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Strengthening Evidence-Based Policy and Practice for Sustainable Food Systems under the AU-EU Partnership

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Systematic Overview of Relevant Economic Data and Modelling Tools

StEPPFoS Deliverable Report: D1.2

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Abstract	This report contributes to the deliverables of Work Package 1 (WP1) under the StEPPFoS project, aiming to synthesize evidence that supports the development of Consortium activities and lays the groundwork for the project's success. Specifically aligned with Task 1.2 and Deliverable D1.4, the report develops a database of PANAP and FNSSA roadmap activities, mapping existing policies, projects, and stakeholders of the PANAP network. Drawing on methodologies from the LEAP4FNSSA project, the database synthesizes thematic and geographically relevant policies and FNSSA Partnership project data for future synergies analysis in WP3 and WP4. The study targeted 80 institutions, achieving a 50% response rate, with significant participation from non-profit organizations and academic entities but lower engagement from government policy institutions. Thematically, surveyed institutions focus predominantly on food systems, food security, agroecology, and climate resilience, aligning with AU policy frameworks. However, a gap in policy development was noted, signaling a need for stronger integration of policy frameworks to ensure sustainable solutions. Geographically, East and West African regions, particularly Ghana, Nigeria, and Kenya, demonstrate high engagement in multi-thematic projects. However, North African representation remains limited, highlighting a need for inclusivity. Funding analysis reveals a strong reliance on external donor support, especially from the EU, with national contributions minimal, presenting a challenge for long-term sustainability and research autonomy. Stakeholder engagement methods predominantly rely on traditional in-person approaches, while digital avenues remain underutilized. Quantitative methods such as surveys are preferred for impact measurement, but stakeholder consultations are underused, limiting participatory insights. Efforts to address gender inclusion are evident, with many institutions embedding gender-sensitive strategies and performance indicators, though gaps persist in broader inclusivity measures. Challenges include financial delays, limited technical capacity, and resistance within policy structures, compounded by social and economic shifts. Addressing these requires enhanced funding mechanisms, adaptive strategies, and streamlined communication to ensure resilience and evidence-driven policymaking within African and European agri-food systems.
Keywords	Mapping, data modelling, project funding, StEPPFoS

Disclaimer

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Abbreviations

AFAAS	African Forum for Agricultural Advisory Services
AU-EU	African Union - European Union
CCSE	Climate Change and Sustainable Energy
CEE	Central and Eastern Europe
CSIR	Council for Scientific and Industrial Research
EU	European Union
EC	European Commission
FARA	Forum for Agricultural Research in Africa
FNSSA	Food and Nutrition Security and Sustainable Agriculture H2020
IRC	International Research Consortium
JRC	Joint Research Consortium
KEOPS	Knowledge Extract or Pipeline System
NGO	Non-governmental organization
PANAP	Pan African Network for Economic Analysis of Policies
R&I	Research and Innovation
SADC	Southern African Development Community
SANBio	Southern Africa Network for Biosciences
SEW	Stakeholder Engagement Week
StEPPFoS	Strengthening Evidence-Based Policy Practice for Sustainable Food Systems under the EU-AU Partnership
STEPRI	Science and Technology Policy Research Institute
STI	Science, Technology and Innovation
WP	Work Package

1 Introduction

1.1 Background

Africa's food insecurity remains high despite regional improvements (FAO, AUC, ECA and WFP, 2023). Recent assessments by the African Union (AUC and AUDA-NEPAD, 2024) report that roughly one in five people on the continent faced hunger in the past year, amounting to over 280 millions individuals faced acute food insecurity in 2022. The 4th Biennial Review Report on the Implementation of the Comprehensive Africa Agriculture Development Programme (CAADP) under the Malabo Declaration further reveals that the continent is not on track to meet key agricultural transformation targets, including commitments to end hunger and enhance resilience by 2025 (AUC and AUDA-NEPAD, 2024).

In the pursuit of sustainable food systems and resilient agricultural transformation, African countries face a persistent challenge: translating research evidence into actionable policy. Research serves as a critical bridge between the lived realities of farmers, markets, and households, and the strategic decisions governments must make on trade, input subsidies, climate adaptation, and safety nets. By converting empirical patterns into policy-relevant insights, research reduces uncertainty, improves targeting, and helps allocate scarce resources toward high-impact interventions (Ulimwengu, Kwofie and Colins, 2023).

Despite growing recognition of the importance of data-driven policy, national research institutes and universities across Africa often operate with limited capacity. While many institutions demonstrate strong applied skills and the ability to integrate multi-source datasets, this expertise is frequently concentrated among few specialists (MacPherson et al., 2022; Mulungua, Kassie and Tschopp, 2025). The uneven distribution of analytical capacity restricts broader institutional learning and limits the ability to scale evidence-based approaches across ministries and sectors.

Outcomes from a desk study conducted in Task 1.1, (***Desk Review to Identify and Analyse Existing Policy Capacity gaps: A focus on PANAP Member Countries***) finds that;

1. The analysis capacity for food and agriculture policy is uneven across the network but improvable, with clear strengths in multi-actor engagement and comparative assessment methods alongside thin analyst cadres and fragile data stewardship in many public agencies;
2. It confirms that institutional capacity gaps, weak research–policy linkages, and fragmented evidence systems are the binding constraints on translating analysis into time-bound decisions, and it positions the consortium to address these gaps through a follow-on survey that validates findings and guides targeted support;

3. It also lays the groundwork for mapping policies, projects, stakeholders and data assets into a coherent policy-and-analysis knowledge base that strengthens comparability and reuse across countries.

1.2 Objectives

Against this backdrop, the general objective of this report is to map out the factors that influence agri-food research (projects and policies) and analytical practices (use of economic data and modelling tools) in Africa. So that, they are made visible and usable for stronger research-to-policy uptake. Specifically, the report aims to:

1. Identify and map policies, projects, and programmes shaping agri-food research across countries and institutions.
2. Synthesise findings from survey and outputs from the review of economic data and modelling practices in use by policy and non-policy institutions
3. Provide actionable recommendations to strengthen research analysis capacity and guide subsequent work packages (WP2)

Further, the information contained in this report is to feed into the deliverables of Work Package 1 of the StEPPFoS project. Which focuses on aligning research agendas with priority policy questions, facilitating shared evidence platforms and policy dialogues and embedding capacity building so that researched evidence is translated into usable options for policy makers. The overarching goal of WP1 is therefore to synthesize and document evidence that will support the development of Consortium activities, laying a foundation for the entire project's success. Specifically, WP1 aims to:

1. Identify existing gaps in institutional capacity for policy impact analysis.
2. Examine gaps in research-policy linkages.
3. Explore synergies and trade-offs between economic and agri-food research and policies.

This report is written on the back of ongoing task under Task 1.2 of the StEPPFoS project using data from a combined survey conducted for Task 1.1 and 1.2. The report provides a background to the main work conducted under Task 1.2 and its associated deliverables. Specifically, this report is aligned with Deliverable D1.4 which is the development of a database of PANAP and FNSSA roadmap activities. Generally, Task 1.2 seeks to map existing policies, projects, and stakeholder of the PANAP network with a timeline between Month 1 and Month 18. Building on methods developed by the LEAP4FNSSA project (GA. 817663) that established an open and semi-autonomously updating database of FNSSA Partnership projects.

This task is being led by CSIR with the collaborative support of partners such as AFAAS, ASARECA, CORAF, UNIVE, Unifelix, LWERIC, FANRPAN, FARA, ECDPM and UoH.

1.3 Outcomes from Desk Review and Justification for Report

This session presents outcomes of a desk review on relevant data models to support the quantitative analysis and improve their accessibility and usability of this report. The review identifies existing qualitative and quantitative methodologies for economic impact and policy assessment. With emphasis on identifying elements of replicability and scalability of the models to different contexts, starting with the existing PANAP models.

The review pays particular attention to the practical pathway from analysis to decision, highlighting where evidence generation stalls and how accessible, well-documented data and transparent methods can shorten the distance between research and policy. It also takes the existing modelling work within the network as a starting point, assessing what is portable, what needs adaptation, and what enabling conditions must be in place for credible, timely analysis.

Outcomes from the desk review and analysis of methods

1. **Economic Models Adoption landscape:** The review observed that, most of the modelling context in African agriculture and food systems context is done with a small set of standard methods. Largely around partial equilibrium (PE) models, CGE/SAM-based economy-wide models, econometric impact-evaluation designs, efficiency and productivity analysis (such as SFA and DEA), farm-level bio-economic models, and spatial or market-access models. And different institutions tend to specialise in different ones.
   While Partial equilibrium (PE) models dominate rapid questions on trade and price stabilization because they are quick to calibrate and easy to explain, CGE/SAM models are used for economy-wide analysis such as input (fertilizer) shocks, tax and subsidy reforms. However, these models are generally produced within institutions that possess the technical expertise and analytical infrastructure required to undertake economy-wide and market-based modelling.
   Nonetheless, empirical impact-evaluation models and productivity-oriented approaches are extensively used by research and academia institutions and evaluation units. Econometric impact designs such as difference-in-differences, IPWRA, IV and event studies lead policy and project impact evaluation and technology adoption studies, particularly where high-quality survey or administrative data exist. While efficiency and productivity tools are widely used to benchmark farm performance.
   Spatial access and market-integration models also forms part of a growing but still distinct strand of work, typically used by private sector in planning, infrastructure and logistics-oriented teams to inform market connectivity strategies.

While more complex or behaviour analysing approaches, such as agent-based and system-dynamics models, are mainly found in research-oriented institutions and pilot studies rather than in routine advisory processes. Their limited use in day-to-day policy work reflects the higher calibration, data, and validation demands, rather than the lack of conceptual relevance for understanding system dynamics.

2. **Sectoral Coverage and Gaps:** The review further observed that model applications are heavily concentrated on staple crops and major traded inputs. Cereals such as maize, rice and wheat, together with fertiliser and fuel, dominate the scenarios analysed, mainly due to their perceived fiscal and macroeconomic importance and the relative availability of data. Livestock, horticulture and higher-value or nutrition-sensitive value chains are comparatively less represented in existing modelling work, even though they are central to dietary quality, employment and income diversification.

   Water and irrigation issues tend to appear in farm-level or basin-scale pilots, often linked to specific projects rather than routine national analysis. Post-harvest losses, storage and logistics are gradually receiving more attention, particularly through combinations of spatial access modelling and market-integration analysis. However, the review noted that informal cross-border trade and intra-national informal flows are widely recognised as important but remain poorly measured in most contexts, limiting the realism of both domestic and regional market simulations.
3. **Data Sources, Access and Usability:** The review observed that most modelling and analysis in African agriculture and food systems draws on a core set of data sources: national accounts and social accounting matrices, agricultural and household surveys, market price series, trade statistics, and a growing body of remote-sensing and climate data. However, these datasets are often fragmented across institutions, updated irregularly, and documented unevenly. Project-based surveys and monitoring systems generate valuable microdata, but they are rarely harmonised or archived in accessible repositories, limiting their reuse. Data on informal trade, post-harvest losses, storage, processing and nutrition outcomes are particularly scarce or inconsistent. Access is frequently governed by ad hoc arrangements rather than clear data-governance policies, which constrains transparency, replication and cumulative learning across countries and studies.
4. **Qualitative and participatory approaches:** The review observed that qualitative and participatory approaches are increasingly used to complement quantitative modelling. Key informant interviews, focus group discussions, stakeholder workshops and participatory scenario exercises are often employed to interpret model outputs, validate assumptions, and identify context-specific mechanisms. They reveal implementation realities that data alone cannot capture, including credibility perceptions, informal norms, and equity concerns. However, their integration into modelling workflows remains

uneven. In many cases, these approaches are treated as stand-alone activities rather than systematically embedded in model design, parameter selection, scenario framing and communication of results. Their explanatory power is high, and they work best when linked to quantitative findings to ground numbers in lived systems.

5. **Cross-cutting findings on replicability, scalability, and data gaps:** Replication and scale depend on transparent methods, accessible documentation, and stable access to core datasets covering accounts, production and prices, distributional microdata, and administrative records.

   The review observed that replicability and scalability are constrained by limited documentation, restricted data access and fragmented storage of model codes and inputs. These constraints limit model credibility and cross-country transferability. Where institutions maintain versioned datasets, well-documented templates, and shared code repositories, models are more easily updated, adapted and scrutinised and their results are more likely to inform recurrent policy processes. Mixed-methods designs and co-production with ministries consistently improve salience and legitimacy, but they require steady investment in people, processes, and data stewardship to deliver on time for policy cycles.

6. **Capacity, Institutional Roles and Process Realities:** Deductions from the review show that, capacity to undertake the different types of modelling is unevenly distributed across institutions. Many universities and research institutes have the skills to implement econometric impact evaluations and efficiency analyses using standard statistical software and survey data. In contrast, fewer institutions have the technical expertise and sustained resources needed to build, update and run CGE/SAM models or to maintain integrated climate–economic frameworks.

The desk review presents a consolidated map of methodological options and their data needs, offering a usable entry point for policy research. It clarifies analytical tools for comparable insights, coherence testing and causal linkages. The survey report complements the desk review by verifying which datasets and methods are in use, documenting source and access pathways, mapping .

Table 1: Quantitative and Qualitative Methodologies for Economic Impact and Policy Assessment in agri-food systems

Type	Description	Data Sources	Replicability and Scalability	Strengths	Limitations	Case use References
Computable General Equilibrium (CGE) Model	Stimulate the effect of policy shock such as subsidy, tax and trade reforms on production, consumption, income distribution and trade flows among others in the entire economy. Example is the DEMETRA Model developed by JRC.	GTAP II database Social Accounting Matrix (Kenya, Ghana	Adaptable to different country contexts Has been used successfully in Ethiopia to assess welfare impacts of agricultural policies	Captures nation-wide effects, cross sector linkages and trade effects. Also very good for policy scenarios modeling	Scalability may be constrained by data availability because high quality data is required, Specialized skills and software required for its application. Calibration and validation may be time-intensive	Changing Profile of Indian Trade Relations by Somesh KMathur, Archana Srivastava, Mustajab Khatir, Abhimanyu Singh Rana (2025) indicating the inherent challenges with CGE Models including data inconsistencies, parameter specification and complexity of calibration Zhang et al (2025) elaborate on main modules and equations of the Chinese environmental CGE Model
Integrated Assessment Models (IAMs) Examples Dynamic Integrated Model of Climate and Economy (DICE) and the Regional Integrated Model of	Frameworks that integrates knowledge from multiple domains largely focusing on interactions between economy, society and environment	Scenario databases such as Zenodo IAMC platform IAMC Github Emission databases	Adaptable to different countries contexts	Captures nation-wide effects at global scale	Over-reliance on technology and specialized skills required	Rising 2020 use IAMs to investigate trade-offs in water-energy-food systems and highlights the complementarity role of IAMs to intertemporal decision-making and economic valuation accounting for

Climate and the Economy (RICE)						trade-offs between possible users of investment in water resources
Input-Output (I-O)	Demonstrate inter-industry flows showing how output of one sector becomes input to another	I-O table for country/region National Bureau of statistics	The models are easy to implement than full CGE if data exist and scalable across contexts	Simple structure, fewer data requirements compared to full CGE	Static, no price/quantity substitution effects	Kenya Institute for Pulic Policy Research and Analysis elaborates on the utility of I-O tables generated by the Kenya national Bureau of Statistics and the multiplier analysis methodology used to analyzed structural change and growth options (Wanjala 2017)
Social Accounting Matrix (SAM) and Multiplier Models	SAMs extends I-O to include households, factors and institutions to estimate multiplier effects showing how a change in one sector ripples through the economy	National level Statistical Services/Open Sources example Ghana Statistical Services, Kenya National Bureau of statistics IFFPRI Data Sources SAM Data for country/region including supply and use tables, National Accounts, Agricultural Census, Quaterly labour force survey among others	Ease to implement if data exist, scalable across contexts and less demanding Commonly used in value-chain development programmes	Simple structure, fewer data requirements compared to full CGE and good for regional and sectoral impact assessment	Captures short term static effects and less suitable for dynamic feedbacks and structural changes	Pfunzo et al (2024) applied SAM in South Africa and reported inconsistent and incomplete data for sub-matrix disaggregation
Partial Equilibrium/Sector Specific Models	Focus on specific commodity or market modelling supply, demand or price responses to one sector while others sectors are held constant	National Agricultural statistics, trade data sources/FAOSTATS	More replicable and scalable in different countries for different commodities	Fewer data requirement and simple structure to follow through Can embed detailed technology or production functions	Ignores feedback to other sectors and bias policy impact estimates if there are strong inter	Zhoa et al (2015) estimates the linkages of CO2emissions involved in industrial sectors and carbon effects of inter- sectors linkages in South Africa. Practical support for formulation of national policies

Sector specific models like LINKAGE and ENVISAGE			Commonly used in trade policy analysis for specific commodities		economy-wide linkages	favorable to energy consumption and environmental protection Dorosh and Thurlow (2018) applied CGE/LINKAGE Model to decompose sectoral growth-poverty linkages in five African Countries including Malawi, Uganda, Mozambique, Zambia and Tanzania
Cost-Benefit Analysis (CBA) and Cost-Effectiveness Analysis (CEA)	Quantifies both costs and benefits of a policy or project in monetary terms. For example investments in irrigation or input subsidy and compute net present value or benefit-cost ratio CEA compares costs per unit of benefit	Costs/benefits data Field data sources	Highly replicable and scalable	Intuitive for policy makers, easily communicated and directly links to project/intervention/investment decisions	May ignore general equilibrium effects, distributional impacts and indirect effects. Has limited scope for system-wide modelling	Following PRISMA guidelines, a systematic review was conducted by Osifowora et al 2024. Specifically to identify application of CBA of intervention in the food environment and evaluate the methodological challenges in 28 studies eligible for inclusion in the review. Several of the studies evaluated CBA of fortification of staple foods and reported high economic returns. The authors suggested adherence to standardized methodological frameworks in evaluating CBA of interventions.
Econometric/Statistical Impact Evaluation	Use of regression methods, panel data, difference-in-differences, instrumental variables , randomized controlled trails (RCT) to estimate causal effects of policy interventions on outcomes such as yield, income, employment and consumption	Household Surveys and Panel Data Sources at national/regional level Field Data collection	Highly replicable if data exist but for scalability across different contexts depends on quality of data, design of intervention and attribution of causal effects and may have to be complemented with other models	Strong for casual inference at micro-level and good for policy effectiveness (ex-post) Has been used extensively for agricultural policy evaluation	Context specific and may suffer from external validity issues and results may not be generalise	Utility application in assessing effectiveness of interventions and adoption studies in agri-food systems in Africa (Johnstone et al 2023, Verschoor et all 2025)

Simulation/Scenario/Mixed System Dynamics modelling/foresight modelling	These methods simulate alternative futures under different policy/regime or shock assumptions	Farm/national/regional level data sources	Highly scalable for different contexts and scales regarding farm, region and national level data for modelling. Replicability depends on how transparent assumptions or data are	Can be used to explain uncertainties, risks management, long-term projections, cross-dimensional trade-offs considering economic, environmental and social impact assessment. Use cases for future transition of food systems under climate change, trade policy shifts and technology adoption	Often high complexity, heavy assumptions and results may be uncertain depending heavily on assumptions	Aboah et al 2024 A meta-network analysis of methodological specifications for system dynamics modelling and point out the challenge in internal consistency while ensuring objectivity within formulated scenarios system dynamics modelling amidst stakeholder participation
Stakeholder interviews, focus group discussions, key informant interviews	Semi structured or structured interviews with farmers, policy makers, private sector actors, value – chain actors. Focus group discussions to elicit perceptions of policy, barriers and enabling conditions among others	Qualitative Surveys Field Data collection, content analysis	Highly replicable in different contexts across countries using standardized interview protocols. Scaling may require cultural adaptation and effective translation tools	Rich contextual insight and capturing the unmeasurable to deepen understanding for example of how policies are implemented, perceived, enablers and barriers	Subjectivity, harder to generalize and aggregate	Widespread use in qualitative studies
Participatory Rural Appraisal (PRA)and participatory methods	Involving local stakeholders directly in analysis, mapping value chains, ranking, timeline analysis and community workshops	Co-generation of data at the field or community level	Replicable and scalable for example using standard PRA toolkits	Empowers local voices, captures local knowledge and support ownership of assessment process and helps identify context-specific barriers and enablers	Requires local facilitation skills and results may not be easily comparable across contexts, time -intensive	Widespread use in qualitative studies
Case Studies and Governance/Political Economy/Institutional Analysis	In-depth Analysis of policy intervention (or system analysis) and could be with both qualitative and quantitative data	Case Studies could benefit from both primary and secondary data sources	Methods can be replicated in different contexts but not very scalable since this is context-specific and embedded	Rich insight into why policies succeed or fail and could be used in political economy analysis	Not easily generalizable and could be time-intensive	Widespread use in qualitative studies

Mixed-methods/ Integrated Approaches	Both qualitative and quantitative data sources	Ensures richness, robustness and context-sensitivity drawing on economic/biophysical modelling and stakeholder analysis	Well-designed will ensure replicability and scalability Used in analyzing cash transfer policy for small-holder farmers in Ghana and Kenya	Balance between quantitative depth and qualitative context to support policy relevance and effectiveness, stakeholder buy-in and improved interpretation	Requires diverse skills and resource intensive	Widespread use in qualitative studies

2 Methodology

2.1 Study Design

This study used a cross-sectional, online survey design to map institutions' projects, programmes and policies, data assets and modelling practices, funding sources, and collaboration patterns across AU and EU contexts. Two tailored instruments, one for policy-oriented bodies and one for non-policy institutions, were developed, reviewed by consortium partners for clarity and relevance, and fielded digitally to maximize geographic reach and standardization of responses. The study also employs the findings and outcomes of a desk review of economic models (*D1.1-Survey report identifying capacity gaps and relevant data sources for target groups/ institutions*) use in African agriculture and food systems.

2.2 Sampling and Survey Population.

The sampling frame comprised a list 80 purposively selected PANAP and non-PANAP institutions across AU and EU member countries. The online survey was sent through direct emails and targeted follow-ups to ensure balance across regions and institutional types. Forty institutions submitted complete responses (50% response rate). Geographic coverage spanned AU and EU institutions to enable cross-regional comparison of capacities, practices, and partnerships.

2.3. Data collection

The data collection for this report was achieved through an online survey administered to both PANAP and non-PANAP institutions, including potential PANAP members identified for the expansion of the PANAP network. Two distinct survey instruments were developed: one targeted at policy-related institutions and the other at non-policy institutions. These draft instruments underwent a rigorous review and validation process by the StEPPFoS project consortium members before being finalized and launched. The survey instruments were ethically reviewed by the University of Ghana, Ethical Review Board, before it was and launched

2.4 Data analysis

The data analysis for this study primarily utilized descriptive statistics and social network analysis. Whilst descriptive statistics was mainly used for most part of the study, we also adopte the social network analysis to visualize the mapping of project information such as countries of collaboration, project thematic focus and funding source mapping as well as thematic focus to country alignment.

Social Network Analysis (SNA) is an analytical method that analyses relationships among a wide range of actors through measurement and visualization (Borgatti, Mehra, Brass, & Labianca,

2009). Network data for the mapping projects for PANAP and non-PANAP institutions were compiled in a square (nxn) matrix of actors. A relational score of 1 or 0 is assigned to actors depending on where there is an interaction or not between them, respectively. Assuming there is a relation between actor k and j, a value of 1 is given; nkj=1 or njk=1. However, if there is no relationship, a value of 0 is given; nkj=0 or njk=0. There are also instances where the relation is unidirectional and, in such cases, nkj will be assigned a value of 1 (nkj=1) but njk will be assigned a value of 0 (njk=0). This implies that the relational matrix is not necessarily symmetric, and these details were carefully considered before the matrices were drawn. The square matrix was constructed for the country-to-country level of collaborations. However, for the other mapping exercises such as projects thematic scope and funding, we compiled as an mxn matrix since the vertical and horizontal matrix elements were not the same.

Actors in social network analysis are referred to as nodes and ties define the linkage between them. The degree of connectedness of an actor is indicated by the node size in the network map. To further measure the strength of relations among different countries, the Freeman degree of centrality (C_d measured in equation (1) was adopted:

$$C_d(n_i) = \frac{\gamma_i(n_i)}{N-1}$$

Where n_i is the node or actor of interest; γ_i is the number of ties to an actor n_i; and $N-1$ is the size of the network, N less the node of interest. Centrality indices include betweeness, effect size, coreness, and in/out degrees. Actors who have the highest betweeness score indicate the degree to which those actors provide a bridge for connecting others in the PANAP network. Effect size measures how big an actor is in the network and gives an indication of the source of a network's structural holes. How close an actor is to the core of the network is given by the degree of coreness. The in-degree and out-degree measure the level of linkages an actor receives from and gives to others, in a network, respectively. Prominent actors are those with high in-degree scores whilst influential actors are those with high out-degree scores. For this study, our centrality measures of interest were the coreness and betweennes for the country-to-country collaborations.

The UCINET software was used to generate the network maps and the measures of centralization.

2.5 Integration with the Desk-Review Findings

Descriptive and network results are complemented using synthesized insights from the desk review on relevant data and economic models conducted under Task 1.1. The Desk review provided a foundational assessment of policy capacity gaps across PANAP member countries,

drawing attention to the structural, institutional, and human resource limitations that constrain effective evidence-based policymaking in Africa's agricultural sector. The review has shown that while most countries have developed progressive agricultural and science-based policy frameworks aligned with continental priorities such as CAADP, substantial disparities persist in their implementation, coordination, and learning mechanisms. The desk review showed that across regions, East African countries tend to exhibit higher analytical and institutional capacity, largely due to stronger think tank ecosystems and government–research collaboration, while West and Central Africa continue to face challenges related to fragmented governance, inadequate resourcing, and dependence on donor-driven initiatives. North Africa, on the other hand, demonstrates solid research infrastructure but struggles with centralized governance that limits policy inclusiveness and innovation. The comparative analysis therefore underscores the importance of context-specific capacity development strategies that reflect each region's political economy, institutional maturity, and data readiness.

2.6 Limitations

A total of 80 institutions were targeted for participation, comprising both PANAP members and non-members. Of these, 40 institutions completed and returned the survey, resulting in a 50% response rate. While this response rate was somewhat lower than anticipated, it reflects the inherent challenges of administering online surveys, particularly across a diverse and geographically dispersed set of institutions. Despite multiple direct follow-ups to unresponsive institutions, the team was only able to achieve a 50% response rate within the given time frame. The relatively low number of responses, however, did not negatively affect the results of the analysis.

2.7 Structure of the report

Following section 1 which introduces the report, there are 7 other subsections that report on the findings and provide some conclusions and recommendations. The breakdown of the various sections is given as:

Section 2: Methodology

Section 3. Overview of the projects/Policies undertaken by the institutions

Section 4. Stakeholder Engagement and Collaboration

Section 5. Impact of Projects/Programmes/Policies Performance

Section 6. Project Sustainability

Section 7. Challenges Faced by Institutions in Program Impact Analysis

Section 8. Conclusion and Recommendation

2.8 Profile of Participating Institutions

2.8.1 Types of Institutions

The survey engaged institutions from various ecosystems, including universities (academia), government policy institutions, international and national non-profit organizations, research institutions, and policy think tanks. Among these, non-profit organizations were the most responsive, comprising 33.5% of the total participating institutions. This was followed by academic institutions at 22%, and research institutions at 19.6%. Government institutions and policy think tanks had the lowest participation rates (Figure 1).

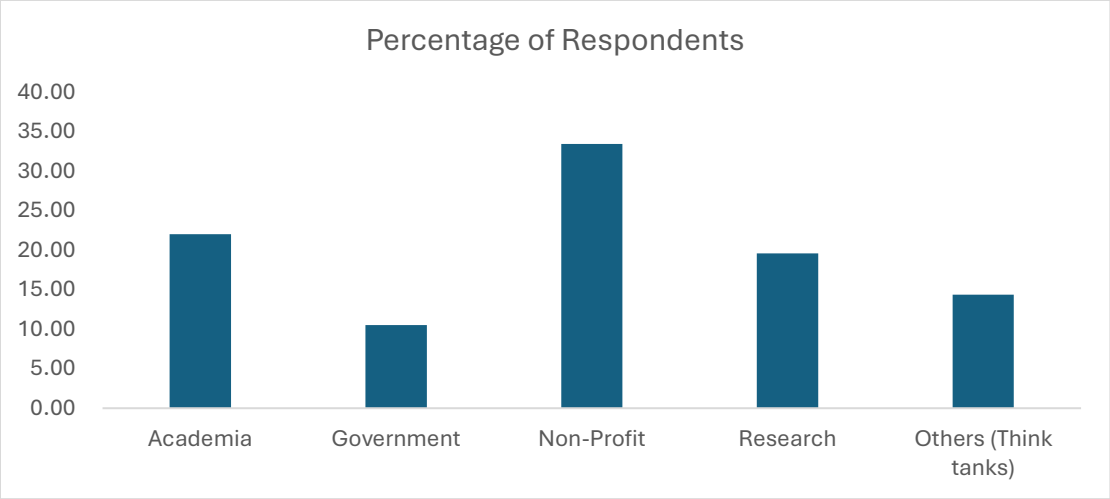


Figure 1: Types of institutions participating in the survey

Source: StEPPFoS Survey (2024)

While the strong participation from non-profit organizations is commendable, a higher involvement from academic, research, and government institutions would have been ideal to enhance the role of local entities in driving evidence-based policymaking. Increasing the participation of these institutions is crucial for bolstering local capacities and ensuring that the PANAP network can effectively support food system transformation through evidence-based policies. Expanding the PANAP network at the country level, particularly by involving more government institutions, could significantly benefit local policy-making efforts. This would allow these institutions to access capacity-building initiatives provided by PANAP, ultimately strengthening their role in shaping sustainable food systems.

2.8.2 Country representation of participating institutions

The survey targeted PANAP and non-PANAP organizations across both EU and AU member countries, with a particular focus on identifying capacity gaps and strengths within these regions.

Notably, institutions from Nigeria and Uganda showed the highest levels of participation. Out of the 40 institutions that took part in the survey, representing 18 countries, five were from EU member states—specifically Italy, Spain, Finland, the Netherlands, and Germany. The remaining 13 countries were AU member states, encompassing a wide geographic spread across Sub-Saharan Africa, with no participation from North African countries.

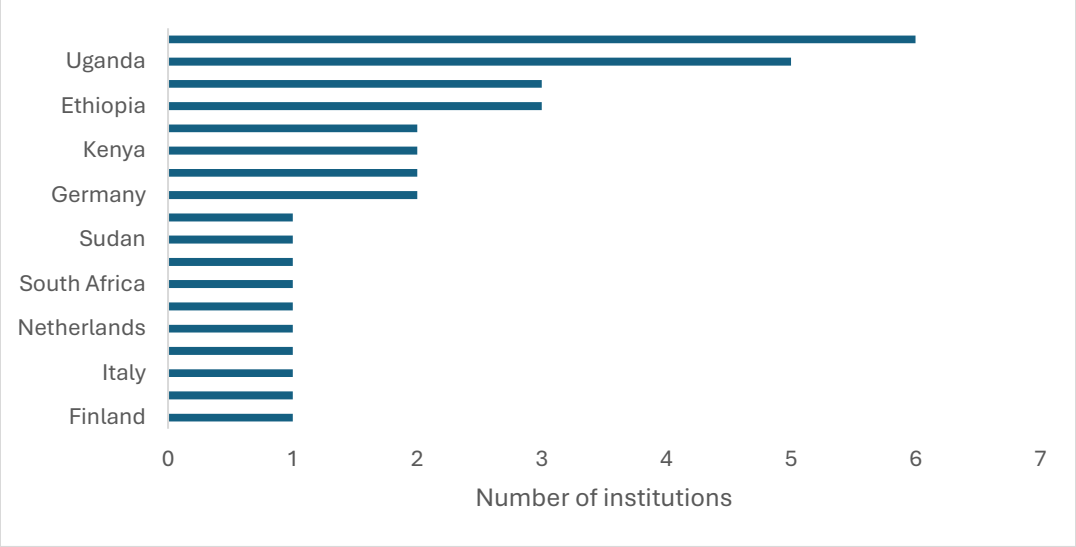


Figure 2: Represented countries of participating institutions

Source: StEPPFoS Survey (2024)

This distribution highlights the significant engagement from African institutions, particularly in West and East Africa, where Nigeria and Uganda are located. The strong participation from these countries suggests a keen interest in leveraging the PANAP network to address local challenges and build capacity for evidence-based policymaking. However, the absence of representation from North Africa indicates a potential area for future outreach and engagement, ensuring a more inclusive and comprehensive approach to food system transformation across the continent. The participation of EU institutions also provides a valuable opportunity for cross-regional collaboration, sharing best practices, and enhancing the impact of the PANAP network across both continents.

2.8.3 Age of participating institutions

It is encouraging to note that the participating institutions in the survey have on average, a substantial number of years of experience in their respective fields, whether in research, policymaking, academia, or as policy think tanks. The average age of these institutions was found

to be 29.6 years, with the newest institution having 3 years of experience and the oldest being in existence for 64 years. This wide range of experience is indicative of the deep expertise and institutional knowledge within the participating organizations. The significant number of years in operation suggests that these institutions have not only established themselves in their fields but also possess the resilience and capability to continue building and expanding their capacities. This is crucial for driving forward the goals of the StEPPFoS project, as it ensures that the institutions involved have the experience and understanding needed to effectively contribute to and benefit from the capacity-building initiatives and policy impact analyses that the project aims to deliver.

Moreover, the longevity of these institutions underscores their potential as stable partners in long-term efforts to strengthen evidence-based policymaking and research capacities within the agri-food systems of Africa and Europe. Their continued engagement in such initiatives will likely play a pivotal role in the successful implementation and sustainability of the StEPPFoS project's objectives.

3. Overview of the projects/Policies undertaken by the institutions?

3.1 Thematic focus of projects/programmes

Panel A and B of Figure 3 represent the most occurring words in the title of projects and the keywords of projects that were reported by both PANAP and non-PANAP institutions, respectively. From both panels, it is observed that most of the EU-AU funded projects implemented by the institutions are broadly in the areas of food systems and security. There are also projects related to agroecology, climate and poverty. We also find some themes on policy, nutrition and partnerships, though not very dominant as compared to the ones on food systems/security, agroecology, climate and poverty.

Panel A: Project titles **Panel B: Project keywords**

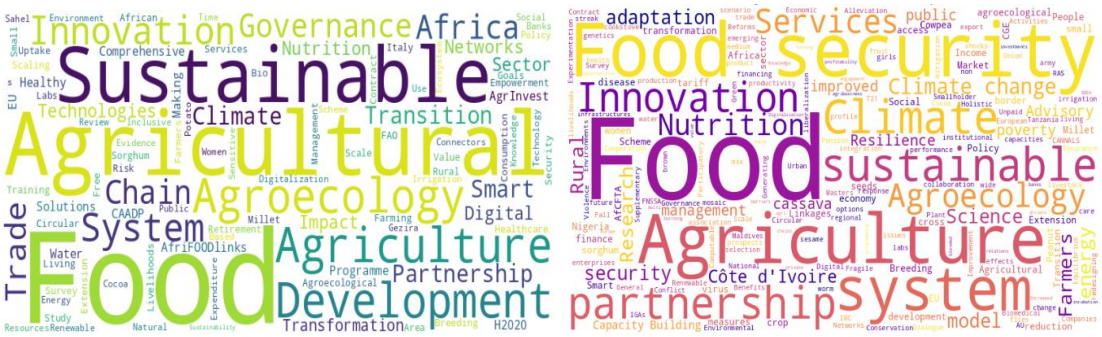


Figure 3: Thematic focus of projects

Source: StEPPFoS Survey (2024)

The prominence of food systems and security as major themes suggests that both European and African policymakers and development partners are prioritizing agriculture and food sustainability in their collaborative development agendas. Given the critical role that agriculture plays in Africa's economy, where a significant proportion of the population relies on farming for their livelihoods, focusing on food systems is essential for both poverty alleviation and rural development.

More so, the notable presence of agroecology and climate as key themes in these projects demonstrates a growing emphasis on sustainable agricultural practices and climate resilience. Agroecology, which integrates ecological principles into agricultural systems, offers a path toward sustainability by minimizing environmental degradation while maintaining food production. The focus on climate reflects growing concerns over climate change's impact on food security, as Africa remains one of the regions most vulnerable to these changes. These suggest that the EU-AU partnership is positioning itself to address the long-term challenges posed by climate change and environmental degradation. By focusing on agroecology, the projects reflect a shift toward practices that not only protect the environment but also promote biodiversity, soil health, and resilient farming systems.

However, the relative lack of emphasis on policy-related themes suggests that while projects are tackling tangible issues like food security, agroecology, and climate adaptation, there might be less focus on the policy frameworks that can facilitate long-term change. This highlights the need for future projects to incorporate more robust policy-oriented components, ensuring that the outcomes of scientific and technical research translate into scalable, sustainable policy interventions.

Mapping the participating countries to specific thematic focuses within projects and programs in Figure 4 reveals a strong emphasis on sustainable agriculture and agroecology. This is illustrated by the noticeably larger node size representing sustainable agriculture and agroecology compared to other thematic areas, indicating that a greater number of countries are engaged in projects related to this focus. In addition, food security, nutrition, and safety, along with climate change adaptation and mitigation, are thematic areas with substantial country participation, in contrast to less-represented areas such as rural development and livelihoods, water resources management, and other specialized fields.

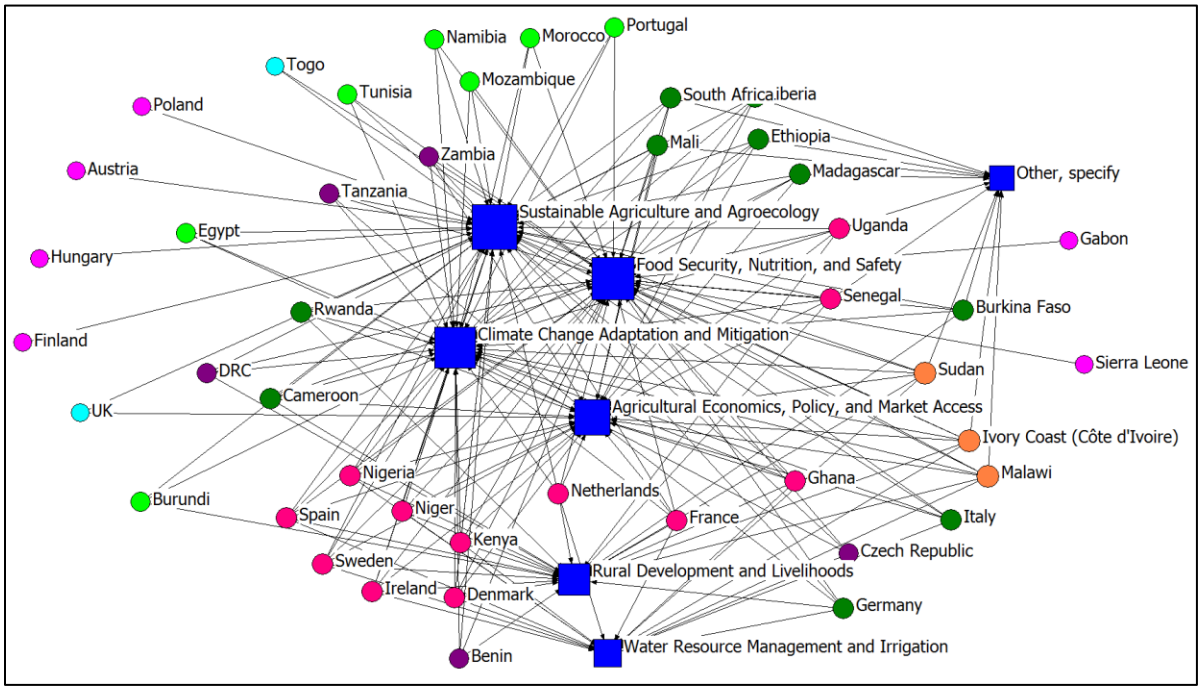


Figure 4: Mapping of projects thematic focus and countries

Source: StEPPFoS Survey (2024)

Map note: All square nodes are thematic focus whilst circle nodes represent countries. Size of nodes represent how connected that node is to the other elements being analysed.

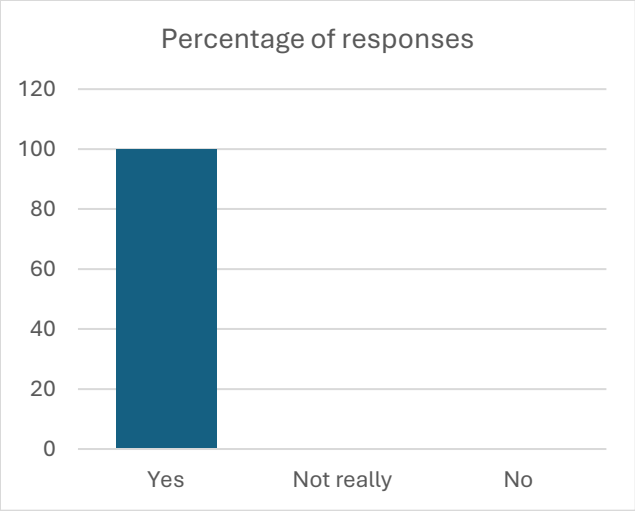
An interesting observation is that some countries, such as Ghana, the Netherlands, Kenya, Nigeria, Denmark, and Spain, are deeply interconnected across multiple thematic areas.

Countries represented by larger red nodes, for instance, are engaged in projects spanning six key thematic areas, suggesting a comprehensive approach to the agriculture-food-nutrition-policy nexus under EU-AU funding schemes and additional private and regional funding sources. These countries appear to address a broader range of pressing issues within the sector, capitalizing on diversified collaborations and cross-thematic integration to bolster their agricultural and food security systems.

In contrast, certain countries, such as Gabon, Sierra Leone, Finland, and the UK, are less connected to multiple project themes. This limited engagement may reflect fewer collaborative initiatives among AU and EU member countries or narrower thematic focuses in these countries. This lack of thematic diversity in project participation could imply a reduced capacity to engage in multi-faceted challenges, potentially limiting the scope and impact of these countries' contributions within the broader collaborative framework. For AU and EU stakeholders, this mapping highlights areas for strategic expansion, suggesting that promoting multi-thematic collaborations could strengthen regional integration and enhance the capacity of countries with narrower project scopes.

3.2 Alignment of projects with the institution's mission and goals

It is encouraging to see that the various projects implemented by both PANAP and non-PANAP member institutions are consistently aligned with their respective mandates and institutional goals. This was reported by all the responding institutions as shown in Figure 5 indicating a significant implication for success and sustainability of programmes and projects across the institutions. The alignment enhances institutional capacity by allowing organizations to build on their strengths, expertise, and networks, leading to more impactful projects. It also promotes long-term support, ensuring that projects continue even after funding ends, which is essential for addressing long-term challenges like food security and climate change.



"The development of climate relevant agricultural technologies that can mitigate climate change is in accordance with one of the organization's goals"

"Sustainable development through resilience of farmers to climate change is align with one of the pillars of the strategic plan of the institution"

"The project is meant to build capacity of the breeding programs in participating countries.

Figure 5: Projects alignment with your mandate and some supporting quotes

Source: StEPPFoS Survey (2024)

Aligning projects with mandates contributes to enhancing institutional capacity and expertise. By focusing on projects that align with their core goals, institutions can continue to specialize and innovate in their respective fields, attracting top talent and fostering a cycle of continuous capacity building. For instance, an institution focused on climate change adaptation, food systems transformation, evidence-based policy making, among others can deepen their expertise in these areas and drive impactful change. This could also ensure the sustainability of project outcomes, as projects tied to an institution's strategic framework are more likely to receive long-term support and resources, even after external funding ends. This is particularly important in sectors like food security and climate resilience, where long-term interventions are necessary to achieve lasting outcomes.

Additionally, the alignment opens up opportunities for institutional collaboration and synergy. Since PANAP and non-PANAP institutions work on similar projects, there is potential for collaboration on shared interests, such as food systems and climate resilience. This would allow for larger-scale initiatives by pooling resources and knowledge, while also facilitating cross-institutional learning, sharing best practices, and improving project designs and implementations. There is also the potential of boosting broader policy influence as institutions who strategically align projects with mandates are better positioned to offer evidence-based research that informs policy discussions in their areas of expertise, such as food security. This creates a pathway for institutions to play an active role in shaping national and regional development strategies, including the EU-AU partnership.

In terms of EU-AU funding framework, the institutional alignment maximizes its impact as it ensures that resources are effectively channelled into areas where institutions have both

expertise and long-term strategic interests. This increases the likelihood of delivering meaningful outcomes, as projects are more likely to be driven by genuine institutional commitment rather than by funding availability alone.

When questioned about whether the projects they implemented or are currently implementing had achieved their various objectives, majority of respondents (63%) indicated that it was too early to make a definitive assessment (Figure 6). This result is not surprising as the study recorded about 75% of ongoing projects as opposed to about 23% of completed projects. However, 32% of the respondents affirmed that their projects had successfully met their goals, while 5% reported that their projects had not. These findings suggest that for completed projects, most institutions are reporting success in meeting their stated objectives, with only a small fraction (5%) not being able to do so.

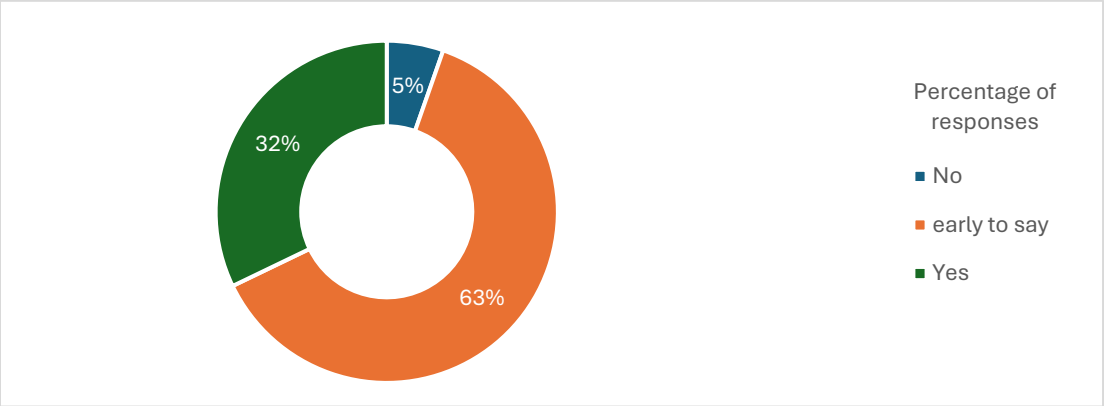


Figure 6: Did projects meet their intended objectives?

Source: StEPPFoS Survey (2024)

For the institutions that reported failing to meet their objectives, a follow-up meeting will be scheduled to explore the underlying reasons behind the shortfall. This follow-up will offer an opportunity to identify lessons learned and help other institutions avoid similar pitfalls in future projects. By sharing insights on challenges encountered and areas for improvement, the network can foster collective learning and improve overall project management and execution.

Among the institutions that reported project success, nearly 35% stated that their projects achieved approximately 80% of their intended objectives (Figure 7). In contrast, less than 7% of respondents indicated achieving only between 10% and 20% of their objectives, showing some variance in levels of success. Interestingly, none of the institutions reported achieving 100% of their project objectives. The highest reported success rate was 90%, with only 13.3% of institutions reaching this level of accomplishment.

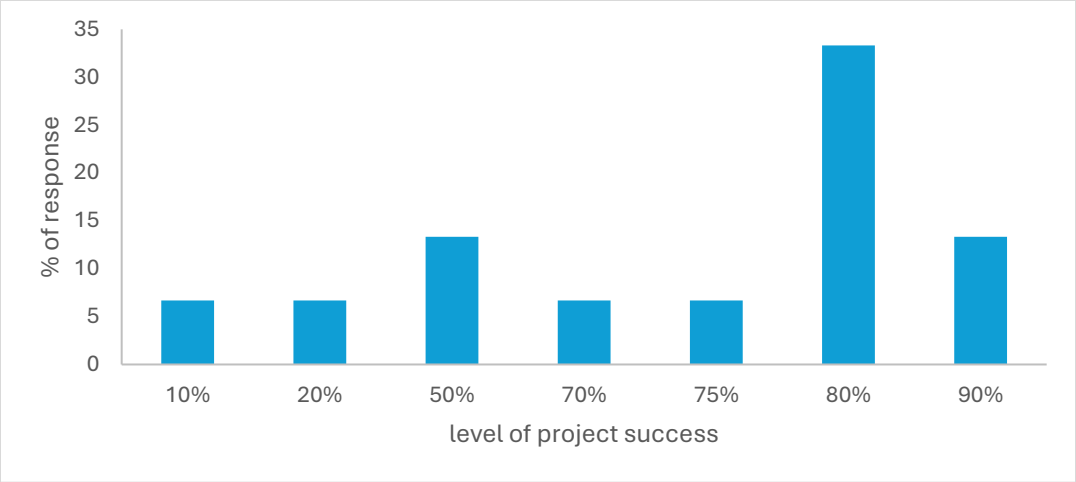


Figure 7: Level of success of projects that met their objectives

Source: StEPPFoS Survey (2024)

These findings highlight that while significant progress is being made, there is room for improvement in project execution and outcomes. Institutions can learn from the varying degrees of success and failure, further refining their approaches to project management to ensure that future initiatives are more effective in achieving their objectives. Continuous evaluation and sharing of best practices will be key in helping the institutions reach higher levels of success in their projects. There could be a window of opportunity for PANAP to consider capacity building models on project life cycle management. This will ensure that both ongoing projects and future projects are properly aligned to meet its intended goals and even unintended but positive outcomes.

3.3 Scope and Status of Projects

The projects mapped in this report predominantly have national and regional scopes, with 40% and 35% of institutions reporting national and regional projects, respectively (Figure 3.6). Sub-national projects remain minimal, comprising less than 5% of the total, while approximately 20% of the projects are international in scope. This distribution suggests that the majority of projects are focused on addressing both country-specific needs and broader regional challenges across Africa and Europe, allowing institutions to effectively tailor solutions to national contexts while also contributing to regional goals. The considerable presence of national and regional projects is promising for tackling localized challenges. Nationally focused projects allow institutions to direct resources towards country-specific priorities, enabling targeted solutions in thematic areas such as food security, climate resilience, and poverty reduction. This focus also aids in building local capacity, fostering specialized expertise, and establishing long-term partnerships within the country that contribute to a sustainable impact.

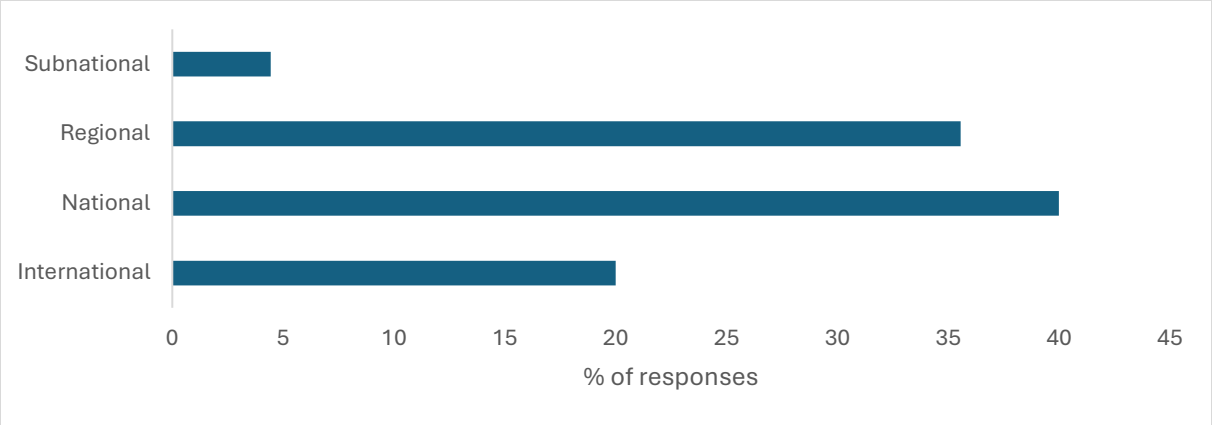


Figure 8: Scope of projects implemented by institutions

Source: StEPPFoS Survey (2024)

At the regional level, projects can address issues that cross national borders, such as regional food systems, water resource management, and shared climate challenges. By adopting a regional scope, institutions can pool expertise, share resources, and synchronize interventions, leading to cohesive solutions that benefit multiple countries. This regional focus is particularly valuable for addressing interconnected challenges that individual countries may struggle to tackle alone, enhancing the ability to scale successful interventions and contributing to the broader goals of EU-AU collaboration. On the other hand, internationally scoped projects create significant opportunities for cross-border collaboration, enabling institutions to engage with diverse perspectives, methodologies, and best practices. This international reach fosters capacity building across participating institutions, promotes intercultural exchange, and allows for the development of globally relevant solutions. International projects can also attract wider funding sources and technical expertise, further enhancing the scope and impact of institutional initiatives.

While national projects contribute valuable localized impact, increasing the share of regional and international projects could amplify learning opportunities, enhance capacity building, and foster sustainable partnerships that transcend borders, thus positioning institutions for greater impact across both Africa and Europe. Regional and international collaborations allow institutions to engage in meaningful knowledge exchange, develop robust networks, and strengthen their capacity to address complex, global challenges collaboratively. This broader scope also positions institutions to advocate for policy changes, apply innovations across multiple contexts, and amplify their impact by leveraging learnings from different countries and institutions.

The study further reveals that over 70% of projects (Figure 9) are currently ongoing, indicating active institutional engagement in addressing complex issues, such as food security and climate resilience. Around 23% of projects have been completed, providing valuable insights, best

practices, and benchmarks for future initiatives. A smaller portion, about 1.8%, are in the initiation phase, suggesting a potential pipeline of new projects being developed to address emerging challenges within the food and agriculture policy space. This distribution underscores a continuous project cycle within institutions, promoting sustained impact and adaptive management. The ongoing and future projects reflect a commitment to strategic planning and resource allocation, ensuring that institutions remain responsive and effective in achieving long-term objectives.

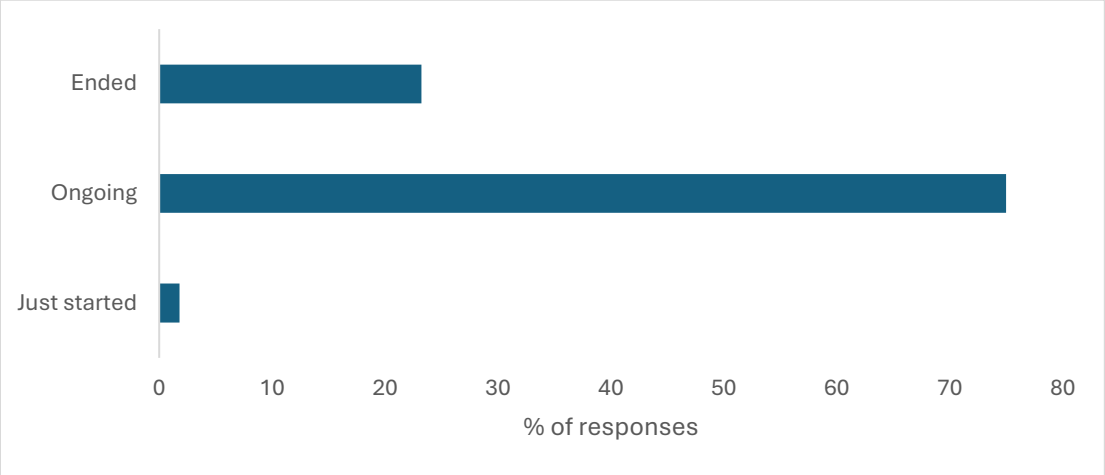


Figure 9: Status of projects

3.4 Duration of projects

Figure 10 illustrates the responses from institutions on the durations of projects undertaken with EU and AU funding within the food and agriculture sector. It is evident that long-term projects are relatively rare, as most fall within short to medium-term timelines. Approximately 20% of PANAP and non-PANAP institutions report that the majority of projects span 2 to 3 years, making this duration the most common. Following this, around 18% of projects extend to 4 years. In contrast, projects with durations of 8 years or more represent less than 2% of the total. We also observe that while short-term projects lasting only a year are few, the project frequency peaks around the 2-3 year mark, then gradually declines as duration extends beyond 3 years. This pattern indicates that very short-term and very long-term projects are less common, with a distinct preference for 2-3 year durations among institutions.

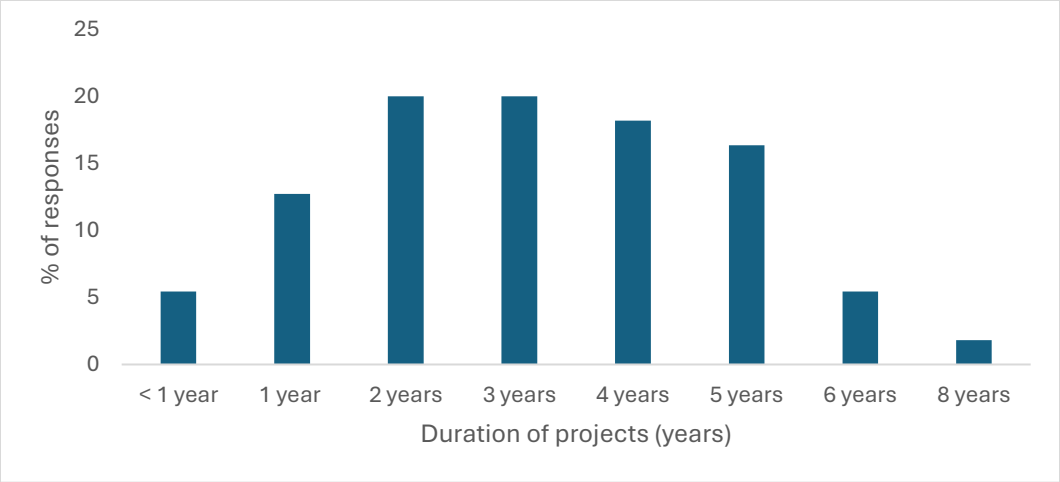


Figure 10: Duration of projects

Source: StEPPFoS Survey (2024)

The concentration of projects in the 2-3 years range carries significant implications for sustainability, impact, and capacity building within these institutions. First, projects with shorter timelines may limit the depth of impact that can be achieved, as complex issues in the food and agriculture sector, such as climate resilience, food security, and poverty reduction often require multi-year interventions to create lasting change. The limited number of long-term projects suggests that sustained funding and long-term planning may be a challenge, potentially affecting the ability to achieve enduring solutions in these areas. Capacity building within institutions may be constrained when projects are short to medium-term. Long-term projects often provide more opportunities for in-depth research, skill enhancement, and institutional learning, all of which are essential for developing specialized expertise and fostering innovation. With fewer projects extending beyond 3 years, institutions may struggle to cultivate the advanced skills and capacities that longer durations allow. Additionally, longer-term projects can better support a stable pipeline of trained personnel who can continue to advance institutional goals beyond project completion.

The prevalence of short to medium-term projects may also impact collaboration and networking opportunities with institutions within and outside of PANAP. Projects with extended timelines often allow for stronger and more sustained partnerships, where shared learning and joint objectives can mature. This is particularly valuable in addressing complex, interconnected challenges in the agriculture and food sectors, where collaboration across institutions and countries amplifies impact. The relatively short project durations observed could also limit the scope for policy influence. Policymakers often look to research projects as sources of evidence to inform policy decisions. However, policy influence tends to be stronger when backed by long-term data and proven outcomes. Therefore, a preference for 2-3 years projects may limit the institutions' ability to advocate for or contribute to long-term policy changes effectively.

The predominance of short to medium-term projects under the EU-AU funding frameworks suggests a need for strategic planning to ensure sustained impact. Increasing support for longer-term projects could enhance institutional capacity, deepen project impact, and foster more meaningful collaborations and policy influence within the food and agriculture sector.

Further analysis in Figure 11 reveals that out of the 4% of subnational projects undertaken, 50% of them last either a year and another 50% 5 years.

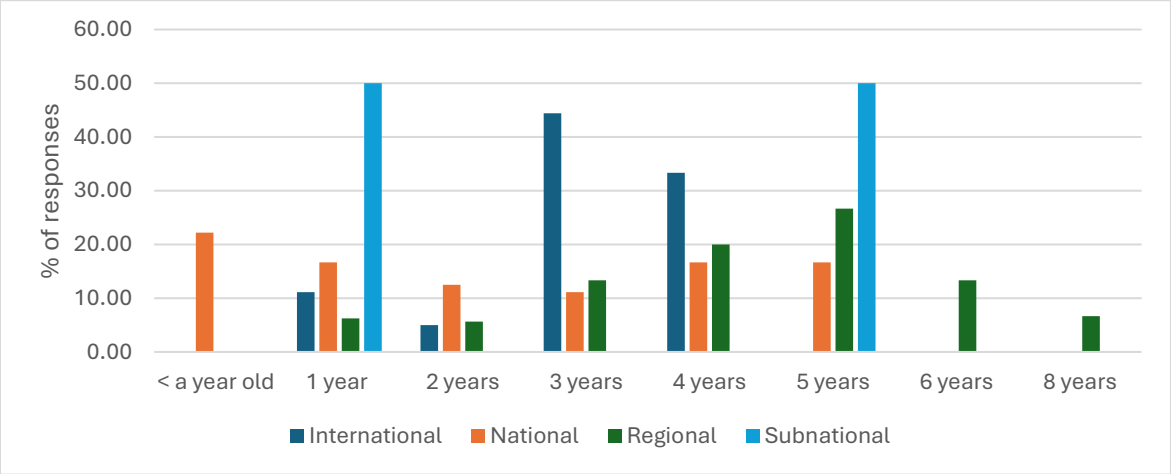


Figure 11: Project scope verses duration

Source: StEPPFoS Survey (2024)

This suggests that for the few subnational projects, one could have some as short as 1 year and some running in the medium term of 5 years. As earlier indicated, there were about 20% of the projects that had international scope, and it is interesting to note that there are more of such projects running between 3 and 4 years as compared to national and regional level projects. It is important to also note that whilst more of international projects last between 3 and 4 years, most of the regional and national level projects last above 4 years which is not noted for any of the international projects.

These suggest that national and regional projects show a greater prevalence of potential for longer-term impact in deepening institutional collaboration and supporting sustained capacity-building within individual countries or across neighbouring regions. Longer durations in these projects could allow institutions to invest in infrastructure, capacity development, and institutional strengthening, which can lead to enduring benefits for the targeted communities and align with national and regional development goals. The findings underscore that while international projects provide valuable opportunities for collaboration and the spread of best practices, regional and national projects (especially regionally focused ones) are often structured for longer engagements that facilitate sustained interventions and deeper local impact.

3.5 Countries of Projects/Programmes Implementation

Figure 12 reveals that EU-AU funded projects focused on the agriculture-food-nutrition-policy nexus are primarily implemented in Kenya, Uganda, Ghana, Côte d'Ivoire, and Niger, highlighting these countries as major hubs for collaborative development efforts. Closely following are Ethiopia, Cameroon, Nigeria, Senegal, Burkina Faso, and Madagascar, where similar projects also play significant roles. Notably, partnerships extend across the EU, with Germany, Italy, France, and the Netherlands emerging as prominent collaborators with African institutions, emphasizing the deep, cross-regional nature of these initiatives.

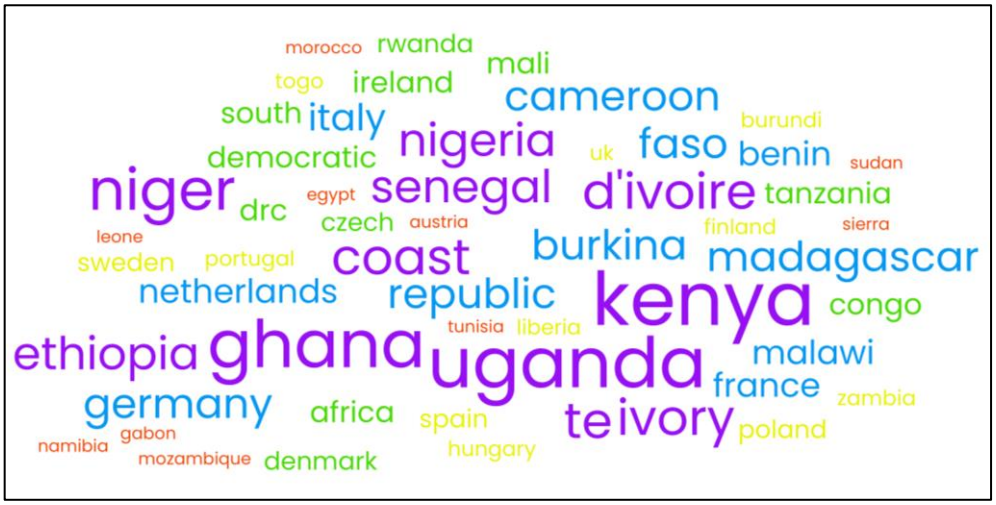


Figure 12: Countries of collaborative project implementation

These cross-country and cross-regional partnerships are essential for strengthening capacity building, enabling local staff and institutions to adopt best practices and share valuable experiences. This sharing of knowledge directly improves project management practices, ensuring that projects are more effectively executed and sustained. Additionally, these partnerships help to foster an environment of continuous learning, where African institutions can adopt innovative methodologies and approaches that have been successful in other regions, further enhancing their own practices. The networking opportunities resulting from such collaborations are equally valuable. Project staff are exposed to a network of professionals, institutions, and resources that can be leveraged for future collaborative projects. This interconnected network of professionals helps to build long-lasting relationships that can transcend individual projects, creating a pipeline of experts who can work together on subsequent initiatives.

Further interrogation of the data using social network analysis also reveals in Figure 13 that countries with the most collaborations are Uganda, Kenya, France, Ireland, Germany, Sweden and

Burkina Faso, as depicted in the size of the nodes. On the other hand, countries with less collaborations were found to be Gabon, Mozambique, Namibia, Tunisia, Morrocco, Liberia, Egypt, Hungary, among others. Out of these collaborations, one can also observe that there are as many reciprocals as there are non-reciprocal collaborative relationships ongoing among the partner countries. However, there seem to be more non-reciprocal than reciprocal relationships. These suggest that some countries only collaborate in a unidirectional manner and do not have the privilege of receiving collaborations from the other side. The relationship between the UK and Mozambique, Namibia, Tunisia and Morrocco for example is a bidirectional one where they both initiative as well as receive collaborations. On the other hand, the collaborative relationship between Malawi, Rwanda, South Africa, Finland and Madagascar are majorly non-reciprocal. To ensure project and network sustainability, it will be imperative for all countries to be proactive in establishing collaborations among partner countries. This will also strengthen the PANAP network as collaboration will be vibrant and reoccurring most of the time.

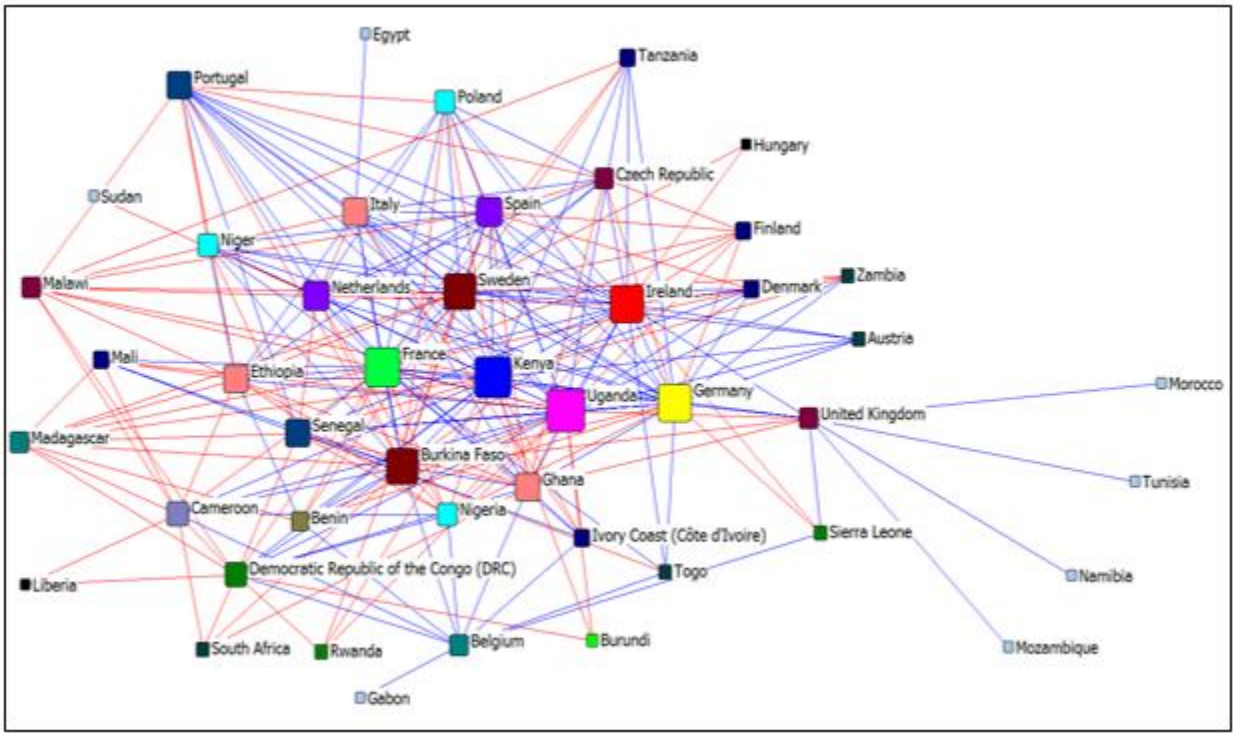


Figure 13: Mapping of collaborations across countries

Source: StEPPFoS Survey (2024)

Size of nodes represent how connected that node is to the other elements being analysed.

In such networks, it is important to learn about the dynamics of power relations to leverage the strength of the individual members. We note in Annex 2 that for African regional PANAP/non-PANAP participating countries, Kenya has the power to act a bridging actor (Betweeness score of

206.19) in establishing most of the country level collaborations. This suggests that network member institutions in Kenya have the potential of connecting and creating collaborations across various countries. For European country partnerships, though we find that the UK has relatively smaller node size as compared to countries such as France, it had the highest betweenness score (321.47), highlighting their unique role of creating more collaborations across countries. However, countries such as France, Germany and Uganda were found to hold the network core with their high degree of coreness (Annex 3).

These countries have significant influence, connecting otherwise unconnected or minimally connected members and fostering broader collaboration. This bridging role could enable these countries to shape the network's direction, influence collaborative initiatives, and ensure that critical knowledge and resources flow across the network. For sustainable and equitable network growth, it would be essential to encourage collaboration with and support from such bridge countries, as they are well-positioned to facilitate new partnerships and expand the network's reach. Moreover, the geographic diversity of project implementation has implications for regional development. Projects across different African nations can address specific local challenges while contributing to broader continental objectives, such as food security, nutrition, and agricultural sustainability. This alignment between local needs and regional goals is crucial for driving progress in the agriculture-food-nutrition-policy sectors across Africa. Cross-regional collaboration also allows for best practices to be shared and learnt to improve each context for a shared global goal in the agriculture-food-nutrition-policy nexus.

3.6 Project Funding

3.6.1 Source of project funding

An analysis of funding sources for projects among PANAP and non-PANAP institutions reveals a substantial reliance on donor grants, with nearly 80% of project funding sourced from external donors (Figure 3.14). In contrast, funding from national frameworks and internal sources shows a significant drop once you move away from donor sources with only about 15% of funding coming from public-private partnerships (PPP) to a less than 2% contributed by the government sources. This heavy dependence on donor support for research projects reflects a broader challenge within research ecosystems across Africa, where institutions often rely on external aid to drive project development and implementation.

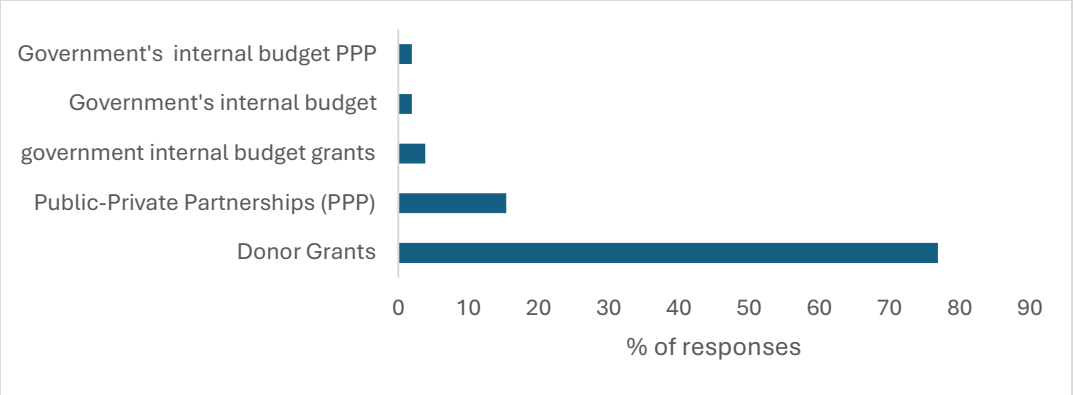


Figure 14: Distribution of funding sources

Source: StEPPFoS Survey (2024)

The over-reliance on donor funding has several implications for the sustainability and autonomy of research agendas, often resulting in projects tailored to the priorities of donors rather than those of local or regional importance. Additionally, the lack of substantial funding from national governments and the private sector constrains institutional capacity to develop long-term research programs, limits opportunities for innovation, and restricts the ability to address issues unique to local contexts.

Further analysis as presented in Figure 15 shows that the largest funder of projects for PANAP and non-PANAP member institutions is the European Union/Commission, which, through programs like Horizon 2020 and Horizon Europe, accounts for close to 50% of project funding. This significant support underscores the EU's commitment to fostering research partnerships and innovation across sectors critical to development. Following this, around 28% of funding originates from local banks and other private sources, highlighting an important, albeit smaller, contribution from regional and domestic financiers.

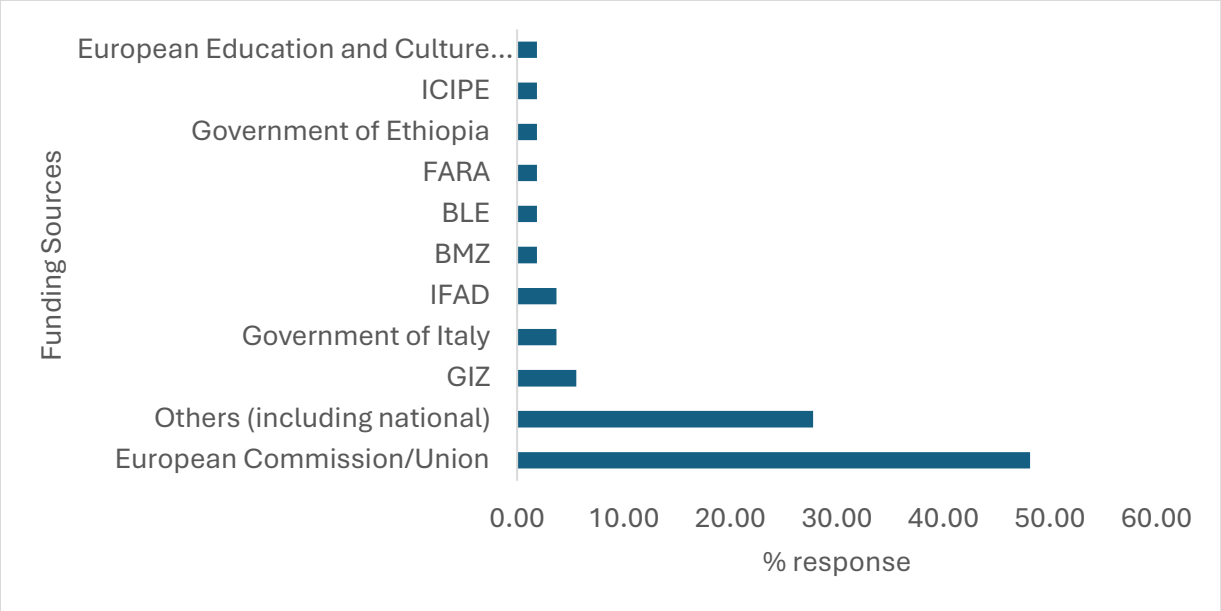


Figure 15: Specific project funding sources

Source: StEPPFoS Survey (2024)

Beyond these primary funders, there are several individual organizations and agencies making notable contributions to the funding landscape. Key among these are international bodies like the International Development Research Center (IDRC), Germany's Federal Ministry for Economic Cooperation and Development (BMZ), the Federal Office for Agriculture and Food (BLE), the International Fund for Agricultural Development (IFAD), and the German Development Cooperation (GIZ). Additionally, prominent African-centered research organizations, such as the Forum for Agricultural Research in Africa (FARA), are contributing to the funding ecosystem, emphasizing a growing support network that spans both regional and international stakeholders.

Significant global philanthropic entities, including the World Bank, the Bill and Melinda Gates Foundation (BMGF), and the UK's Foreign, Commonwealth & Development Office (FCDO), are also involved, bringing targeted financial support to address key challenges in agriculture, food security, and sustainable development. Notably, a few government sources, including those of Ethiopia and Italy, as well as the European Education and Culture Executive Agency, contribute as well, although at a smaller scale compared to the dominant sources.

3.6.2 Mapping funders to countries

Further analysis as observed in the network mapping exercise in Figure 16 the European Union (EU) holds funding for most of the projects across the participating countries. Closely following the EU is the European Commission through its Joint Research Center and Horizon 2020 funding

frameworks. Whilst most African countries obtain project funding from other funding agencies such as the USAID, GIZ, BMZ and BLE, in addition to the EU/EC and national funding sources such as the banks in the case of Ivory Coast, Benin, Burkina Faso, EU countries such as Finland, Hungary, Denmark, Portugal, Ireland are mostly clustered around EU funding programmes.

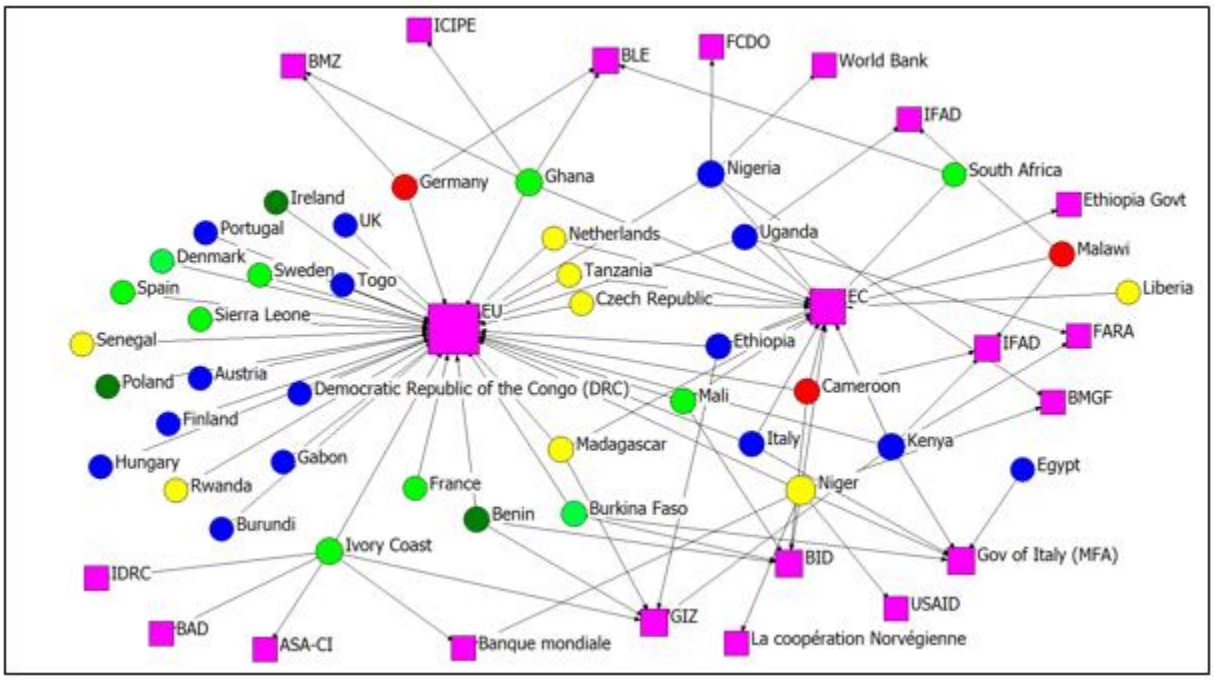


Figure 16: Mapping of funders to countries

Source: StEPPFoS Survey (2024)

Map note: All square nodes are funding institutions whilst circle nodes represent countries. Size of nodes represent how connected that node is to the other elements being analysed.

The European Union (EU) serves as the primary funder for agriculture-food-nutrition-policy projects across participating countries, followed by the European Commission (EC) through initiatives like the Joint Research Centre and Horizon 2020. Although the EC is responsible for managing the budget directly for projects carried out by the EU, the respondents differentiated EU from EC. This distinction explains the transparency in identifying the source of funding, whether it is attributed to broader EU policy frameworks or to the EC's operational management. Nonetheless, the EC is an extension of the EU, highlighting the dominance of the European Union funding in agrifood systems in Africa.

In contrast, African countries adopt a more diverse funding approach, supplementing EU/EC funds with support from agencies like USAID, GIZ, BMZ, BLE, and local national sources, including banks in countries like Ivory Coast, Benin, and Burkina Faso. This mix of funding sources reflects a strategic difference: EU nations benefit from streamlined funding within centralized EU

frameworks, while African countries leverage multiple funding sources for flexibility, ensuring projects meet specific local and regional needs. This collaborative funding structure underpins the EU-Africa partnership, balancing EU coherence with African adaptability for impactful projects.

3.6.3 Mapping funders to projects thematic focus

Whilst there are more countries with projects clustered around sustainable agriculture and agroecology, we find in Figure 17 that diverse funding organisations are more directed to projects and programmes on food security, nutrition and safety. The EU/EC are however cross cutting in their funding direction towards the thematic areas unlike organisations such as UNFCC, EACEA, BMGF, USAID, BLE, BMZ, among others that are directed towards one specific thematic area. This is not to say these funders do not generally focus on other thematic areas.

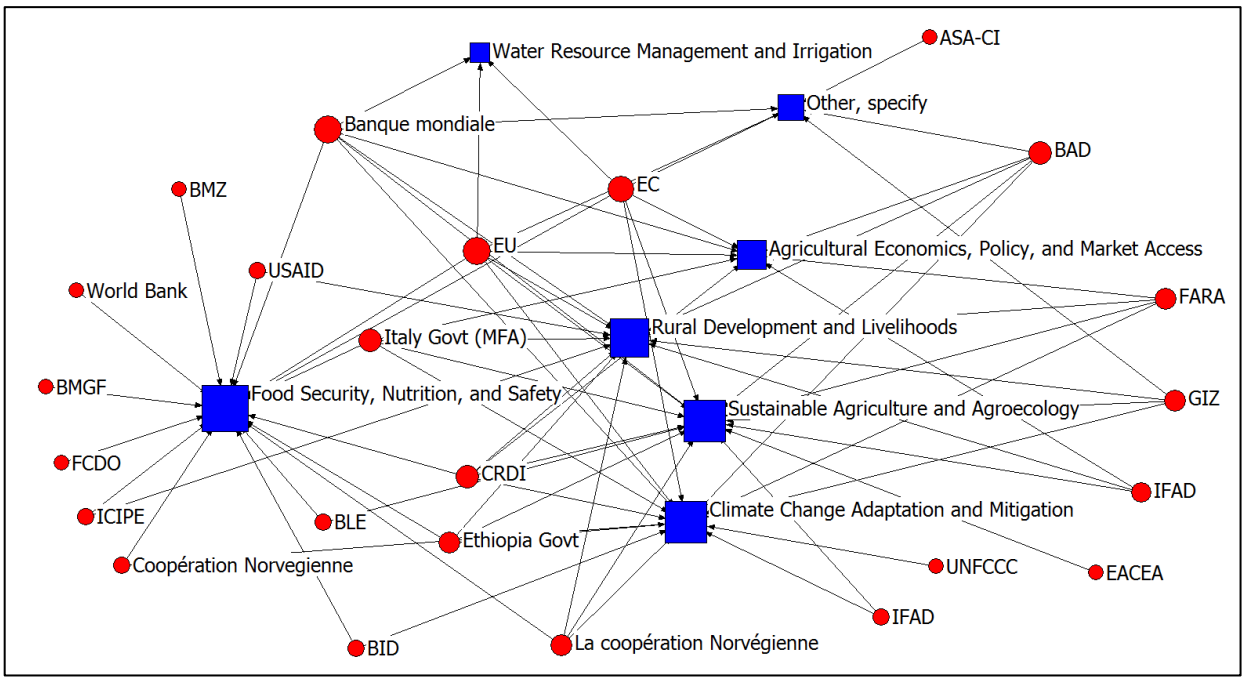


Figure 17: Mapping of funders and thematic areas

Map note: All square nodes are thematic focus whilst circle nodes represent various funding institutions. Size of nodes represent how connected that node is to the other elements being analysed.

However, these are the thematic areas by funders that the PANAP and non-PANAP institutions responding to the survey mostly reported. Given that most of these funders have larger funding portfolios for projects and programmes across the various thematic areas, it will be important for the institutions to begin targeting such funding streams and broadening their grant sources. This

could also be driven by the EU-AU framework that this project is working with and hence allows reporting of funding by EU and AU grant making organizations.

Notwithstanding, expanding support from these sources, particularly from local and regional entities, would further enhance the ability of PANAP and non-PANAP institutions to advance their research agendas in line with Africa's unique development priorities and foster more autonomous, regionally led innovation. This will foster a more resilient research ecosystem. Having greater investment in research at the national level can promote sustainable, contextually relevant studies that address pressing challenges in fields such as food, nutrition, agriculture, climate resilience, poverty, etc., to foster evidence-informed policy processes. Additionally, stronger private sector collaboration could open pathways for applied research and innovation, linking research to industry needs and enhancing the potential for commercialization and impact. Diversifying funding streams in this way would empower research institutions, especially within Africa, to better shape their agendas and contribute more effectively to regional development goals, fostering a self-reliant and robust research landscape in the long term.

3.6.4 Funding statistics

The study finds that substantial funding has been allocated to agriculture-food-nutrition-policy nexus projects from various funders (mainly EU), as highlighted in previous sections. From our data, with the exception of 3 projects in 2014, 2017 and 2018, we record a total of €175,582,250.00 (Table 2) between 2019 and 2024 as funds disbursed for EU-AU collaborative projects within the agriculture-food-nutrition-policy nexus, benefiting PANAP and participating non-PANAP institutions.

Table 2: Level of funding for projects

Statistics	Amount (Euros)
Total disbursed	175,582,250.00
Average	4,877,285.00
Standard deviation	19,900,000.00
Minimum	15,000.00
Maximum	120,000,000.00

Source: StEPPFoS Survey (2024)

On average, about €4,877,285.00 has been allocated across 36 institutional projects that reported funding amounts, which reflects a significant resource base per project. However, funding

amounts vary considerably, with a minimum of €15,000.00 and a maximum of €120,000,000.00 allocated across institutions. This wide disparity results in a substantial standard deviation of €19,900,000.00, pointing to considerable variation in project budgets. While some projects enjoy substantial grants, others operate on comparatively modest budgets, suggesting a diverse range of project scopes and objectives.

The EU remains the primary funding source, often providing the largest allocations. However, the EU funding framework is notably versatile, accommodating both high-budget projects requiring millions in funding and smaller projects with budgets below €200,000. This balanced approach by the EU allows for a broad spectrum of projects to be funded, fostering both large-scale, transformative initiatives and smaller, targeted interventions. Individual funders like GIZ, BLE, FARA, and contributions from national governments and the private sector further diversify this funding landscape, though these tend to represent smaller proportions compared to EU contributions.

This funding diversity allows institutions to undertake projects of varying scales and complexities, strengthening local and regional agricultural systems and nutrition policies. Larger projects may tackle systemic issues and foster innovation at a macro level, while smaller, more focused projects can address specific, localized challenges with precision. This approach enhances the resilience and adaptability of the agriculture-food-nutrition-policy sector, helping to build a robust foundation for ongoing capacity building and sustainable development across regions.

4. Stakeholder Engagement and Collaboration

4.1 Projects/Programmes/Policies communication pathways

Project/policy implementation were reviewed to mostly include both local, regional and international stakeholders. The outcomes of the projects/policies are thus communicated through a combination of several methods or avenues. The results in Figure 18 show that written reports (23%) and in-person meetings and workshops (22%) are the most common methods for communicating project outcomes and activities to stakeholders, indicating a preference for formal, direct, face-to-face interaction for engagement and feedback. Mass media and digital communications account for 17%, policy dialogues and debates (15%) highlight efforts to involve stakeholders in policy-related discussions, while social media and other channels (4.08%) are minimally used, suggesting limited exploration of informal or newer forms of engagement. This shows a strong reliance on traditional methods, with some integration of digital strategies, yet underutilization of more innovative, potentially scalable communication avenues like social media.

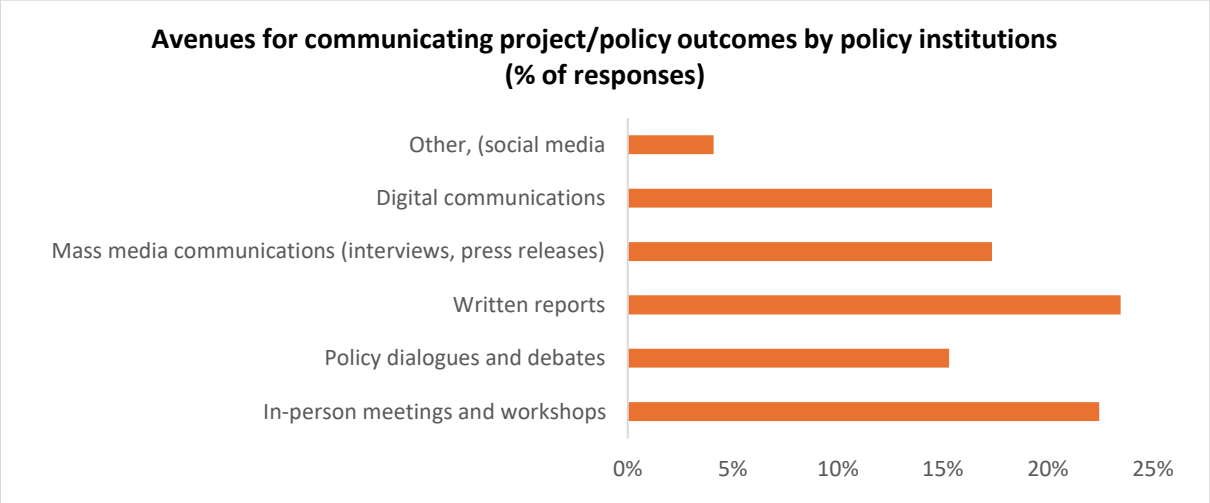


Figure 18: Policy Institutions- Avenues for communicating project/policy outcomes

Source: StEPPFoS Survey (2024)

Similar to policy institutions, non-policy institutions also show a clear preference for workshops/seminars as primary methods for stakeholder engagement, aligning with findings that in-person interactions remain popular for fostering in-depth discussions. This method likely reflects the importance of workshops in promoting active participation and generating immediate feedback from participants, which is crucial for the success of collaborative projects.

Another key method, documented, includes a combination of interviews, surveys, and workshops. This multi-method approach offers a flexible means of obtaining qualitative insights

while also capturing quantitative data through surveys, providing a well-rounded understanding of stakeholder opinions and feedback. Methods like questionnaires and activity reports provide structured, often quantitative data collection, contributing to an evidence-based approach in tracking and assessing activities. Lastly, email and personal contacts, noted once, serve as informal channels for communication, supporting flexibility and accessibility in reaching stakeholders when formal engagements are less feasible. This method may allow stakeholders to stay informed and connected in between more structured engagements like workshops or consultations.

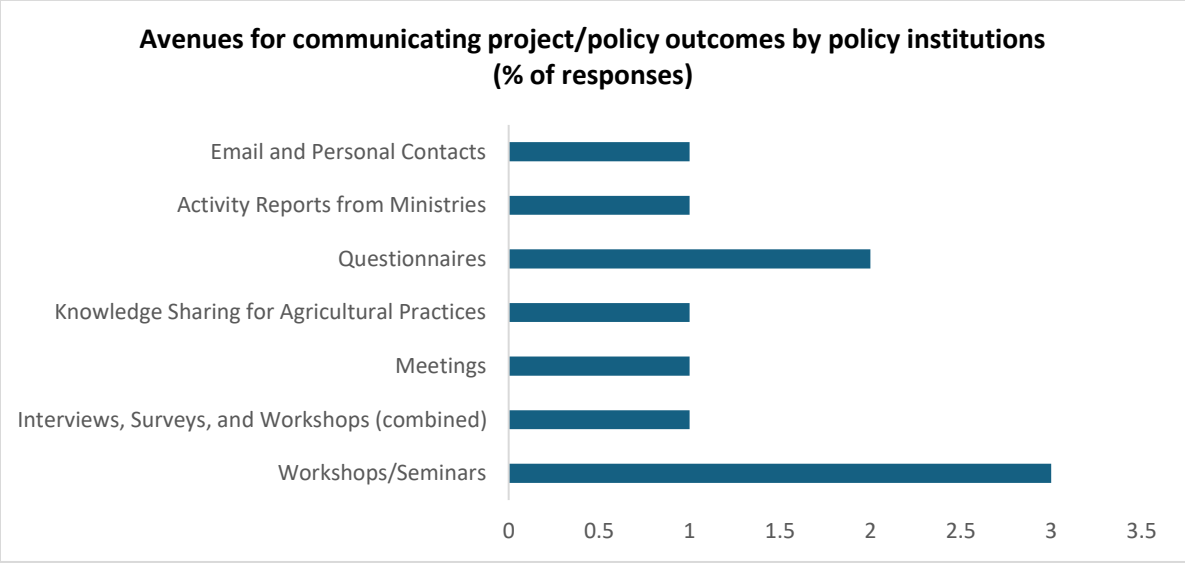


Figure 19: Non-Policy Institutions- Avenues for communicating project/policy outcomes

Source: StEPPFoS Survey (2024)

Further, policy related institutions often rely on traditional methods. That is, a preference for formal and face-to-face methods, with some integration of digital strategies in engaging stakeholders in the development of projects and policies and obtaining feedback.

The results show that workshops and conferences (29%) and in-person meetings or visits (28%), are the most common methods for developing projects/policies and obtaining feedback from stakeholders. Reflecting a continued emphasis on interactive, face-to-face engagement. The engagement of stakeholders employing these approaches were 25% of the time used along with written reports. Digital communications, however, account for only 18%, indicating that, while used, digital engagement methods are underutilized, much like in project outcome communication. This reliance on traditional methods suggests room for further integration of digital platforms to enhance inclusivity and reach in stakeholder involvement.

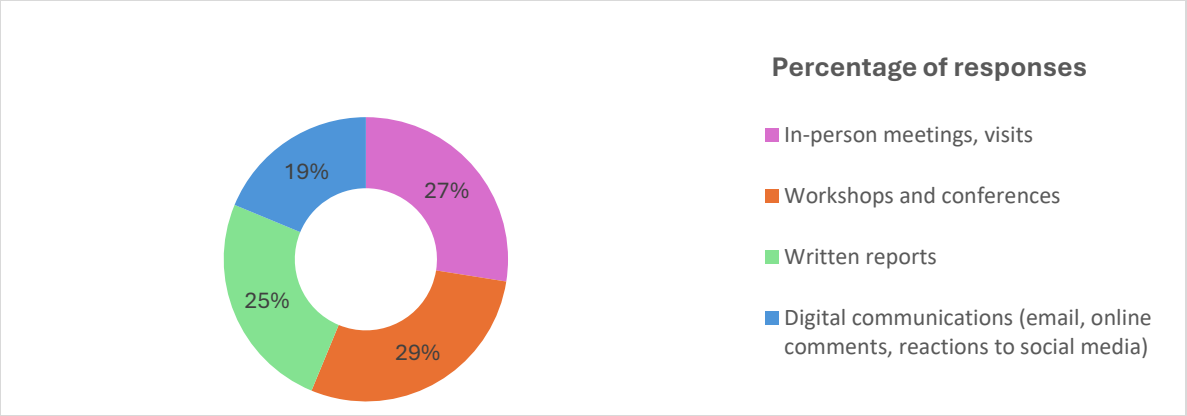


Figure 20: Policy Institutions - Mode of engaging stakeholders in process of project/policy development and obtaining feedback

Source: StEPPFoS Survey (2024)

Similarly for non-policy institutions, in-person meetings were preferred. The results show that the main mode of stakeholder engagements were in-person workshops/seminars (39%), stakeholder consultations (32%) and working groups (25%). Working groups nonetheless stood as the hybrid between in-person meetings and online or other non-physical meetings. Study trips is seen as the least used mode of engagement with stakeholders. Study trips, the least utilized method, likely reflect constraints related to budget, time, or feasibility

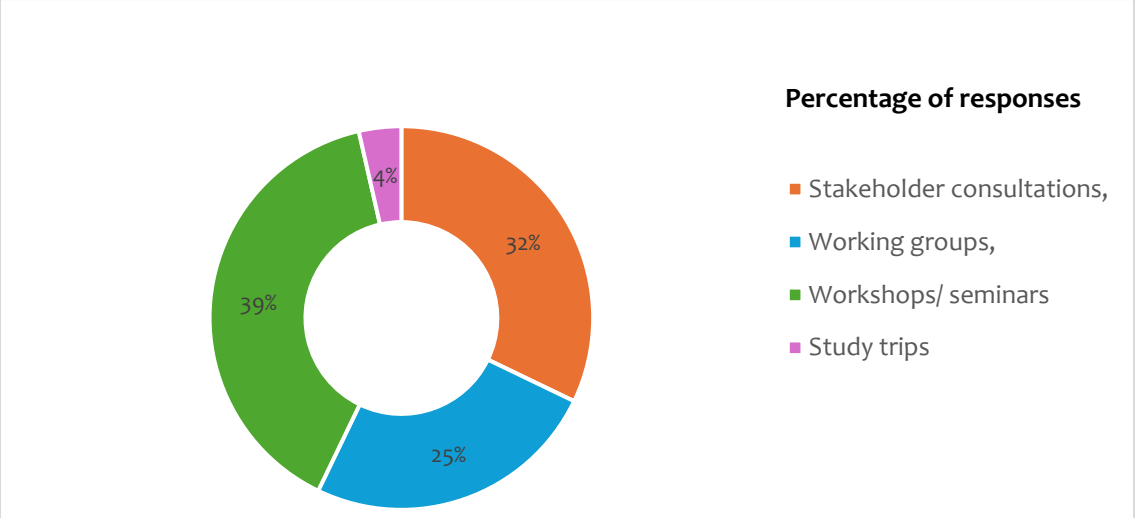


Figure 21: Non-Policy Institutions - Mode of engaging stakeholders in process of project/policy development and obtaining feedback

Source: StEPPFoS Survey (2024)

The results imply that indicate that institutions prefer in-person interactions as topics or the strategic goals of policies/projects may benefit from direct, collaborative environments where immediate feedback and engagement are possible. However, while study trips can provide immersive learning and first-hand experience, their limited use suggests that they may be reserved for specific cases where deeper understanding of on-site practices is crucial. Working groups format nonetheless appears adaptable, allowing for continuity and inclusiveness when participants face geographic or time constraints, especially important for ongoing projects or collaborative policy development where flexibility is required.

4.2 Project/Programmes collaborators

The study further assessed the type and regions of the collaborators mainly engaged by participating institutions. The data reveals in Figure 22 that policy institution primarily involves academic/research and government organizations, while engagement with the private/business sector is minimal. Academic/research stakeholders show the highest level of involvement (22 yes, 4 no), followed closely by government organizations (21 yes, 5 no). In contrast, private/business sector engagement is significantly lower, with only 4 positive engagements compared to 21 instances of non-engagement. This suggests that while the institution prioritizes collaboration with academic and governmental bodies, there is a notable gap in private sector engagement, potentially missing out on opportunities for industry-driven insights and innovation. Increasing involvement from the private sector could enhance the diversity of perspectives and drive more practical solutions in project and policy development.

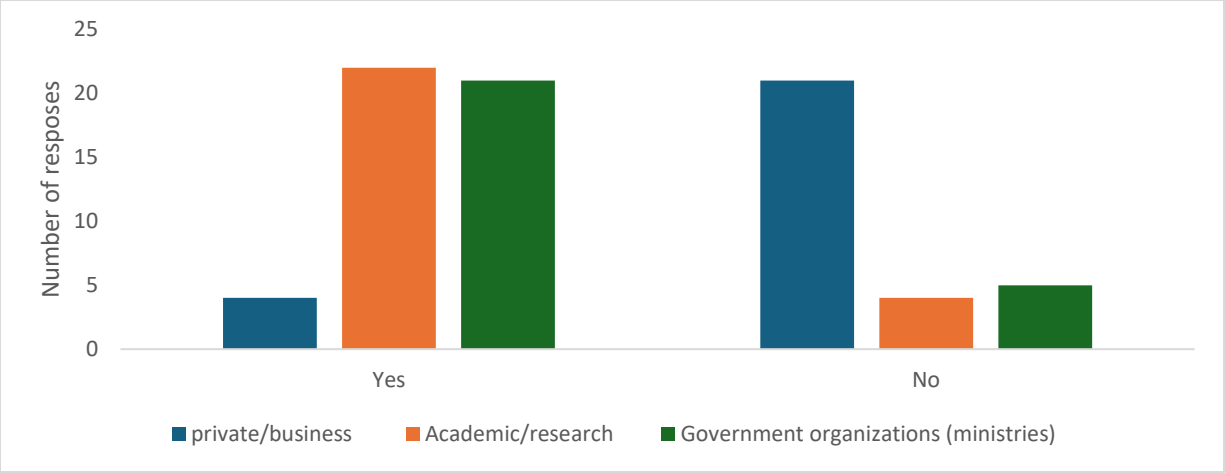


Figure 22: Policy Institutions - Sectors of collaboration

Source: StEPPFoS Survey (2024)

For non-policy institutions however, collaborations with government agencies and organisation is seen to be the dominant link (7 instances), suggesting a significant emphasis on partnerships that align with national policies and frameworks. This engagement allows the organization to closely integrate its activities with broader governmental goals, such as those pursued under ministries related to agriculture, environment, and finance. Additionally, government-led initiatives like the Lowland Resilience Project (LLRP) and partnerships with regional organizations (AU, AfDB) support a foundation for collaborative policy and development efforts, particularly in areas like livelihood development.

Academia and research institutions represent another critical area of collaboration, with 4 instances, underscoring the organization's commitment to evidence-based practices and innovation. Collaborations with research-focused institutions, such as IFPRI and various think tanks, ensure that projects benefit from the latest academic insights and data, which can drive informed decision-making and effective implementation strategies. The involvement of independent consultants and training academics further indicates an interest in knowledge transfer and capacity-building, potentially expanding the organization's reach within the agricultural sector. The private sector, though less represented with 2 instances, includes key stakeholders like FAO, which bring global perspectives and resources, enhancing the organization's ability to implement sustainable agricultural practices and development initiatives.

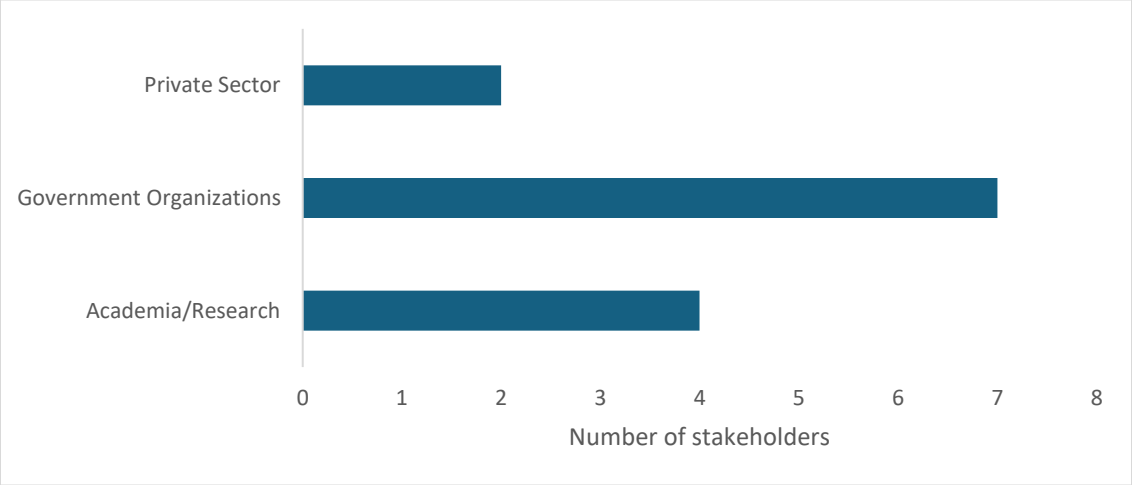


Figure 23: Non-policy Institutions - Sector of Stakeholders Engaged

Source: StEPPFoS Survey (2024)

Further, the geographic distribution of collaborators reveals varying levels of engagement across local, regional, and international stakeholders.

The results show that institutions' engagement with government and private sectors respectively are mostly done locally, highlighting a focus on national-level partnerships. Although private sector are rarely engaged in stakeholder engagements

On the other hand, multilateral collaborations are revealed to predominantly have international focus, with 41% of such collaborations occurring through international networks. However, this brings into context, the lack of collaborations with locally based multinational organisations.

Further the policy institutions' engagement with academic/research stakeholders and NGOs show a more balanced collaboration pattern, with averagely around a third of their engagements being local, regional or international respectively. This suggests that while the institution engages extensively with local collaborators across the private and government sectors, it relies on academic/research institutions, NGOs, and multilateral agencies for international partnerships, possibly to tap into broader expertise and global resources.

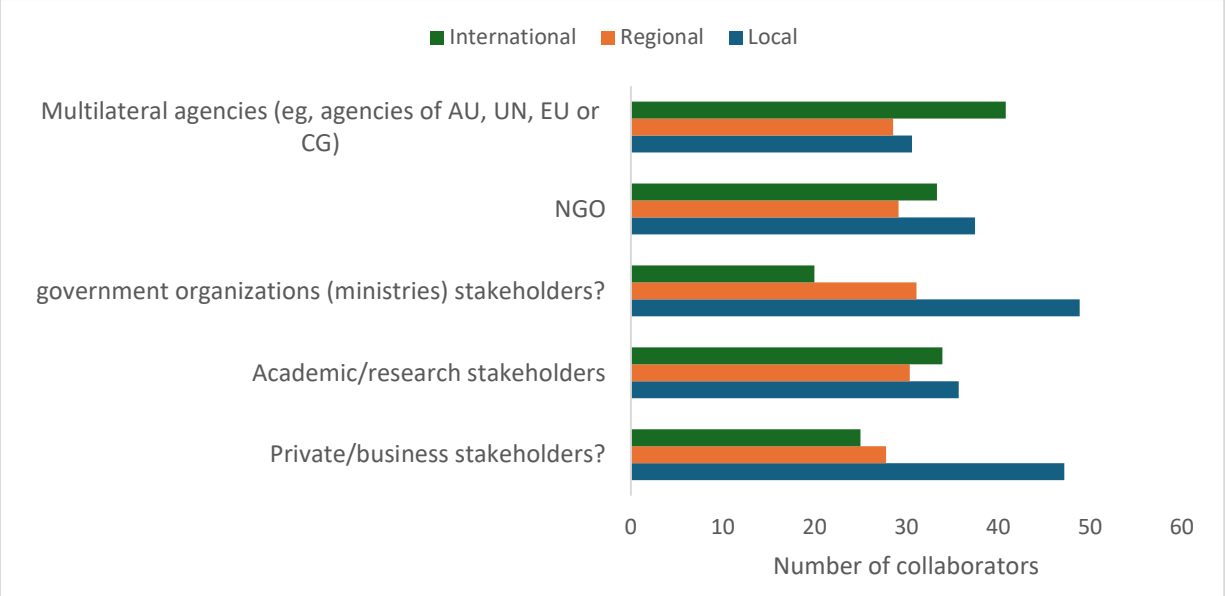


Figure 24: Distribution of collaborators or stakeholders engaged by policy institutions

Source: StEPPFoS Survey (2024)

The results (Figure 24) reveal that to strengthen stakeholder engagement, the institution should increase collaboration with the private sector, particularly locally and regionally, and engage more with locally based multinational organizations to enhance international partnerships. Expanding digital communication platforms for broader participation and continuing balanced engagement with academic and NGO stakeholders will also foster more inclusive and diverse collaborations. Additionally, exploring more regional partnerships could support cross-border innovation and shared solutions.

Moreover, for non-policy institutions, the collaboration data shows that most collaborators are regional or international, including bodies such as the African Union (AU), the African Development Bank (AfDB), and international agencies like WHO and USAID. These partnerships enable access to larger networks and resources, aligning the organization with broader regional and global development agendas, particularly in areas like policy alignment and agricultural resilience.

The academia and research collaborations are largely international, with partners like IFPRI and global think tanks contributing specialized knowledge and insights. This international focus in academia underscores a strategy of incorporating best practices and innovation from global research to inform local applications. The private sector, represented by both local and international stakeholders, provides targeted support for development initiatives, bringing diverse perspectives that can complement government and research-focused efforts for well-rounded project outcomes.

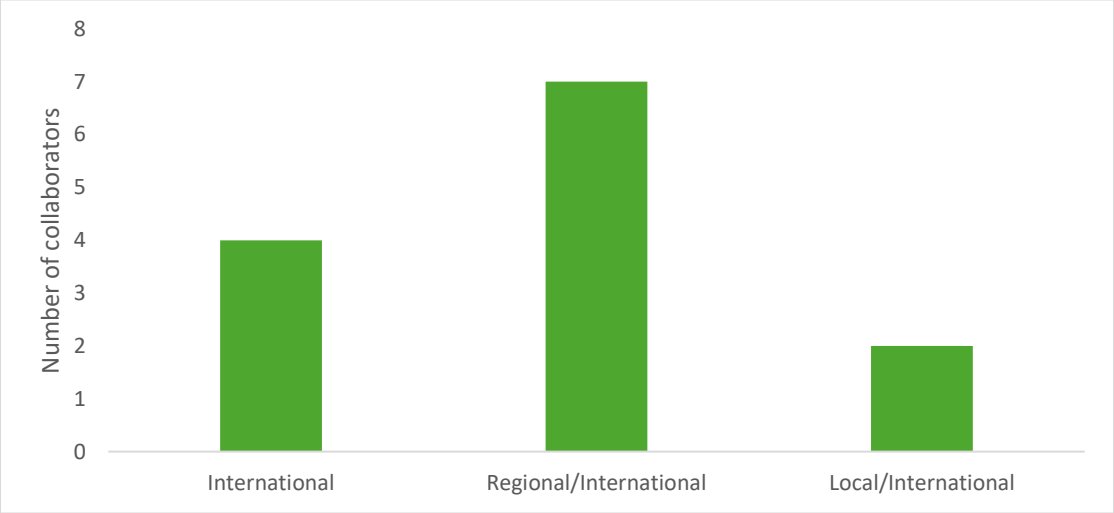


Figure 25: Geographic distribution of collaborators or stakeholders engaged by non-policy institutions

Source: StEPPFoS Survey (2024)

5. Impact of Projects/Programmes/Policies Performance

5.1 Measuring Projects/Programmes/Policies Performance

Moreover, the methodologies and frameworks employed by policy institutions to assess and measure the impact of projects and policies reveals a varied approach, with a clear preference for quantitative methods. Surveys and questionnaires are the most used, accounting for 27% of the methodologies applied, indicating that institutions prioritize structured data collection to gauge community feedback and impact. This is followed closely by interviews and focus groups, as well as data analysis and statistical methods, both at 20% (Figure 26).

Case studies are utilized by 16% of institutions, suggesting a more in-depth exploration of specific instances or projects, which can provide valuable context and detailed narratives about impact. Impact assessments, employed by 15%, reflect a systematic approach to evaluating outcomes, ensuring that projects meet their intended goals and provide value to the target audience. However, stakeholder consultation events—whether virtual, in-person, or hybrid—are notably underutilized, with only 1% of institutions reporting their use. This low percentage suggests a missed opportunity for direct engagement with stakeholders, which could enhance the assessment process by incorporating diverse perspectives and fostering collaborative evaluation efforts.

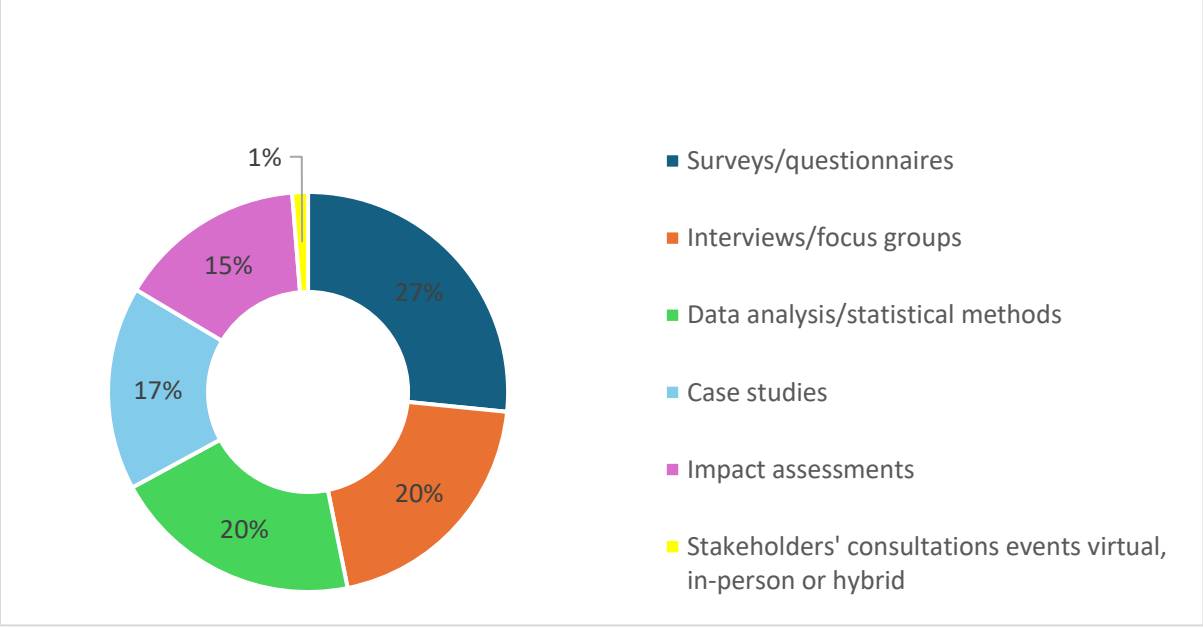


Figure 26: Policy Institutions - Methodologies for assessing impact

Source: StEPPFoS Survey (2024)

Overall, the results indicate that while policy institutions predominantly rely on quantitative and structured methodologies to assess impact. As evidenced by the high percentages of surveys, interviews, and data analysis used to assess impact. There is room for improvement in integrating more participatory approaches. Although these approaches are advantageous because they provide measurable and comparable data, allowing for rigorous statistical analysis and clear performance metrics. The minimal emphasis on stakeholder consultation events highlights a significant gap in the impact evaluation process. By not actively involving stakeholders in discussions about project impacts, institutions may miss valuable feedback and perspectives that could inform improvements and foster greater community buy-in.

Similarly, for non-policy institutions, the data reveals a balanced approach in methodologies and technical frameworks used by the institution to measure the impact of projects and policies on target communities. Quantitative methods, such as surveys, questionnaires, and statistical analysis, are the most commonly used, representing 24% of responses (Figure 27). This reliance on quantitative methods suggests a strong focus on measurable, data-driven insights that can provide clear, objective evidence of impact. The preference for such methods likely reflects an emphasis on capturing broad, generalizable data to inform decision-making and support empirical evaluations.

Qualitative methods, including focus group discussions (FGDs) and in-depth interviews, account for 162% of responses. This approach complements quantitative data by providing contextual, in-depth insights that can reveal nuances in community perspectives. Similarly, Monitoring and Evaluation (M&E) frameworks like Theory of Change (ToC), participatory approaches, and impact assessment models (each at 18.92%) are almost equally valued.

The integration of M&E frameworks and participatory approaches underscores the institution's commitment to engaging stakeholders actively in evaluation processes, while impact assessment models, including cost-benefit analysis and Social Return on Investment (SROI), emphasize measuring the social and economic value generated by initiatives. This mix of methods indicates a comprehensive evaluation strategy, balancing objectivity with stakeholder engagement and contextual understanding.

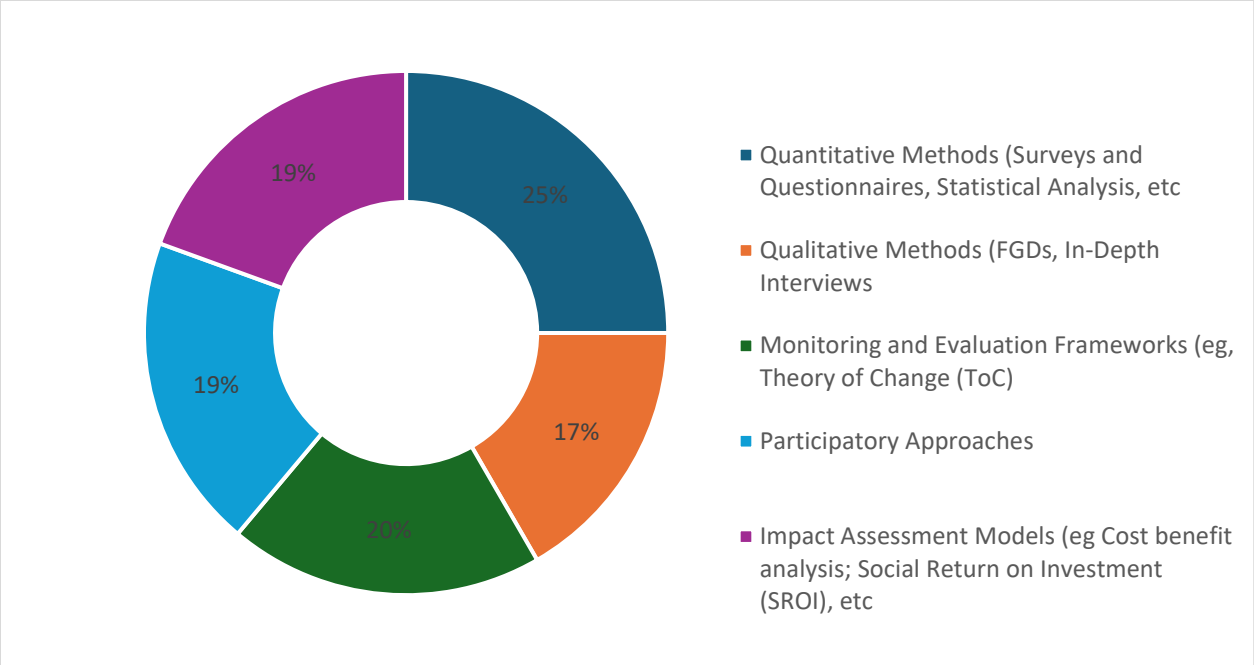


Figure 27: Non-policy - Methodologies for assessing impact

Source: StEPPFoS Survey (2024)

5.2 Alignment of projects to community needs

The responses further indicate that the institutions generally take a proactive approach to ensuring that projects address the needs of gender and social inclusion (Figure 28).

Some institutions address the inclusion of gender and diverse communities by formulating and implementing clear and comprehensive gender strategies. For instance, AFAAS noted that it has established an all-inclusive gender and social inclusion strategy, which is embedded in all projects. The emphasis on mainstreaming gender through the development of institutional policies reflects a commitment to addressing gender-related challenges from the outset. Engaging women and youth in project planning and development processes is highlighted as a crucial strategy, ensuring that the voices of these groups are integrated into decision-making.

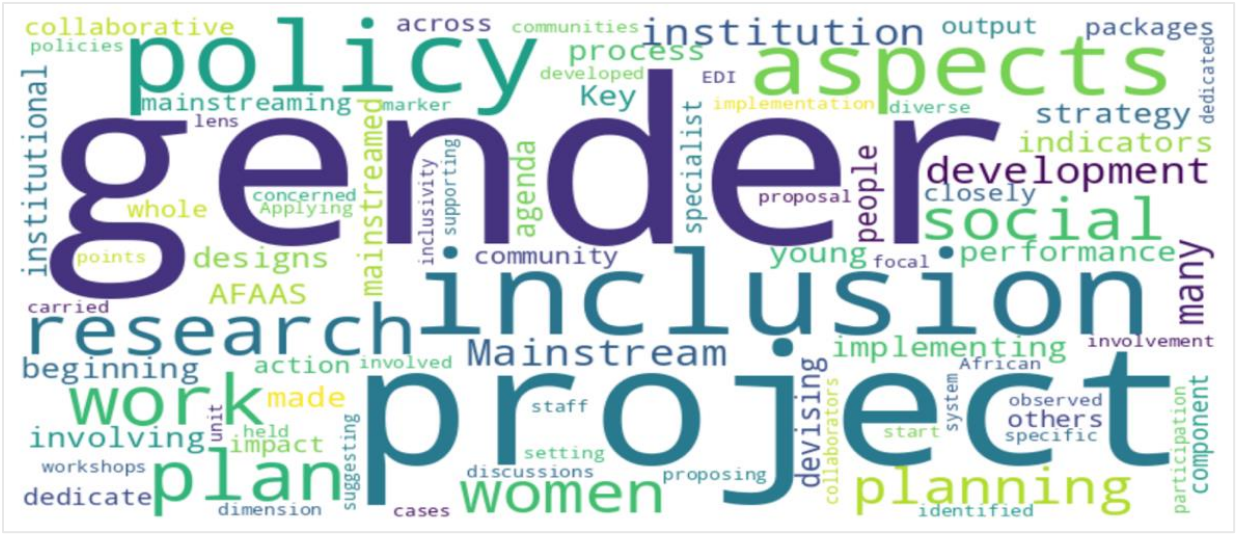


Figure 28: Word cloud of how institutions address the needs of gender and diverse communities

Source: StEPPFoS Survey (2024)

The mention of a dedicated gender specialist and a unit focused on gender and inclusivity demonstrates commitments to professional expertise in promoting gender-sensitive practices. Moreover, the inclusion of gender aspects in research designs and the development of key performance indicators for gender and inclusion further exemplify a systematic approach to tracking progress and ensuring accountability.

Institutions also implement collaborative projects which allocate entire components to gender issues, demonstrating a thorough understanding of the need for comprehensive gender dynamics. For example, some initiatives have dedicated resources for gender-responsive training sessions that equip project staff with the knowledge and tools necessary to address gender disparities effectively. The development of key performance indicators focused on gender and inclusion further highlights a shared commitment to accountability and tracking progress.

Further, a few responses noted that institutions sometimes engage diverse communities in planning processes, ensuring projects align with local needs. Many institutions nonetheless have reported organizing workshops and discussions that bring together various stakeholders to gather input and foster collaboration. Additionally, some institutions proactively identify gender dimensions from the onset of research planning by conducting preliminary assessments to determine gender-related challenges and opportunities. However, while the responses generally provide a robust picture of the institutions' strategies, the mention of "none" by one institution suggest not all institutions have specific gender and inclusion strategies.

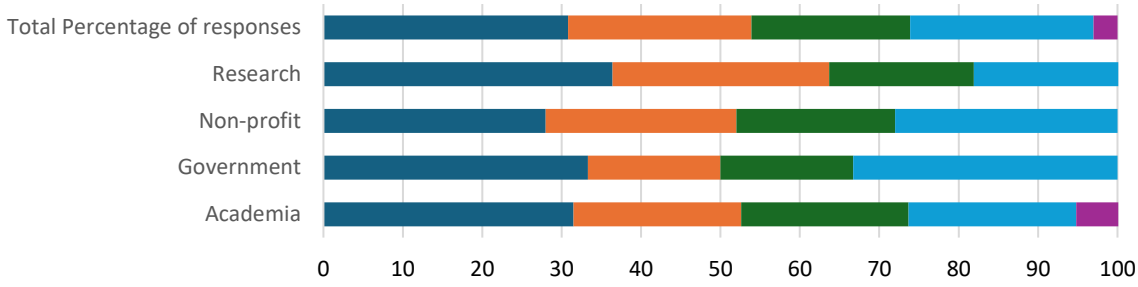
Overall, the collective commitment to gender and social inclusion strategies across multiple institutions signifies a progressive step towards equitable development. The widespread

adoption of similar approaches underscores the shared understanding of the importance of gender integration. However, ongoing efforts to refine these strategies, enhance stakeholder engagement, and ensure that all gender perspectives are effectively represented will be essential for achieving sustainable impact in target communities.

5.3 Mechanisms for Sharing Success Stories and Lessons

Additionally, the study examines the various methods used by policy institutions to document and report on projects/policy plans, progress reports, and outcomes.

The results show that generally, institutions largely employ regular progress reports (30.8%). Key performance indicators (KPIs) and budget analysis are jointly the second often used approach. Revealing the mandate of policy institutions to be accountable to their funders. Further, milestone tracking is revealed to be another significant method employed by 20% of institutions in maintaining accountability and facilitating timely interventions if issues arise. In contrast, regular stakeholder workshops are utilized by only 3% of institutions. This low percentage suggests that while stakeholder engagement is recognized, it may not be a primary focus in the documentation and reporting process, potentially limiting broader community involvement in assessing project impacts.



	Academia	Government	Non-profit	Research	Total Percentage of responses
Regular progress reports	31.5	33.3	28	36.4	30.8
Key Performance Indicators (KPIs)	21.1	16.7	24	27.3	23.1
Milestone tracking	21.1	16.7	20	18.2	20
Budget Analysis	21.1	33.3	28	18.2	23.1
Regular Stakeholder workshops	5.3	0	0	0	3

Figure 29: Methods of documenting project/policy plans, reports and outcomes

Source: StEPPFoS Survey (2024)

A further analysis of the methods as used by the various types of institutions surveyed show that all institutions - academia, government institutions, non-profit and research institutions mostly use regular progress reports. Budget analysis is also highly used by government institutions and non-profit institutions. Indicating their mandate to ensure financial transparency and accountability.

Overall, the almost proportionate application of the documentation methods demonstrate an institutional mandates or practise to ensure effective project/policy management across different types of institutions. However, the lack of engagement with stakeholders to ensure that projects meet the needs of the communities they serve, suggests that while stakeholder engagement is recognized, it may not be a primary focus in the documentation and reporting process, potentially limiting broader community involvement in assessing project impacts.

5.4 Monitoring and Evaluation (M&E) System Implementation

Monitoring and Evaluation (M&E) systems are crucial for tracking project progress, assessing the effectiveness of interventions, and ensuring that objectives are being met. According to the data, 70% of respondents affirmed that their organisations have a structured M&E system. This indicates a strong foundation for systematic data collection, analysis, and feedback mechanisms that support informed decision-making.

Nonetheless, almost one-third (30%) of those surveyed stated that their organisations lacked a monitoring and assessment mechanism. This implies that approximately one-third of the projects' stakeholders may not have thorough systems for evaluating results. This disparity may make it difficult to monitor development, gauge impact, and modify plans in light of current information. Without M&E processes, organisations could find it difficult to show stakeholders that, they are accountable and might pass up opportunities for continuous development.

To address this, organisations should prioritise the development and implementation of M&E frameworks that are adaptable, scalable, and integrated into project planning from the outset. Training staff in M&E methodologies, investing in data collection tools, and establishing clear indicators for success can enhance the effectiveness of these systems.

5.5 Project Reporting Mechanism

Regular updates to project stakeholders must be given through a system for regular project reporting. Providing stakeholders with regular updates on project status is essential to maintaining transparency, accountability, and trust. The survey show that, 74% of respondents have a mechanism in place for reporting on projects regularly. This suggests that the majority of

organisations understand how crucial it is to maintain regular contact with stakeholders to foster cooperation, secure funding, and gain support.

On the other hand, 26% of respondents indicated a lack of regular reporting mechanisms. This can lead to information gaps, misunderstandings, and reduced stakeholder engagement. Organisations without formal reporting systems may find it challenging to highlight project accomplishments, obtain input from stakeholders, and match project objectives with stakeholder expectations.

Creating standardised report templates, implementing regular reporting schedules, and utilising digital platforms to facilitate information sharing are all possible ways to improve reporting systems. Clear, concise, and data-driven reports can aid stakeholders in comprehending project results and offer prompt input for changes in direction.

5.6 Communication of Project Outcomes

Effective communication of project outcomes is essential for stakeholder engagement, advocacy, and the sustainability of initiatives. Organisations employ a diverse set of communication methods to disseminate project outcomes and activities, as shown in Figure 30, and each method has its advantages and disadvantages.

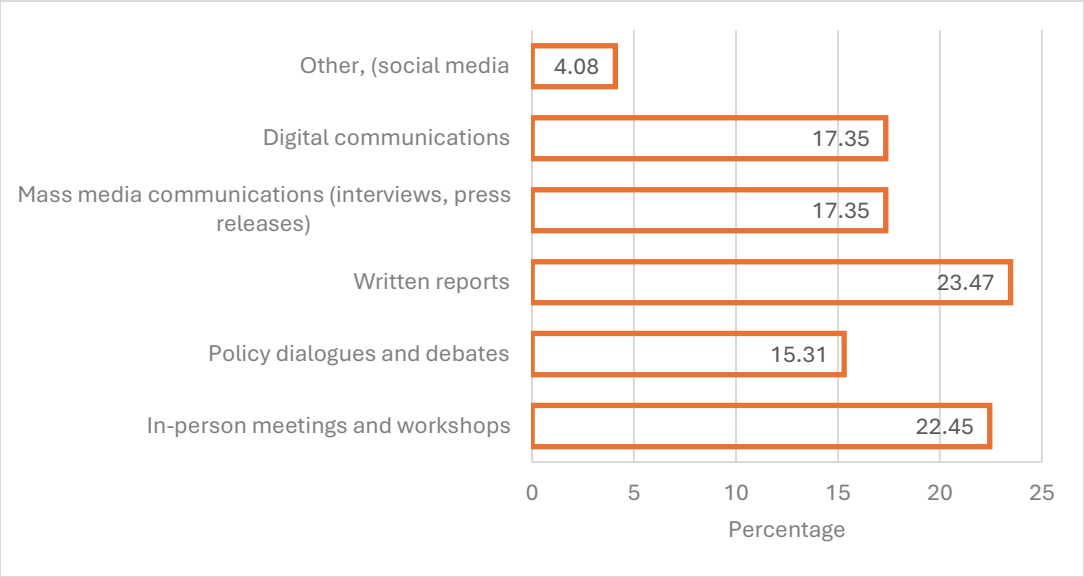


Figure 30: How project outcomes and activities are communicated to stakeholders

Source: StEPPFoS Survey (2024)

Written Reports

The study's findings show that written reports are the most widely used format (23.47%), highlighting the significance of formal, structured, and in-depth communication. The ability of this report type to provide extensive data, analysis, and insights makes it ideal for stakeholders who need in-depth information. Reports can also be used as reference materials for future planning and assessment. However, it's essential to ensure that reports are clear, well-structured, and accessible to all stakeholders, avoiding technical jargon that might obscure key messages.

In-person Meetings and Workshops

The application of workshops and in-person interactions came out second (22.45%). This approach guarantees a mutual knowledge of project objectives and accomplishments while promoting cooperation and establishing connections. Face-to-face encounters, however, can be resource-intensive, involving a great deal of time and logistical planning. These in-person meetings provide a straightforward and intimate method of engaging stakeholders. Through meetings, workshops, and presentations, stakeholders can ask questions, participate in debates, and obtain thorough knowledge.

Digital and Mass Media Communications

Digital and mass media communications make up the third most used method (17.35%). Employing press releases, articles, interviews, and other forms of mass media helps organisations reach a wider audience. Increasing public awareness, showcasing achievements, and establishing the organisation as a thought leader in the field are all accomplished with this strategy. Potential collaborators, funders, and partners may also be drawn in by media attention. However, media relations management calls for careful planning and concise communications to guarantee truthful and favourable coverage.

However, digital communication, including webinars, online forums, emails, and newsletters, offers quick, effective, and economical means of informing stakeholders about updates. Through digital communication, organisations may communicate with stakeholders in many time zones and locations, guaranteeing that information is shared on time. It enables interactive features that might improve engagement, such as feedback forms and surveys. However, digital communication depends on stakeholders having access to the internet and being digitally literate, which can differ.

Policy Dialogues and Debates

Policy Dialogues and Debates (15.31%) are the fourth most popular approach. Organisations can address contextual challenges and more general systemic issues by involving stakeholders in policy discussions. Through these forums, stakeholders can influence policy decisions, take part

in strategic debates, and match project results with regional or national priorities. Stronger advocacy and policy support may result from this approach, although managing a variety of interests and points of view may demand careful facilitation.

Social Media

The method used the least is social media (4.08%). Despite being less used than other study methodologies, social media sites like Facebook, Twitter, and LinkedIn have special chances for audience involvement, wider outreach, and real-time engagement. Social media can attract younger audiences, spread project messages, and promote user-generated material like project success stories or testimonials. Organisations should consider leveraging social media more strategically, integrating it into their overall communication plans, and using analytics to measure engagement and reach.

The results suggest that while there is a high commitment to monitoring and evaluation, as well as stakeholder reporting, there remain areas for further strengthening. Organisations could benefit from standardising monitoring and evaluation practices and expanding their communication strategies to ensure broader reach and engagement.

6. Data Modelling, Economic and Policy Analysis of Insitutions

6.1 Institutional capacities in evidence-based policy and programme analysis

The survey further quizzed respondents on their skill level in employing data modelling tools for economic and policy analysis of agriculture and food systems. The results highlight a diverse range of programming tools. The most common tool used by policy making and non-policy institutions was shown to be Microsoft Excel, SPSS, Stata, and R being the most commonly used, reflecting varied analytical approaches. Other modelling tools such as GAMS, Python and QGIS were among the lowly used analytical tools (Figure 31).

The results, however, show that while over half of institutions apply these quantitative economic methods to agrifood issues, a significant portion (39%) does not use these models, and a small fraction (7%) remains uncertain about their institution's practices in this area. Further, institutions generally noted that the expertise of staff and researchers are limited in data modelling, economic, and policy analysis tools, particularly in computable general equilibrium (CGE) modelling. While a few institutions reported intermediate or advanced skills, the expertise is not widespread, and gaps remain in several areas. This highlights the need for capacity-building efforts to enhance researchers' skills and ensure more widespread proficiency in these critical tools. This pattern is consistent with the desk review, which observed that most applied analyses rely on a small set of standard approaches and that specialist tools for economy-wide and spatial modelling are less prevalent to limited advanced modelling experts. This highlights the need for capacity-building efforts to enhance researchers' skills and ensure more widespread proficiency in these critical tools

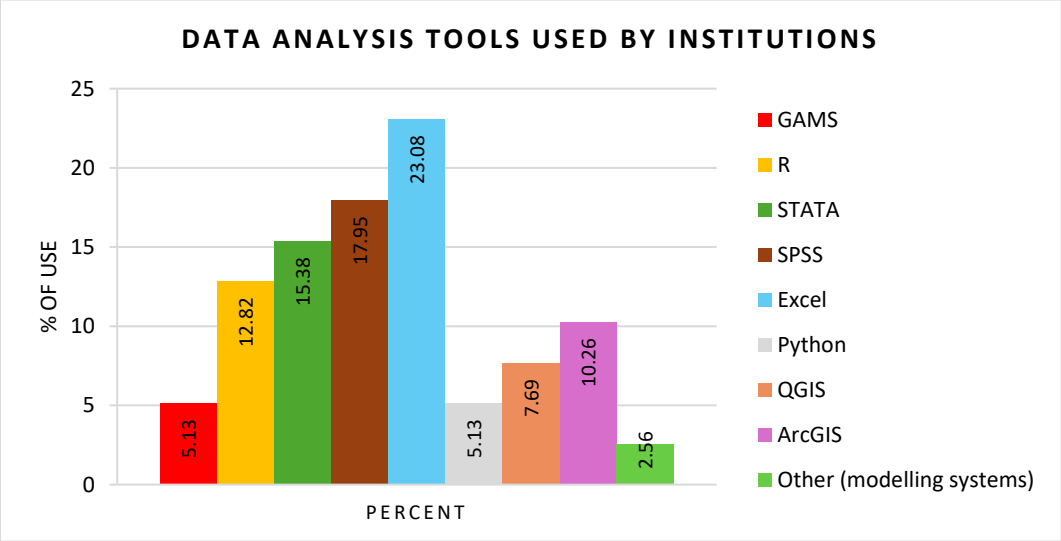


Figure 31: Programming tools for policy analysis

Additionally, less than half of the institutions note that some staff and researchers at their institutions have received capacity building training on the use and application of economic models. These models were CGE models, Econometric models and Farm-level simulation methods. The noted that the frequency of such trainings were typically conducted two to three times per year, with some institutions indicating annual or biennial occurrences. The desk review observed that, such training would yield institutional impact when paired with live policy use-cases, shared datasets and participatory processes that connect analysts with policy users

Further, the analysis of the open-ended responses shows a high preference towards building capacities in applying computable general equilibrium (CGE) models and panel and cross-sectional econometrics methods. Partial equilibrium models and experimental/quasi-experimental impact evaluation methods are also valued but appear less frequently. The results also emphasise the need for access to diverse data sources, including field surveys, input-output tables, and national or international datasets. The desk review contextualises this demand, emphasising that credible model outputs depend on refreshed data and transparent data-management systems. Although many institutions still face significant gaps in accessing such data.

However, only three respondents (two from research institutions and one from a non-research institution) have experience using PANAP economic models. Their experience specifically pertains to the DEMETRA model and FSSSIM-Dev. This mirrors the desk-review observation that replicability and cross-country transfer of such models remain constrained by capabilities of researchers.

There is also a recognition that improving the capacity and analytical skills and access to economic tools are necessary due to the institution's dynamic and evolving needs.

6.2 Capacity building tools in Data Modelling, Economic and Policy Analysis

Moreover, the survey results highlight strong interest among policy and non-policy institutions to enhance their skills and knowledge in economic modelling and policy analysis, with many responses expressing interest for participating in future capacity-building opportunities.

The survey also revealed varying levels of interest across different economic models, highlighting the areas where institutions need to improve their capacities. The results show Data Management and Analytical Skills as the most critical area for development, indicating that institutions recognize the importance of strengthening their ability to manage and analyse data effectively. This suggests a need for enhanced technical capacity in handling complex datasets, which is crucial for evidence-based policymaking. Research Proficiency and Policy Analysis Expertise follow closely, reflecting a desire to improve research capabilities and policy analysis. Stakeholder Engagement Abilities, though less emphasized, still signifies the need to foster better

collaboration and communication with various stakeholders in the policy landscape. The desk review reinforces this hierarchy: data governance and technical analysis form the base of effective modelling, while engagement and co-production ensure that model results translate into actionable policy. It also highlights the value of aligning institutional roles—data units maintaining versioned datasets, modelling teams managing templates and parameters, and policy departments leading scenario discussions—to bridge analytical work with decision processes.

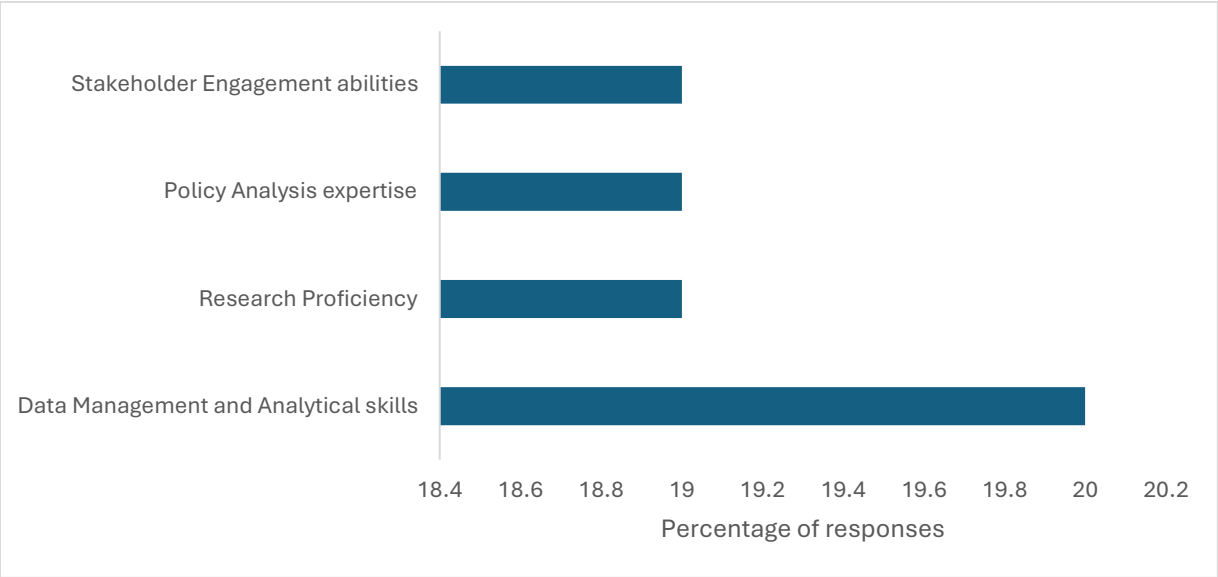


Figure 32: Needed capacities for implementing evidence-based policy initiatives for policy institutions

Source: StEPPFoS Online survey

7. Challenges Faced by Institutions in Program Impact Analysis

The survey examined the challenges institutions face in project and program impact analysis based on four pillars: Budget limitations, time constraints, lack of specialized tools/resources, and limited staff expertise. Among the challenges, 42.31% of institutions reported that Budget limitations were the most significant challenge in project and program impact analysis. It shows that institutions are, on average, budget constrained.

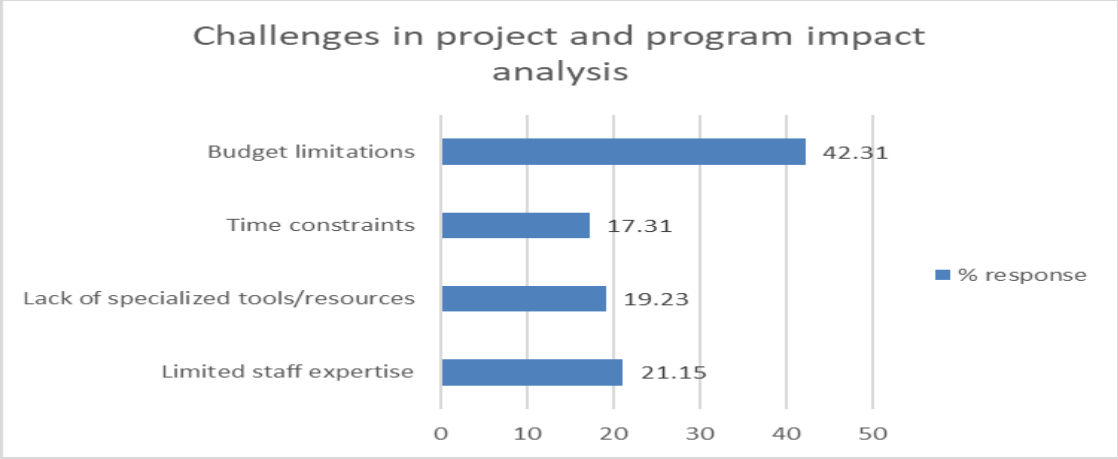


Figure 33: Challenges in project and program impact analysis

Source: StEPPFoS Survey (2024)

On the other hand, 21.15% of institutions reported having limited staff expertise in conducting project and program impact analysis. In addition, 19.23% of institutions reported they lack the specialized tools/resources to perform project and program impact analysis. Furthermore, time constraints are the less challenging issues institutions face in conducting project and program impact analysis.

Therefore, institutions need to prioritize spending on the critical capacity needs of their researchers in project and program impact analysis. Overall, budget constraints, time constraints, lack of specialized tools/resources, and limited staff expertise are critical areas that institutions must address to become effective and efficient in conducting project and program impact analysis.

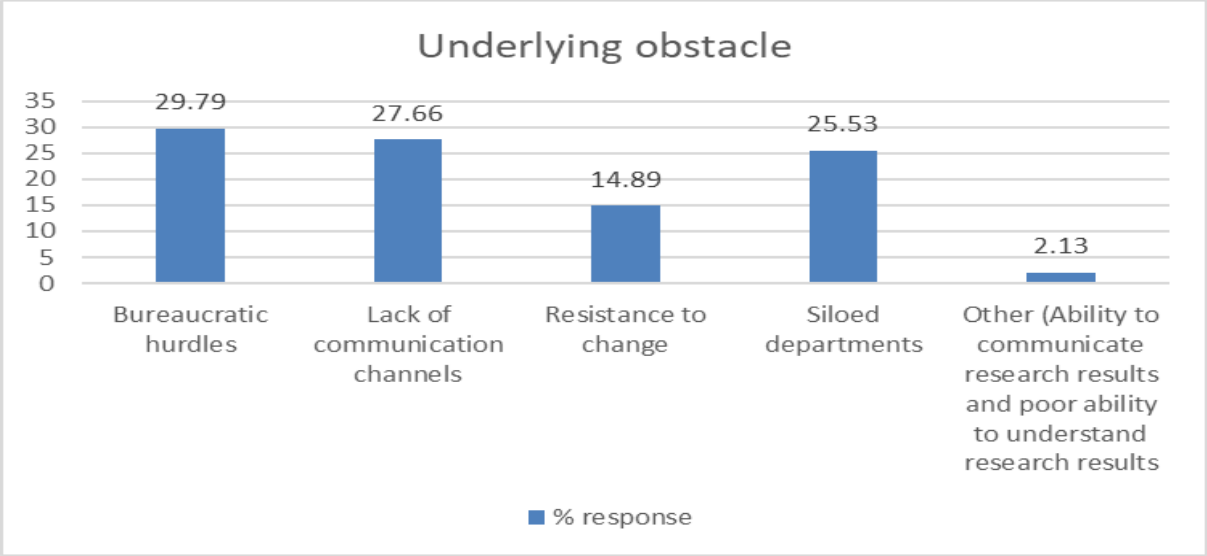


Figure 34: Underlying obstacles

Source: StEPPFoS Survey (2024)

Further analysis showed that some institutional structures or processes obstruct the translation of research into the policy-making process. These underlying obstacles were bureaucratic hurdles, lack of communication channels, resistance to change, siloed departments, and others: an inability to communicate results and a poor ability to understand research results. The graph above shows that all underlying obstacles affect the translation of research into the policy-making process. The survey revealed that the significant barriers are bureaucratic hurdles, a lack of communication channels, and soiled departments. Approximately 15% of policy institutions identified resistance to change as a barrier to translating research into the policy-making process, and only 2.13% of policy institutions identified an inability to communicate results/ poor ability to understand research results as a barrier to translating research into the policy-making process.

To remove bureaucratic hurdles, policy institutions must evaluate and simplify research procedures to enable researchers to translate research into the policy-making process. Subsequently, to address the lack of communication channels, policy institutions need to establish clear and structured communication channels to improve the translation of research into the policy-making process. In addition, to address resistance to change, policy institutions must communicate the benefits of using novel research methodologies and tools and provide training, development, and retraining to support researchers in understanding and implementing new research methodologies to help them translate their research into policies. Siloed departments are also an essential factor that obstructs the translation of research into the policy-making process. Policy institutions must foster collaboration among researchers to improve their ability to translate research into policymaking. Overall, capacity building for researchers in policy

institutions can adequately address the above hurdles to improve the translation of research into the policy-making process.

Figure 35: Implementation challenges

Source: StEPPFoS Survey (2024)

The word cloud above shows various challenges institutions face in project and policy implementation. The web-based tool carefully grouped these challenges into distinct categories based on their thematic similarities.

These clusters are listed below:

- Financial challenges
- Technical capacity challenges
- Social challenges
- Economic and Geopolitical changes
- Changes in government, policy shifts, and bureaucratic red tape

Among the plausible challenges, the survey revealed that financial challenges were the most significant factor affecting policy institutions during project and policy implementation. It is clear that policy institutions experience delays in financial release from funding agencies and sometimes find it challenging to secure sustainable funding to implement projects and policies. Concerning technical capacity challenges, some policy institutions have researchers with insufficient knowledge, skills, and abilities in technical and specialized areas of the project and policy implementation.

In addition, social and geopolitical challenges were identified. Policy institutions face evolving cultural and social norms in communities where their projects and policies are implemented. Policy institutions must be abreast of the changing culture and social norms of the areas where they carry out projects and policies. Moreover, policy institutions revealed that some researchers engage only a few stakeholders (main stakeholders) involved in the project and policy implementation. Unexpected economic and geopolitical changes within and outside the country also potentially affect project and policy implementation.

8. Project Sustainability

The findings from the survey data analyses below provide insights into various sustainability strategies organisations adopt to ensure the longevity and effectiveness of their projects. A phrase count analysis show that the following were among the main strategies employed by both policy and non-policy institutions. Institutions focused on capacity building, participatory engagements, diversified funding, MEL frameworks, research to policy integration and ensuring scalability of projects/programmes.

Capacity Building

Capacity building is revealed as the most applied method through which organisations ensure project sustainability. The results show that institutions employed capacity building as a method with the aims of training and ensuring knowledge transfer and building resilience of local community. Organisations focus on enhancing the skills and competencies of local stakeholders through training programmes so that stakeholders will have the necessary skills to continue their initiatives independently after the project's conclusion. Training often includes developing manuals and materials and creating a sustainable knowledge transfer system. Also, projects are often designed to enhance the resilience of local communities, reducing dependence on external assistance and ensuring the community can sustain benefits over time.

Stakeholder Engagement and Ownership

Institutions also seek to ensure sustainability by guaranteeing stakeholder ownership. That is, by forming robust partnerships with local entities, research institutions, and universities and local populations, projects/policies can safeguard their sustainability by involving the community throughout the project lifecycle. As by making the project objectives resonate with local stakeholders, there is greater buy-in, ensuring sustainability.

Financial Sustainability

Further, financial sustainability plans of institutions often involve leveraging existing projects to attract additional resources, including finances, expertise, and technology. By diversifying funding sources, organisations can ensure ongoing project activities. Also, organisations sometimes apply the fundraising for follow up of projects approach to roll over successful initiatives into new proposals to secure continuous funding. This strategy helps maintain momentum for projects even after the initial funding period ends. Similarly, some projects set aside funds specifically to support ongoing activities post-completion.

Monitoring, Evaluation, and Feedback Mechanisms

Moreover, the results show that institutions, both policy and non-policy apply reflexive Monitoring and Evaluation (M&E). Establishing robust M&E frameworks throughout the project

allows organisations to collect critical data, as well as facilitate adjustments and optimization of outcomes. This ensures that projects can adapt to changing conditions and continue to meet stakeholder needs effectively. Also, implementing systems for ongoing stakeholder feedback enables projects to adjust their approach based on real-time information. This adaptability is vital for sustaining the project's relevance and success. Additionally, documenting policy/project/programme impact, experiences, case studies, and lessons learned helps create a valuable resource for stakeholders.

Scaling, Replication, and Technological Transfer

Moreover, using pilot projects as models for expansion and technological transfers can significantly extend a project's impact. Organisations report to apply this approach with the aim of identifying successful components that can be replicated in other areas, creating a broader reach for the initiatives.

Policy Integration and Institutional Support

Lastly, although most institutions, both policy and non-policy reported to less fully maximise this approach, institutions report that embedding project/programme goals into policy frameworks can secure ongoing support and funding and provide a solid legal and institutional foundation for project activities ensures that initiatives can continue even in the absence of the original implementing institution.

9. Conclusion and Recommendation

9.1 Conclusion

The Mapping Existing Policies/Projects/Programmes of the PANAP Network study forms part of tasks under the StEPPFoS WP1. The report for T1.2 focuses on mapping the policies/projects/programmes by members of PANAP networks to sources of funds, engagement with stakeholders and drawing out the challenges and perceived impacts in the implementation of policies/projects/programmes.

The reports engaged institutions from various ecosystems, including research and academia, government policy institutions, non-profit organizations and policy think tanks. The results show that among these institutions, non-profit organizations were the most responsive, followed by academic and research institutions, and comparatively lower engagement from government and policy think tanks. This distribution, while positive, underlines the need for increased involvement from government policy institutions and research and think-tank entities to strengthen local capacities for evidence-based policymaking in food systems. Further, participation rates in the survey revealed particularly high entries from Nigeria and Uganda, however, the absence of North African representation signals an area of constrain but potential for outreach to enhance inclusivity efforts across the entire African continent. Nonetheless, the report reveals strong participation with EU country institutions.

The profile review of the institutions participating in this survey showed that institutions project/programmes foci are predominantly centered around food systems, food security, agroecology, and climate resilience. Thematically, they align with AU policy frameworks on food and climate security, underscoring both institutions' commitment to addressing these systemic challenges. However, there is comparatively less focus on policy development. This gap suggests a need for future projects to integrate policy frameworks that support and sustain scientific and technical advancements, ensuring they result in long-term, institutionalized solutions that influence governance and rural development. Also, the average years od was found to be 29.6 years.

The network of projects/programmes demonstrates diverse thematic focuses across countries, with Ghana, Kenya, and Nigeria showing high engagement in areas like food systems, climate adaptation, and agroecology. Geographically, project implementation is largely concentrated in East and West African regions. The mapping of country involvement reveals these nations as focal points for multi-thematic projects, suggesting their strategic positioning within the EU-AU agenda. Countries with lower thematic engagement might face limitations in addressing interconnected issues and could benefit from more involvement in EU-AU projects to achieve a balanced development approach. Concentrating on a subset of countries enables a targeted allocation of resources and expertise, though it also underscores the need to eventually expand

to other regions with similar vulnerabilities, helping to avoid imbalances in development impact across the continent.

Institutional alignment with thematic goals contributes to project success, with many projects reporting progress in achieving objectives. In terms of success, the projects demonstrate varying degrees of progress, largely influenced by the level of resources allocated, local support, and integration into national policies. Regions with strong institutional support and local partnerships often show higher success rates, indicating that collaboration at the community level is crucial. The experiences from successful projects reveal that sustainable practices can be scaled effectively, provided there is significant local support and policy alignment.

Understanding policy/project/programme funding, the analysis highlights a predominant reliance on external donor funding, with nearly 80% of project funds sourced from international donors, especially the EU-EC. While national and internal sources contribute minimally. This dependence on donor support reflects a structural challenge within Africa's research ecosystem, where projects often align more closely with donor agendas than regional needs, potentially limiting the long-term sustainability and autonomy of research directions. The EU, through programs like Horizon 2020, remains the largest single funding source, contributing close to 50% of funding. Although a mapping of funding sources African countries apply to show a very diversified funding approach, sourcing from other agencies like USAID and GIZ.

The study also observes that thematic focus of projects/programmes, varies by funder. While funders such as the EU supports cross-sectoral themes, others like UNFCC and USAID focus on specific areas like food security or climate resilience. Funding ranges widely, with EU allocations supporting both large and small-scale projects, fostering resilience and adaptability. An average of €4.9 million has been allocated across 36 institutional projects that reported funding amounts. However, funding amounts vary considerably, with significant disparities in project budgets reflecting varying scales and objectives. Expanding local and private sector investment could strengthen Africa’s capacity to pursue autonomous, locally relevant research, fostering a self-sustaining, resilient research landscape that aligns with Africa’s development goals.

Continued engagement will be essential for the sustained impact of the PANAP network's role in fostering resilient, evidence-driven policy frameworks within African and European agri-food systems. In communicating project/policy outcomes to stakeholders, the study showed that there is not much difference between both policy and non-policy institutions. The analysis reveals a clear preference among both policy and non-policy institutions for traditional, in-person methods like workshops, seminars, and face-to-face meetings when engaging stakeholders in projects and policy development. Written reports and structured quantitative methods, such as surveys and activity reports, supplement these engagements, enabling evidence-based assessments. While digital and mass media avenues are present, they remain underutilized, suggesting potential for

expansion to improve reach and inclusivity. Study trips, though beneficial for immersive understanding, are least used due to possible budget or logistical constraints.

Further, policy and non-policy institutions employ varied methodologies to measure project and policy impacts, with a strong preference for quantitative approaches. Surveys and questionnaires are among the most used methods, indicating a focus on structured data collection to gauge impact and feedback. Interviews, focus groups, and statistical analysis methods are also commonly utilized. However, stakeholder consultation events are notably underutilized, revealing a gap in participatory assessment approaches. This minimal engagement of stakeholders limits the diversity of feedback, potentially missing critical insights for refining project outcomes.

The study also reflects significant efforts by institutions to address gender and marginalized group inclusion. Institutions have adopted comprehensive gender strategies, often embedding these within projects and maintaining a dedicated gender specialist or inclusivity unit. Some institutions have also integrated gender-sensitive performance indicators and conducted gender-specific preliminary assessments, indicating a proactive approach to addressing gender disparities. However, a few institutions lack specific gender inclusion strategies, highlighting an area for improvement in achieving broader inclusivity.

Lastly, despite these strategies, institutions face considerable implementation challenges, including financial constraints, limited technical capacity, and social and geopolitical obstacles. Financial delays from funding agencies and difficulties in securing sustainable funds are common, impacting timely project execution. Bureaucratic hurdles, communication silos, and resistance to change within policy structures further complicate research translation into actionable policies. Additionally, institutions encounter evolving social norms and unexpected economic changes, which can hinder project relevance and adaptability. Addressing these challenges would require streamlined communication channels, robust funding mechanisms, and greater adaptability to cultural and economic shifts in target communities.

9.2 Recommendations

The analysis of the PANAP Network's policies, projects, and programs reveals a mapping of engagement across diverse sectors, including non-profits, academia, and government entities. Focusing on thematic areas like food security, climate resilience, and agroecology, aligning with African Union policies. However, challenges persist, such as funding dependency, low North African representation, and minimal focus on policy development. The report is also directly relevant for WP2, as it identifies where analytical capacity, data assets, and modelling practices can be strengthened to support deeper policy-impact assessment and future quantitative work.

9.2.1 General Recommendations

The following recommendations aim to address these gaps, enhance stakeholder inclusivity, and promote sustainable, locally driven development initiatives across Africa. The study recommends the following:

Strengthen Government and Policy Engagement

Encourage higher participation from government and policy institutions to bolster local capacity for evidence-based policymaking, particularly in underrepresented regions like North Africa as shown in Section 3.2, as this allows for increased government funding and policy support to such projects. This could include initiatives to foster partnerships and increase institutional accountability within regional frameworks.

Expand Funding Sources and Reduce Dependency

Promote diversification of funding to lessen reliance on single funding sources as shown in Section 3.6 of the report. Encourage private sector involvement and advocate for increased national investment in research and innovation. This shift would support a more autonomous, sustainable African research landscape aligned with local priorities.

Enhance Geographic Inclusivity and Regional Representation

Extend outreach to less represented regions to create a more balanced and inclusive network across Africa to avoid funding crowded in few geographical locations as revealed in Section 3.5 of this report. This can be done through tailored capacity-building programs and funding initiatives that specifically target institutions in North Africa and other underserved areas.

Broaden Stakeholder Engagement and Utilization of Digital Media

Develop strategies to increase the use of digital platforms and mass media in stakeholder engagement. Digital approaches can complement traditional methods as stated in Section 4.1,

expanding reach and improving the inclusivity of stakeholder participation in both policy and project development processes.

Foster Gender and Social Inclusion Strategies

Strengthen gender and marginalized group inclusion by encouraging institutions without specific strategies to adopt comprehensive gender-sensitive policies and performance indicators. This focus would enhance the impact of projects on diverse demographics, ensuring that development outcomes are broadly equitable.

Address Implementation Challenges through Capacity Building and Adaptive Strategies Implement targeted training and capacity-building programs to mitigate challenges like financial constraints, technical limitations, and bureaucratic obstacles. Encouraging flexibility and adaptability in project design will also help institutions respond effectively to evolving social and economic dynamics within their communities and aligning projects to institutional policies enhances institutional capacities as indicated in Section 3.2.

9.2.2 Recommendations for WP2

The report presents insights for the activity of WP2 in capacity building on relevant data models and tools. Building on the survey and desk-review outcomes, WP2 can play a central role in strengthening analytical capacity, data systems, and research–policy linkages across the PANAP network. The following recommendations are proposed:

- **Structure capacity-building around a tiered modelling pathway:** Design training in progressive tiers. As many researchers according the report have experience with basic and intermediate analytical economic modelling tools and data access. This reflects current practice, where simpler methods are more widespread and advanced models are concentrated in a few institutions. This will ensure a sustained growth of research capacities.
- **Anchor training in shared, well-documented datasets and open tools:** Use common example datasets (e.g. SAM excerpts, price series, survey modules) and open or widely available software (R, Stata, GAMS, QGIS) to ensure replicability. Establish versioned, documented data packages and code templates that participants can adapt to their own contexts.
- **Prioritise data governance and open-science practices:** Complement technical training with modules on metadata, data management and repository. This will address key gaps on replicability, scalability, and transparent research-to-policy translation.
- **Address sectoral gaps in modelling and data use:** Ensure that WP2 training and example applications extend beyond sectors such as crops and climate change to include sectors

such as livestock, horticulture, post-harvest losses, storage and logistics. This will help correct current sectoral biases in available models and datasets and support more comprehensive, food-systems-oriented analysis.

- **Integrate qualitative and participatory methods into modelling workflows:** Include sessions on how to use key informant interviews, focus groups, and stakeholder workshops to frame scenarios, validate assumptions, and interpret quantitative results. This will help align model outputs with lived realities and policy concerns.
- **Include underrepresented regions and institution:** Explicitly include institutions from underrepresented regions (e.g. North Africa) and policy-making bodies for WP2 activities. This will help rebalance geographical misrepresentation observed in the members of PANAP and non PANAP network presented for this study.
- **Use PANAP models and Current Africa situational case studies:** Employ DEMETRA, FSSSIM-Dev and related PANAP models as well as contextual datasets and narratives as structured case studies as training is most effective when paired with live policy use-cases and shared datasets

Annexes

Annex 1: List of projects reported by institutions

1. Healthy Food Africa EU H2020 LC-SFS 34 2020-2024.
2. The Comprehensive Africa Agriculture Development Programme EX Pillar 4 (CAADP XP4) Project
3. AGROECOLOGY PARTNERSHIP
4. Achieving Wider Uptake of Water-Smart Solutions WIDER UPTAKE
5. AfriFOOD links
6. AgrInvest-Food Systems Project
7. Agroecological Transition, Responsive Extension Approaches (ATREA)
8. Anticipating and managing bio risks to boost farmers' resilience to climate change in West and Central Africa
9. Application and further development of tool kit to assess the impacts of implementation of response measures for Maldives
10. CEA FIRST
11. Climate Smart Agriculture Technologies (CSAT)
12. Collaborative participatory approach towards the achievement of Sustainable Development Goals
13. Contract farming training for farmers
14. Delivering Extension Services to the Last-Mile (LMP)
15. Driving agroecological transitions in the humid tropics of Central & Eastern Africa through transdisciplinary Agroecology Living Labs (CANALLS project)
16. Driving agroecological transitions in the humid tropics of Central and Eastern Africa through transdisciplinary Agroecology Living Labs
17. ERASMUS Cooperation for Holistic Agricultural Innovation Networks (CHAIN)
18. ETUDE SUR LE REGIME DE RETRAITE COMPLEMENTAIRE DES TRAVAILLEURS DU SECTEUR PRIVE

19. Empowering Small-Scale Farmers in the Agroecological Transition through Participatory Rural Advisory Services (RAS) - GP SAEP
20. Empowering Small-Scale Farmers in the Agroecological Transition through Participatory Rural Advisory Services (RAS)- (GP-SAEP)
21. Enhancing Farmers' Uptake of Digital Technologies Through Empirical Research, Innovation and Policy Intervention(EFUDTRIPI)
22. Evaluation of EU support to Sustainable Food Systems in Partner Countries, 2014-2020
23. FAO-Italy Partnership (FIP)
24. Fostering breeding networks and institutional breeding capacity in West Africa to develop climate-resilient crops for African smallholder farmers â€“ ABEE (West Africa Breeding Networks and Extension Empowerment)
25. Impact of African Continental Free Trade Area (AfCFTA) on Tanzanian Economy
26. Impact of the AfCFTA on the Nigerian economy
27. Improving Rural Livelihoods through Bio Based tech & circular value chains in Africa (Bio4Africa)
28. Improving Rural Livelihoods through Bio Based tech and circular value chains in Africa (Bio4Africa)
29. Sorghum and Millet Innovation Laboratory (SMIL)
30. Long-Term European-African Partnership for Food and Nutrition Security and Sustainable Agriculture (LEAP4FNSSA)
31. Scaling healthcare innovations in Africa
32. Nigeria National Food Consumption and Micronutrient Survey
33. PAIRED
34. PATH2DEA -Paving the Way towards Digitalisation Enabling Agroecology for European Farming Systems
35. COCOA SECTOR GOVERNANCE SUPPORT PROJECT (PAGFIC)
36. Pari Nutrition-Understanding the Impact of Womens' Time-Use on Household Nutrition in Ghana (PARI NUTRITION)

37. Policy options to improve the performance of the Gezira Irrigation Scheme for increased crop yield and contribution to food security and export earning
38. Potato Technology and Knowledge Generation, Multiplication and Transfer for Improved Productivity, Food and Nutritional Security and Wealth Creation in Different Agro-ecologies and production systems of Ethiopia.
39. Prodaf
40. Small Farmer Agricultural Productivity Improvement Program (PAPAPE)
41. Climate-Sensitive Agriculture Support Project (PASEC).
42. REEDSAAC
43. REVIEW OF AGRICULTURAL PUBLIC EXPENDITURE - IVORY COAST
44. Resilience Against Climate Change: Social Transformation Research and Policy Advocacy (REACH-STR)
45. Scenario on reforms and development in the renewable energy sector
46. Shaping Food Environment in Transitioning Economies for Sustainable and Healthy Diets (FETE)
47. Strengthening Agricultural Knowledge and Innovation ecosystem for inclusive Transformation and Livelihoods (AIRTEA)
48. Strengthening Evidence-Based Policy Practice for Sustainable Food Systems under the EU-AU Partnership (StEPPFoS)
49. Strengthening the role of agricultural PDBs for food security and sustainable food systems: global and in-country support
50. Synergistic Use and Protection of Natural Resources in the Sahel (Sustain Sahel)
51. The AIRTEA project- The Digital Connectors for Farming Communities
52. The CAADPXP4 project
53. UPSCALE
54. West Africa Breeding Networks and Extension Empowerment (ABEE)

Annex 2: Centrality measures of country-to-country collaboration

```
------------------------------------------------------------------------------

Input dataset:                  c2c (C:\Users\Justina\Documents\UCINET data\c2c
Output dataset:                 c2c-cent (C:\Users\Justina\Documents\UCINET data\c2c-cent
Treat data as:                  Auto-detect
For valued data:                Use tie strengths when possible
Type of scores to output:       Raw scores
Undefined dist in closeness:    replace with max dist + 1


Network  is directed? YES

Cannot compute kcoreness on directed graph


Centrality Measures
```

		1 OutDeg	2 Indeg	3 Out2local	4 In2local	5 Out2Step	6 In2Step	7 OutARD	8 InARD	9 OutClose	10 InClose	11 Between	12 2StepBet
1	Austria	5.000	5.000	113.000	109.000	30.000	30.000	22.083	19.750	113.000	127.000	0.000	0.000
2	Benin	5.000	8.000	60.000	151.000	34.000	32.000	22.833	21.667	108.000	121.000	9.466	3.077
3	Belgium	10.000	10.000	85.000	71.000	29.000	27.000	24.500	21.833	108.000	124.000	123.979	48.268
4	Burkina Faso	14.000	22.000	172.000	284.000	39.000	37.000	28.167	29.500	94.000	102.000	114.476	53.923
5	Burundi	0.000	3.000	0.000	56.000	0.000	28.000	0.000	18.833	235.000	128.000	0.000	0.000
6	Cameroon	11.000	7.000	103.000	112.000	37.000	31.000	26.333	21.000	99.000	123.000	40.322	11.072
7	Czech Republic	8.000	9.000	120.000	143.000	34.000	28.000	24.333	21.417	105.000	125.000	1.718	1.415
8	Democratic Republic of th	13.000	7.000	109.000	117.000	37.000	31.000	27.333	21.000	97.000	123.000	49.207	15.508
9	Denmark	6.000	6.000	138.000	121.000	32.000	30.000	22.917	20.250	110.000	126.000	0.000	0.000
10	Egypt	1.000	1.000	17.000	14.000	17.000	14.000	17.333	14.750	137.000	151.000	0.000	0.000
11	Ethiopia	13.000	12.000	184.000	153.000	36.000	30.000	27.167	23.333	98.000	119.000	17.764	13.441
12	Finland	0.000	7.000	0.000	127.000	0.000	30.000	0.000	21.083	235.000	123.000	0.000	0.000
13	France	25.000	21.000	308.000	269.000	38.000	32.000	33.500	28.167	84.000	108.000	100.223	76.482
14	Gabon	1.000	1.000	10.000	10.000	10.000	10.000	15.583	13.667	151.000	160.000	0.000	0.000
15	Germany	23.000	21.000	288.000	240.000	41.000	36.000	33.000	28.833	83.000	104.000	142.842	72.846
16	Ghana	14.000	12.000	220.000	167.000	40.000	37.000	28.333	24.500	93.000	112.000	64.004	22.993
17	Guinea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	235.000	235.000	0.000	0.000
18	Hungary	2.000	0.000	42.000	0.000	26.000	0.000	20.083	0.000	120.000	235.000	0.000	0.000
19	Ireland	21.000	23.000	267.000	247.000	40.000	36.000	31.833	29.833	86.000	102.000	154.580	77.183
20	Italy	17.000	14.000	249.000	219.000	36.000	32.000	29.167	24.667	94.000	115.000	93.943	40.882
21	Ivory Coast (Côte d'Ivoir	6.000	5.000	110.000	68.000	37.000	29.000	23.833	19.667	104.000	127.000	7.150	1.977
22	Kenya	23.000	24.000	270.000	281.000	43.000	36.000	33.333	30.333	81.000	101.000	206.196	99.919
23	Liberia	0.000	2.000	0.000	14.000	0.000	9.000	0.000	14.667	235.000	154.000	0.000	0.000
24	Madagascar	0.000	10.000	0.000	132.000	0.000	31.000	0.000	22.833	235.000	118.000	0.000	0.000
25	Malawi	0.000	11.000	0.000	156.000	0.000	33.000	0.000	23.667	235.000	115.000	0.000	0.000
26	Mali	6.000	4.000	90.000	61.000	33.000	26.000	22.833	18.667	112.000	131.000	0.718	0.685
27	Morocco	1.000	1.000	11.000	8.000	11.000	8.000	16.583	13.917	140.000	155.000	0.000	0.000
28	Mozambique	1.000	1.000	11.000	8.000	11.000	8.000	16.583	13.917	140.000	155.000	0.000	0.000
29	Namibia	1.000	1.000	11.000	8.000	11.000	8.000	16.583	13.917	140.000	155.000	0.000	0.000
30	Netherlands	13.000	15.000	208.000	211.000	35.000	32.000	27.000	25.167	99.000	114.000	44.878	21.638
31	Niger	10.000	10.000	195.000	173.000	35.000	31.000	25.500	22.500	102.000	120.000	2.496	1.995
32	Nigeria	12.000	3.000	204.000	24.000	39.000	13.000	27.167	15.500	96.000	151.000	12.397	5.026
33	Poland	9.000	11.000	167.000	190.000	36.000	31.000	25.167	22.917	102.000	120.000	1.477	0.911
34	Portugal	16.000	10.000	252.000	182.000	36.000	31.000	28.667	22.417	95.000	121.000	4.447	3.492
35	Rwanda	0.000	4.000	0.000	72.000	0.000	30.000	0.000	19.667	235.000	125.000	0.000	0.000
36	Senegal	13.000	11.000	182.000	150.000	35.000	31.000	27.000	23.000	99.000	119.000	23.085	16.832
37	Sierra Leone	4.000	2.000	65.000	18.000	35.000	18.000	22.500	16.250	108.000	142.000	16.343	1.833
38	Somalia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	235.000	235.000	0.000	0.000
39	South Africa	0.000	5.000	0.000	59.000	0.000	26.000	0.000	19.500	235.000	128.000	0.000	0.000
40	Spain	17.000	12.000	244.000	203.000	36.000	32.000	29.167	23.667	94.000	117.000	8.441	6.554
41	Sudan	0.000	1.000	0.000	15.000	0.000	16.000	0.000	15.417	235.000	147.000	0.000	0.000
42	Sweden	21.000	16.000	242.000	205.000	36.000	31.000	31.167	25.417	90.000	115.000	54.135	41.831
43	Tanzania	5.000	6.000	92.000	130.000	30.000	30.000	22.083	20.250	113.000	126.000	0.216	0.216
44	Togo	5.000	4.000	92.000	75.000	35.000	32.000	23.000	19.667	107.000	125.000	6.979	1.626
45	Tunisia	1.000	1.000	11.000	8.000	11.000	8.000	16.583	13.917	140.000	155.000	0.000	0.000
46	Uganda	25.000	25.000	285.000	287.000	38.000	36.000	33.500	30.833	84.000	100.000	175.048	112.096
47	United Kingdom	11.000	8.000	128.000	74.000	39.000	34.000	26.667	22.000	97.000	119.000	321.472	60.278
48	Zambia	5.000	2.000	113.000	46.000	30.000	27.000	22.083	17.750	113.000	133.000	0.000	0.000

Annex 3: Degree of coreness of country-to-country interactions

```
CONTINUOUS CORENESS MODEL
-------------------------------------------------------------------------------

Input dataset:                          c2c (C:\Users\Justina\Documents\UCINET data\c2c
Algorithm:                              CORR


Initial fit: 0.388
Middle fit: 0.388
Final fit: 0.388
Optimization routine concluded in 101 iterations.

Multiplicative Coreness

                                              1
                                         Corene
                                         ------
   13                                 France  0.300
   15                                Germany  0.289
   46                                 Uganda  0.283
   19                                Ireland  0.265
   22                                  Kenya  0.261
   42                                 Sweden  0.244
   34                               Portugal  0.239
   20                                  Italy  0.238
   40                                  Spain  0.236
   16                                  Ghana  0.200
   30                            Netherlands  0.196
   32                                Nigeria  0.179
   31                                  Niger  0.176
   11                               Ethiopia  0.175
   36                                Senegal  0.174
    4                            Burkina Faso  0.158
   33                                 Poland  0.153
   47                         United Kingdom  0.120
    9                                Denmark  0.120
    7                         Czech Republic  0.117
    8  Democratic Republic of the Congo (DRC)  0.104
   48                                 Zambia  0.098
    1                                Austria  0.098
    6                               Cameroon  0.098
   21            Ivory Coast (Côte d'Ivoire)  0.097
    3                                Belgium  0.084
   44                                   Togo  0.082
   26                                   Mali  0.082
   43                               Tanzania  0.082
   37                           Sierra Leone  0.058
    2                                  Benin  0.054
   18                                Hungary  0.038
   10                                  Egypt  0.018
   29                                Namibia  0.011
   27                                Morocco  0.011
   45                                Tunisia  0.011
   28                             Mozambique  0.011
   14                                  Gabon  0.008
   17                                 Guinea  0.001
    5                                Burundi  0.001
   35                                 Rwanda  0.001
   41                                  Sudan  0.001
   12                                Finland  0.001
   38                                Somalia  0.001
   39                           South Africa  0.001
   25                                 Malawi  0.001
   23                                Liberia  0.001
   24                             Madagascar  0.001
```

Annex 4: Survey Instrument (Questionnaire)

Project Background and Objectives

The Strengthening Evidence-Based Policy Practice for Sustainable Food Systems (StEPPFoS) project offers an innovative approach to link the activities of PANAP to those of the Food and Nutrition and Sustainable Agriculture (FNSSA). The project aims to improve capacities of stakeholders and institutions involved in evidence-based policy analysis that support food and nutrition security and sustainable agriculture, enhance science-policy interface, improve strategies that promote scientific support within policy development in Africa and in Europe using digital technologies and information systems and expand and strengthen the PANAP Network. This survey seeks to assess capacity needs, map existing policies, research projects, and stakeholders.

Section 1: Institutional Background of Respondent

a. Institution Name:
b. Institution Type (e.g., government, private, research, academia, non-profit, etc.):
c. Location/Headquarters:
d. Year of Establishment:
e. Position/Portfolio:
f. Gender:
g. Age group:
h. Email:
i. Phone:

Section 2: Project/Policy Identification

1. Do you have any ongoing projects related to agriculture and food security?
   i. Yes
   ii. No
2. How many projects do you currently have in your organization in relation to agriculture and food security.
   i. None/ no project
   ii. 1-2
   iii. 3-4
   iv. 5+

   v. Kindly provide a brief overview of the current project undertaken by the institution related to agriculture and food security using the guidelines below. (Word limit: 100 words)

Name of Project	Duration Start and End years	Participating Countries	Alignment to Institution's mission and goals	Specific Sectors of focus	Five Keywords of the project	Funding type	Specific Source of funding

3. Provide a brief overview of the current policies in the agriculture and food security sector being implemented by your institution. For each policy, please provide the following information

Name of Policy	**Policy Objectives**	**Policy Timeframe**	**Five Keywords of Policy**	**Measures of Success**	**Implementation Challenges**	**Funding type**	**Specific source of funding**

Section 4: Stakeholder Engagement and Collaboration

a. At what stage of the policy process does your institution involve stakeholders? (multi-select)
   a) Policy development
   b) Policy implementation
   c) Policy analysis?
b. If your institutions does involve stakeholders, how does your institution involve them and at what stages (multi-select)?
   i. Stakeholder consultations,
      a) Policy development b) Policy implementation c) Policy analysis?
   ii. Working groups
      a) Policy development b) Policy implementation c) Policy analysis?
   iii. Workshops/ seminars
      a) Policy development b) Policy implementation c) Policy analysis?
   iv. other (specify) _____
      a) Policy development b) Policy implementation c) Policy analysis?

If the policy process does not involves stakeholders at a stage, explain why

a) Policy development *(if not selected*) ……
b) b) Policy implementation *(if not selected*) ……
c) c) Policy analysis? *(if not selected*) ……

c. Are there specific mechanisms for obtaining feedback from stakeholders or actors that engage your outputs?
    i. Yes (if yes, kindly specify below)
    ii. No
d. Is the development of policies done with external organizations?
    i. Yes
    ii. No

If yes above, kindly provide the name(s) of the collaborators and the main stakeholders in the policy making process within your organization.

i. How often are they engaged?
ii. What platforms are created for such engagement?
iii. How are the organizations/institutions engaged in national policy discussions?
iv. What are the main outputs of such engagements?

e. Is the implementation of policies done with external organizations?

If yes above, kindly provide the name(s) of the collaborators and the main stakeholders in the policy implementation process within your organization.

i. How often are they engaged?
ii. What platforms are created for such engagement?
iii. How are the organizations/institutions engaged in national policy discussions?
iv. What are the main outputs of such engagements?

Section 5: Capacity Needs

a. Does your institution conduct regular capacity development training?
    i. Yes
    ii. No

If yes above, how often

i. Monthly
ii. Quarterly
iii. Yearly
iv. Occasionally (attached to projects)
v. Other, specify _____

If the answer is no, why?

b. How are training needs assessed and prioritized?
    i. Due to project-specific objectives?
    ii. Due to strategic plans of the institution?
c. What initiative(s) does the institution have for training and developing employees and ensuring knowledge continuity?

d. What needs do you think your staff require to strengthen their capacity for evidence-based policy making for sustainable agrifood systems in your country?
e. If the project (s) in your institution have a capacity building element what was/is the core element of the capacity building services?
    i. Building scientific research skills of the project host institution
    ii. Capacitating non-research support and management staff of the project host institution
    iii. Building scientific research skills of other researchers in the project host country
    iv. Capacitating non-research support and management staff in other institutions of the project host country
    v. Government staff at higher office such as in ministries and agencies
    vi. Civic and non-governmental organizations

f. If the project (s) in your institution have a capacity building, who are the primary personnel responsible for providing those capacity building services?
    i. In-house senior or subject experts
    ii. Experts from another institution/partner in the same country
    iii. Experts from another African partners
    iv. Experts from another non-African partners

g. If current or previous projects at your institution have capacity building activities, who were the primary targets for the capacity building?
    i. Own institution scientific research staff
    ii. Own institution non-research staff
    iii. Scientific researchers in other institutions
    iv. Non-research staff in other institutions
h. Does the project involve citizen science?
    i. Yes
    ii. No
i. Is there a centralized repository or website for project, model, or data documentation?
    i. Yes
    ii. No
j. If available, provide a link
k. Do your project/institution use quantitative economic methods to analyze agrifood issues?
    i. Yes
    ii. No
l. If YES, what types of economic models are commonly used by your organization?
    i. Computable General Equilibrium (CGE) models
    ii. Partial equilibrium agricultural models
    iii. Econometric (Cross-sectional, Timeseries, or Panel) methods
    iv. Agent-based models

v. Farm level simulation methods
vi. Other quantitative methods
vii. Qualitative methods

m. What are the common programming tools used for data and modeling purposes?
   i. GAMS
   ii. R
   iii. STATA
   iv. SPSS
   v. Excel
   vi. Python
   vii. QGIS
   viii. ArcGIS
n. Have some of the researchers at your institution received capacity building training on the use and application of economic models before? If YES, what are the types of models
   i. CGE models
   ii. Econometric methods
   iii. Farm level simulation methods
   iv. Other methods
o. If YES, how many times:
   i. 1
   ii. 2-3
   iii. >3
p. What is the chief source of data for most of the research projects at your institution?
   i. Own surveys
   ii. National statistical office
   iii. International data sources such as FAO, Wold Bank, and IFPRI
q. Which of the following statements express best most of the research projects at your institution
   I. Agricultural inputs (e.g., labor, fertilizers, seeds, irrigation,...)
   II. Agricultural output supply chains
   III. Agricultural trade (imports and exports) of agrifood products
   IV. Climate change and agriculture including droughts and floods
   V. Food and nutrition security
   VI. Rural development including energy, education, and health services
r. Has your institution involved/is involved in one or more the EU-AU Food, Nutrition and Sustainable Agriculture (FNSSA) projects?
s. Have you ever used PANAP models before? If YES, which specific model is known to researchers known to your institution?
t. How do you rate the capacity of the researchers of your institution for computable general equilibrium (CGE) modeling?
   I. Beginner
   II. Intermediate
   III. Advanced

u. Should a capacity building opportunity arise in future, for which economic models (e.g., computable general equilibrium, partial equilibrium, panel/time-series/cross-sectional econometrics, etc.) would your institution prefer?

v. Should a capacity building opportunity arise in future, which data (e.g., national, international, field surveys, input-output tables, etc.) and modeling tools (e.g., GAMS, SPSS, STATA, R, GIS, etc.) would your institution need capacity building activities in?

Section 6: Project/Policy Monitoring and Evaluation

a. Does your institution have a monitoring and evaluation system.
   i. Yes
   ii. No
   iii. If no, how do you do monitor and evaluate your projects.
b. Is there a system in place for evaluating the effectiveness of policies in your institution?
   i. Yes
   ii. No
   iii. If yes, how does your institution evaluate the effectiveness of policies.
c. When is the evaluation mechanism put in place?
   a. At the project design stage
   b. During implementation
   c. At the end of the project
d. What methodologies/ technical approach or frameworks does your institution employ to assess and measure project/policy impact on the target community or audience?
e. What factors specific to expertise of the institution constrain the evaluation of the frameworks or methods to the translation from research into the policy-making process?
   a) Lack of qualified evaluators within the organization
   b) Limited access to external expertise or consultants
   c) Insufficient training on evaluation methodologies
   d) Organizational culture not conducive to evaluation and learning
   e) Inadequate resources allocated for evaluation activities
   f) Other (please specify) _____

f. Who are the main recipient of the evaluation result ?(i) government (ii)research institutions (iii) funders
g. Is there a system for regular project reporting to stakeholders?
   i. Yes
   ii. No
   iii. If yes, briefly describe the systems and processes.
h. How are project milestones and deliverables communicated?

Section 7: Project Sustainability

a. What measures does the institution take to ensure the sustainability of projects after their official end year? a) Capacity building for local stakeholders b) Establishment of community-led management structures c) Integration of project outcomes into local policies d) Facilitation of income-generating activities for project beneficiaries e) Development of maintenance plans for project infrastructure f) Other (please specify)
b. Are there mechanisms in place to document and share best practices learned from completed projects and policy cycles?
    i. Yes
    ii. No
    iii. If yes/ no, how do does your institution handle this?
c. Are there strategies put in place for documenting successful project and policy methodologies into standard practices?
    i. Yes
    ii. No
    iii. If yes, what are the guidelines in doing this. (as a guide for future projects/use)
d. How are lessons learned from past projects incorporated into future project planning?
e. Have you ever modified the execution of a project or set up a new project following the results of an evaluation? Yes No
f. If so, give one or two examples

Challenges

a. What challenge(s) does the institution face in project and policy implementation?
b. How does the institution plan to address these challenges?

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