writing workshops by the AfricaLics is poised to improve the quality of manuscripts of the fellows. At the same time, providing grant-writing support can equip fellows with the tools needed to secure additional research funding.

Second, it is important to revitalize research productivity among recent cohorts, particularly in light of reduced output observed in recent years. Investigating the root causes of this decline, such as the lingering effects of the COVID-19 pandemic or institutional barriers, will help identify appropriate interventions. Flexible timelines are already being applied for these cohorts and mentors have been following up on a pro-bono basis. Follow-up funding could be considered for fellows whose research was disrupted. Additionally, encouraging collaborative research and co-authorship with mentors and senior scholars could help accelerate output.

Fourth, improving journal selection and research visibility is crucial for the VFP. All fellows should prioritize submissions to reputable, peer-reviewed outlets. While open-access publishing is encouraged for broader dissemination, it should be done through quality-controlled platforms, such as those indexed in the Directory of Open Access Journals (DOAJ). AfricaLics can further support visibility by leveraging its networks to amplify the reach of fellows' work.

Fifth, to facilitate cross-cluster learning and collaboration, mechanisms should be developed to encourage knowledge exchange across the three clusters identified. This could include interdisciplinary workshops, thematic webinars, or joint publications that bridge methodological and sectoral divides. The recent initiative around the establishment of research coordinating areas (RCA) is a good step in the right direction. Interestingly, AfricaLics already established RCA for two of the clusters identified: Agriculture and STI measurement. The secretariat may also want to consider the third cluster: innovation and learning in informal and small enterprise.

Finally, there is a need to increase efforts to track the long-term impact and influence of the programme. Closer monitoring of fellows' career progression across academia, policy, and industry would provide valuable insights into the programme's influence. Documenting instances of policy engagement and institutional contributions by alumni will further demonstrate its relevance. Case studies highlighting successful fellows can serve as powerful testimonials of the VFP's broader societal contributions. Creation and distribution of impact stories through various means such as the AfricaLics Flip-book and video productions by the AfricaLics is a good initiative in the right direction.

In conclusion, the AfricaLics VFP has played a transformative role in nurturing a new generation of innovation scholars across the continent. To sustain and expand this impact, strategic investment in post-fellowship mentorship and increased inclusion, collaboration, and visibility of AfricaLics supported research is essential. By implementing these recommendations, AfricaLics can ensure that the VFP continues to serve as a cornerstone of Africa's innovation and development research ecosystem.

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