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

FDN

#59

Results of the Literature Review and Survey on Policy-Research Interactions

StEPPFoS Deliverable Report: D1.6

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Abstract	This deliverable provides insights from a systematic literature review on the policy-research interface and from interviews with StEPPFoS partners regarding their experience of policy research interaction. It also provides insights from a survey sent to researchers, policymakers and research brokers working in or with projects in Africa. The results provide information on how these stakeholders engage with each other and get involved in policy research interaction, as well as highlighting the importance of the policy-research interface for them. Furthermore, the report highlights the barriers to and facilitators of policy-research interaction, as well as the uptake of scientific evidence in the policymaking process. It also considers the needs of the different stakeholders and discusses strategies that have been implemented to improve the policy-research interface. These findings will inform the development of StEPPFoS activities, contributing to the bridging of the divide and the improvement of policy-research interaction for food system transformation in Africa.
Keywords	Policy research interface, evidence-based policymaking, food system transformation, Africa

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Abbreviations

AU-EU	African Union - European Union
NGO	Non-governmental organization
StEPPFoS	Strengthening Evidence-Based Policy Practice for Sustainable Food Systems under the EU-AU Partnership
WP	Work Package
SDG	Sustainable Development Goals
MDG	Millennium Development Goals
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
LMIC	Low- and middle-income country
CGIAR	Consultative Group on International Agricultural research
FAO	Food and Agricultural Organization
RB	Research brokering
CGE	Computable General Equilibrium
USAID	U.S. Agency for International Development
CAADP	Comprehensive Africa Agriculture Development Programme

1 Introduction

1.1 Motivation and problem statement

A recent publication from Elouafi (2025) stressed that for decades, scientific research has underscored the urgent need to transform global food systems, highlighting their role in driving environmental degradation, exacerbating water stress, and contributing to reducing malnutrition, particularly among vulnerable populations. Despite the availability of robust, peer-reviewed evidence and a growing consensus on viable, science-based solutions, the translation of research into effective agricultural and food policy remains inconsistent and fragmented. Structural barriers—including institutional inertia, misaligned policy agendas, and chronic resource constraints—continue to limit the uptake of evidence into decision-making frameworks. These challenges are not unique to the agricultural and food sector; they mirror persistent difficulties across public health, climate policy, and water governance, where overly technical outputs, siloed institutions, and timing mismatches often prevent evidence from informing action. As the urgency for systemic transformation intensifies, strengthening the science–policy interface has become a critical priority for enabling actionable, locally relevant, and timely interventions (Elouafi, 2025).

Evidence-based policy is critical to food system transformation because it ensures that decisions are based on the best available data, research, and real-world evidence rather than ideology, political pressure, or assumptions. It helps policymakers design interventions that address specific food system challenges, such as food insecurity and malnutrition, food waste and loss, or unsustainable agricultural practices. It ensures that policies are not just well-intentioned but actually lead to measurable improvements in food and nutrition security, poverty reduction, and sustainability.

Sustainable food systems aim to support long-term sustainability by promoting/ supporting practices that balance environmental, economic and social factors and to build resilience to climatic shocks, biodiversity loss and supply chain disruptions. Evidence-based policy builds on sound evidence that helps avoid unintended side-effects and assesses synergies and trade-offs between different policy options to ensure coherence with multiple objectives such as food and nutrition security, income growth and poverty reduction as well as environmental protection and reducing of biodiversity loss. Food systems are globally interconnected, therefore policies need to be harmonized across countries and disciplines, as cooperation and international partnership are needed to achieve sustainable development goals.

Evidence-based policy meets criteria such as being transparent, based on verifiable evidence, and allowing for monitoring and evaluation of their outcomes which helps to increase public and stakeholder confidence and persuade them to change behavior.

Despite its benefits, the policy-research interface for food system transformation faces several challenges that make it difficult for scientific evidence to effectively influence policy decisions. There is a growing body of literature assessing the challenges of implementing Evidence-based policy for food system transformation and identifying barriers relevant to the policy-research interface. Most studies on the use of research in policy-making in Africa have been conducted in the health sector (e.g., Naude et al. 2015, Oronje et al. 2019, Ridde & Yameogo 2018 and, Uneke et al. 2020). Only very few studies have focused on the agriculture and food sector (e.g., Hoeck et al. 2021, Donadelli 2020, Janse & Konijnendijk 2007, Dharmwan et al. 2017, Bell et al. 2023, Kleine 2009,), albeit with a

very specific regional focus and little information on Africa (Kleine 2009) as shown in chapter 3.

For example, a systematic review of researcher involvement in health policy dialogue in Africa (Yimgang et al. 2021) found that the most important factor for researcher involvement is an enabling environment that supports and values research while promoting knowledge translation activities. Such an environment requires adequate funding, trust and communication between researchers and policy makers and development opportunities/capacity building. Yimgang et al. (2021) found that more than half of the 21 African countries included in their study had partial or no involvement of researchers in health policy dialogue. It is particularly important to note the discrepancies that they observed between countries. In general, the literature shows significant gaps between research findings and policy implementation across sectors and regions. These gaps are particularly pronounced in low- and middle-income countries, where the integration of research into policy processes faces several challenges. Semahegn et al. (2023) found that the uptake of research for policy and practice in the health sector of low- and middle-income countries is very low, and identified challenges such as lack of understanding of local contexts, low political priority, poor stakeholder engagement and partnership, resource and capacity constraints, low systemic responsiveness for accountability, and lack of communication and dissemination platforms.

In order to develop coherent, inclusive and effective policies that ensure food and nutrition security for all while staying within our planetary boundaries, it is essential to bridge the gap between research and policy. Therefore, to achieve the sustainable transformation of the African agri-food system, we need a better understanding of the obstacles to evidence-based policy in this sector, as well as the requirements/needs of key stakeholders to facilitate the exchange/improve the policy-research interface and uptake of research in the policy making process. Against this backdrop, this article presents empirical findings from a cross-stakeholder survey exploring the barriers, facilitators, and current dynamics of policy–research interaction in the context of food systems transformation, aiming to inform more effective and sustained engagement between research and policy communities.

1.2 Objectives and Research questions

This study aims to compile existing knowledge on the interaction between policy and research in Africa's agri-food sector. By focusing on this sector, the study will contribute to improving evidence-based policymaking for sustainable transformation of agri-food systems in Africa.

Specifically, the following research questions will be assessed:

- What obstacles hinder the adoption of research in policymaking and the dialogue between policymakers and researchers?
- How can the needs of various stakeholders be met to improve engagement, knowledge exchange and evidence-based policymaking?
- What strategies have been discussed or implemented to improve the uptake of research in policymaking?

1.3 Methodologies

To address these research questions and contribute to bridging the gap between policy and research, this study takes a two-step methodological approach.

First, we conduct a systematic literature review relevant to the research–policy interface, adhering to the PRISMA framework to ensure transparency and rigour. This provides an overview of the current state of the art knowledge regarding the barriers to and facilitators of evidence-based policymaking and the science–policy interface. Key insights from the review include the categorization of key stakeholders and their respective roles in shaping policy, influencing decision-making processes, and bridging the divide between research and policy. The review also discusses strategies to improve communication between stakeholders, establish exchange platforms, and strengthen institutional capacity. Particular emphasis is placed on the variety of methodological approaches used to assess gaps in the policy–research interface.

Second, a survey instrument on policy-research interactions is developed in both English and French. This is based on the findings of the systematic literature review, as well as additional information gathered through interviews with StEPPFoS partners. The survey comprises three questionnaires: one for researchers, one for policymakers and one for research intermediaries. The survey aims to identify the barriers and facilitators to bridging the gap between policymakers and researchers in the African agricultural and food sector, thereby overcoming knowledge gaps in this area. By focusing on the needs of key stakeholders in the agri-food sector in different African countries, the intention is to inform the development of activities, platforms, and research outputs. This will facilitate interaction and exchange between researchers, policymakers and other relevant stakeholders. Ultimately, this will contribute to better policies for the sustainable transformation of agri-food systems in Africa.

1.4 Structure of this deliverable

This report is organized as follows: Chapter 2 introduces the evaluation concept and the methodologies applied in this study. Chapter 3 then presents the results of the systematic literature review. Chapter 4 presents the findings of the partner interviews, which were conducted alongside the systematic literature review to inform the development of the survey instrument. The results of the survey are evaluated and discussed in Chapter 5. Finally, Chapter 6 discusses the outcome of the two-step approach, addressing any remaining questions and drawing final conclusions and policy recommendations.

2 Evaluation concept and methodological approach

This section introduces the concept developed to examine the interaction between policy and research in relation to agri-food systems in Africa. It also outlines the methodologies employed.

2.1 Evaluation concept

Figure 1 illustrates the conceptual approach developed in this study for evaluating the interaction between policy and research within the context of the African food system. This approach aims to contribute to improved evidence-based policymaking to support the transformation of food systems towards sustainability.

Currently, research findings are not sufficiently incorporated into policymaking processes across disciplines. This is particularly pertinent to the transformation of food systems, as this process requires policies from various sectors, including agriculture, food consumption and production, the environment, climate change, and biodiversity. This highlights the importance of carefully and thoroughly assessing the impact of different policies in relation to various sustainability targets, including identifying synergies and trade-offs. It is also necessary to assess how these policies interact.

Evidence-based policy involves several stakeholders, including policymakers, research brokers, scientists, interest groups, and non-governmental organizations (NGOs). This study examines the interactions between these stakeholders, with a particular focus on scientists, research brokers (who represent NGOs and interest groups to some extent), and policymakers. The aim is to improve understanding of the obstacles to research uptake in policymaking and the needs of relevant stakeholders. This will inform the development of new strategies to facilitate Evidence-based policy and transform the food system.

In order to contribute to filling the knowledge gap regarding policy-research interaction, this study first conducted a systematic literature review to evaluate the existing literature on this topic and highlight gaps relating to Africa and food systems. Additionally, interviews were conducted with stakeholders from various organizations and institutions in Africa to identify the challenges they face in policy-research interactions. These two activities inform the development of a survey instrument designed to address the barriers, needs and strategies perceived by scientists, research brokers and policymakers with regard to policy-research interaction for the sustainable transition of food systems in Africa.

The survey results are discussed and evaluated alongside the interview outcomes and systematic literature review results, to draw conclusions and to derive policy recommendations.

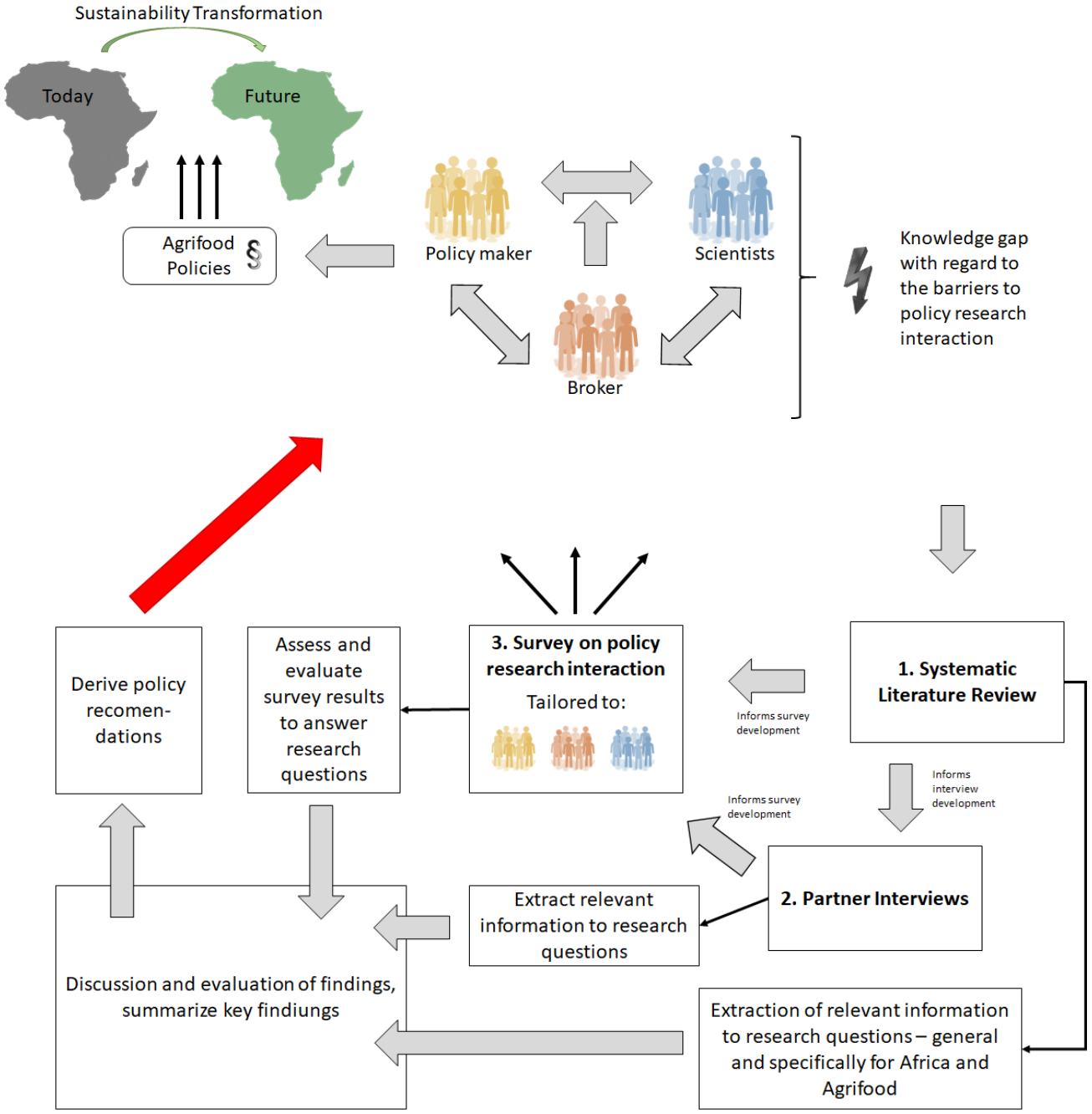


Figure 1: Conceptual approach to assess policy-research interaction
Source: Authors' illustration.

2.2 Methodology

2.2.1 Systematic literature review

This study employs a systematic literature review approach to identify, evaluate, and summarize literature concerning the relationship between scientific research and policymaking in sustainable food systems, with a particular focus on Africa. The review process was structured using the Preferred

Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021), which provide a robust framework for improving the transparency, rigor, and reproducibility of systematic reviews. Although PRISMA was originally developed for health-related research, its structured approach is now being adopted in various disciplines, including environmental, educational and social sciences (Bastidas-Orrego et al., 2023; Votruba et al., 2020; Breen et al., 2018).

An extensive literature search was conducted using Scopus and Google Scholar. Scopus, one of the largest databases of peer-reviewed literature, was used to identify high-quality academic articles. Google Scholar was used to supplement the search, providing access to grey literature, reports and other non-traditional sources. This combination ensures comprehensive coverage of relevant knowledge from academic and policy-oriented perspectives.

To ensure relevance and quality, clear inclusion and exclusion criteria were defined that closely aligned with the research objectives of the study. The following considerations guided the selection process: Only literature published from 2000 onwards was included. This timeframe encompasses important global development frameworks, such as the Millennium Development Goals (MDGs, 2000–2015) and the Sustainable Development Goals (SDGs, 2015–2030). Both frameworks have had a significant impact on policy discussions regarding sustainable food systems. Priority was also given to studies employing rigorous, clearly defined methodologies to enhance the credibility and reliability of the evidence base. While the study's primary regional focus is Africa, literature from other global regions, including Europe, North America, and the Global South, was also included to facilitate comparative analysis. Only studies that directly address the research questions or provide valuable context on the relationship between scientific knowledge and policymaking in food systems were included.

The review process adhered to the PRISMA 2020 protocol and comprised several stages (Figure 2). First, initial searches were conducted to identify a broad range of articles. Duplicates were then identified and removed. Next, the titles and abstracts of the articles were screened based on the inclusion/exclusion criteria, with irrelevant articles excluded. Finally, the full texts of the remaining articles were carefully reviewed and only those that met all the inclusion and eligibility criteria were selected for the final analysis.

The review covers multiple relevant sectors for sustainable food systems, including agriculture, the environment, health and sustainability. Emphasis was placed on agriculture, given its central role in food system transformation. Including multiple sectors and regions enables a holistic and comparative analysis of research–policy dynamics. The timeframe covers major continental and regional policy initiatives such as Comprehensive African Agriculture Development Programme (2003), Agenda 2063 (2013) and African Continental Free Trade Area (2018), which provides context for understanding the evolution of food system policies in Africa. Detailed documentation of the literature review can be found in Annex 1 of this report.

A PRISMA flow diagram was developed to document each stage of the review process, including the number of articles identified, screened, excluded (with reasons) and included (see Figure 2). This visual representation promotes methodological transparency and provides a clear audit trail. The first search yielded 469 documents in response to Query 1. These included articles, book chapters, reviews, conference papers, books, editorials, notes, and errata. The literature was available in several languages, primarily English, but also French, Portuguese and Spanish. Following abstract screening, 143 documents were retained out of the initial 469. A thorough screening and analysis was then conducted, resulting in the retention of just 93 articles. This was based on the inclusion and

exclusion criteria set out for the screening process. The second query considered only the first 200 results from Google Scholar, in line with the supplementary database threshold recommended by Haddaway et al. (2015). This threshold has been shown to effectively cover the most relevant grey literature while minimizing redundancy and irrelevance. Of these, only five were included in our study. This was based on the inclusion criteria, which targeted articles discussing the agricultural sector and food in particular, to supplement Query 1. A total of 98 documents were included in the study from Queries 1 and 2.

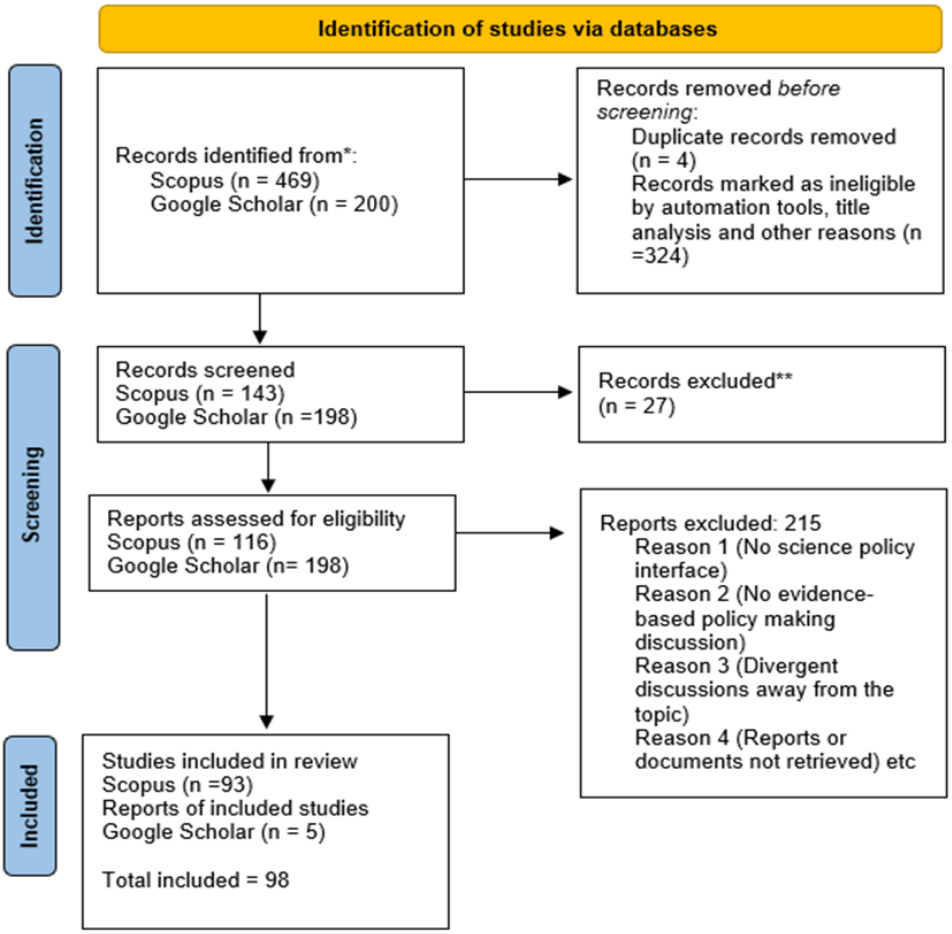


Figure 2: Prisma flow diagram of systematic literature review of query 1 (Scopus) and query 2 (google scholar).
Source: Adapted from Page et al., 2021

2.2.2 Partner Interviews

In addition to the systematic literature review, we conducted semi-structured interviews with nine representatives from different organizations and research institutes working in the field of policymaking and agri-food systems across Sub-Saharan Africa. These representatives are part of the StEPPFoS project and include researchers, research brokers and policy actors. The respondents were recruited via self-selection after receiving an email invitation. The interviews supported the development of a survey instrument on policy-research interaction (see section 2.2.3) and were conducted between July and August 2024.

The qualitative data collected in these interviews captures the views of participants from various institutional contexts, providing valuable insights into the challenges, dynamics, and strategies

involved in integrating research into policymaking. Together, the systematic review and qualitative study provide a robust basis for achieving the study's objectives.

The interviews covered four topics: key actors, research influence on policymaking, barriers to collaboration, and strategies to improve integration. Additionally, participants were asked to recommend literature on the research policy gap, to minimize the risk of overlooking grey literature on policy-research interaction in Africa, particularly with a focus on food systems (see Section 2.2.1). A mix of question types, including behavioral, comparative, and future-oriented enquiries, ensured comprehensive data collection. The interview guidelines were discussed with other project participants and pre-tested with different types of actors. The interviews, which lasted between 45 and 60 minutes, provided in-depth insights into the policy-research interface, capturing the perspectives of actors in Africa.

Interviews were recorded using a digital recorder with the participants' explicit consent, and supplementary notes were taken during each session. The audio data were transcribed using Microsoft Word's AI transcription tool and then subjected to a detailed manual review to correct errors and ensure accuracy, in line with best practices for preserving the integrity of qualitative data (Bryman, 2008).

A thematic coding approach was employed for data analysis, following Robson's (2011) five-stage model of familiarization, initial coding, theme development, construction of thematic networks and interpretation. This method enabled the systematic identification and organization of key patterns within the interview data. MAXQDA software was used to analyze the transcripts and categorize the data according to the study's research questions, thereby enhancing the analytical rigor and traceability of the process.

2.2.3 Survey

Development, design and implementation of the survey

The survey development follows a 7-step procedure outlined in Table 1. The survey aims to explore interactions between researchers, policymakers and research intermediaries. The focus is on understanding these interactions and assessing the factors that influence the adoption of research findings in policy decisions. The following specific research questions will be addressed: How do policymakers perceive and use research? How do researchers communicate their findings to policymakers? What role do research brokers play in facilitating research uptake?

The survey instrument has been developed based on a systematic literature review (Step 1) to ensure it aligns with and builds upon relevant prior research and theory, and to identify existing survey scales or items that can be utilized or adapted. Furthermore, interviews were conducted with project partners to capture their experiences of the StEPPFoS project, understand how stakeholders conceptualize and describe the construct of interest, and identify what they consider to be particularly relevant. This informed the targeted development of the survey instrument. This also helps to ensure that the survey's conceptualization makes theoretical sense to scholars in the field and uses language that stakeholders understand (Steps 2 and 3).

The survey identifies the barriers to, and enablers of, interaction between policymakers and researchers, as well as their perception of the importance of such interaction. The aim is to improve the use of research in policymaking. We employ a mixed-methods approach, combining structured/closed-ended questions to collect standardized quantitative data (e.g., Likert scales and multiple-choice questions) and open-ended questions to allow for richer qualitative insights from our

sample. We use a cross-sectional design to provide a snapshot of the current situation and perceptions (Step 4). All items are written in accordance with current best practice in survey design to ensure clarity and understanding. This approach enables us to systematically measure attitudes and interactions across stakeholder groups while capturing unexpected barriers, personal examples and complex perceptions.

Table 1: Survey development summary

Survey design steps	Summary of finds in this study
1. Conduct a literature review	The literature showed that there is currently no comprehensive quantitative tool and that a new quantitative tool is needed to assess the interaction between policy and research in relation to food system transformation in Africa.
2. Conduct individual interviews	Online interviews via video call, qualitative analysis and discussion with project partners used to process and contextualized findings
3. Synthesize the literature review and interviews	The results of step 2 informed the design of the survey questionnaire
4. Develop items	With input from the research team, data, and previous literature. 5 level Likert-style questions and drag and drop questions, multiple choice questions and open questions have been developed
5. Conduct expert validation	Items were reviewed, discussed, and refined by project partners representing relevant stakeholder groups
6. Conduct pilot testing	A test-run has been performed by inviting project partners to fill in the survey and identify potential bucks in the survey instrument and comment on misleading/unclear questions and answers
7. Dissemination	The full survey was distributed via the networks of project Partners covering researchers, policy makers and research brokers across the African continent and resulted in 116 responses

Source: Adapted from Artino et al. 2014 and Courtney et al. 2022

The questionnaire is structured into seven thematic sections:

- Demographics and background: Identifying respondents, type of institution, role; and experience in policy, research brokering (RB) or research.
- Interaction with researchers or policy makers: Identifies project partners, funding, the

frequency and type of engagement with researchers or policy makers.

- Information type: Examples and types of information produced (Researcher, RB) or used (Policy Maker, RB).
- Barriers and enabling factors: Obstacles to research uptake, supportive mechanisms.
- Dissemination: Investigates the relevance and importance of different dissemination channels
- Attitudes and perceptions: Trust in scientific research, value/importance attributed to evidence-based policymaking.
- Needs: Suggestions for improvement and identifying needs, including existing strategies

In addition, the questions are specific to each of the three stakeholder/target groups. The survey is designed to be context-sensitive. The survey instrument was validated by experts in the field (Step 5) and piloted with a small, representative sample (Step 6) to assess the clarity and relevance of the items in relation to the construct of interest and to check for adequate variance, reliability and convergent and discriminant validity in relation to other measures. Refinements were made to improve clarity and relevance, which is particularly important when dealing with multiple professional cultures.

To ensure a diverse yet relevant respondent base, participants were selected using a combination of purposive sampling of key individuals and snowball sampling strategies (Step 7). The target groups included policymakers (e.g. government officials and parliamentarians), researchers (from academic and applied research institutions) and research intermediaries (such as think tanks and intermediary organizations). The survey targeted policymakers, researchers, and research brokers based in or working on projects in Africa, highlighting the thematic focus area of food system transformation.

Personalized emails and invitations via professional networks were used to invite people to participate, and follow-up reminders were sent to maximize response rates. The survey was conducted online in French and English using Questback/Unipark software to ensure accessibility across sectors and regions. Data collection took place between 10 December 2024 and 17 February 2025. Participation was voluntary and anonymous, and informed consent was obtained beforehand. Despite efforts to ensure a diverse sample, the voluntary nature of participation may have led to self-selection bias, with individuals particularly engaged in research–policy interactions being more likely to respond.

Data processing, analysis and quality assurance

The quality assurance was performed throughout the data workflow, starting from data harmonization to analysis and visualization. Most of the data construction processes were performed in STATA and recorded in do-files to ensure future traceability and reproducibility. The data workflow consists of 6 steps of procedure, outlined as follows:

- Step 1: Identify and harmonize questions in both English and French modules
- Step 2: Append the English and French datasets
- Step 3: Separate data for general and group-specific questions into subsets
- Step 4: Data cleaning and construction for each subset
- Step 5: Identification of variables shared among the three groups
- Step 6: Data analysis and visualization, for both general and other subsets

Any personal information was omitted prior to the data being handed to the analyst. The analyst received only French and English datasets with individual ID as a solely observation identifier. This was done to ensure data privacy policy in the research. To ensure the data coherence, identification of all variables captured in both language modules was undertaken. The survey codebooks served as the guide to identify each question and type of variables and responses. In the case of this survey, majority of variables in English and French were in the identical order. Nevertheless, the order of some French variables was adjusted to follow the English module. Furthermore, data construction also involved transformations for a certain type of question in raw datasets. For instance, five individual binary variables in the raw dataset were transformed into a single variable indicating the variable for which the respondent took a value of one. Another case is creating three new variables indicating the priorities taken by the respondent for certain options, rather than leaving it as nine different variables. Overall, this procedure aims to improve the simplicity of analysis. Given the structure of the survey questionnaire, responses for most of the questions in the researcher, broker, and policymaker subsets were already in the same arrangement, although the responses came as numerical values in the raw data. The numerical values were transformed into a string format with uniform classification. For instance, 1 (never), 2 (rarely), 3 (occasionally), 4 (often), and 5 (very often). For the same questions asked in each subset, the classification of responses was harmonized.

Given the data structure that is mostly ordinal or categorical, the study generally relies on descriptive statistical analysis. In general, frequency analyses were employed to assess the overall or group-specific patterns as well as the comparative assessment. For the general module, which is what those asked of all respondents, we identified the characteristics, perceptions of, and barriers faced by the respondents as pooled. For some variables, we conducted deeper analyses to identify the response differences between respondent characteristics, by group (researchers, brokers, and policymakers) and regions of working in Africa, which were divided into five main regions. For the group-specific module, we identified 8 questions shared across three groups (Table 2). For each question, we assessed how the responses differ between the groups by looking at the frequencies of answers picked. The frequency was calculated in percentage terms, computed as the share of the total count in the respective group.

Table 2: Survey structure

No	Topic	Questions
1	Evidence Produced or Used	**(Researcher & Broker)** What kind of evidence do you produce? **(PM)** What kind of information or evidence do you use?
2	Partners	**(All)** Who do you work with?
3	Format of Publication	**(Researcher)** In which format have you usually published your research in the last 2-3 years? **(Policymaker)** What type of packaging and communication do you find most useful for informing the policy-making process? **(Broker)** What kind of packaging and communication do you find most useful to inform the policy-making process?
4	Dissemination Channel	**(Researcher)** What were the main sources of information or dissemination channels you used to disseminate your research? **(Policymaker & Broker)** Which means of dissemination have been relevant in the last 2-3 years?
5	How to Interact	**(Researcher)** How do you get involved (in the last 2-3 years)? **(Policymaker)** How do you find researchers to interact with? **(Broker)** How do you get involved with policymakers? **(Broker)** How do you get involved with researcher?
6	Where to Interact	**(Researcher)** Where do you interact with policymakers? **(PM)** Where do you interact with researchers? **(Broker)** Both
7	Involvement in policymaking process	**(Researcher)** To what extent do you interact with policy makers on the following aspects of the policy process? **(PM)** How often do you interact with researchers on the following aspects of the policy process? **(Broker**) Both
8	Needs	In order to be more involved in research policy interaction, I need

Source: Authors' elaboration.

3 Systematic literature review on policy-research interactions

3.1 Bibliometric Trends in Science–Policy Interface Research (2000–2024)

A quantitative bibliometric analysis was conducted to assess the evolution of research with a focus on the science – policy interface. The analysis provides insights into publication trends and key thematic developments over time, offering a comprehensive view of the broader landscape of scholarly activity in this field. Figure 3 shows a consistent rise in publications between 2000 and 2024 (n = 98), with significant fluctuations occurring at major global policy milestones and crises.

During the early period (2000–2004), the volume of publications was low (n = 3), which coincided with the initial adoption of the MDGs. There were initial attempts to incorporate evidence-based research into policy frameworks during this period, particularly in sectors such as agriculture and environmental governance. Only a few documents from this period focused on agriculture, highlighting the nascent stage of literature on science–policy linkages in this area.

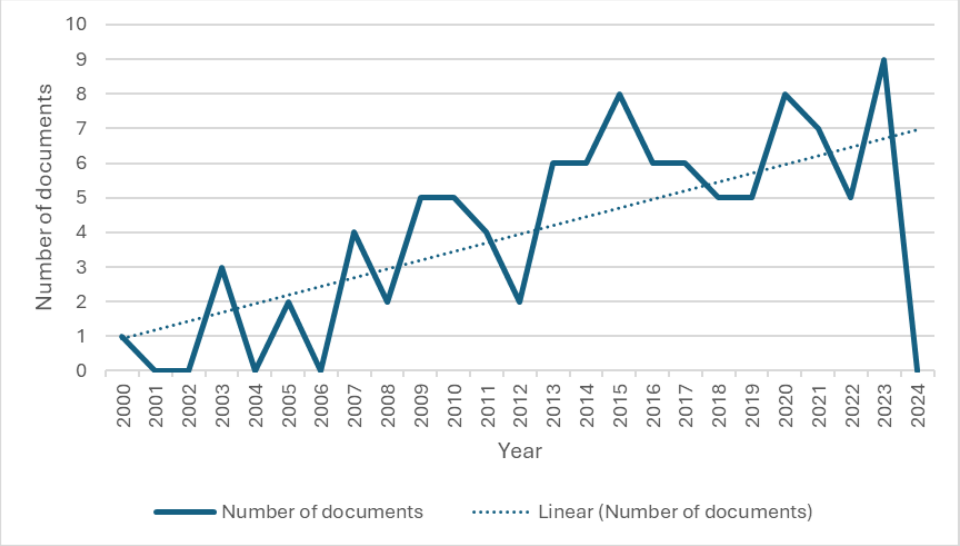


Figure 3: Development of publications on the science-policy interface over the period 2000 to 2024. Note: no publications shown for 2024 as the literature review was conducted at the beginning of the year 2024.

Source: Authors' illustration.

Between 2005 and 2009, there was moderate growth in publications (n = 13), despite dips around the global financial crisis of 2007–2008 when research funding and policy engagement were constrained. However, the concurrent global food crisis heightened interest in food security and policy responsiveness, temporarily increasing academic output related to science–policy dynamics.

A significant increase in publications occurred between 2010 and 2015 (n = 30), as global attention shifted towards evaluating MDG achievements and preparing for the transition to the SDGs. During this period, themes relating to sustainability, agricultural development, and poverty reduction were increasingly integrated into science–policy literature.

Following the adoption of the SDGs in 2015, there was a significant increase in scholarly output,

reflecting the momentum generated by the greater focus on policy-relevant research needed to achieve sustainable development targets. The onset of the pandemic in 2020 further intensified research activity as the crisis emphasized the need for evidence-based responses to issues relating to food systems, public health and economic resilience. This has led to an increase in publications that address the science–policy interface in emergency contexts.

The apparent dip in 2024 is due to the fact that this year is still ongoing and is therefore not yet included in the study's data collection timeframe. Nevertheless, the overall trend from 2000 to 2024 shows a consistent increase in scholarly engagement with science–policy interactions. This trajectory reflects the growing recognition of the importance of aligning research with policy processes to address complex societal and environmental challenges.

Sectoral focus of science–policy interface research

Figure 4 illustrates the distribution of academic articles across key sectors, offering insight into the research priorities of the science–policy interface. The analysis reveals that the most represented category is 'Frameworks, Interactions, and Dimensions' (n = 22), reflecting a strong emphasis on conceptual models and cross-sectoral approaches to bridge the gap between science and policy. Studies in this category (e.g. Ackrill, et al., 2013; Edelenbos et al., 2010; Uneke et al., 2023) often examine stakeholder interactions and propose methods to improve collaboration between researchers and policymakers.

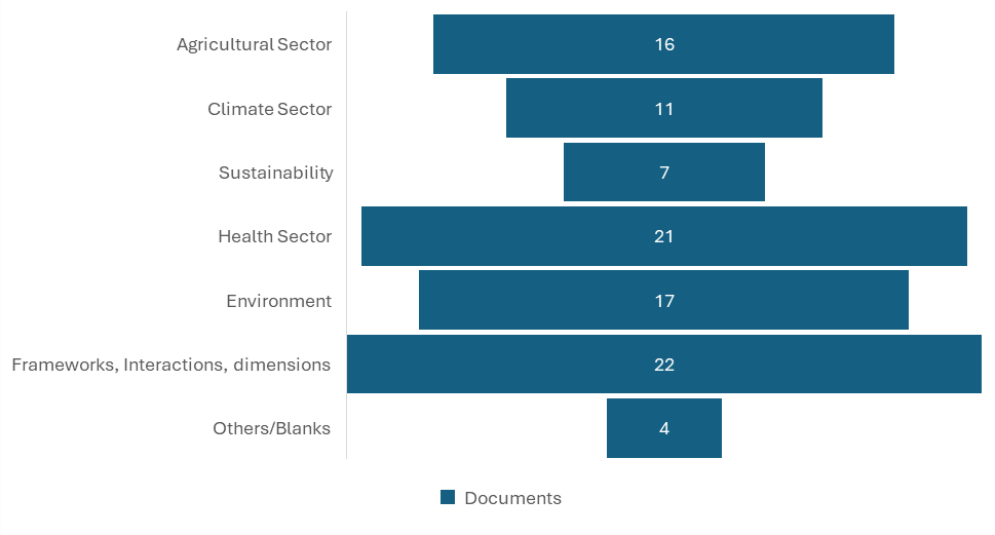


Figure 4: Sectors covered by publications on the policy-research interface.
Source: Authors' illustration.

With 21 articles, the health sector follows closely behind, emphasizing the critical intersection of public health, nutrition, and evidence-based policymaking — particularly in the context of global health crises, such as the ongoing pandemic. This prominence reflects the alignment of health-related research with SDG 2, which aims to end hunger and improve nutrition.

Environmental topics account for 17 articles, with research addressing biodiversity, land use, and emissions, often in the context of climate mitigation and sustainable resource management. The agricultural sector, foundational to this study, is represented by 16 articles focusing on productivity, climate resilience, and food system sustainability. This is particularly relevant in African contexts, where agriculture underpins livelihoods.

The climate (n = 10) and sustainability (n = 7) sectors were less well represented. While articles focusing on climate change addressed adaptation and mitigation policies, the low number of studies focusing specifically on sustainability suggests that sustainability themes may be embedded within broader environmental or framework-focused literature rather than being addressed independently.

Only four articles fell into the 'Other/Unspecified' category, suggesting that these thematic areas were either marginal or unclassified. Therefore, future research should focus more on underrepresented or cross-cutting issues within the science–policy interface.

Geographical focus of science–policy interface research

Figure 5 shows the geographical distribution of the research articles analyzed in this study. The largest proportion of articles (n = 35) fall into the 'Other/Unspecified' category, suggesting that many studies did not define a specific geographical focus. These articles often addressed global frameworks or conceptual models of science–policy interaction.

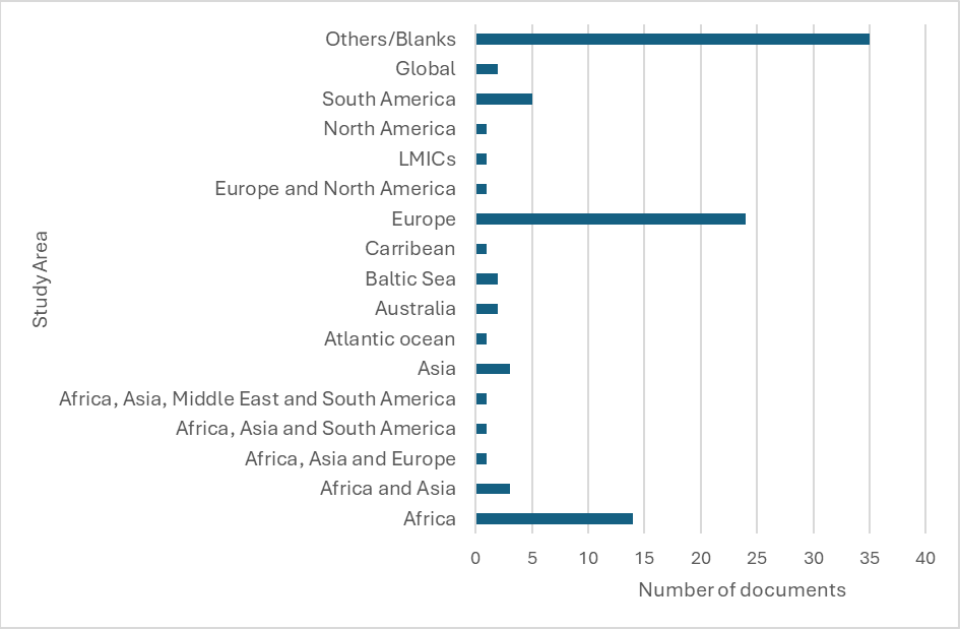


Figure 5: Geographical regions covered by publications on the policy-research interface
Source: Authors' illustration.

Among region-specific studies, Europe was the most highly represented (n = 24), reflecting its robust research infrastructure, pioneering work in sustainability and food systems policy, and active involvement in global development frameworks such as the SDGs. Africa followed with 14 articles, emphasizing the continent's urgent policy issues concerning food insecurity, climate change and evidence-based decision-making. Studies focusing on Africa emphasized the region's strategic importance in global agricultural policy and initiatives such as the Malabo Declaration.

Some studies adopted broader comparative or transregional perspectives: one analyzed both Europe and North America, another addressed low- and middle-income countries (LMICs), and three focused on Africa–Asia comparisons. These multi-region studies emphasized shared challenges in governance, public health, and environmental resilience.

Regions such as South America, North America, the Caribbean, Asia, and Australia had minimal representation, with one or two articles each. This suggests potential underrepresentation or a

narrower research focus in the context of the science–policy interface. Overall, the data indicate a need for more regionally diverse and comparative research to better inform global policy processes.

Key stakeholders in the science–policy interface

Figure 6 summarizes the main actors involved, as identified in 49 of the documents included in the systematic review. These stakeholders were categorized based on their role in connecting research and policymaking.

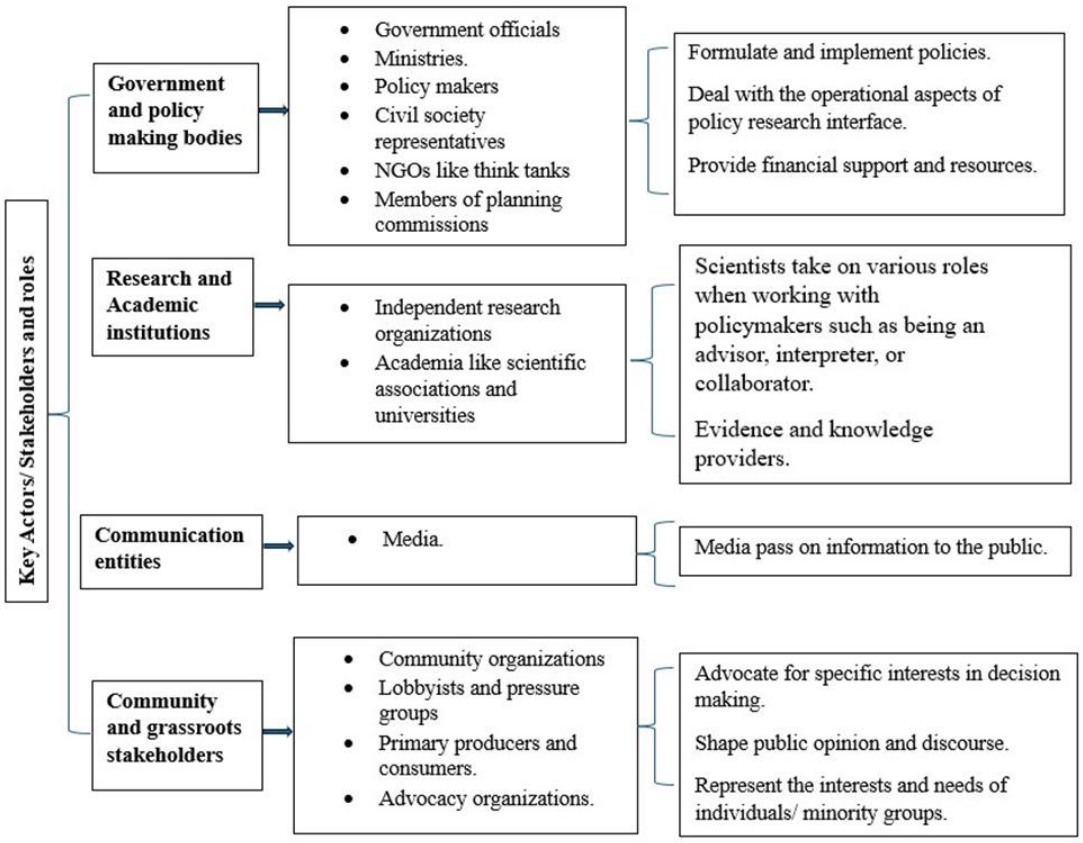


Figure 6: Categorization of key actors or stakeholders from the literature included in the study, together with their roles and responsibilities.

Source: Authors' illustration.

1. Government and Policy-Making Bodies:

This group includes government officials, ministries, policymakers, civil society representatives, NGOs and planning commissions (e.g., Buffardi and Njambi-Szlapka, 2020; Corluka et al., 2014). Their core responsibilities include formulating and implementing evidence-based policies, allocating resources, and coordinating with stakeholders. As decision-makers and funders, they play a central role in ensuring that scientific evidence is integrated into policy processes.

2. Research and Academic Institutions:

Universities, research centers and scientific associations (e.g., Janse and Konijnendijk, 2007; Uneke et al., 2020) produce, synthesize and communicate evidence to inform policy. They also act as advisors and collaborators, providing scientific expertise and ensuring the objectivity and credibility of

the science–policy interface.

3. Communication entities:

Several studies (e.g., Besley and Nisbet, 2013) have identified the media as a distinct group, serving as intermediaries between scientists, policymakers, and the public. They promote public understanding and accountability by translating complex scientific findings into accessible language. However, inaccurate reporting can lead to misinformation.

4. Community and Grassroots Stakeholders:

This group includes community organizations, advocacy groups, producers and consumers (e.g., Hoek et al., 2021). They represent the interests of those directly affected by policies and play a vital part in shaping public discourse. They advocate for equity and ensure the inclusion of marginalized voices in decision-making processes.

Table 3 provides an overview of all relevant publications, identifying the stakeholder groups addressed in each one and organizing the studies according to their regional focus and sectoral relevance. The table reveals a significant knowledge gap concerning the specific actors involved in the science-policy interface in the African agri-food sector, emphasizing the lack of empirical evidence regarding stakeholder roles in this regional and thematic context.

Table 3: Overview of identified relevant stakeholders sorted by geographical and sectoral coverage

Publication	Government and policy making bodies	Research and academic institutions	Communication entities	Community stakeholders	Regional focus	Field
El-Jardali et al., 2012	x	x			**Africa**	Climate
Nkiaka & Lovett, 2019	x	x	x		**Africa**	Climate
Etiaba et al., 2015	x	x		x	**Africa**	Health
Agyepong & Adjei, 2008	x	x		x	**Africa**	Health
Dagenais et al., 2016	x	x			**Africa**	Health
Naude et al., 2015	x				**Africa**	Health
Oronje et al., 2019	x				**Africa**	Health
Podolak et al., 2017	x	x			**Africa**	Health
Ridde & Yameogo, 2018	x				**Africa**	Health
Uneke et al., 2020	x	x		x	**Africa**	Health
Stewart, 2023	x	x			**Africa**	Interactions
Woolfrey, 2009		x			**Africa**	Interactions
Strydom et al., 2010	x	x	x	x	**Africa**	Interactions
Uneke et al., 2023	x			x	**Africa**	Interactions
Alkhadi et al.,2021	x	x		x	**Africa**, Asia	Health
Schleiff et al., 2020	x	x		x	**Africa**, Asia, Middle East, South America	Health
Kleine, 2009	x			x	**Africa**, Asia, South America	**Agriculture**
Dharmawan et al., 2017	x	x		x	Asia	**Agriculture**
Zheng et al., 2019	x	x		x	Asia	Environment
Haq et al., 2017	x	x		x	Asia	Health
Boasson et al., 2023	x			x	Europe	Climate
Boykoff, 2008	x	x	x		Europe	Climate
Castellani et al., 2013	x			x	Europe	Environment
Ackrill et al., 2013	x			x	Europe	Frameworks
Van Herck et al., 2013	x	x			Europe	Health
Emery et al., 2015	x	x		x	Europe	Interactions
Nochta et al., 2021	x			x	Europe	Interactions
Pihlajamäki & Tynkkynen, 2011	x	x		x	Europe	Research
Janse & Konijnendijk, 2007		x		x	Europe	**Agriculture**
Milewa & Barry, 2023	x	x		x	Europe	Health
Décieux, 2020	x	x			Europe	Interactions
Besley & Nisbet, 2013	x	x	x		Europe and North America	Interactions
Watson et al	x	x	x		Global	Climate
Buffardi & Njambi-Szlapka, 2020	x	x			LMICs	Health
Greenhalgh et al., 2022	x				North America	Environment
Ramirez & Belcher, 2019	x	x		x	South America	**Agriculture**
Donadelli, 2020		x			South America	**Agriculture** and Environment
Corluka et al., 2015	x	x			South America	Health
Corluka et al., 2014	x	x			South America	Health
Hoek et al., 2021				x		**Agriculture** and Sustainablity
Vohland & Nadim, 2015	x	x		x		Environment
Gluckman et al., 2021	x	x				Interactions
Peels & Develtere, 2009				x		Interactions
Sutherland et al., 2012	x	x				Interactions

Source: Authors' elaboration.

3.1.1 Key challenges and barriers to integrating research and policy

The literature identifies several recurring issues that hinder effective collaboration between the research and policy sectors. The most significant of these are:

- Inadequate funding
- Unclear institutional mandates on both the research and policy sides
- Limited access to reliable data sources

- Misaligned timelines

Researchers often face the challenge of producing high-quality outputs to tight deadlines, while policymakers frequently demand rapid, actionable insights, creating a mismatch in expectations. Other challenges include competing institutional priorities, ineffective communication channels, bureaucratic inefficiencies, a general lack of trust, limited capacity and instances where decision-makers disregard evidence (Emery et al. 2015). (Head, 2010; Klein & Juhola, 2014; Lange & Garrelts, 2007; Lewis et al., 2023; McFadgen & Huitema, 2018; Peels & Develtere, 2009; Polejack, 2023; Ramírez & Belcher, 2019; Siegrist, 2010; Squires & Renn, 2011; Uneke et al., 2023; Vohland & Nadim, 2015; Watson et al., 2022; Watson-Wright, 2005; Woolfrey, 2009).

Structural barriers that limit the uptake of research into policy include political instability, short-termism in government agendas, a lack of coherent strategic planning, corruption and fragmented or unclear policy frameworks. Additional factors, such as low institutional capacity, insufficient human resource development, language and cultural gaps between scientists and policymakers, financial instability and limited access to decision-makers, further exacerbate these challenges. The involvement of multiple, often uncoordinated actors also hampers coherence in science-policy interactions. (Castellani et al., 2013; Corluka et al., 2014; Dagenais et al., 2016; Donadelli, 2020; El-Jardali et al., 2012; Greenhalgh et al., 2022; Klein & Juhola, 2014; Lahsen & Turnhout, 2021; Lewis et al., 2023; McConney et al., 2016; Naude et al., 2015; Oronje et al., 2019; Peels & Develtere, 2009; Pihlajamäki & Tynkkynen, 2011; Schleiff et al., 2020; Strydom et al., 2010; Swinnen, 2010; Wilkinson, 2011; Woolfrey, 2009; Zoller, 2015)

Of the 98 publications reviewed, 37 explicitly addressed challenges and barriers. The most frequently cited issue was a lack of trust between researchers and policymakers (n = 13), which was particularly notable in Africa, South America and Europe. Trust was a less dominant concern in Asia and North America, although it was still present. The second most reported issue was limited institutional capacity (n = 10), particularly affecting Africa and South America. Unclear roles and strategic direction (n = 9) and a lack of skilled personnel and training opportunities (n = 9) were most prevalent in Africa and Europe. Timing mismatches (n = 9) were frequently cited in African contexts.

Other recurring challenges included poor communication (n = 6), financial constraints (n = 5), competing priorities (n = 4) and limited access to evidence (n = 4). Africa consistently emerged as the region most impacted by these challenges. South America followed, while Europe and North America were comparatively less affected. As can be seen from Table 4, the agri-food sector in Africa is rarely the focus of literature reviews; instead, emphasis is placed on health and climate.

The findings reveal a disproportionate burden of challenges in Africa, particularly with regard to workforce capacity, training, timing and trust. In contrast, fewer barriers were reported in North America and Europe, suggesting the presence of more institutionalized science–policy mechanisms. Nevertheless, the persistence of trust issues across all regions highlights a universal barrier to effective integration. Addressing this requires deliberate efforts to enhance transparency, foster continuous dialogue and demonstrate the tangible value of research in policy formulation. Context-sensitive strategies are needed to overcome region-specific challenges and foster stronger, more resilient science–policy linkages.

Table 4: Overview of publications assessing factors driving the policy-research interface, sorted by geographical and sectoral coverage.

Publications	Lack of trust	Timing	Lack of clear strategic roles or unclear policies	Lack of Capacity	Lack of skilled workers and training programmes	Competiting priorities	Poor communication	Financial issues	Inaccessibility to evidence/ databases	Regional focus	Field
El-Jardali et al., 2012					x			x		**Africa**	Climate
Nkiaka & Lovett, 2019			x							**Africa**	Climate
Dagenais et al., 2016	x						x			**Africa**	Health
Naude et al., 2015		x		x						**Africa**	Health
Oronje et al., 2019				x						**Africa**	Health
Podolak et al., 2017				x						**Africa**	Health
Ridde & Yameogo, 2018								x		**Africa**	Health
Strydom et al., 2010	x	x	x			x	x			**Africa**	Interactions
Uneke et al., 2023			x					x		**Africa**	Interactions
Woolfrey, 2009	x	x	x			x				**Africa**	Interactions
Alkhadi et al.,2021				x						**Africa**, Asia	Health
Lewis et al., 2023	x	x	x		x			x	x	**Africa**, Asia, Europe	Climate
Schleiff et al., 2020	x	x	x		x	x		x		**Africa,** Asia, Middle East, South America	Health
Kleine, 2009					x		x			**Africa**, Asia, South America	**Agriculture**
McConney et al., 2016				x			x	x	x	Carribean	Environment
Castellani et al., 2013	x		x				x			Europe	Environment
Squires & Renn, 2011		x								Europe	Environment
Pihlajamäki & Tynkkynen, 2011	x						x			Europe	Research
Bell et al., 2023										Global	**Agriculture**
Buffardi & Njambi-Szlapka, 2020			x	x						LMICs	Health
Greenhalgh et al., 2022	x									North America	Environment
Lahsen, 2009	x									South America	Environment
Donadelli, 2020	x						x			South America	Environment and **Agriculture**
Corluka et al., 2015		x		x						South America	Health
Corluka et al., 2014	x	x	x	x		x		x		South America	Health
Swinnen, 2010						x					Agriculture
Klein & Juhola, 2014			x								Climate
Vohland & Nadim, 2015				x							Environment
Wilkinson, 2011		x									Environment and **Agriculture**
Gluckman et al., 2021	x										Interactions
Head, 2010									x		Interactions
Peels & Develtere, 2009							x				Interactions
Robertson & Hull, 2003											Interactions
Sutherland et al., 2012				x							Interactions
Clark et al., 2016	x			x							Sustainability
Zoller, 2015					x						Sustainability

Source: Authors' elaboration.

3.1.2 Methodological approaches used to study the science–policy interface

The most frequently used methodological approaches employed in the 98 reviewed documents are case studies, frameworks, literature reviews, qualitative methods, in-depth interviews and models.

The case study approach (n = 18) was the most frequently applied method (e.g., Castellani et al., 2013; Kleine, 2009; Ramírez & Belcher, 2019), reflecting its usefulness in examining real-world examples of the interaction between science and policy. This method allows for a detailed exploration of how scientific evidence is — or is not — integrated into policymaking processes, offering rich contextual insights. Frameworks (n = 16) were also widely used (e.g., Akter et al., 2023; van Kerkhoff & Pilbeam, 2017), providing structured, often conceptual, tools for analyzing the dynamics of the science–policy interface. Their popularity suggests a need for systematic approaches to guide engagement between research and policy domains.

Qualitative methods (n = 14) including interviews, focus groups, and content analysis, were used to understand stakeholder perspectives and contextual factors (e.g., Agyepong & Adjei, 2007; Milewa & Barry, 2005). The use of these methods reflects the complexity of science-policy processes, which are often shaped by subjective experiences and institutional cultures. In-depth interviews (n = 5),

lthough they are often embedded within broader qualitative or case study designs, can provide valuable insights into individuals' perceptions and experiences (e.g., Etiaba et al., 2015; Naude et al., 2015). Their moderate use suggests their value, despite the resources required.

Models (n = 5) whether mathematical or computational, were used to simulate policy outcomes or system behaviours (e.g., Lambin et al., 2000; Nochta et al., 2021). Though less common, they offer valuable predictive capabilities, especially for evaluating the potential impact of evidence-based policy choices.

The variety of methodologies applied reveals a mixed-methods landscape, with a strong emphasis on context-specific, exploratory and theoretical approaches. Case studies and frameworks dominate, indicating a preference for methods that can handle the complex and dynamic nature of science-policy interactions. The frequent use of literature reviews and qualitative tools highlights the importance of synthesizing evidence and understanding the perspectives of various stakeholders. Although models and interviews are less common, they are equally valuable in providing predictive insights and a deeper understanding of institutional dynamics. Future research would benefit from more systematic integration of these methodologies to capture the complexity and generalizability of science-policy interactions. A more holistic, interdisciplinary approach could inform the development of more effective strategies for bridging the gap between research and policy.

3.1.3 Strategies to Enhance Scientific Support in Policy

To identify strategies for strengthening the science–policy interface, this study analyzed the key findings and conclusions of 98 reviewed articles. Frequently cited needs, innovative approaches, and best practices were then extracted from these articles. Figure 7 summarizes the most commonly proposed strategies for improving the integration of scientific evidence into policy processes.

Strengthening relationships and stakeholder participation (n = 35) is the most frequently cited strategy to foster relationships between researchers, policymakers, and stakeholders (e.g. Bell et al., 2023; Castellani et al., 2013; Robertson & Hull, 2003). Effective collaboration enhances trust, mutual understanding and the relevance of scientific outputs. Early and sustained stakeholder engagement is emphasized as a means of improving the applicability of research findings and informing more responsive policymaking.

Developing institutional and individual capacities - Capacity building (n = 20) - was identified as a critical requirement (e.g., Buffardi & Njambi-Szlapka, 2020; El-Jardali et al., 2012). This includes training and workshops, as well as the provision of tools, to enable researchers and policymakers to collaborate more effectively. Strengthening capacity on both sides enhances the ability to engage in evidence-informed policy development.

Numerous studies (e.g., Ackrill et al., 2013; Thompson et al., 2022) emphasised the need for clear strategic frameworks and well-defined roles (n = 19). When responsibilities are clearly defined, collaboration becomes more efficient and goal-oriented. Strategic planning aligns research and policy objectives, fostering coherence and accountability.

The importance of transparent decision-making processes (n = 16) in building trust and legitimacy was emphasized (e.g. Sutherland et al., 2012; Pihlajamäki & Tynkkynen, 2011). Openly communicating the rationale behind decisions and the evidence used can reduce skepticism, enhance credibility, and encourage greater stakeholder engagement.

Improving science communication was identified as essential for overcoming disciplinary and sectoral

divides (e.g. Naudé et al., 2015; Castellani et al., 2013) - enhancing communication skills (n = 14). This involves translating complex research into accessible language, aligning messages with policy priorities, and fostering interactive spaces for dialogue between academia and policy institutions.

While 12 studies highlighted the improvement of Institutional Structures and Knowledge Exchange, as a useful strategy. This includes robust institutional frame works, such as evidence advisory units and formalized committees, support sustained engagement and the integration of science into policy (e.g., Corluka et al., 2014; Radu et al., 2023). Knowledge exchange, particularly South–South collaboration, was recognized as essential for overcoming geographical disparities in research and ensuring relevance in various contexts (e.g. Lewis et al., 2023).

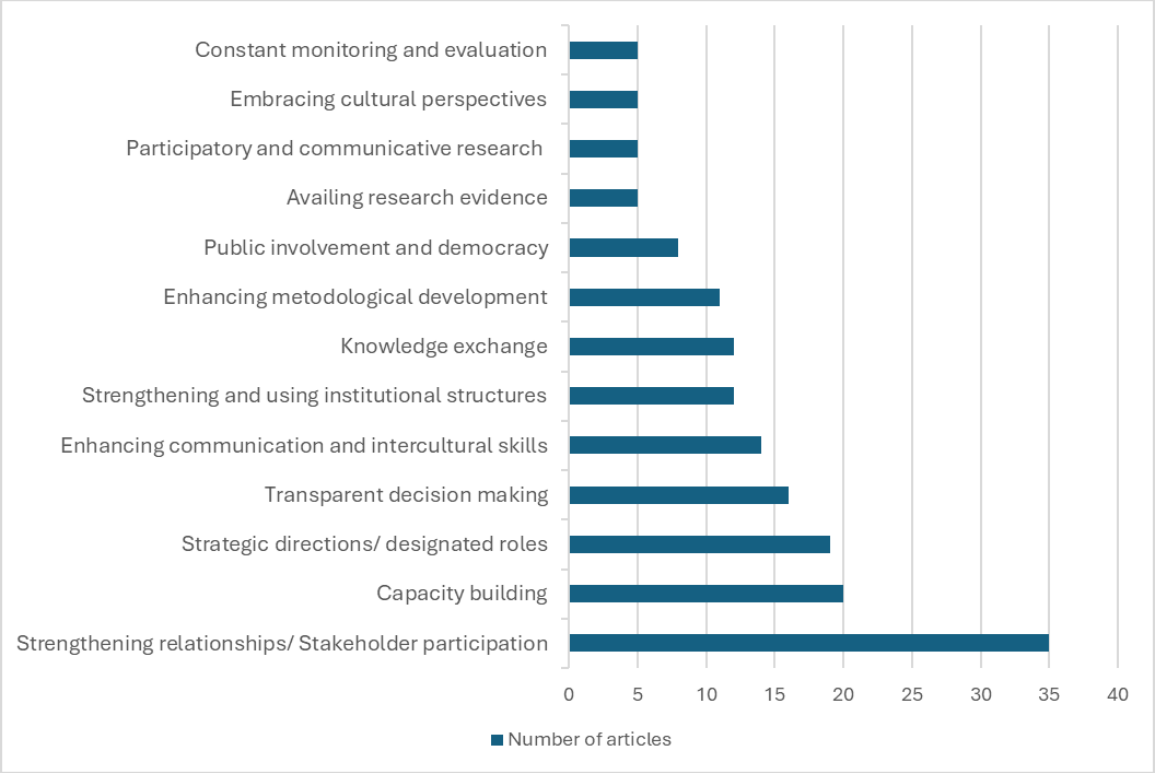


Figure 7: Number of articles showcasing different needs and best practices for science-policy interface.

Source: Authors' illustration.

Several studies emphasized the need for improved, context-sensitive methodological approaches (e.g., Pradhan et al., 2024; AlKhaldi et al., 2021). A strategy on Advancing Methodological Development (n = 11) includes tools such as modelling frameworks and regulatory systems that guide research governance and the systematic dissemination of findings into policy.

Other strategies mentioned include involving the public in policymaking (n = 8) ensures that policies reflect societal values and priorities (e.g., McConney et al., 2016; Herzog et al., 2023). Strategies include using scientific expertise to educate the public, facilitating dialogue through civil society organizations, and establishing formal mechanisms for public input into decision-making processes.

Promoting participatory research, cultural perspectives and monitoring and evaluation (n = 5 each). Participatory research involves stakeholders directly in the research process, fostering inclusivity and practical relevance (e.g. Fernández, 2016; Robertson & Hull, 2003). Incorporating cultural perspectives acknowledges the socio-political context within which science and policy interact (e.g.,

Gluckman et al., 2021; Lahsen, 2009). Monitoring and evaluation mechanisms ensure that science–policy collaborations remain effective and adaptive over time (e.g., Edelenbos et al., 2010; Uneke et al., 2020).

Overall, the literature reflects a broad consensus on the need for multidimensional strategies to improve the relationship between science and policy. The frequent emphasis on collaboration, communication, and institutional support highlights the complex and iterative nature of this relationship. Strengthening interpersonal and organizational ties, fostering inclusive and transparent processes, and enhancing methodological rigor are all essential to ensure that scientific knowledge informs effective and equitable policymaking. Table 5 clearly identifies capacity building, relationship strengthening, stakeholder participation, and transparent decision-making as key areas. However, it also reveals regional disparities: capacity building is particularly pertinent in Africa, while transparency in decision-making is particularly pertinent in Europe. No clear pattern emerges regarding the relevance of strategies for specific sectors; however, the table shows that a knowledge gap exists with regard to the agricultural and food sectors.

3.2 Discussion of the systematic literature review

The systematic literature review provides key insights into the interaction between scientific research and policymaking. Specifically, the review categorized key actors into four groups: government and policy-making bodies, research and academic institutions, media outlets and community organizations, and examined the role of these actors in shaping policy, influencing decision-making and bridging the research-policy divide.

Barriers such as lack of capacity, competing priorities and time constraints were identified as common challenges affecting the science-policy interface. In addition, research plays an important role in policy development through participation, communication and practical application, but gaps in accessibility and credibility hinder its impact. The literature suggests that policy makers struggle to integrate research due to institutional constraints and the complexity of translating scientific evidence into actionable policy.

The academic literature has used a variety of methodological approaches with a focus on evidence-based policymaking and stakeholder engagement, including case study approaches, literature reviews, qualitative methods and in-depth interviews.

Strategies proposed in the literature include improving communication between researchers and policy-makers, strengthening institutional capacity for evidence-based decision-making, and establishing dedicated research-policy platforms.

The systematic literature review underlined the persistent gap between research and policy and highlighted structural and institutional barriers. The findings highlight the need for tailored strategies to improve communication, enhance stakeholder engagement and effectively integrate scientific evidence into policy formulation. However, the regional coverage and focus of these studies vary widely, making it difficult to derive information specific to agri-food system transformation, and while barriers and strategies can be identified from the literature, specific needs to overcome such barriers are still lacking. Furthermore, there has been no assessment of the barriers and needs relevant to specific actor groups.

Table 5: Overview of identified strategies sorted by geographical and sectoral coverage

Publication	Capacity building	Enhancing methodological development	Enhancing communication and intercultural skills	Strengthening and using institutional structures	Strategic directions/ designated roles	Strengthening relationships/ stakeholder participation	Participatory and communicative research	Public involvement and democracy	Embracing cultural perspectives	Transparent decision making	Constant monitoring and evaluation	Regional focus	Field
Nkiaka and Lovett, 2019	x					x						**Africa**	Climate
El-Jardali et al., 2012	x				x	x		x			x	**Africa**	Climate
Etiaba et al., 2015					x	x						**Africa**	Health
Naude et al., 2015	x		x			x						**Africa**	Health
Oronje et al., 2019	x			x	x							**Africa**	Health
Podolak et al., 2017	x				x		x				x	**Africa**	Health
Ridde and Yameogo, 2018	x					x						**Africa**	Health
Uneke et al., 2020					x	x					x	**Africa**	Health
Strydom et al., 2010			x			x		x	x			**Africa**	Interactions
Uneke et al., 2023	x			x		x						**Africa**	Interactions
Akter et al., 2023					x	x			x			**Africa** and Asia	Health
Alkhadi et al.,2021		x	x	x	x							**Africa** and Asia	Health
Lewis et al., 2023	x	x	x									**Africa,** Asia, Europe	Climate
Schleiff et al., 2020	x			x		x						**Africa**, Asia, Middle East, South America	Health
Kleine, 2009	x					x						**Africa**, Asia, South America	**Agriculture**
Zheng et al., 2019		x				x						Asia	Environment
Thompson et al., 2022					x					x		Australia	Environment
McConney et al., 2016	x		x			x		x				Carribean	Environment
Lange and Garrelts, 2007				x	x					x		Europe	Climate
McFadgen and Huitema, 2018				x		x		x				Europe	Climate
Boykoff, 2008			x									Europe	Climate
Saunders et al., 2017						x				x		Europe	Environment
Castellani et al., 2013			x			x				x		Europe	Environment
Ackrill et al., 2013		x			x							Europe	Frameworks
Guillet and Mwemet, 2020						x						Europe	Health
Van Herck et al., 2013		x			x	x				x	x	Europe	Health
Decieux, 2020			x							x		Europe	Interactions
Edelenbos et al., 2010	x					x					x	Europe	Interactions
Emery et al., 2015					x	x				x		Europe	Interactions
Nochta et al., 2021							x			x		Europe	Interactions
Pihlajamäki & Tynkkynen, 2011								x		x		Europe	Research
Sajeva et al., 2020			x			x						Europe	Sustainability
Astleithner & Hamedinger, 2003					x		x					Europe	Sustainability
Bell et al., 2023		x				x						Global	**Agriculture**
Pradhan et al., 2024		x										Global	Sustainability
Buffardi & Njambi-Szlapka, 2020	x				x							LMICs	Health
Piper et al., 2022				x						x		North America	Health
Radu et al., 2023	x			x		x						North America	Interactions
Lahsen, 2009									x			South America	Environment
Corluka et al., 2015	x		x	x	x	x						South America	Health
Silva et al., 2021			x			x		x				South America	Health
Herzog et al., 2023					x			x					Climate
Toeller et al., 2022					x								Climate
Vohland and Nadim, 2015	x	x				x				x			Environment
Bracken and Oughton, 2013				x	x								Environment
Brockhaus et al., 2014						x				x			Environment
Fernández, 2016		x				x	x						Environment
Gluckman et al., 2021			x			x			x				Interactions
Robertson & Hull, 2003				x		x	x		x	x			Interactions
Sutherland et al., 2012	x			x						x			Interactions
Zeigermann, 2021						x							Sustainability
Zoller, 2015	x					x							Sustainability
Clark et al., 2016	x												Sustainability

Source: Authors' elaboration.

Research needs identified based on the literature review:

- While the literature identifies common barriers, it does not sufficiently explore specific, actionable solutions to improve the integration of research into policy. Future research should focus on practical interventions, such as policy labs and dedicated research-policy collaboration programs.
- Research has primarily focused on high-income countries, with limited analysis of African contexts, where institutional capacity and governance structures differ. More localized and thematic studies are needed to tailor strategies to specific policy environments in Africa.

- The literature does not sufficiently address how recognition, advocacy and incentives could improve the engagement of researchers in policy discussions. Rewarding researchers who contribute to policy impact could encourage greater engagement at the science-policy interface.
- The lack of an institutionalized platform for science-policy engagement means that research results are often not well disseminated to policy-makers, limiting their impact on decision-making. Existing engagement platforms are to some extent inadequate or ineffective in fostering an ongoing dialogue between researchers and policy makers.
- Few researchers integrate policy perspectives into their work, leading to a disconnect between academic research and practical policy needs. There is a need for more capacity building programs to train researchers in policy engagement and communication.
- The literature highlights bureaucratic barriers and slow policy uptake of research findings, such as lengthy consultation processes that delay the uptake of research into policy. Future studies should explore mechanisms to streamline the translation of research into actionable policy.

The literature review highlights several challenges, including lack of capacity, competing priorities, limited access to research, and bureaucratic inefficiencies. These barriers are not experienced uniformly by different actors. Therefore, a survey would help to quantify and differentiate these barriers across actor groups to ensure targeted interventions/activities.

The literature review found that much of the existing research is based on high-income countries and the health sector, with limited studies focusing on Africa's unique policy and governance structures, particularly in the agri-food sector. Africa has diverse policy environments, institutional capacities and socio-economic conditions that require localized evidence. A survey distributed to actors across the African continent could provide region-specific data to fill this knowledge gap.

The literature review highlights the lack of structured platforms for ongoing engagement between researchers and policy makers. Understanding how different actors perceive these gaps through a survey could inform the development of more effective research-policy interfaces.

Policymakers often do not directly influence research agendas, leading to a mismatch between research outputs and policy needs. A stakeholder survey could identify what policy makers need from research and vice versa, and how to make scientific results more actionable.

The literature review suggests broad strategies (e.g. collaborative platforms) but does not provide data on which solutions are most relevant to different actors. A survey could identify stakeholder preferences for engagement mechanisms, ensuring more practical and tailored solutions.

4 Partner Interviews

4.1 Results of partner interviews

The qualitative analysis of stakeholder interviews provides valuable insights into the lived experiences, perspectives, and challenges faced by these representatives involved in the science-policy interface. By engaging directly with stakeholders these interviews uncover context-specific factors that may not be evident in the broader literature. The interviews offer a practical lens through which to examine the barriers, facilitators, and potential strategies for bridging the research-policy gap, particularly within the African food systems context. This analysis enriches the discussion by integrating real-world experiences with theoretical and conceptual findings from the literature.

4.1.1 Key actors

Figure 8 depicts the frequencies of key actors mentioned during interviews. International bodies or institutions (8 times) and policy actors such as ministries (7 times) are the most frequently identified key actors mentioned by 8 and 7 out 9 institutions respectively. This highlights the central role of global organizations and national policymakers in shaping and implementing sustainable food systems and reflects the top-down nature of many food system initiatives, where international frameworks and national governance are pivotal.

a) Frequency of identified key actors

b) Characteristics of the policy-research environment

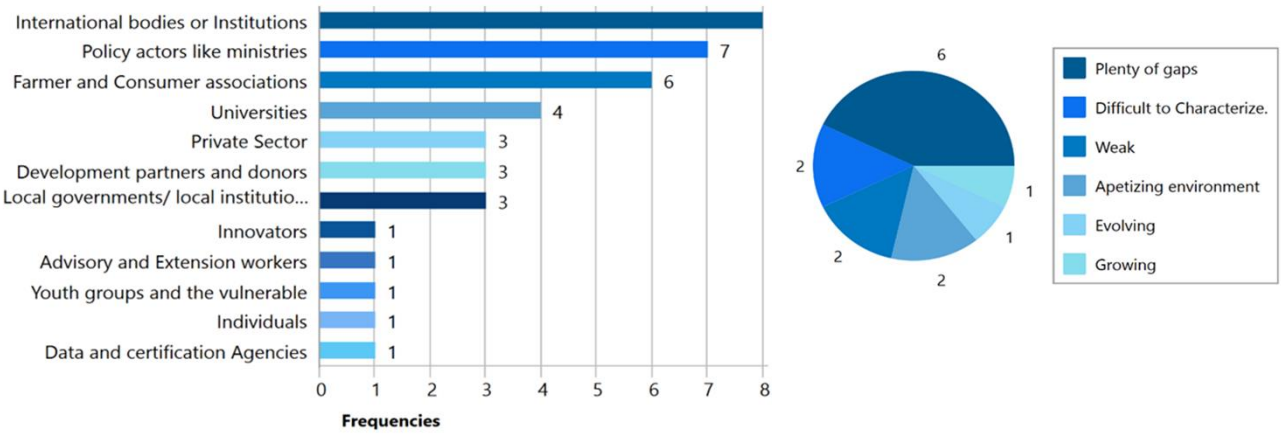


Figure 8 Partner interviews – a) frequency of identified key actors and b) characteristics of the policy-research environment

Source: Authors' illustration.

Farmer and consumer associations were mentioned 6 times, emphasizing their significant role and explaining the importance of grassroots-level involvement. Universities were highlighted (4 times) by four representatives, indicating their critical role in producing evidence-based research that informs policy decisions. The private sector and development partners or donors and local governments or institutions received 3 mentions. Innovators, advisory and extension workers, youth groups, individuals, and data and certification agencies each received only 1 mention by a single institution. This highlights potential gaps in recognition or inclusion of these groups in the broader discourse on

food systems.

While international institutions dominate, the relatively lower mentions of local governments and grassroots actors suggest a need for more inclusive approaches that empower local stakeholders in order to balance global and local perspectives in Africa. The low frequency of mentions for youth groups, innovators, and advisory workers indicates they might be overlooked despite their potential to drive innovation and implement solutions. Both researchers and policy makers need to ask themselves how these actors can be more effectively engaged in sustainable food systems policy and practice. Despite their critical role in ensuring transparency and traceability within food systems, data and certification agencies were mentioned only by 1 representative. This suggests a need to strengthen their role in monitoring and evaluation to support evidence-based decision-making.

4.1.2 Characteristics of the policy-research environment

The interviews revealed a mix of challenges and opportunities (Figure 8). “Plenty of Gaps” (6 times) was the most frequently mentioned characteristic. These gaps refer to insufficient collaboration, lack of mutual understanding, or inadequate mechanisms to integrate scientific evidence into policymaking processes. The prominence of this theme highlights a critical need to address the disconnects between research outputs and policy implementation. “Difficult to Characterize” (2 times) response suggests that some respondents found it challenging to clearly define or describe the current state of the policy-research interface in Africa. This may indicate a complex or inconsistent landscape where the interaction between policy and research varies significantly across different contexts or sectors. The difficulty in characterization highlights the need for a more systematic and structured approach to understanding and managing the policy-research interface. This could involve conducting comprehensive assessments and developing standardized frameworks for evaluating interactions. The “Weak” (2 times) category reflects the perception of an underdeveloped or ineffective policy-research interface. Weaknesses may stem from institutional inefficiencies, lack of funding, or inadequate stakeholder engagement.

“Appetizing environment” was mentioned once. This response suggests that some participants see the policy-research interface as promising and appealing, possibly due to ongoing efforts or recent successes in fostering collaboration. “Evolving” was mentioned twice. This response indicates that the policy-research interface in Africa is seen as a dynamic and improving space, albeit still in transition. The perception of an evolving environment suggests optimism about future improvements. Initiatives such as the Malabo Declaration and the SDGs might be catalysing this evolution. Continued investment in capacity-building, institutional reform, and policy alignment with research findings will be crucial for it to progress. Finally, “Growing” was also mentioned once, reflecting optimism about the expansion of the policy-research interface, with an increasing number of stakeholders recognizing its importance. The perception of growth highlights the potential for scaling up efforts. However, this growth needs to be structured and guided to ensure that it leads to meaningful and sustainable changes in food systems policy.

4.1.3 Contribution of research to policy

Participants were asked about their perception on the contributions of research to policy, particularly in the context of sustainable food systems in Africa. The answers are categorized based on the frequency and thematic relevance of the contributions, providing a comprehensive discussion on how research informs and shapes policy.

Generated Evidence/Proof, Cost-Benefit Analysis, and Brought Interaction (6 times each): These categories emerged as the most frequently mentioned contributions. Evidence generation was emphasized as crucial at every stage of policy implementation. Representatives noted that research is fundamental for developing goals and strategies for continental initiatives. For instance,

> **Quote:** *"...the Comprehensive Africa Agriculture Development Programme (CAADP) has used research to establish its goals, driven by evidence indicating insufficient public expenditure on agriculture in African countries. The CAADP's directive for allocating 10% of public expenditure to agriculture was based on research evidence..."* ***(Interview 7, August 13th, 2024).***

Cost-benefit analysis was highlighted as another significant contribution of research to policy. Research has been used to analyze various investment options and policies, enabling policymakers to make informed decisions:

> **Quote:** *"...the national agricultural investment policies across different countries have incorporated modeling exercises to define investment options and assess their potential impacts. This analysis has been crucial for monitoring and evaluation, ensuring that investments yield the desired outcomes..."* (Interview 3***, July 31st, 2024).***
>
> **Quote:** *"...During the COVID-19 lockdown, the president asked the cabinet to assess the economic impact of the three-month closure. Our organization, alongside international partners, provided CGE model simulations, which informed the government's decision-making process..."* ***(Interview 8, August 14th, 2024).***

Research has also facilitated greater interaction between stakeholders, which was seen as a valuable contribution to policy development. Representatives noted that involving multiple stakeholders from the beginning of the research process ensures that the agenda is broader and more inclusive. This approach leads to more demand-driven research, addressing the actual needs of policymakers and stakeholders.

New Strategies in Development (5 times): Research plays a pivotal role in developing new strategies to address emerging challenges. The representatives highlighted how research has led to the development of implementation frameworks and strategies across various sectors, particularly in agricultural management. Some of the representatives exemplified these cases,

> **Quote:***"...* for instance, *we contributed to drafting an annex for legislation by defining, as researchers, a multi-criteria decision analysis methodology to assess options with the greatest impact from social, environmental, and economic perspectives..."* (Interview 4***, August 6th, 2024).***
>
> **Quote:** *"...The uptake of research outputs by policymakers has also led to significant advancements in agronomic management, soil management, and other aspects of agricultural management. Although there is still room for improvement, the contributions of research in shaping these sectors are evident..."* (Interview 2***, July 31st, 2024).***

Government/Public Support, Problem Identification and Understanding, Knowledge Exchange/Capacity Building (4 times each): These categories were each mentioned by four institutions, reflecting their importance in the policy-research dynamic. Research helps gather support from both government and the public by providing the necessary information and evidence to back policy initiatives. This support is critical for the successful implementation of policies and programs.

> **Quote:***"...it's good to have this kind of exchange with researchers because we can easily identify key stakeholders that could support them easily to get more insights on the research or initial policy questions ...you can support by* organizing workshops*..."* ***(Interview 4, August 6th, 2024).***

Research is essential for identifying and understanding the root causes of problems, enabling policymakers to design targeted and effective interventions. For example, one representative pointed out,

> **Quote:** *"So, we have programs, for example, USAID instituted a project that was looking at agriculture policies. And so, from the start, you now would speak to Minister of Agriculture and the related allied ministries, for example, trade for them to give you, the kind of research gaps, the kind of gaps, kind of problems that they would need research to solve..."* (Interview 1***, July 30th, 2024).***

The exchange of knowledge and capacity building was another significant contribution of research. By involving all players from the agenda-setting stage, research facilitates knowledge exchange and builds capacity among stakeholders. This collaborative approach ensures that research addresses specific needs and supports the development of effective policies.

Risk Assessment and Mitigation (3 Mentions) and Accountability and Transparency (2 Mentions): These categories, though mentioned less frequently, are crucial for ensuring the sustainability and integrity of policies. Research provides insights into potential risks associated with policy actions and offers strategies for mitigating these risks. For example,

> **Quote:** *"...In the agrifood system, our recent work on the impact of the sharp price spike caused by the Russian invasion of Ukraine has been useful for some governments in evaluating their policy responses and exploring ways to use available instruments to minimize negative effects..."* ***(Interview 9, August 21st, 2024).*** 50

Whereas research enhances accountability and transparency in policymaking by providing evidence-based assessments and evaluations. This ensures that policies are scrutinized and held to account, fostering a culture of openness and integrity. Representatives emphasized the importance of developing capacity in evaluation and impact analysis to ensure the relevancy and effectiveness of research evidence.

4.1.4 Primary factors or challenges

The primary factors contributing to the gap between research and policy shed light on the underlying issues that hinder effective interaction between researchers and policymakers in the field of sustainable food systems (Figure 9).

Capacity (5 Times): Capacity emerged as the most frequently mentioned factor or challenge, with five representatives identifying it as a significant contributor to the research-policy gap. The need for capacity-building initiatives, such as short courses for both researchers and policymakers, was emphasized to enhance mutual understanding and effective communication. This lack of capacity was linked to the limited focus on policy issues in academic training systems and the skepticism policymakers often have towards research findings.

Funding and media availability (4 Times): Funding and media availability were the second most mentioned factors, each identified by four representatives. The lack of sufficient funding to conduct research and communicate findings to policymakers was highlighted as a significant barrier. The underinvestment in research by African governments was seen as a contributing factor to the widening gap between research and policy.

Media availability on the other hand was seen as a challenge due to the lack of platforms and failure to use the existing media, such as TV or radio, for scientists to communicate and analyse research. The absence of centralized platforms for sharing research findings with policymakers was also noted as a barrier.

Different communication language and implementation/uptake challenges (3 Times): Three representatives identified different communication languages as a challenge, highlighting the difficulty researchers and policymakers face in understanding each other's work. This challenge is compounded by the siloed nature of institutions, where there is little communication even within the same organization.

Implementation and uptake challenges were also frequently mentioned. Despite the availability of evidence and ideas, these are often not utilized due to a lack of context-specific relevance or difficulties in translating research into actionable policies.

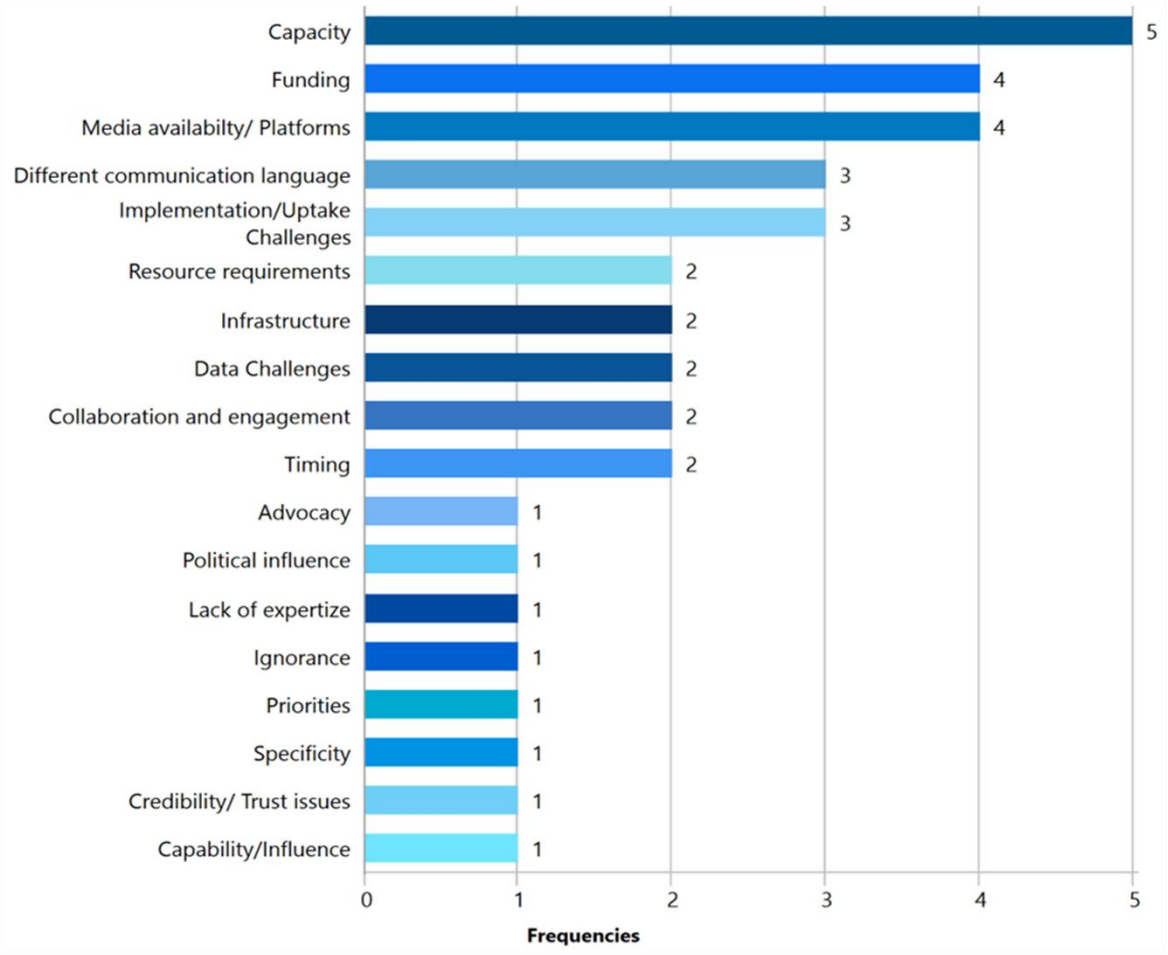


Figure 9 – partner interviews: Frequency of primary factors or challenges
Source: Authors' illustration.

Resource requirement, infrastructure, data challenges, collaboration and engagement, and timing (2 Times): Resource requirements, infrastructure, data challenges, collaboration and engagement, and timing were each mentioned twice as significant factors. Resource constraints were highlighted as a challenge due to the insufficient means to develop research output for policymakers in a timely manner. Data challenges on the other hand were identified as issues related to the accessibility and availability of data in formats necessary for researchers, such as for simulations or trend analysis etc., whereas Infrastructure concerns were raised regarding the adequacy of the research environment.

Collaboration and engagement were described as ongoing challenges, with policymakers and researchers often failing to involve each other in their work, leading to a lack of updates on progress.

An intentional disconnect was also noted, particularly from policymakers who tend to limit academia's involvement, urging researchers to stay within their academic boundaries, which hinders effective collaboration. Timing was another challenge, as policymakers often require research outputs on short notice, while research itself is a lengthy process, and policymaking is inherently a long-term endeavor.

Additional factors mentioned once include advocacy, political influence, lack of expertise, ignorance, priorities, specificity, credibility or trust issues between policymakers and researchers, and capability/influence. Advocacy was identified as crucial during the final phases of the research-policy interface; its absence can lead to the failure of research uptake. Competing priorities from policymakers, who often prioritize other sectors over research, were also highlighted. The capability of various institutions to provide the necessary support to address these gaps was questioned, emphasizing the need for strengthened institutional capacity to bridge the research-policy divide.

4.1.5 Barriers and obstacles

The analysis of barriers and obstacles helps to understand why the uptake of evidence from researchers to policymakers remains a challenge as shown in Figure 10.

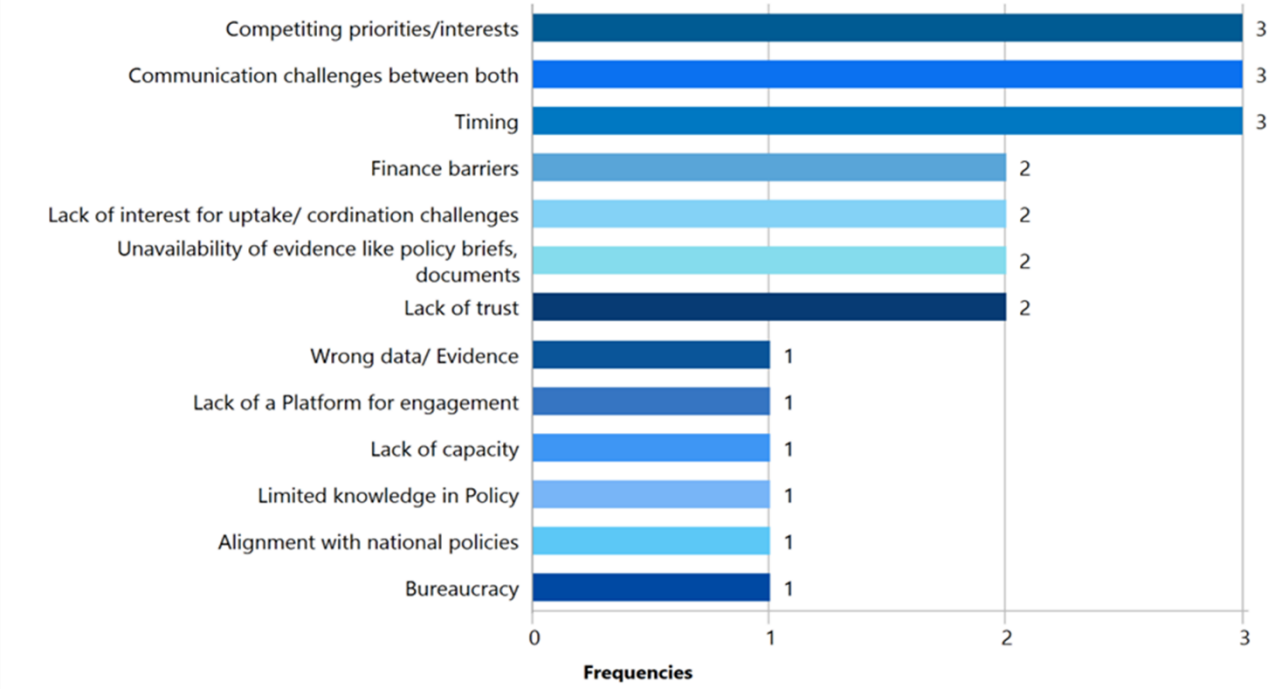


Figure 10: Partner interviews - Frequency of barriers and obstacles recorded
Source: Authors' illustration.

Competing Priorities/ Interests, Communication Challenges, and Timing (3 Times Each): These three barriers were identified as the most significant obstacles to integrating research into policy. Competing priorities and timing were highlighted because, by the time research findings are ready, the specific topic may no longer be a priority for policymakers. This lack of alignment in timing creates a disconnect between research outputs and policy needs. For instance, one respondent mentioned,

> **Quote:** *"...Sometimes, things are of interest at a specific point, and then when you get the findings, they are not a priority anymore..." (Interview 4**, August 6th, 2024).***

Communication challenges were another critical barrier. Researchers often work in isolation and fail to effectively communicate their findings to others, including policymakers. This silence creates a

barrier to the uptake of research evidence.

Finance Barriers, Lack of Interest, and Coordination Challenges (2 Times Each): Finance barriers were identified as a significant obstacle due to the lack of financial support for meetings, discussions, and international dialogues that facilitate the exchange of research findings. Additionally, there is often insufficient funding for data collection, which hampers the ability to generate robust evidence for policy. The lack of interest from policymakers, often due to their busy schedules, was another barrier. Policymakers frequently fail to attend engagements where research findings are discussed, which limits opportunities for dialogue and collaboration. As one interviewee noted,

> **Quote:***"...and so there are times when you invite them and platforms where you can engage more often a lot. They don't even turn up. […] So that kind of lack of interest is the main thing abstracts..."* (Interview 6***, August 8th, 2024).***

This lack of engagement from policymakers can demotivate researchers and further widen the gap between research and policy.

Coordination challenges were also highlighted due to the failure to properly disseminate scientific publications among policymakers. The absence of well-established or institutionalized platforms for sharing research findings limits the reach and impact of these studies. One respondent mentioned,

> **Quote:** *"...Scientific publications and even policy briefs are not always available or well disseminated among interested policymakers..." (Interview **4, August 6th, 2024).***

Wrong data or evidence, lack of platforms for engagement, lack of capacity, limited knowledge in policy, alignment with national policies, and bureaucracy (1 Time Each): Wrong data or evidence was identified as a barrier when researchers summarize unreliable data that policymakers cannot use. This issue points out the importance of data quality and credibility in research for policy. The lack of platforms for engagement was another barrier, emphasizing the need for dedicated spaces where researchers and policymakers can interact regularly. Without such platforms, opportunities for meaningful exchange of ideas and evidence are limited. Lack of capacity was pointed out as there are few researchers with a policy orientation in their work. This capacity gap means that many researchers are not equipped to effectively engage with policymakers or to frame their findings in ways that are useful for policy.

Limited knowledge in policy among researchers, particularly in the African context, was also noted. Researchers often struggle to navigate the policy landscape and may inadvertently engage in political rather than policy discourse, which can dilute the impact of their research. Alignment with national policies on the other hand was highlighted as an obstacle when policymakers are not involved in the research process from the agenda-setting stage. This lack of alignment can result in research findings that do not fit within the existing policy frameworks, making them harder to implement. Finally, bureaucracy was mentioned as a barrier due to the extensive consultation processes required for policy preparation. These lengthy processes can delay the implementation of research findings and reduce their relevance over time.

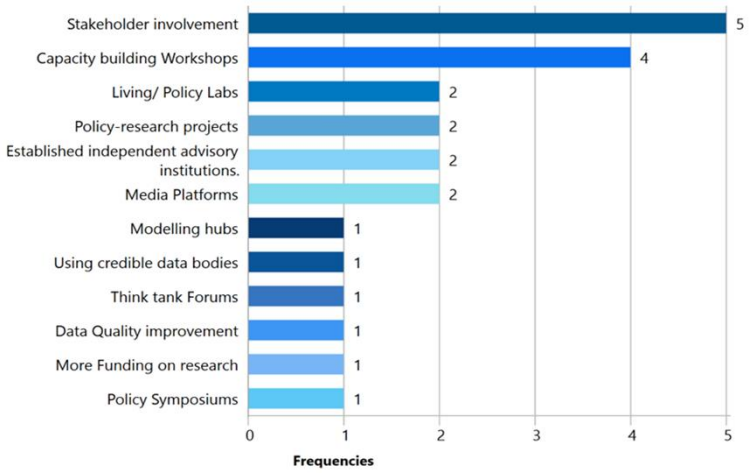
4.1.6 Strategies

To identify potential solutions that could enhance scientific support within policy-making processes, representatives were asked about the strategies currently employed to bridge the gap between research and policymaking. Figure 11 presents the frequency of these strategies as mentioned by the participants and the perceived effectiveness of current strategies aimed at addressing the research-policy gap.

Stakeholder involvement emerged as the most frequently mentioned strategy. This strategy emphasizes the inclusion of key stakeholders such as policymakers, researchers, and international agencies like USAID throughout the research process. By involving these stakeholders from the inception of research projects to their conclusion, institutions aim to ensure that research outputs are aligned with policy needs and that policymakers are more receptive to adopting research findings.

Capacity building workshops were the second most mentioned strategy. These workshops aim to enhance the skills of both researchers and policymakers, enabling them to effectively communicate and understand research results. Examples include food dialogues like the "Food Indaba" in South Africa, short courses, and training programs for both researchers and policymakers. Improving the ability of researchers to convey their findings and of policymakers to interpret these findings, this strategy of capacity building fosters a mutual understanding that is critical for effective policy development.

a) Current strategies



b) Perceived effectiveness

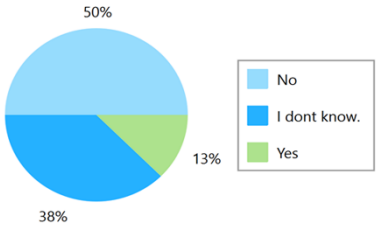


Figure 11: partner interviews – a) Current strategies and b) their perceived effectiveness, i.e., what are the success rates of these strategies mentioned?

Source: Authors' illustration

Several other strategies were mentioned twice, reflecting their emerging importance in bridging the research-policy gap. Television and radio programs specifically tailored on disseminating or interpretation of scientific research outputs as well as sites for sustainable food systems were examples of media platforms pointed out. Advisory institutions and policy labs provide a structured environment for policy-research interaction, while media platforms help in raising public awareness and understanding of research outcomes.

A few strategies were mentioned only once, these were modelling hubs or departments in an institution with staff working several models for different priorities like elements related to inflation employment and other macro elements, CGE models which deal with dynamic and static analysis of micro issues, models like DEMETRA integrated with the climate element and to do food and nutrition security analysis and other models such as futures, fiscal incidence analysis etc. Using credible data bodies for example statistics bureaus for ensuring data reliability. Think tank forums, data quality improvement, policy symposiums, and increased research funding**.** These strategies highlight the need for robust data infrastructure, continuous dialogue and although mentioned less frequently, these strategies are nonetheless critical components of a comprehensive approach to bridging the research-policy gap.

Representatives were asked about their perception on the effectiveness of current strategies aimed at addressing the research-policy gap in sustainable food systems in Africa. The responses from the representatives reveal a spectrum of perspectives (Figure 11). Half of the representatives (50%) expressed skepticism about the effectiveness of current strategies. Their concerns cantered on several key issues. Several representatives pointed out that the strategies employed are often too broad and lack specificity tailored to the unique challenges of the food systems sector. This generalization limits their applicability and effectiveness in producing tangible outcomes. They also pointed out the weakness in institutional capacity, particularly within the planning, monitoring, and evaluation departments of agricultural ministries, which hindered the successful implementation and monitoring of these strategies. This weakness creates a bottleneck that impairs the flow of research into policy. The lengthy nature of policy processes was also highlighted as a significant barrier. The slow pace of translating research findings into policy actions diminishes the impact of these strategies and reduces the motivation of stakeholders. Some representatives noted a lack of clarity in the roles and responsibilities when institutions are brought together to implement these strategies. Additionally, unclear messages from policymakers about their needs contribute to inefficiencies in aligning research with policy.

A significant portion of the representatives, up to 38%, expressed uncertainty about the effectiveness of the strategies, citing several reasons. Some representatives indicated that they were not directly involved in the strategies aimed at bridging the research-policy gap, making it difficult for them to accurately assess their success or failure and be precise. The evolving nature of strategies during implementation was also pointed out which creates challenges in evaluating their success. Changes in strategy mid-implementation can lead to inconsistencies in outcomes, making it difficult to measure effectiveness.

The representative who agreed with the success of these strategies pointed this out because they related it to their home country where there have been some positive results from research influencing policies, for example a government policy program known as “planting for food and jobs” where the seeds that were being used were produced by domestic researchers. In this program, research outcomes, such as the development of seed varieties also directly informed government policies and agricultural practices.

> **Quote:** *“Yes, so the examples I gave […], I can easily talk about that... they got the government to listen because they were part of when the idea came to set up or roll out these programs, there was stakeholder engagement where we could just discuss how it's going to be implemented to have the maximum effect.”* ***(Interview 6, August 8th, 2024)***.

The mixed responses from these institutional representatives highlighted both the challenges and successes of current strategies in bridging the research-policy gap. While the strategies have seen some success, particularly in specific contexts, broader issues such as the generic nature of strategies, weak institutional capacities, and prolonged policy processes present significant obstacles. The uncertainty expressed by a large proportion of representatives further emphasizes the need for more robust evaluation mechanisms and clearer communication channels between researchers and policymakers. Additionally, the findings suggest that a more tailored approach, considering the unique needs and capacities of different regions and institutions, could enhance the effectiveness of these strategies.

4.1.7 Future opportunities to enhance scientific support into policy

The interview asked about the perspectives on the solution possibilities and opportunities for the future

of policy-research interaction in sustainable food systems in Africa. The insights gathered reveal several dominant themes and potential pathways for strengthening this critical interface (Figure 12).

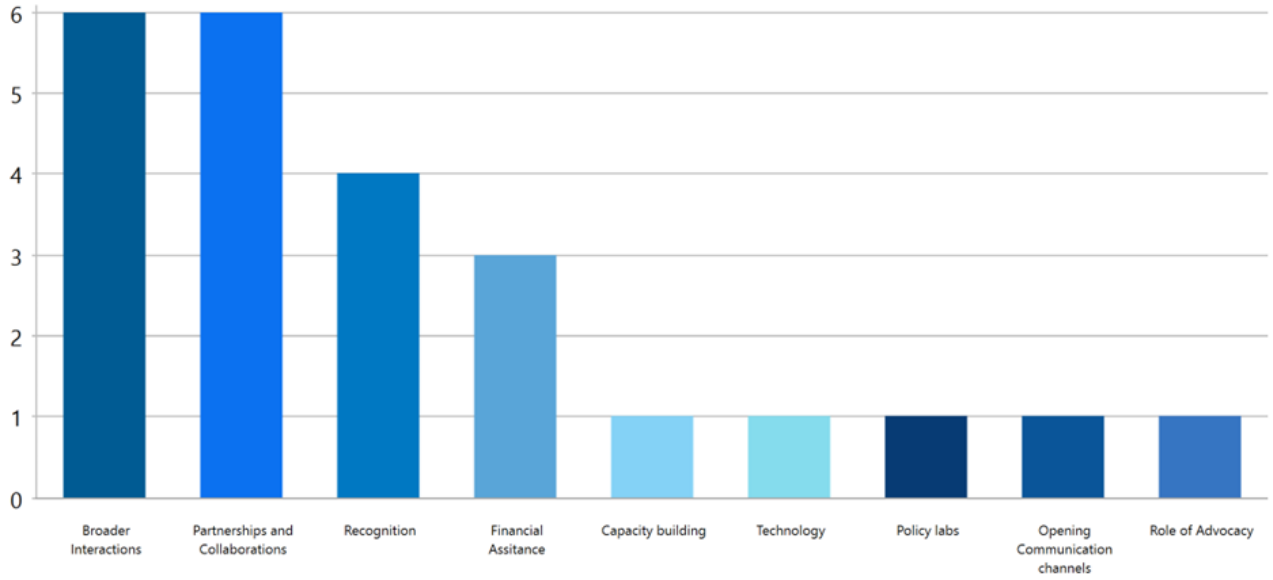


Figure 12: Partner interviews - Frequency of future opportunities to address science policy interface

Source: Authors' illustration.

Partnerships and collaborations (6 times): A significant number of representatives highlighted partnerships and collaborations as a key opportunity for fostering more effective policy-research interactions. This opportunity was exemplified through the growing trend of policy partnerships between the EU and AU, which were seen as pivotal in creating a shared platform where science could serve as a common language for both continents. Additionally, agricultural partnerships where researchers and policymakers engage through dialogues were emphasized as crucial for bridging the gap. Events like the science and agriculture partnership conferences were cited as examples where these dialogues have already begun to create meaningful interactions.

Broader interactions (6 times): Broader interactions, including systematic approaches to food security discussions, revisions of key frameworks like the CAADP, and leveraging digital spaces, were seen as essential for enhancing policy-research interaction. The revision of CAADP was exemplified because it was viewed as an opportunity to integrate strategies that bring together policymakers, researchers, farmers, and the private sector to foster more intensive interactions.

> **Quote:***" ...Yes, I see an opportunity to strengthen the connection between policymakers and researchers. With the CAADP currently under review and transitioning into a new phase, there have been deliberate efforts to include strategies and actions aimed at fostering collaboration. These efforts aim to bring policymakers, researchers, farmers, and the private sector together to enhance interactions and align objectives..."* (Interview 6***, August 8th, 2024).***

On the other hand, the rise of digital platforms was recognized as a game-changer for cross-learning and knowledge sharing across continents. Digital spaces were seen as a viable alternative to physical engagements, providing easier access to information that can inform policy.

> **Quote:** *"... another opportunity lies in the rise of digital systems, which enable cross-learning from other continents and countries. By understanding how others approach similar challenges, valuable lessons can be gained. If these insights are centralized into an accessible*

platform, it would allow stakeholders to easily access knowledge and use it to inform policy effectively..." (Interview 5***, August 7th, 2024).***

Quote:*"... And newer and better opportunities to do that we can take advantage of, for instance, and I'll allude to the digital space that we are in now taking advantage of digitalization to drive more science police interaction I think spaces, you don't only need physical spaces to engage with policymakers now, we now have digital spaces and this has been taken advantage..."* (Interview 7***, 13th August, 2024).***

Recognition (4 Times): Recognition of the importance of the science-policy interface was another significant opportunity identified. Representatives highlighted the growing acknowledgment among stakeholders of the need for more activities that strengthen this interface. They also suggested that rewarding stakeholders, particularly researchers who contribute to this field, could further encourage engagement.

Financial Assistance (3 Times): Increased financial resources were seen as a crucial opportunity for enhancing policy-research interactions. More funding directed towards fostering dialogues and strengthening the science-policy interface was noted as a positive trend that could support future efforts.

Other Opportunities: Technology, role of advocacy, policy labs, opening communication channels, and capacity building were also suggested as future opportunities with each being mentioned once (1 time). Technology was pointed out for its advantage in breaking down multilateral process policy processes whereas advocacy was pointed out for its strength in supporting uptake of research. Policy labs were an example of spaces for engagement by these stakeholders to tackle this gap and capacity building to train these stakeholders more on their engagement to address this gap.

The findings reveal a multifaceted approach to strengthening policy-research interactions in sustainable food systems. However, for these opportunities to translate into tangible outcomes, it is essential to address the underlying challenges identified in previous sections. Building institutional capacity, ensuring clear communication, and fostering a culture of continuous learning and adaptation will be critical. By capitalizing on these opportunities and addressing existing barriers, the future of policy-research interactions in sustainable food systems in Africa holds promising potential for driving impactful and sustainable change**.**

4.2 Discussion and conclusion of partner interviews

The interviews provide valuable real-world perspectives from African researchers and research intermediaries that complement the literature review. They highlight the gap between research and policy, the importance of inclusive stakeholder engagement, and the need for better institutional structures to support evidence-based decision-making. In addition, most interviewees stress that current strategies are ineffective due to a lack of specificity, weak institutional capacity and slow policy processes.

Capacity constraints, time issues and lack of structured engagement platforms were highlighted in both the literature and the interviews, while the interviews revealed more challenges than the literature, in particular competing priorities between policy makers and researchers, communication difficulties, funding constraints and lack of media accessibility. For example, funding was mentioned less frequently in the literature but was a prominent issue in the interviews, possibly because of the interviewees' direct experience. However, interview results also showed that a survey could be used to gain quantitative evidence on the impact of funding gaps on research-policy collaboration and help

institutions to design targeted funding mechanisms.

In terms of strategies for bridging the research-policy gap, the literature tends to focus on broad frameworks and theoretical models for improving the science-policy interface, while interviewees emphasized more practical tools such as operational strategies like policy labs, modelling hubs, stakeholder dialogues and think tank forums as concrete mechanisms for improving engagement. However, the effectiveness of these strategies remains unclear, and in this regard a survey could help measure which interventions are most needed and feasible in an African context.

The need to recognize and incentivize researchers' contributions to policy was raised in the interviews but was largely absent from the literature. A survey could assess how policy makers perceive research and what incentives could improve the uptake of research. The interviews provide context-specific insights from different regions of Africa. While the literature is broader and covers several regions, the interviews provided Africa-specific insights into sectoral challenges, governance constraints and capacity limitations. The interviews highlighted the difficulty of translating research into policy due to bureaucratic barriers, lack of political will and inadequate financial resources, aspects that have not been explored as much in the literature.

The interviews provide qualitative insights specific to the agri-food sector in Africa, but a survey could help to quantify these findings and ensure data-driven policy making. By collecting responses from a larger sample of African policymakers, researchers and other stakeholders, a survey could help…

- Identify regional differences in policy and research challenges.
- Identify the most pressing barriers that require urgent intervention.
- Identify how different stakeholders are involved and how they interact.
- Highlight the specific needs of different stakeholders
- Validate the effectiveness of proposed solutions
- Contribute to relevant strategies specific to the agri-food sector in Africa
- Provide empirical evidence to inform future policy initiatives.

5 Survey on policy-research interactions

The insights provided by StePPFoS partners through interviews were systematically analysed and used to inform the design of the survey instrument on policy research interactions in Africa, with a particular emphasis on the agri-food sector. In order to ensure the instrument's contextual relevance and sensitivity to regional differences, interviewees were purposefully selected from diverse countries and regions across the continent, as well as from various domains of research and research brokering.

This chapter presents the results of the survey on the interaction between policy and research. First, it provides a descriptive overview of the participants. It then covers their current interactions, the barriers and needs identified, and the strategies employed. Finally, it presents the responses to the open questions.

5.1 Overview of participants

The survey was sent to staff at research institutes, universities, international and national organizations, research brokerage institutions, non-governmental organizations, think tanks, and government and local authority organizations. Participants were asked to classify themselves as either researcher, research brokers or policymakers when filling in the survey. A total of 116 responses were received of which 31 were from females. 85 of the responses received were from researchers and 26 were from research brokers based in various African countries. Only five responses were received from policymakers, who were based in Uganda, Nigeria, Ghana and the Netherlands. Figure 13 shows the distribution of responses across African countries, revealing that the majority came from Eastern Africa, particularly Kenya, Uganda, Ethiopia, and Tanzania. Unfortunately, very few survey participants were located in North, Central, or Southern Africa. Figure 14 shows the distribution of responses across regions.

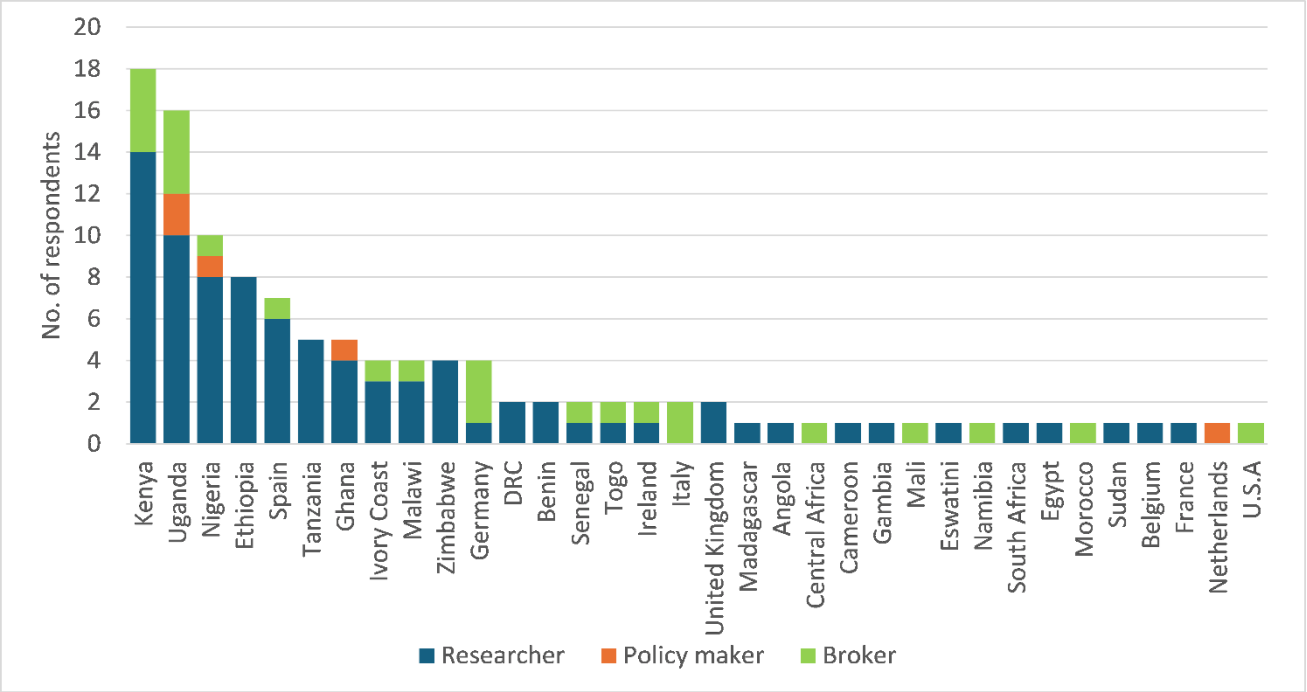


Figure 13: Survey participants separated by role and country

Source: Authors' illustration.

The survey was also sent to researchers, research brokers and policymakers based outside Africa, e.g., individuals employed by international organizations focusing on African countries. 45% of the responses received came from this group, mainly from Spain, Germany, and other EU member states, as well as

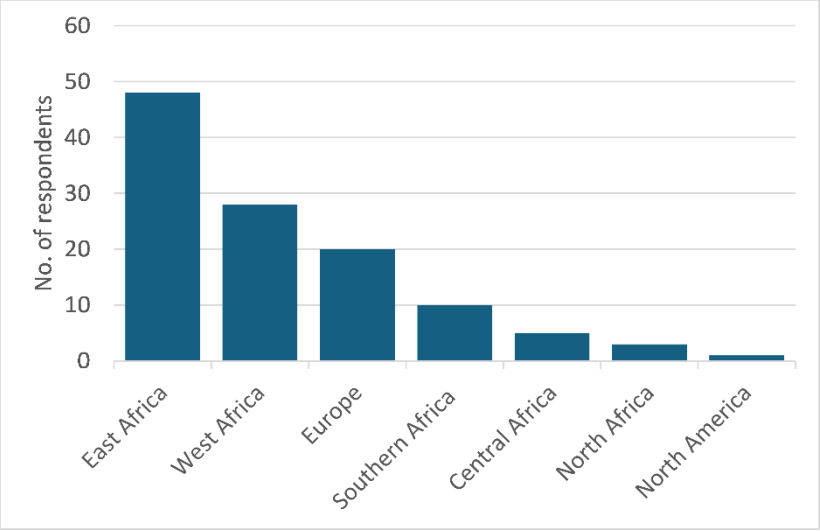


Figure 14: Distribution of responses across regions

Source: Authors' illustration.

In the survey, participants were asked to indicate their field(s) of expertise. Figure 15 shows that there is strong expertise in agricultural economics, agricultural and food policy, food security, agricultural sciences and rural development, with at least 30 respondents indicating each area.

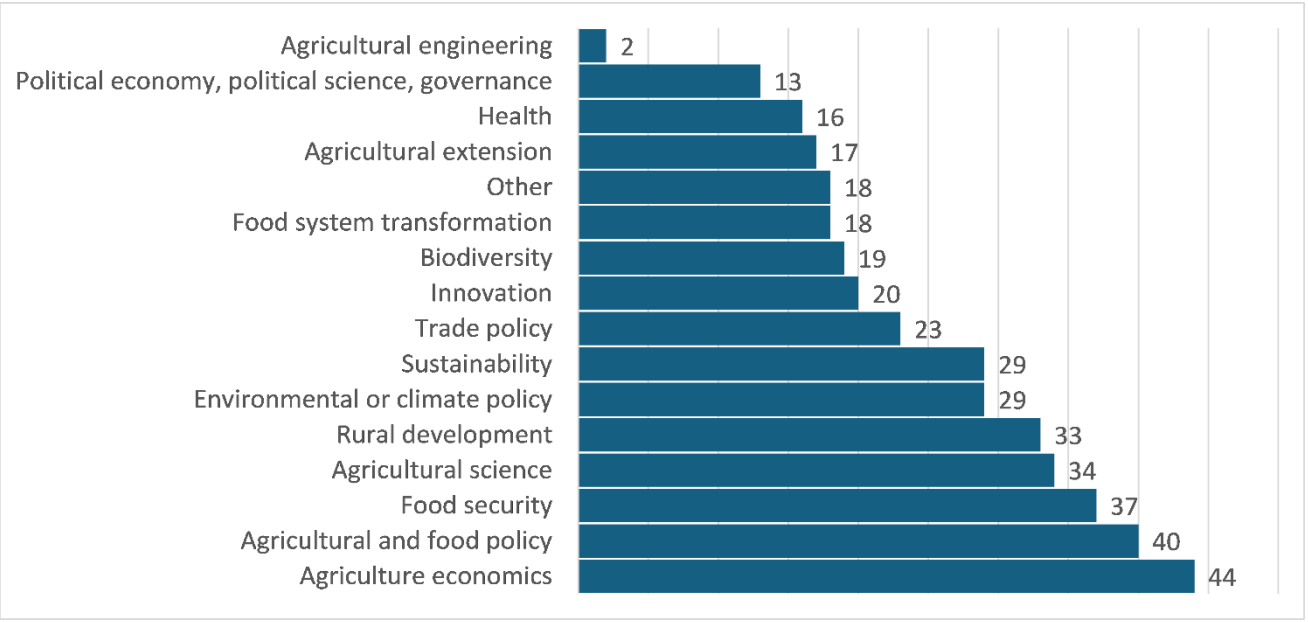


Figure 15: Responses according to field of expertise; Note: Participants could indicate more than one field of expertise

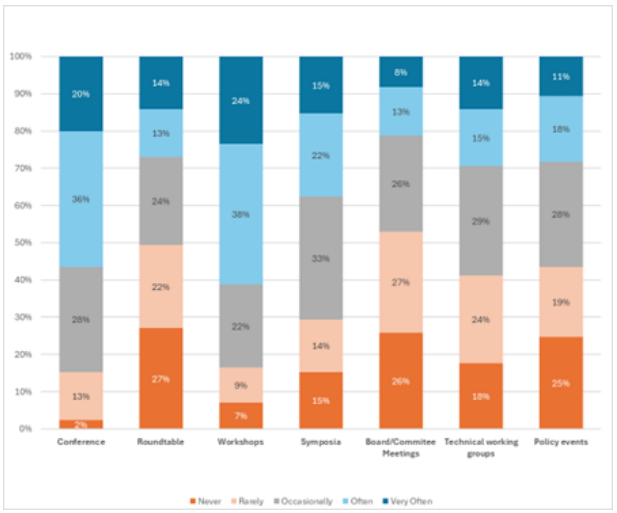
Source: Authors' illustration

Respondents revealed moderate expertise in sustainability, trade policy, innovation, and environmental and climate policy, with 20 to 29 mentions in each area. Fields such as food system transformation, biodiversity, agricultural extension and health were mentioned fewer than 20 times. Some respondents indicated that they have expertise in other fields, such as urban and regional planning, social sciences, theatre arts and community development, agribusiness and value chain management, climate science, and macroeconomics.

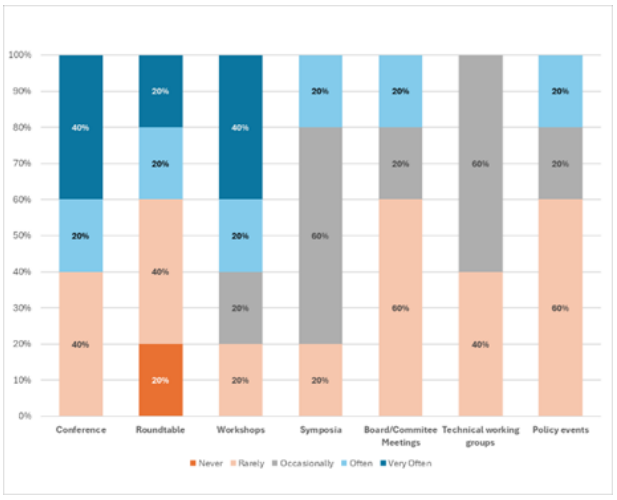
5.2 Importance and perception of current policy-research interaction

This section provides an overview of the current state of policy-research interaction, as perceived by the survey participants. Specifically, we aimed to establish where and how the various stakeholders interact, and how important they consider policy-research interaction and evidence-based policymaking to be. Figure 16 shows where researchers, policy-makers and research brokers interact.

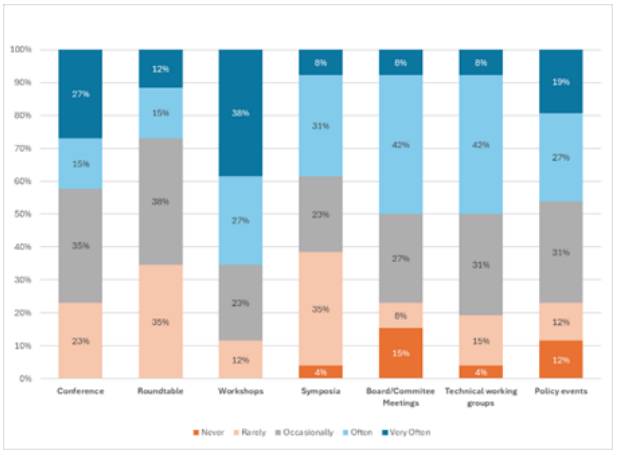
(a) Researcher: Interaction with policy makers (b) Policy maker: Interaction with researchers



(c) Research broker: Interaction with policy makers



(d) Research broker: Interaction with researchers



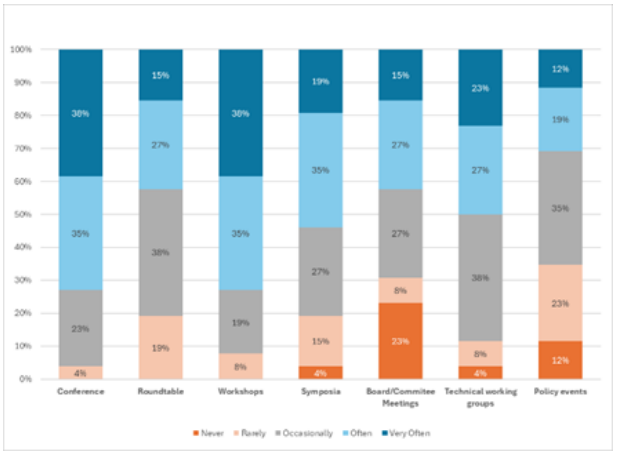


Figure 16: Where do the different stakeholders interact. Note: Figure AAA (b) must be interpreted with caution due to the limited number of responses from policymakers.
Source: Authors' illustration.

The survey results revealed that more than 50% of researchers primarily interacted with policymakers at conferences and workshops. These interactions were predominantly reported by researchers based in East and West Africa. Similarly, the few policymakers from East and West Africa indicated that they frequently interacted with researchers in these settings. Knowledge brokers also reported frequent interactions with both policymakers and researchers, primarily through workshops and conferences with researchers, while conferences seem to be less important when engaging with policy makers.

Despite interactions at conferences and workshops being common, there was a notable lack of engagement through roundtable discussions, board or committee meetings, policy events and other symposia. A significant proportion of researchers and policymakers, particularly in East Africa, reported limited or no interaction via these formats. This suggests a missed opportunity for more dialogue and collaboration.

Further divergence was observed in participation in policy events, symposia, and committee meetings. The varying levels of engagement between groups in these settings warrant closer examination in order to better understand the dynamics and the potential for strengthening the link between policy

and research.

To better understand why these formats are particularly important and frequently used in policy research interactions, it is helpful to consider how different stakeholders become involved. To do so, we distinguish between four engagement groups: researchers and policymakers; policymakers and researchers; research brokers and researchers; and research brokers and policymakers (see Figure 17).

The survey indicates that up to 52% of researchers frequently get in contact with policymakers through their colleagues or project partners. The majority of these researchers were from East and West Africa. The next most common form of engagement was receiving invitations to participate (43%), which was a particularly prevalent method among male respondents from East and West Africa. Long-term relationships were also a notable avenue, indicated by 36% of researchers. By contrast, policymakers very often engaged with researchers through long-term relationships. Invitations from others were also a common method of engagement, whereas direct personal requests from researchers rarely prompted involvement. Research brokers reported high levels of engagement via colleagues or project partners, long-term relationships, and invitations. These intermediaries were least likely to engage through unsolicited calls from experts or personal requests.

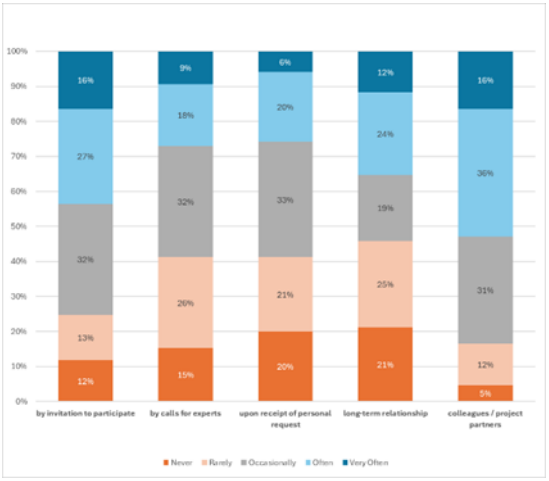
The distribution of responses is primarily influenced by the higher number of participants from East, West, and Southern Africa. This phenomenon may be indicative of the increased concentration of research institutions and NGO activities in these regions, as observed by MacLean et al. (2015). Moreover, the majority of responses were received from male participants. The underlying reasons for this phenomenon remain to be fully elucidated; however, it is conceivable that it may be attributable to either diminished response rates among female participants or a reduced number of invitations being extended to women. It is evident that further investigation is required in order to determine the underlying causes of this pattern. It is important to note that gender imbalances in staffing remain prevalent across many research and policy institutions in Africa, where systemic, cultural and institutional barriers continue to limit women's participation (Wendoh and Wallace, 2005). It is reasonable to hypothesize that these dynamics are a contributing factor to the underrepresentation of women in the respondent pool.

Across all four engagement groups, three main engagement pathways emerged consistently: long-term relationships, invitations to participate, and connections through colleagues or project partners. However, notable gaps remain. A substantial proportion of researchers reported never having interacted with policymakers via expert calls or personal requests. While this route was also uncommon among policymakers, a small number of male respondents from East and West Africa and Europe did report rare engagement through such channels. These findings suggest that informal, network-based connections are the primary means of fostering interaction between policymakers and researchers, while more formalized or unsolicited outreach strategies are underutilized, particularly among researchers.

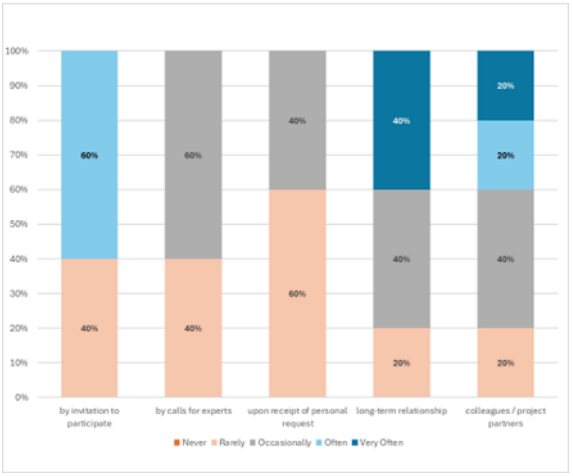
The survey results also provide an overview of how different stakeholders perceive the use of scientific evidence in policymaking, as shown in Figure 18. Survey responses revealed a strong consensus on the importance of incorporating scientific evidence into policy decisions. When asked to respond to the statement 'Policy decisions do not need to take inputs/evidence from scientific research into account', an overwhelming majority disagreed: 68% strongly disagreed, 14% disagreed, and only 15% expressed any level of agreement. This reflects a broad rejection of the idea that effective policymaking can be achieved without integrating scientific evidence. The findings suggest a widely

shared recognition among stakeholders of the value of evidence-based policymaking.

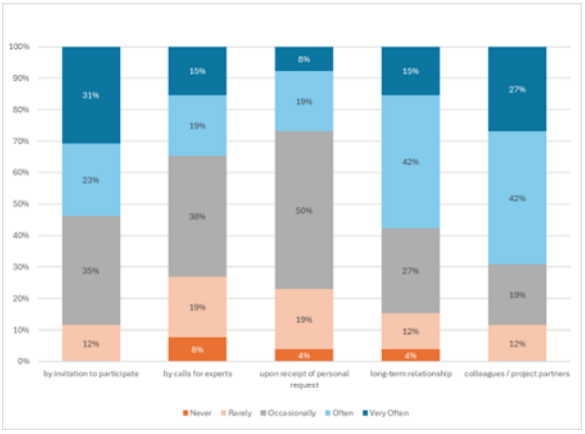
(a) Researcher



(b) Policy maker



(c) Research broker - policy maker



(d) Research broker - researcher

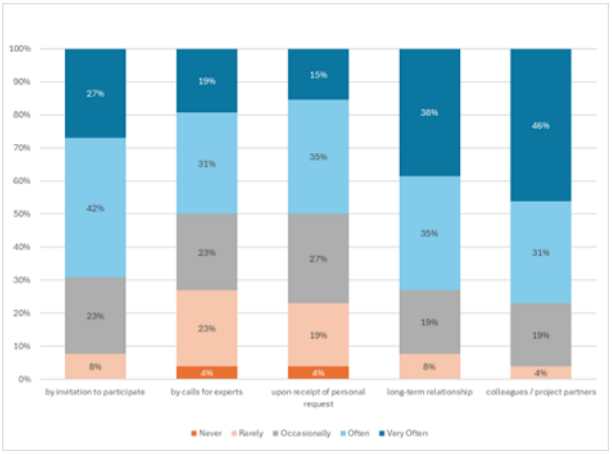


Figure 17: How do the different stakeholders get involved. Note: Figure BBB (b) must be interpreted with caution due to the limited number of responses from policymakers.
Source: Authors' illustration.

Support for the statement 'Policymakers should make more use of research results in the policymaking process' was even more pronounced. A combined 89% of respondents agreed, with 66% indicating strong agreement and 23% agreeing. This strong endorsement points to a widespread perception that the use of research evidence in policymaking is insufficient and needs to be significantly enhanced. The results likely reflect underlying dissatisfaction with the discrepancy between research production and its application in policy formulation. Similarly, the statement 'Policymakers and researchers should interact more with regard to policy design and priority setting' received near-unanimous support: 67% strongly agreed and 28% agreed, totaling 95% in favor of this statement. This statement thus received the highest level of consensus of all, highlighting the importance that respondents place on early and sustained collaboration between researchers and policymakers. Such engagement is considered vital for ensuring the relevance, contextual alignment and policy impact of research.

The survey results reveal a strong and widespread belief among stakeholder groups that scientific research should play a greater role in the policymaking process. Respondents strongly support

increased policymaker involvement in shaping research agendas including research design and priority setting, emphasizing the need for research findings to be translated more effectively into actionable policy recommendations. The results also highlight the important role that research intermediaries could play in translating research findings.

Overall, the findings suggest a high level of dissatisfaction with the current state of research–policy interaction, indicating a clear need to foster deeper collaboration and evidence-based policy development.

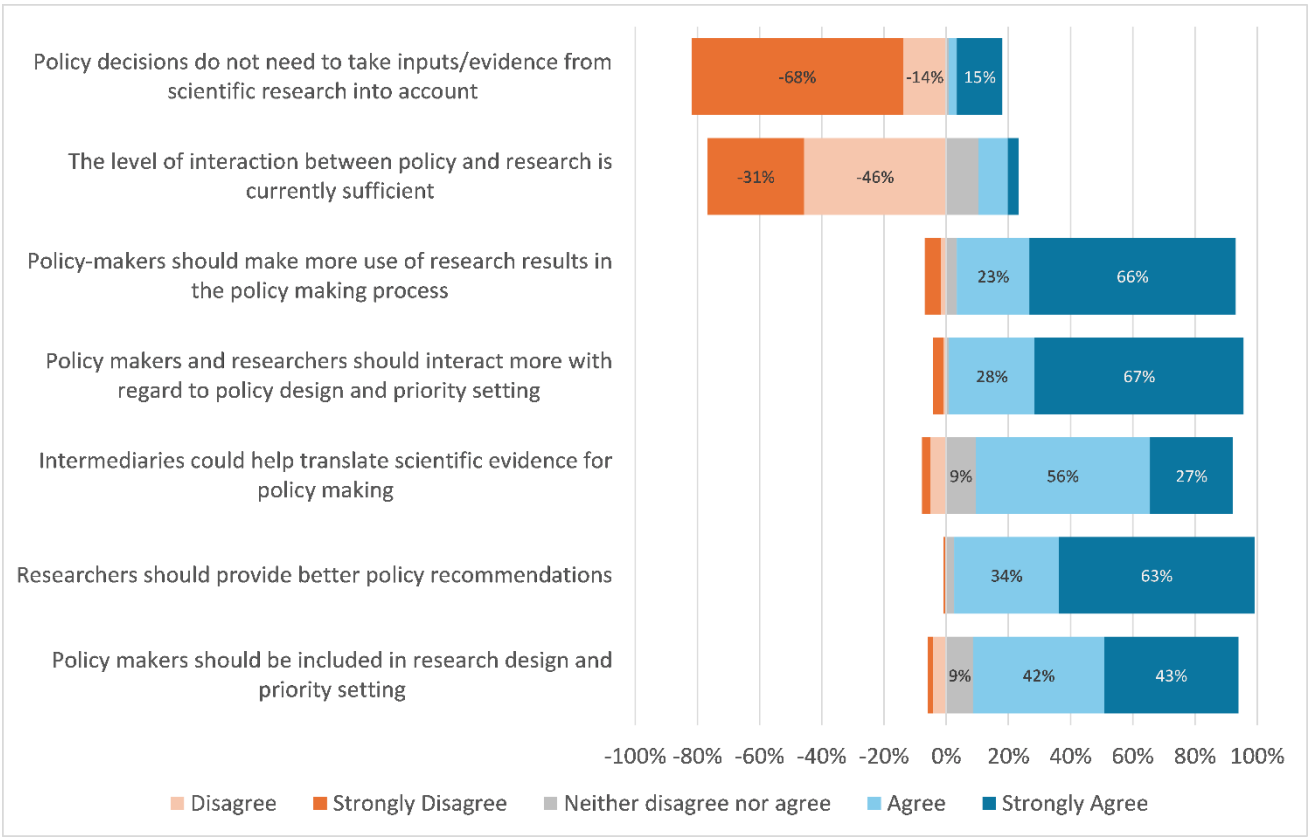


Figure 18: Perception of the use of scientific evidence in policymaking.
Source: Authors' illustration.

Figure 19 presents a more nuanced depiction of how the three stakeholder groups perceive the role of scientific evidence in policymaking. It highlights the statements with which each group expressed the strongest agreement (i.e. strongly agreed or agreed).

Of the stakeholder groups, researchers were the most likely to support the view that policy decisions should incorporate scientific research. They also expressed the greatest concern about the current inadequacy of interaction between policy and research, emphasizing the need for increased engagement between researchers and policymakers, particularly in the areas of policy design and setting priorities.

In contrast, policymakers showed the highest levels of agreement with the notion that policymakers should make greater use of research findings in the policymaking process. They also emphasized the value of intermediaries in translating scientific evidence into policy-relevant formats and highlighted the need for researchers to provide more actionable policy recommendations.

Brokers most strongly supported the involvement of policymakers in the research process itself,

including the design and setting of research priorities. They also recognized the role of intermediaries in facilitating communication and knowledge translation between research and policy domains, as did policymakers.

A notable point of convergence across all three groups was the strong agreement that researchers should provide clearer and more relevant policy recommendations. This shared perspective highlights the persistent challenges in communication and translation between the research and policy communities.

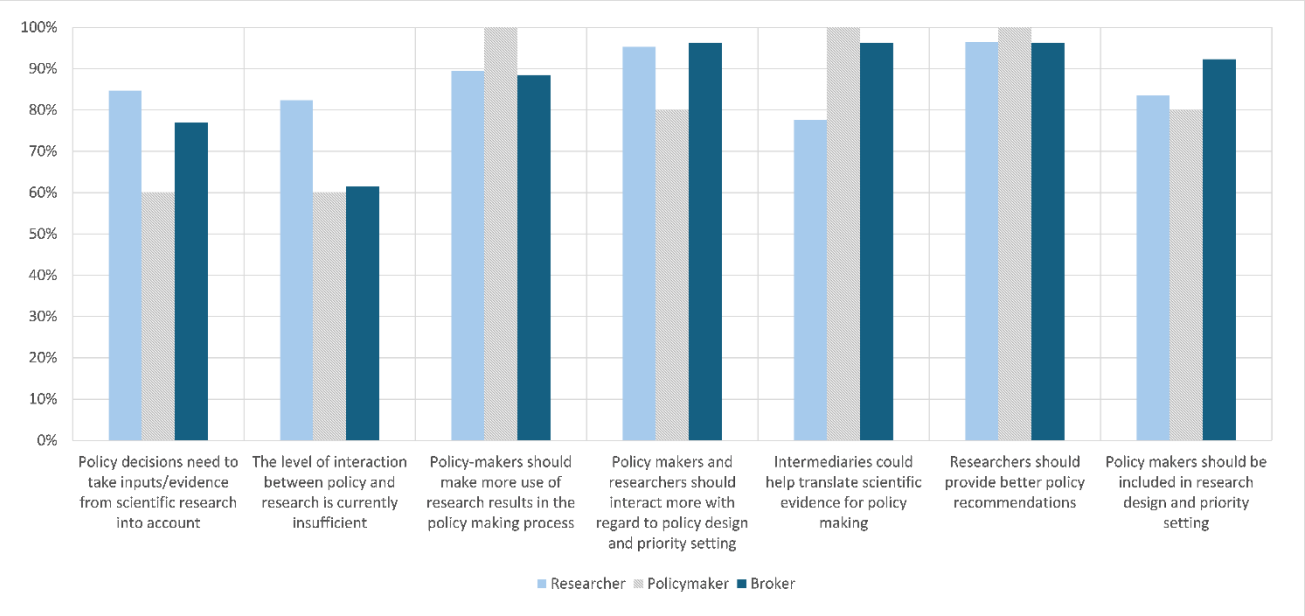


Figure 19: Perception of the use of scientific evidence in policymaking by stakeholder group.
Note: This graph shows the share of respondents by stakeholder group that agreed and strongly agreed to a statement. As we only received five responses from policymakers, the results from this stakeholder group should be treated with caution and are therefore presented shaded.
Source: Authors' illustration.

How respondents' views on the role of scientific evidence in policymaking vary across different regions of Africa is shown in Figure 20. Of the five regions analyzed, North Africa had the highest proportion of respondents who strongly agreed with statements about the perception and use of scientific evidence in policy processes. Central Africa followed, then West Africa. However, North Africa and Central Africa, were among the regions from which the fewest responses were received.

An interesting finding emerged from North Africa. While the majority of respondents agreed with the statements, none of the North African respondents — from any of the three stakeholder groups (researchers, policymakers and knowledge brokers) — agreed or strongly agreed that intermediaries could play a role in translating scientific evidence for use in policymaking. This absence of support suggests a potential gap in the recognition or utilization of knowledge brokers in the policy–research interface in North Africa.

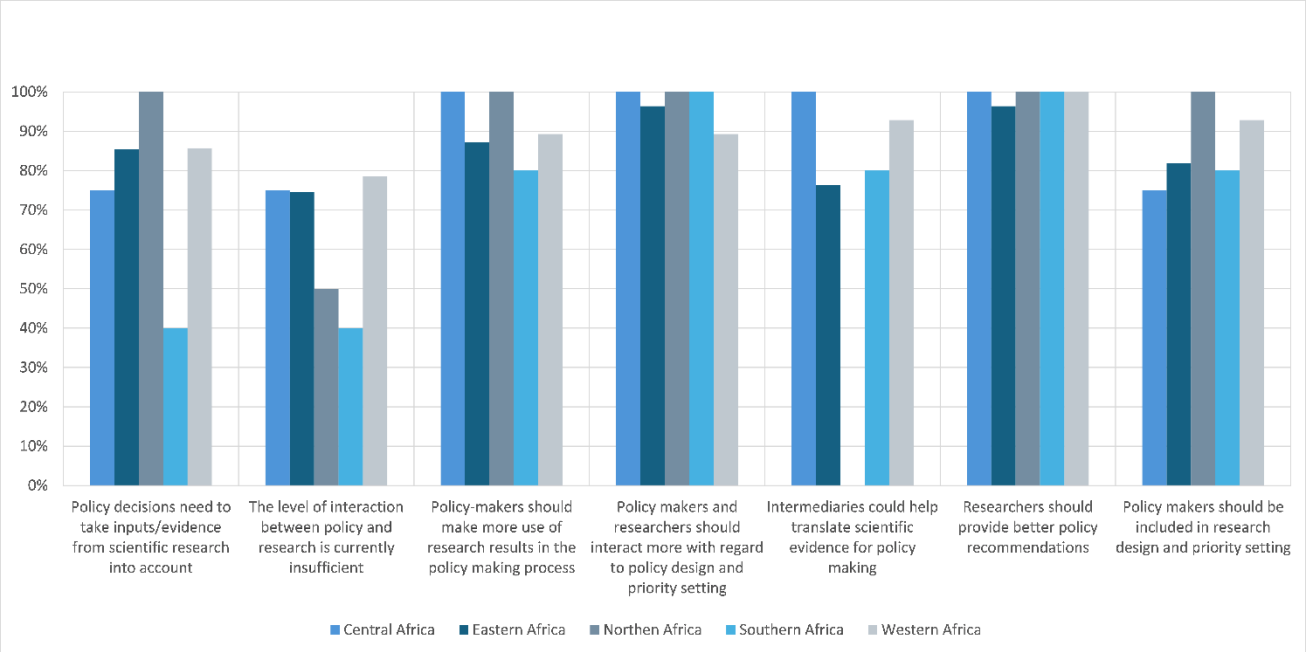


Figure 20: Perception of the use of scientific evidence in policymaking by region. Note: As we only received few responses the results from this stakeholder group should be treated with caution and are therefore shaded.
Source: Authors' illustration.

The pie charts in Figure 21 provide deeper insights into the varying degrees of importance that the three groups of respondents — researchers, policymakers, and research brokers — place on policy–research interaction. Of these groups, researchers were the most likely to rate this interaction as highly important to their daily work. Research brokers followed closely behind, while the responses from policymakers were more likely to rate this interaction as merely important (3 of the 5 respondents).

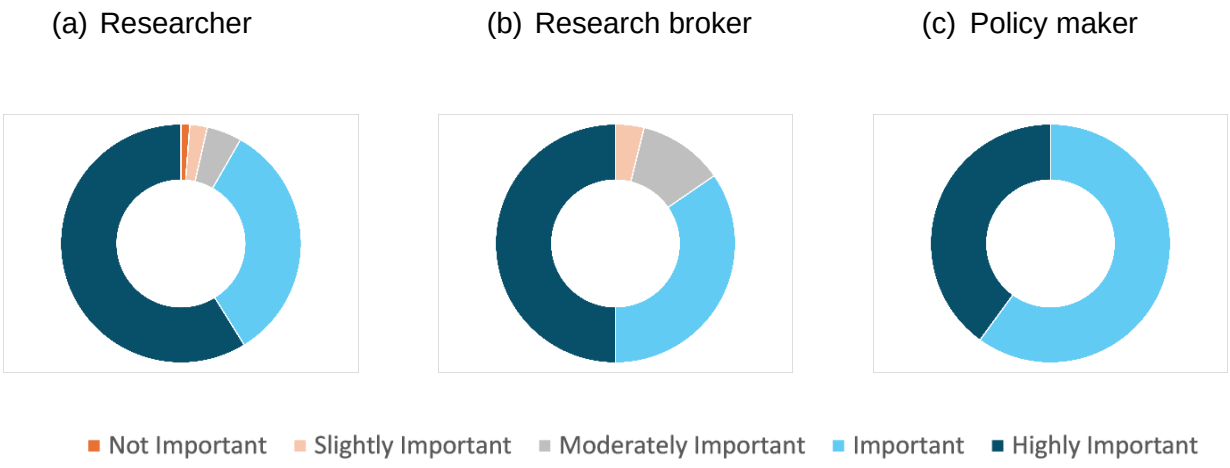


Figure 21: Importance of policy research interaction by role
Source: Authors' illustration.

Researchers and brokers also represented the largest proportion (8% and 12% of researchers and research brokers, respectively) of respondents who rated the interaction as moderately or slightly important, or unimportant. These more nuanced views highlight the diversity of experiences and roles that influence how individuals perceive the relevance of policy–research engagement in their

professional activities.

A regional analysis (Figure 22) provides further insight. Respondents from West, East and North Africa were the most likely to rate the interaction between policy and research as important or highly important. Those from Western Africa were most likely to do so. By contrast, the highest proportion of respondents in Central Africa considered such interactions to be moderately important, while the highest proportion in Southern Africa considered them to be only slightly important. These regional variations emphasize the different institutional, political and sectoral contexts that can affect the perceived usefulness and integration of policy-research interaction in daily work. Notably, the lower ratings in Central and Southern Africa suggest potential gaps in policy–research linkages that warrant further investigation. This could also help explain why response rates to the survey have been much lower in these regions than in West and East Africa.

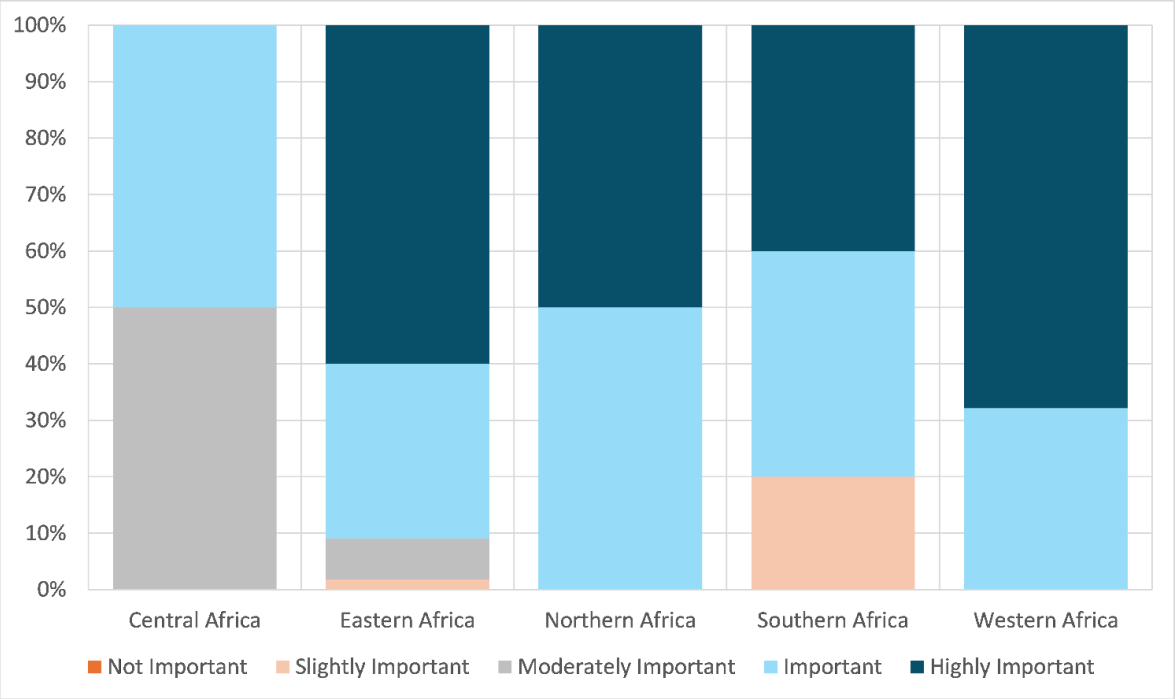


Figure 22. Importance of policy research interaction by region
Source: Authors' illustration.

Figure 23 shows how respondents prioritized different statements about evidence-based policymaking and the relationship between policymakers and researchers. This provides further insight into the subject. Respondents were asked to select the three most important statements and rank them in order of importance.

The most prioritized statements emphasized the role of research in providing the essential data and insights that underpin innovative policy solutions and enable proactive responses to emerging challenges. This statement received the highest level of endorsement, with 68 respondents ranking it as their top priority. Notably, this opinion also stood out in subsequent rankings, receiving nearly twice as many selections in the second and third priority tiers as other statements did.

The most frequently selected opinion for the second-highest priority (30 respondents) emphasized the use of research in policy formulation as a means to enhance transparency and accountability. Respondents emphasized that policies based on sound evidence are more easily scrutinized and justified, thereby fostering public trust in government decisions.

The third most prioritized statement, selected by 31 respondents, focused on the competitive advantage gained by countries that integrate research into their policymaking processes. Such countries are perceived as being better positioned to adapt to technological advancements and economic shifts, thereby maintaining or improving their global competitiveness.

These findings reflect a strong consensus on the multifaceted value of evidence-based policymaking.

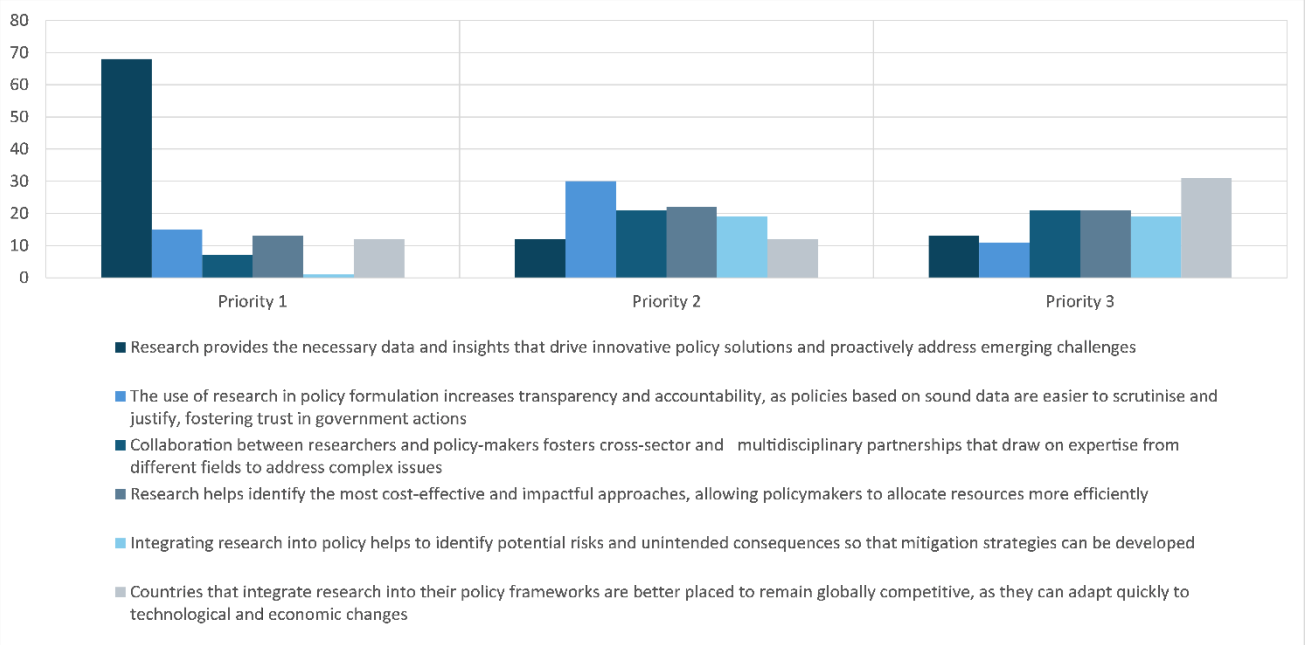


Figure 23: Rankings of different statements about evidence-based policymaking and the relationship between policymakers and researchers
Source: Authors' illustration.

5.3 Barriers and facilitators of policy-research interaction

As previous sections have shown, all three stakeholder groups place great value on the interaction between policymakers and researchers and the use of scientific evidence in the policymaking process. However, the survey clearly revealed that uptake of scientific evidence in policymaking remains insufficient. It is therefore important to understand the obstacles preventing better and more efficient interaction between policy and research and evidence-based policymaking and to learn more about facilitators to enable better use of scientific evidence in policymaking.

5.3.1 Barriers

To gain insight into such barriers, the survey asked participants to share their experiences of obstacles to research uptake in policymaking and policy need consideration in research design, as well as their views on the importance of these issues. Participants were also asked to rate the importance of potential barriers, which were pre-selected based on a systematic literature review and interviews with StEPPFoS partners as presented in Chapters 3 and 4.

Figure 24 illustrates the key barriers to integrating research evidence into policy, as identified by researchers. The most frequently cited obstacles were poor communication between researchers and policymakers, and inadequate funding for research and communication about research. These were reported as important or highly important by 89% of responding researchers. The next most frequently

cited obstacle was policymakers' lack of technical capacity to understand and use data/research, reported as important or highly important by 84% of respondents. Other significant barriers include a lack of willingness to assess, adopt and use scientific evidence in policy decisions (rated as important or highly important by 78% of respondents), competing objectives and priorities in policymaking that take precedence over the uptake of research findings (75%), and insufficient resources to implement research recommendations (72%).

In contrast, other potential barriers, such as a lack of clear scientific consensus among experts and a lack of high-quality, usable evidence, were considered significantly less influential. Up to 50% and 45% of respondents deemed each of these factors unimportant or only moderately important, respectively, indicating relatively low concern compared to the more prominent issues of communication and funding.

Based on these findings, it can be concluded that the main obstacles to integrating research into policy are systemic barriers such as limited communication, inadequate funding, and institutional constraints rather than the quality of the evidence itself. Overcoming these obstacles requires targeted strategies to strengthen cross-sector collaboration, improve policymakers' capabilities, and establish structures that support the use of research evidence in decision-making processes.

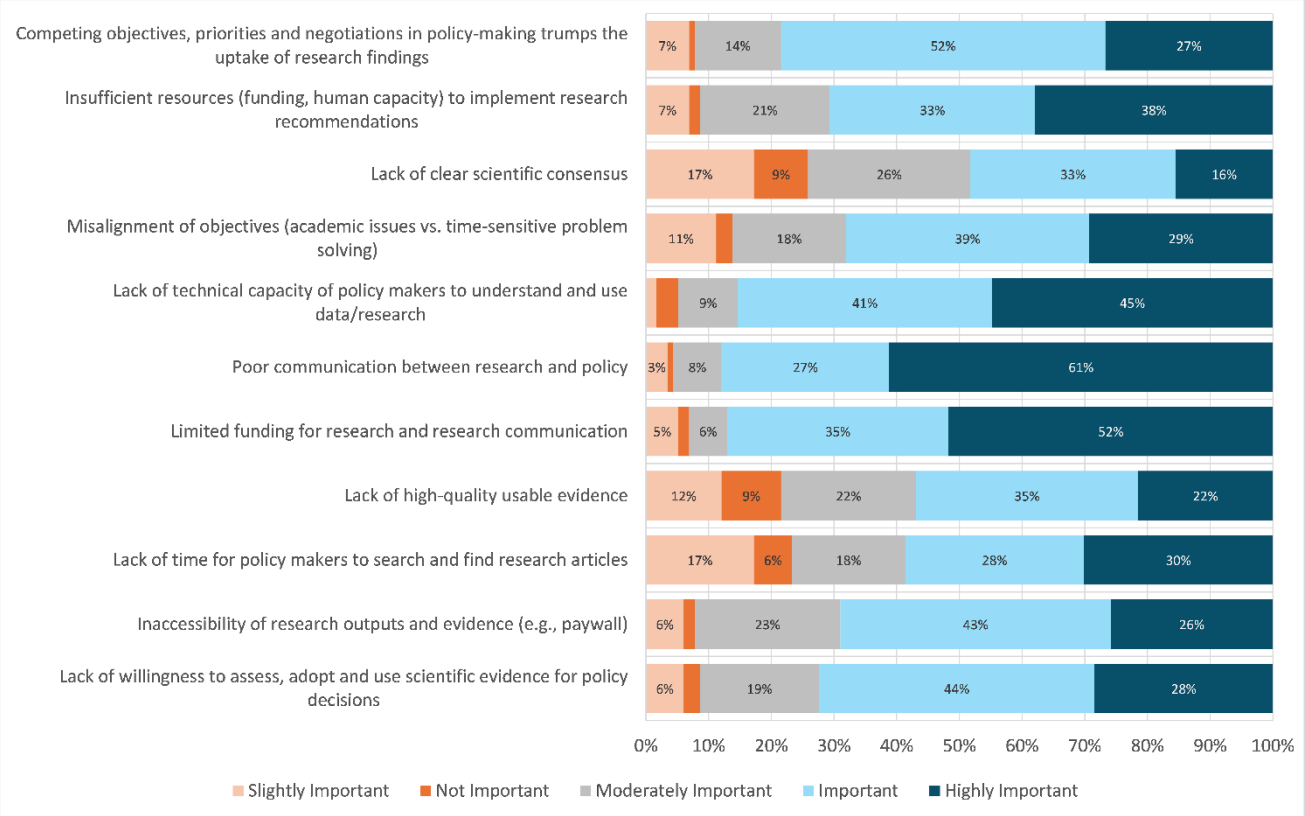


Figure 24: Overview of potential barriers hindering the uptake of research in the policy making process and their importance – researcher perspective

Source: Authors' illustration.

Figure 25 shows that poor communication between researchers and policymakers was the most frequently cited barrier, with up to 80% of respondents rating it as 'very important'. Other significant barriers included a lack of resources for implementing research recommendations, inaccessible research outputs and evidence, misaligned objectives, limited funding for research and communication, and insufficient time for policymakers to search for and access relevant research.

Around 40% of respondents identified these barriers as highly important, while between 20% and 40% identified them as important. Only 20% of respondents considered the limited technical capacity of policymakers to understand and utilize research evidence to be a critical barrier, which confirms the assessment of researchers. Meanwhile, the lack of willingness to assess, adopt and apply scientific evidence in policy decisions was considered slightly important by 40% of respondents. Additionally, policymakers considered insufficient resources to be less important than researchers did, while both groups agreed that a lack of clear scientific consensus was only slightly important.

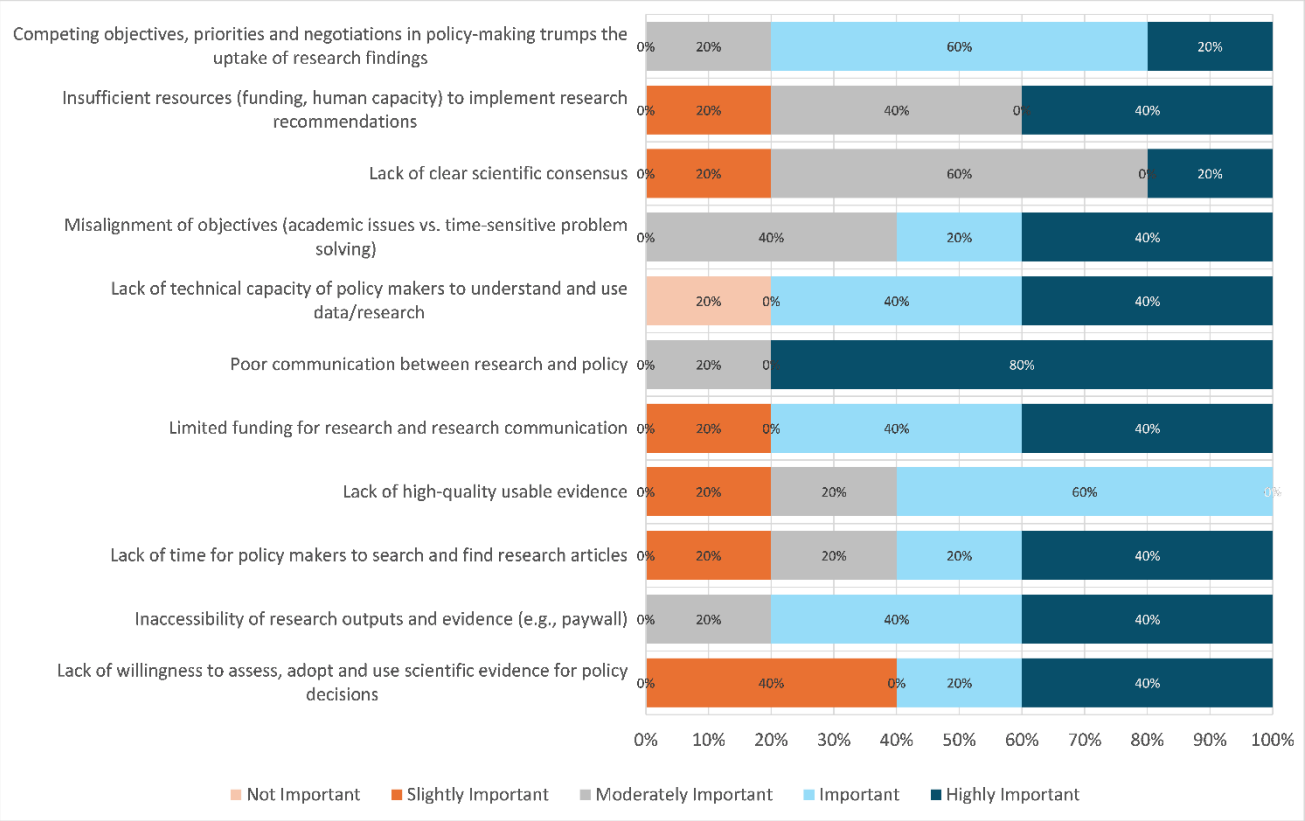


Figure 25: Overview of potential barriers hindering the uptake of research in the policy making process and their importance – policy maker perspective. Note: Based on only 5 responses from policymakers, therefore, should be interpreted with caution.
Source: Authors' illustration.

Figure 26 shows the main barriers to research uptake, as identified by brokers. Similar to researchers and policymakers, they identified poor communication between the research and policy communities as the most significant barrier (85%). In addition, they valued a lack of technical capacity among policymakers to interpret and utilize research evidence as highly important (50%) and important (42%).

In contrast, the absence of high-quality, usable evidence and scientific consensus was considered a relatively minor barrier. Only 4% rated it as highly important, while 15% and 12% rated it as slightly or not important, respectively. The lack of time for policymakers to locate and engage with research was also considered only somewhat important.

Interestingly, poor communication was identified as the primary barrier by all three stakeholder groups — researchers (61%), policymakers (80%), and brokers (58%) — indicating a breakdown in communication and understanding between the research and policy spheres. This highlights the importance of understanding the needs of different stakeholder groups in order to overcome communication issues and develop more efficient policy research interactions that support

communication and research uptake in the policymaking process. The consistent de-emphasis on issues related to evidence quality and consensus across all groups suggests that the core challenge lies not in producing research, but in communicating, translating and aligning it with policy priorities.

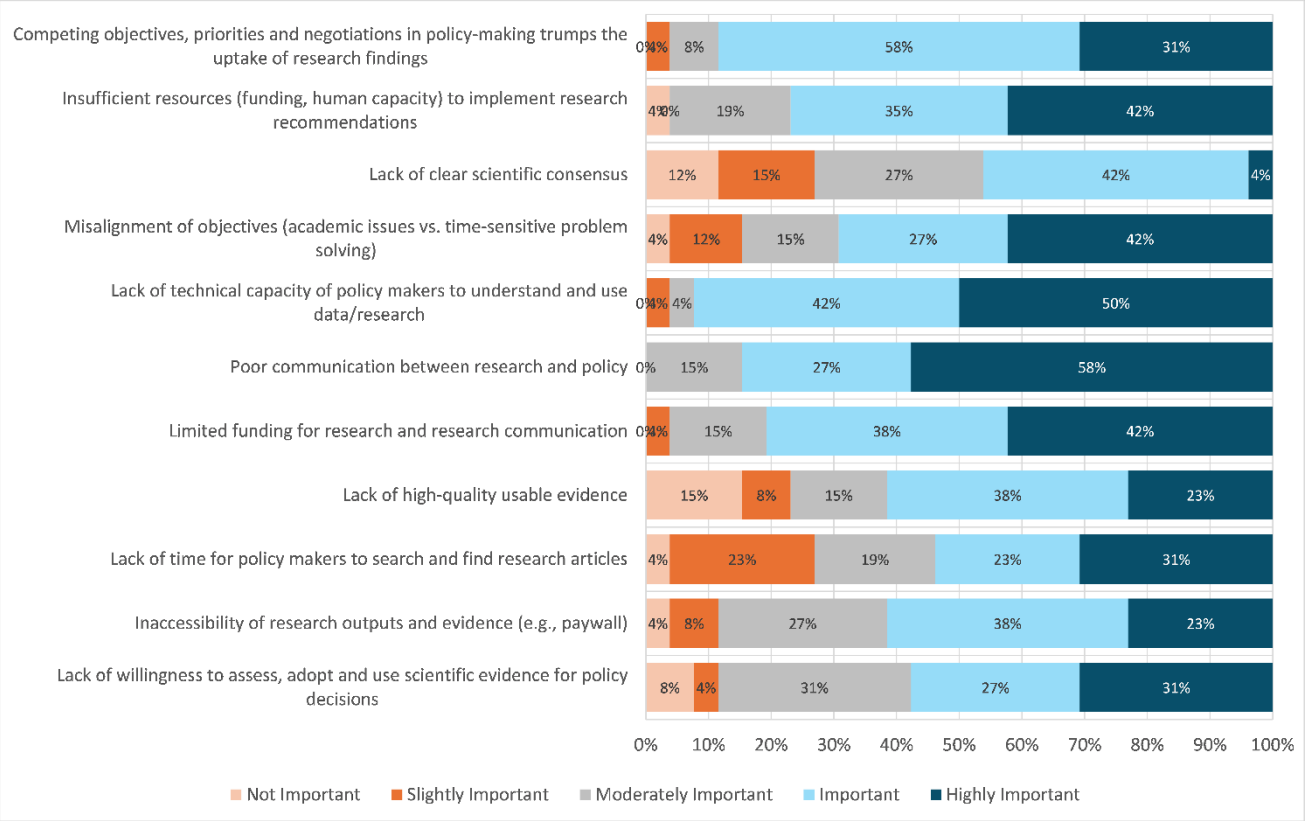


Figure 26: Overview of potential barriers hindering the uptake of research in the policy making process and their importance – researcher broker perspective

Source: Authors' illustration.

In summary, the findings suggest that the main obstacles to incorporating research findings into policy are systemic rather than technical. All stakeholder groups identified poor communication between researchers and policymakers as the most common obstacle, alongside limited funding, institutional misalignment and insufficient implementation resources. In contrast, concerns relating to the quality of evidence or the absence of scientific consensus were considered less significant.

These results suggest that the central challenge lies in translating, communicating, and aligning research with policy needs, rather than in conducting research itself. Addressing these issues requires a better understanding of the mechanisms that can foster more effective engagement between those involved in research and those involved in policy.

The following sub-section explores the facilitators of policy–research interaction, focusing on the conditions, strategies and institutional arrangements that can bridge the gap between generating and using evidence in policymaking.

5.3.2 Facilitators

Researchers expressed the strongest support for increased research funding (rated as highly important by 67% of respondents), appropriate research finding packaging (57%), regular policymaker collaboration (58%), and usable evidence availability (52%) (see Figure 27). By contrast, they

considered the involvement of policymakers in research design to be relatively unimportant, with up to 10% rating it as either slightly or not important at all.

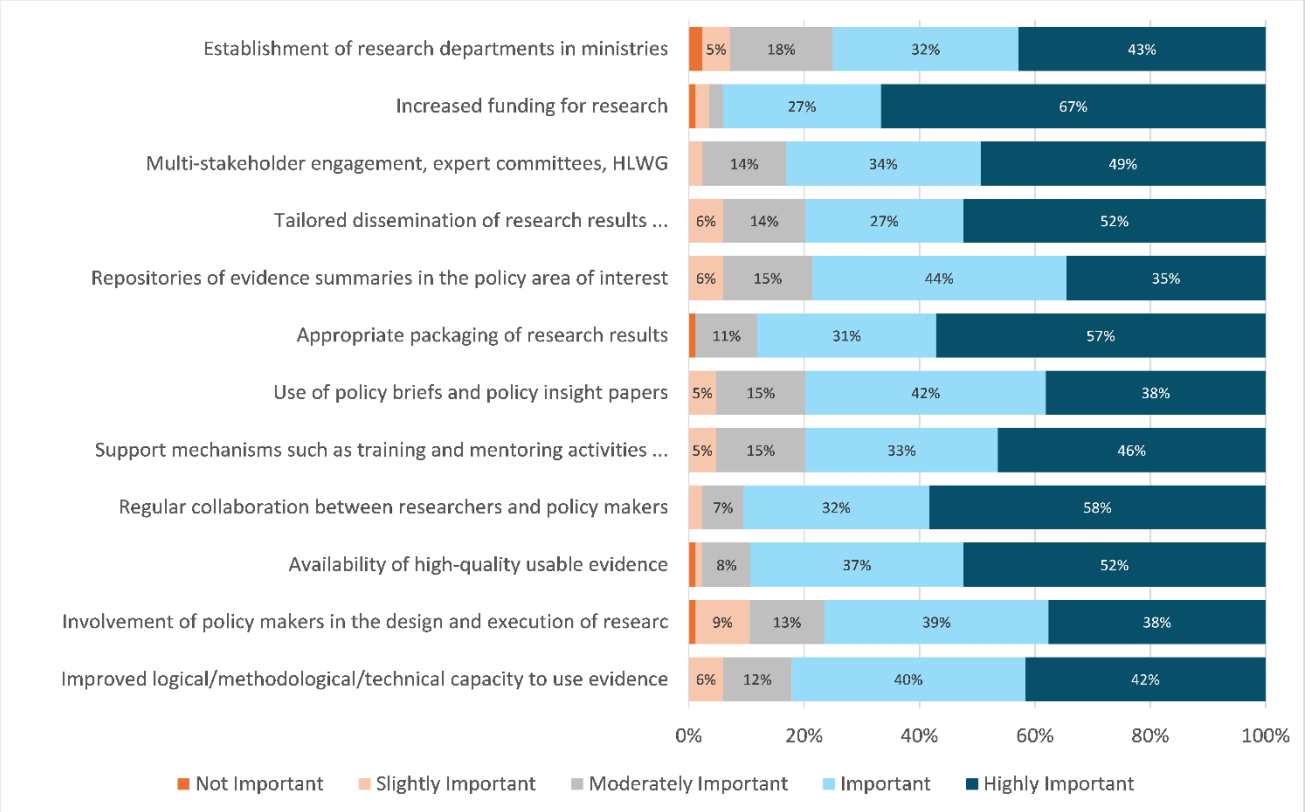


Figure 27: Overview of potential facilitators translating research into policy – researcher perspective

Source: Authors' illustration.

Figure 28 shows that policymakers prioritized regular engagement with researchers and the use of policy briefs. Both factors were rated as highly important by 80% of respondents. Furthermore, 60% of respondents considered support and training mechanisms to be important, indicating significant demand for capacity-building initiatives.

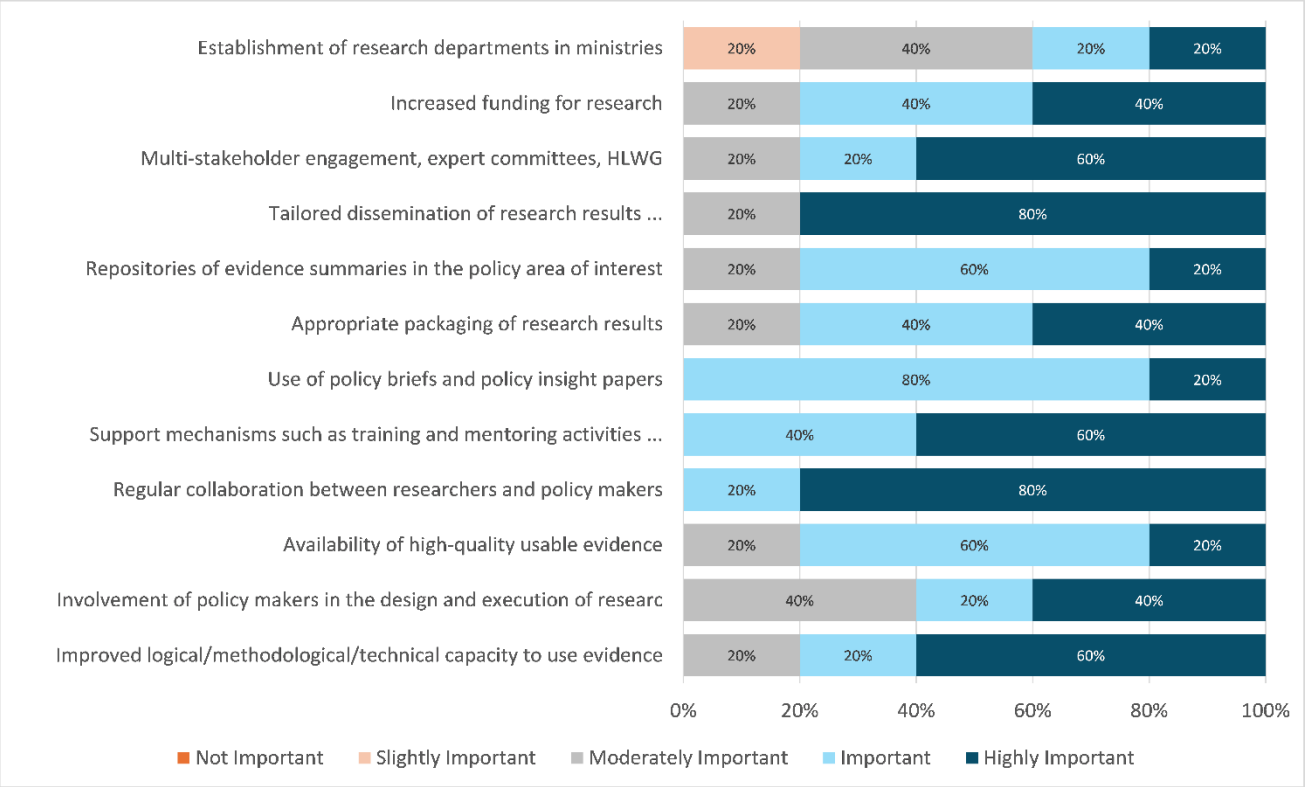


Figure 28: Overview of potential facilitators translating research into policy – policymaker perspective

Source: Authors' illustration.

Brokers emphasized the importance of tailored dissemination strategies (rated as highly important by 76% of respondents), multi-stakeholder engagement (61%), appropriately packaging research (65%) and regularly collaborating with policymakers and researchers (72%). However, similar to researchers, only 36% of brokers rated policymakers' involvement in research design as highly important, while 12% did not consider it important at all (Figure 29).

Across all three stakeholder groups, the involvement of policymakers in research design received relatively little emphasis. Both researchers and brokers predominantly rated this factor as slightly or not important, suggesting a discrepancy between normative recommendations for knowledge co-production and the perceived operational relevance of such involvement.

Technical upskilling, such as training in modelling or data analysis methods, was also given lower priority by facilitators. This indicates a preference across groups for relational and structural enablers, such as improved communication, collaborative mechanisms, and dissemination practices, rather than purely technical interventions.

Notably, researchers emphasized internal system needs, such as funding, data quality, and evidence repositories, which may reflect a production-focused orientation. In contrast, brokers and policymakers emphasized relational and institutional facilitators, indicating a broader perspective on the environment that enables research uptake.

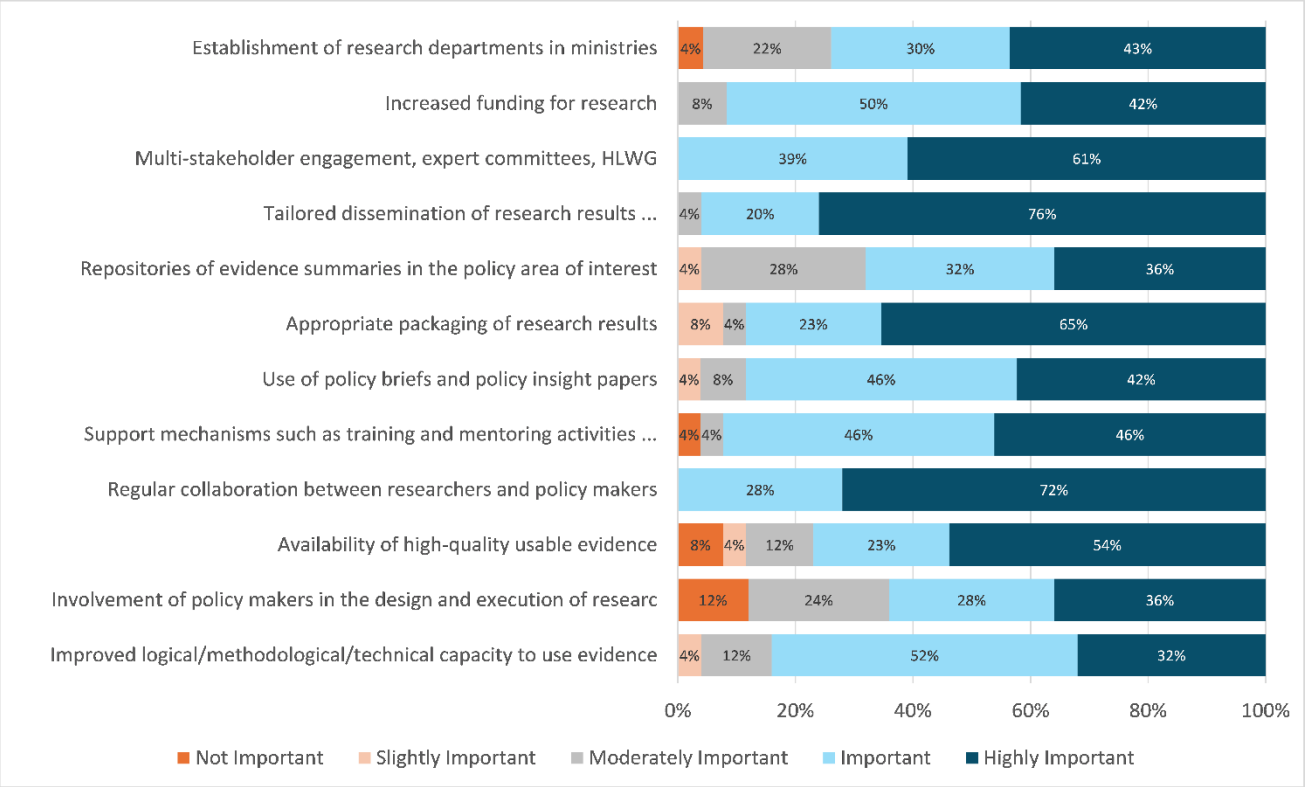


Figure 29: Overview of potential facilitators translating research into policy – research broker perspective

Source: Authors' illustration.

Finally, certain institutional reforms, such as establishing research departments within ministries, received limited support (20% rated them as highly important, while 20% rated them as unimportant), suggesting that views on the effectiveness of structural solutions are mixed in the absence of concurrent improvements in communication and collaboration.

In light of these findings, the next section will focus on identifying the specific needs of researchers, policymakers, and intermediaries in order to strengthen communication channels, build capacity, and design targeted strategies that support the integration of research into policy. Understanding these needs is critical for improving research–policy interactions and overcoming the systemic barriers identified in this analysis.

5.4 Needs of stakeholders

The survey assessed the perceived needs of the three key stakeholder groups — researchers, policymakers, and knowledge brokers — with the aim of enhancing their engagement with one another and improving the use of research evidence in policymaking. These needs were partly based on the findings of the systematic literature review, as well as insights gathered through interviews with StEPPFoS project partners. Respondents were asked to evaluate the importance of these pre-defined needs using a structured rating scale. The survey also included an open-ended question to allow participants to suggest any additional needs not covered by the predefined needs.

Figures 30, 31 and 32 show the needs that participants from each stakeholder group consider to be important for facilitating the interface between science and research.

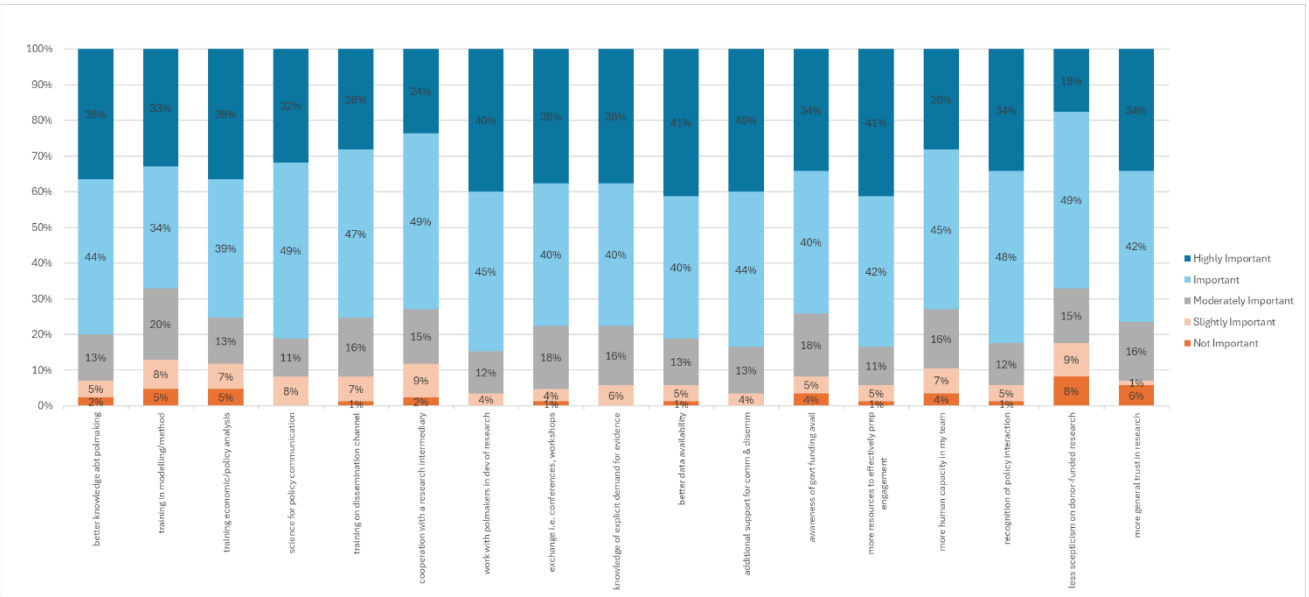


Figure 30: Needs of researchers to facilitate the science-research interface and their perceived importance

Source: Authors' illustration.

Researchers predominantly emphasized infrastructural and relational enablers, identifying improved data availability, enhanced support for communication and dissemination, increased resources for engagement activities, and opportunities to co-develop solutions with policymakers as highly important. In contrast, relational factors such as "increased general trust" and "reduced skepticism" were rated as less important by researchers, with 6% and 8%, respectively, deeming them "not important"—suggesting a potential underestimation of the interpersonal and institutional barriers that hinder policy engagement.

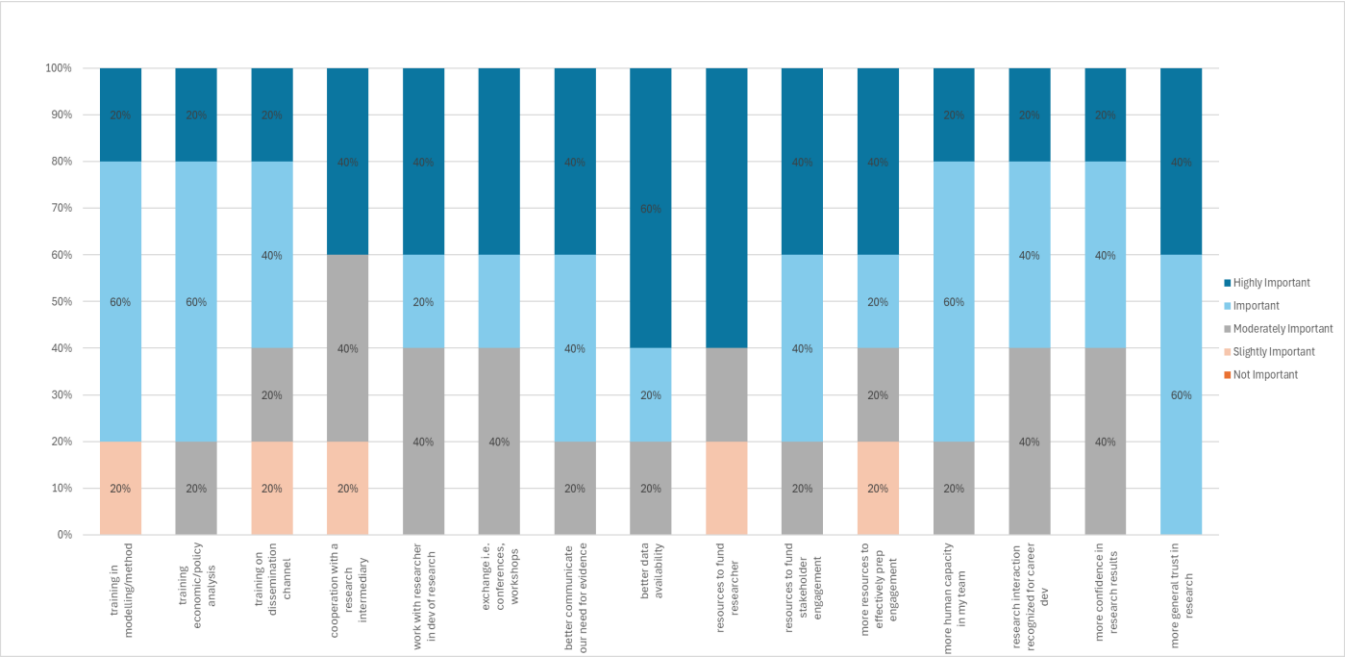


Figure 31: Needs of policymakers to facilitate the science-research interface and their

perceived importance

Source: Authors' illustration.

Policymakers strongly emphasized the importance of building trust in scientific research, with up to 100% rating this need as "important" or "highly important." While their responses were more evenly distributed across other categories (typically 40–60% for "important" or "highly important"), they consistently highlighted external communication needs, such as better articulation of their own priorities and constraints. This underscores ongoing challenges in two-way communication with researchers. Policymakers also prioritized practical and capacity-related needs, including improved data availability and dedicated funding mechanisms to support evidence generation and engagement.

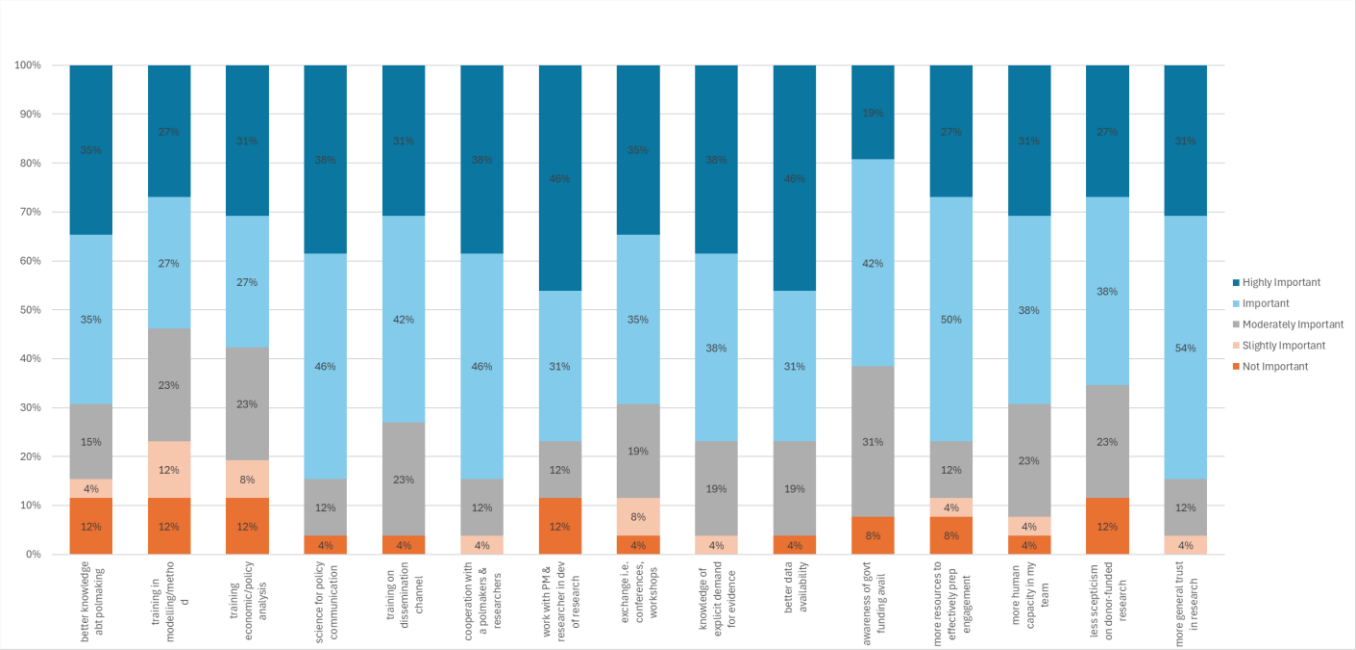


Figure 32: Needs of researcher brokers to facilitate the science-research interface and their perceived importance

Source: Authors' illustration.

Brokers presented a broader distribution of needs across multiple domains. They identified improved data availability, co-development of research with both researchers and policymakers, and stronger science-for-policy communication as highly important (up to 46%). While categories such as trust-building and cooperation were also valued, technical training—particularly in modeling methods—was deprioritized. This likely reflects a professional orientation toward facilitating relationships, synthesizing knowledge, and navigating institutional dynamics, rather than generating technical outputs

Notably, all three stakeholder groups ranked access to high-quality, accessible data as a critical need, reflecting a shared recognition of the foundational role of evidence quality in science–policy engagement. While each group expressed the desire for stronger collaboration, their approaches diverged: researchers called for joint problem-solving with policymakers; brokers sought greater integration between policy and research actors; and policymakers emphasized the need to better communicate their demands to the research community. These variations underscore a common interest in cooperation, albeit from distinct vantage points.

Finally, communication emerged as a cross-cutting theme. Researchers stressed the need for support

in disseminating findings, policymakers prioritized articulating their needs and building trust, and brokers emphasized effective translation of science for policy audiences. These findings point to communication as a core enabler of science–policy interface across all groups. Table 6 summarizes stakeholder specific needs and their importance for each group.

Table 6: Summary of importance of stakeholder-specific needs

Need	Researchers	Policymakers	Research brokers
Better data availability	Highly important	Highly important	Highly important
Communication & dissemination	High need for support	Need to express policy needs	Important (esp. science-policy comms)
Working together/ Co-development	Emphasized	Desired	Emphasized
More Resources for Engagement	Highly important	Important	Implied via need for infrastructure
General Trust in Research	Low importance	Extremely important	Moderately important
Training in Technical Methods	Low emphasis	Not emphasized	Not important (esp. modelling)
Nature of Priorities	Focused on support systems	Focused on trust & practicalities	Broad and relational

Source: Authors' table.

5.5 Strategies to support policy-research interaction

Building on the previous analysis of barriers, facilitators, and stakeholder-specific needs, this study further explored the strategies used by organizations and institutions to improve evidence-based policymaking. Recognizing the importance of research uptake and the challenges in achieving it across stakeholder groups, the survey aimed to assess the extent to which concrete strategies have been adopted in the agri-food sector. To this end, a set of predefined strategies, drawn from a systematic literature review and interviews with StEPPFoS partners, was presented to respondents. These strategies reflected approaches implemented in other sectors and geographical contexts, providing a comparative framework for evaluating progress within the African agri-food policy landscape. In addition to rating these strategies, participants were asked to report on any additional initiatives currently being implemented or discussed within their institutions.

The Figure 33 illustrates the uptake strategies reportedly employed within respondents' institutions, disaggregated by stakeholder group. These strategies were most frequently associated with institutions in which researchers were based. Researchers primarily reported using traditional academic and policy-oriented dissemination channels, including journal publications (n = 71), conferences (n = 68), policy briefings (n = 51), a policy-oriented research focus (n = 51), and formal recommendations (n = 51). These strategies largely represent supply-side approaches intended to

share knowledge outputs, rather than foster sustained interaction with policy actors.

Knowledge brokers also identified similar mechanisms—such as conferences, journal publications, policy briefings, and a policy focus—as commonly used within their institutions. This alignment suggests brokers may operate as intermediaries, employing strategies that straddle both academic legitimacy and policy relevance. By contrast, policymakers showed overall lower endorsement of the uptake strategies presented. They did not identify journal publications as widely used, underscoring a perceived disconnect between academic outputs and policy utility. However, they did highlight the use of policy briefings, funding programs, and conferences as the most prevalent strategies within their institutional contexts. The prominence of funding programs—uniquely emphasized by policymakers—suggests a preference for more actionable and resource-backed mechanisms of engagement.

Across all three groups, strategies such as the use of knowledge brokers, email updates, and web-based portals were among the least frequently cited. This indicates that while digital and intermediary tools are often proposed in the literature as means of improving evidence uptake, they may remain underutilized or undervalued in current institutional practice.

Figure 33: Overview of research-uptake strategies promoted or used by institutions/organizations of the respondents

Source: Authors' illustration.

To better understand regional patterns in the application of research uptake strategies, responses were analyzed according to the geographical location of the institutions represented (Figure 34). The data reveal substantial regional variation in the promotion and utilization of these strategies across Africa. As shown in the accompanying figure, East Africa reported the highest frequency of uptake strategy implementation, followed by West Africa. In East African institutions, the most frequently cited strategies included conferences (n = 44), journal publications (n = 41), policy recommendations (n = 36), and policy briefs (n = 36). Similarly, in West Africa, respondents most frequently reported the use of conferences and journal publications (n = 22 each), alongside policy briefs and a policy-oriented research focus (n = 16 each). In contrast, the representation of research uptake strategies was considerably lower in Central, Northern, and Southern Africa. Notably, certain strategies—such as the use of knowledge brokers, email updates, and co-authorship—were not reported at all by respondents from these regions. This disparity suggests an uneven distribution of institutional capacity or engagement in research-to-policy translation activities across the continent.

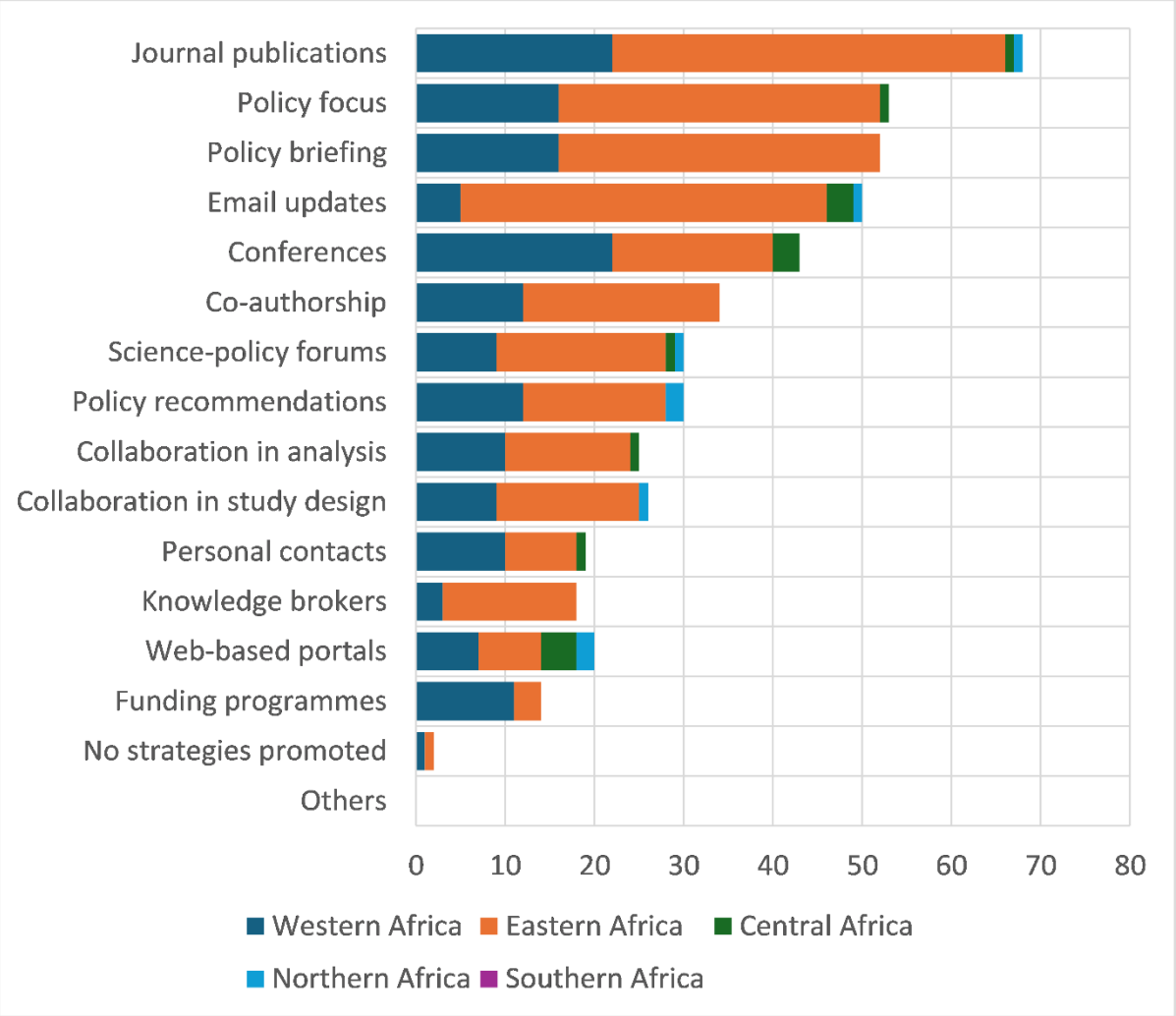


Figure 34 Overview of research-uptake strategies promoted or used by institutions/organizations by regions

Source: Authors' illustration.

Several factors may contribute to this regional divergence, including differences in institutional infrastructure, availability of funding, the presence of international development partners, and varying levels of emphasis on evidence-informed policymaking. The higher prevalence of uptake strategies in

East and West Africa may reflect shared institutional norms or donor-driven practices that prioritize research dissemination and policy engagement. Conversely, the lower engagement observed in other regions may stem from structural constraints, such as limited research infrastructure, reduced access to policy networks, or lower participation of institutions from these regions in the survey sample.

5.6 Main challenges of interaction

The survey closed with an open question asking about the main challenges of interaction between research and policy. The questions were phrased the following:

- Researchers were asked about the main challenge faced in translating policy issues into needed research
- Research brokers were asked about the Main challenge faced in bridging the gap of the research and policy makers
- Policy makers were asked about the Main challenge faced in finding/using research to inform policy making

The answers can be grouped into **five wider areas of challenges**, namely challenges associated with funding, participation, communication, interest or agenda, and timelines of policy makers and researchers (Table 7). These challenges are interlinked.

Table 7: Overview about challenges face by stakeholders

Areas of challenges	Subgroups	Researcher	Research Broker	Policy Maker
Funding	Funding (incl. data availability)	32	8	2
Participation	Coordination/participation	13	8	2
	Lack of platforms	7	6	0
	Implementation of research into practice	1	1	0
Communication	Research communication	13	6	3
	Problems to understand each other/misunderstandings (on both sides)	5	1	0
	insufficient understanding of policy process/ lack of intermediaries	9	0	0
Interest/ agenda	missing interest/will/agenda of policy makers	21	6	0
	lacking researcher interest/capabilities	5	1	0
	competing interest	10	5	0
Timelines	Different timelines	11	7	0
	solution: long-term relationships	2	3	0

Source: Authors' elaboration.

Funding was mentioned most often as challenge for policy-research interaction, where all three

stakeholder groups highlight the lack of resources to translate research for policy makers. This includes the availability of funds to conduct research, access or compile data, as well as resources to facilitate interaction activities, e.g.:

- Researcher: "*Availability of quality Data to make informed policy is scarce. Inadequate funding to facilitate research*"
- Researcher: "*The challenge of handling the cost of organising policy makers without paying for their travels and accommodation*"
- Broker: "*Resource constraints to hold engagement activities*"
- Broker: "*Time & funding & other resources*"
- Policy maker: "*The major challenge is inadequate funding of the research activities which inhibits the provision of appropriate solutions and favourable policies*."

Challenges associated with **participation** include those related to coordination of research and policy activities. Also participative research schedules are highlighted where policy makers are involved early in the research process. All stakeholders mention that there is a lack of early engagement of policy makers in research activities. However, most do not further elaborate why this is challenging. One researcher mentions funding as reason: "*Most research grants do not have budget support for engaging policy makers and other key stakeholders in the research processes*." Research brokers highlight missing interaction as challenge

Specifically mentioned in this area of challenge was the lack of platforms that enable this type of interaction. Often the platforms are linked to challenges regarding funding. For example:

- Broker: "*Lack of proper platforms/ means for interaction*"
- Broker: "*manque de ressource financière pour la recherche scientifique faire des réunions périodiques entre les deux cotés (chercheurs et décideurs)"*
- Researcher: *"La manque d'opportunité"*

There is also a challenge on the implementation of research into practice, highlighted by only two respondents, but found to be a relevant missing link of research-policy interaction. Despite the availability of evidence and ideas, these are often not utilized due to a lack of context-specific relevance or difficulties in translating research into actionable policies as is also shown in the literature review:

- Researcher: *"There is a lot of drudgery when it comes to implementation of policy options generated by policy researchers."*
- Broker: *"We need implementation research, i.e., research on how to transfer research-based findings into practice."*

Communication is identified as third area of challenges. This area includes research communication, which has been mentioned relatively often by all three stakeholder groups. Challenges related to communication are miscellaneous:

- Researcher: "To identify and communicate to the target groups"
- Researcher: "Translate scientific research findings into policy relevant messages"
- Research broker: "getting research into the hands of policymakers"

- Research broker: “There's an overwhelming amount of information, studies, recommendations. I believe it is difficult for governments to navigate what to focus on (like the rest of us).”
- Policy maker: “selecting the good stuff from between the weeds. there's so much research around (and much of it on very specialised topics), so it can be hard to quickly figure out what is useful. i think this is also a research problem: with the focus on the number of publications produced, there is a bias towards 'small'/'hyperfocused' papers, rather than on the overview articles. and when such overviews are written (think IPCC/IPBES publications), these often so thick that they require a lot of time to read.”
- Policy maker: “And lack of localizing the results of the findings to meet priorities for decisions to enhance overall development.”

Several respondents also highlight the need for training of researchers on communicating with stakeholders and language issues (technical vs public and different languages).

Misunderstandings caused by different professional backgrounds can make communication challenging and lead to miscommunication. For instance, researchers may struggle to communicate effectively with policymakers.

- Researcher: “Difficulty to understand the mindset of policy makers”
- Researcher: “Information asymmetry between researchers and policy makers.”
- Researcher: “Poor understanding of research findings by policy makers”

Researchers feel the lack of knowledge of policy processes that would enable to engage more efficiently:

- Researcher: “General lack of understanding of the policy development process”
- Researcher: “We have bad system and communications with in the regions between researcher and policy makers. Researchers are not well informed about policy issues which needs researches and policy makers formulate policies without consultation of researchers or without sound research results.”
- Researcher: “Poor knowledge on proper way of translating the policy due to poor capacity building on policy making.”

The lack of interest and differing agendas between researchers and policy makers are a fourth area of challenges mentioned. This includes missing interest/will/differing agenda on the side of the policy makers but also lacking interest by researchers. Relevant are competing interests which make interaction challenging. Important is also the challenge that the notion of relevance of a topic may differ strongly between researchers and policy makers, i.e., for politically sensitive topics. Other examples are:

- Researcher: “…addressing the urgent needs of policymakers without compromising the quality of research…”
- Researcher: “…the complexity of scientific findings must be distilled into accessible language, without oversimplifying the evidence, to ensure that it is both credible and usable by policymakers. Balancing the need for rigor with the need for immediacy is a central challenge in this process.”

- Researcher: “Bridging the gap between complex policy issues and scientific research, while ensuring the timely delivery of relevant findings to policymakers, presents a significant challenge.”
- Researcher: “Finding time is often challenging. With so much to do, translating research outputs into policy often fall through the cracks.”
- Researcher: “Politics/political will: The policy landscape is dynamic, with priorities shifting due to political changes, economic pressures, or external crises. This makes it challenging to maintain research focus on issues that policymakers still consider relevant by the time findings are produced. In addition, researchers may struggle to align their work with these priorities or navigate political sensitivities.”
- Researcher: “Often what we perceive as areas which need to be addressed by policy are not priorities of those who make policies. They are focused on short term achievable outcomes they can claim as their own outputs as the elected officials. Good health policies take decades or longer to see impacts and no government wants to support something they can't claim as their own. Government policy is focused on optics of policies which can be waved at the media even if they don't achieve anything but 'look good'. Science is focused on finding optimal solutions to challenging issues. Even if science considers economic efficiencies it can't make solutions that resolve issues overnight (which is what policy makers want). I don't think policy makers should set research agendas, but they should be looking for experts to guide their policies based on science and the most up to date information available.”
- Research broker: “Harmonising the goals of researchers and policymakers. Sometimes policymakers just need what would work in their context while researchers might be obsessed with academic rigour and scientific validity.”

A major challenge is time and different timelines between researcher and policy, mentioned often by researchers and research brokers. For example:

- Researcher: “the main challenge is aligning the pace of research with policymakers’ urgent needs. Research often progresses methodically, while policy demands immediate, actionable insights.”
- Research broker: “Time constraints - policy makers need the information quickly often at short notice.”

A solution to this is long term engagement, however, requiring stability in personnel:

- Research Broker: “I often feel policy makers and researchers live in different time scales. For policy makers what matters is the next couple of years while researchers usually focus on medium to long term. The latter is usually fine as long as it can provide guidance for the measures needed to be implemented in the short term. Another issue is continuity. One-off engagements usually do not bring significant policy changes.”
- Research Broker: “Typically, a request for research insight on a given policy problem would come late with unrealistic expectations as to the time required to implement rigorous research. In addition, interlocutors in government are often replaced and interest of a given institution may shift when there is turnover in personnel.”
- Research Broker: “There is a high fluctuation in governments at high level, and

government/policy priorities are highly biased towards the budget and/or where funding comes from. However, at the technical/working level personal relationships have proven to be very effective."

- Researcher: "Institutionalized linkage between policy-makers and researchers is important."

5.7 Discussion and conclusions

The survey yielded the highest response rates from East African countries, namely Kenya, Uganda, Ethiopia, and Tanzania, followed by West African nations such as Nigeria, Ghana, Côte d'Ivoire, Senegal, Togo, and The Gambia. This regional pattern is indicative of a more profound integration of these countries into global and continental research networks, including CGIAR centers, FAO country programs, and AU initiatives. For instance, Ethiopia is home to the African Union headquarters and numerous research hubs, which may enhance its involvement in regionally or internationally led surveys. This involvement suggests a more extensive commitment in these regions to incorporating evidence into agri-food policy dialogues.

In contrast, respondents from non-African countries (e.g., Germany, the United Kingdom, France, the Netherlands, and the United States) were underrepresented, consistent with the Africa-focused design and outreach strategy of the survey. This distribution serves to affirm the survey's intended alignment with African stakeholders and their respective research-policy environments.

When considered collectively, East and West Africa were the most represented, thereby reinforcing the notion that these regions are more actively engaged in research-policy interface work within agriculture and food systems. The Southern, Central, and Northern African regions received a comparatively lower number of responses, which may be attributable to factors such as diminished engagement, restricted outreach, or the presence of language and access barriers during the survey dissemination process. In the international sample, Europe was the most represented geographical area outside of Africa, followed by North America.

The respondents identified primarily as researchers, followed by intermediaries (i.e. brokers), with policymakers being the least represented. This distribution, which is prevalent in research-focused surveys, has the potential to restrict the generalizability of findings to policy contexts. The study also emphasizes the importance of enhanced targeting and subsequent follow-up endeavors to augment policy stakeholder engagement.

With regard to the areas of expertise of the respondents, these were mainly found to be in agricultural economics, food policy and food security. These areas are closely aligned with the thematic focus of the survey. However, a moderate level of expertise in sustainability, trade policy, innovation, and food systems transformation has also been reported that are central to future policy agendas.

The gender representation of the respondents was found to be disproportionate, with the majority of respondents identifying as male. This finding is indicative of the pervasive structural gender disparities that are in evidence within the African agricultural research and policy landscape. The study emphasizes the necessity for gender-sensitive outreach strategies in future research to ensure more inclusive participation.

An analysis of the patterns of interaction between researchers, brokers and policymakers has revealed that engagement is largely driven by long-term relationships, established professional networks and invitations to engage. Researchers and brokers commonly engage through colleagues or partners,

while policy makers rely more on established relationships. Informal methods, such as expert calls or personal requests, were used only infrequently. A significant proportion of researchers did not engage with policymakers through either expert calls or personal requests. Nevertheless, there have been sporadic instances of policymakers engaging with researchers in this manner. This reliance on formal or institutional relationships suggests that trust and pre-existing networks are vital, but may also result in the exclusion of newer or underrepresented actors. It highlights the limited use of informal engagement which may require targeted efforts to foster more inclusive and diverse participation in research-policy processes.

The interaction settings exhibited significant variation, with a conspicuous absence of engagement observed during roundtable discussions, particularly among East African stakeholders. Policy events, symposia and committee meetings were cited less frequently as interaction venues and varied across the three groups, indicating areas for further exploration.

With regard to the perception of science policy interactions, the data reflected a strong consensus among stakeholders on the importance of integrating scientific research into policymaking. The majority of respondents rejected the notion that policy decisions can be made without scientific evidence, with nearly 90% agreeing that policymakers should make more use of research in decision-making. Furthermore, an overwhelming majority of 95% of respondents expressed a firm conviction that fostering enhanced interaction between researchers and policymakers, particularly in the domains of policy design and priority setting, is of paramount importance. These findings emphasize a shared recognition of the value of evidence-based policymaking, accompanied by a discernible dissatisfaction with the prevailing levels of collaboration. This serves as a resounding call for enhanced communication and collaborative engagement.

The analysis also revealed distinct yet complementary perspectives among researchers, policymakers, and brokers regarding the use of scientific evidence in policymaking. Researchers emphasized the necessity for policy to be informed by scientific evidence and called for increased interaction with policymakers. It is evident that policymakers have placed a significant emphasis on the increased utilization of research in decision-making processes. Furthermore, there is a recognized requirement for enhanced translation of evidence, with a clear preference for intermediary support to facilitate this process. The assertion by brokers that there was a strong case for policymakers to be involved in the design of research was made, and the crucial role played by intermediaries in bridging gaps was emphasized. A key point of convergence across all three groups was the strong agreement that researchers need to offer clearer and more actionable policy recommendations, highlighting communication challenges that hinder effective evidence of uptake.

A study of African regions revealed a noteworthy observation. While a proportion of respondents expressed agreement with the survey's opinions, a striking exception was noted in North Africa. It is noteworthy that none of the researchers, policymakers, or brokers surveyed expressed a strong opinion in favor of or against the capacity of intermediaries to facilitate the translation of scientific evidence for policy development. This was identified as a gap in Northern Africa. This absence suggests a potential lack of recognition or underutilization of knowledge brokers in the policy-research interface in Northern Africa, highlighting an opportunity for capacity building or awareness-raising in that area.

A comprehensive analysis was conducted on the respondents' responses concerning the barriers they encounter. The most salient issue identified was the absence of effective communication between research and policy. The prevailing consensus among researchers (61%), policy makers (80%), and

brokers (58%) identified this as the most significant barrier, as it was consistently rated as the primary barrier by all three groups. This phenomenon may be interpreted as indicative of a pervasive breakdown in discourse and mutual comprehension between the communities involved in evidence production and decision-making. All three groups demonstrated a propensity to understate the significance of concerns relating to the quality of evidence and the absence of consensus. This finding suggests that the issue lies not in the accessibility of research findings, but rather in the manner in which they are communicated, translated, and aligned with policy requirements.

In relation to the facilitators, the three groups demonstrated analogous perspectives on the involvement of policymakers in research design. It is the considered opinion of the relevant parties, namely brokers and researchers, that the importance of the aforementioned issue is considered to be either "slightly important" or "not important". This finding indicates a discrepancy between the theoretical framework of best practices and the operational reality experienced in practice.

Facilitators such as training in modelling methods or technical capacity received lower scores, indicating that relationship-building is prioritized over technical upskilling in perceived value or that capacity building has received higher attention in the past. Researchers were also more internally focused, with a focus on funding, data quality, and evidence repositories. This approach may result in an underestimation of relational and institutional factors that have been identified by brokers and policy makers.

With regard to the needs identified in the survey, all three groups – researchers, policymakers and brokers – listed improved data access as a highly significant requirement. This finding indicates a consensus that the quality and availability of evidence are fundamental to enhancing research–policy interactions. It is evident that each group harbors an aspiration for enhanced interaction or co-development. To elaborate, researchers express a desire to collaborate with policymakers in the formulation of solutions. Similarly, brokers advocate for collaboration between researchers and policymakers. Moreover, policymakers articulate a wish to more effectively communicate their needs to researchers. Consequently, there is a universal aspiration for enhanced cooperation, yet the manner in which this is approached varies significantly among individuals. The importance of effective communication and dissemination was emphasized. Researchers require assistance with the dissemination of research findings. The objective of policymakers is twofold: firstly, to articulate their needs with greater precision, and secondly, to establish trust. The role of brokers in this field is to emphasize the importance of science-for-policy communication and cooperation. It is evident that effective communication is paramount for all three groups.

In order to analyze the strategies employed by the institutions under scrutiny, researchers utilize channels as traditional academic and policy-oriented publications, conferences, policy briefings, policy focus and recommendations. These strategies, which are informed by supply-side principles, are primarily concerned with the dissemination of information rather than the promotion of interaction. Conversely, the role of brokers appeared to be that of an intermediary, aligning themselves with strategies that support both research dissemination and policy relevance. This finding suggests a potential inclination towards strategies that strike a balance between academic credibility and policy accessibility.

The most notable exception was among policymakers, who demonstrated the least enthusiasm for the listed uptake strategies. The absence of any emphasis on journal publications suggests a deviation from academic literature as a practical tool for policy development. It is evident that funding programs have been singled out by policymakers, who appear to place a higher value on strategic, resource-

driven engagements than on passive dissemination tools.

With regard to regional analysis, a marked regional disparity in the promotion and application of research uptake strategies was evident across the continent. The existence of a shared institutional culture or the influence of donors in East and West Africa may be a contributing factor to the promotion of these specific formats. The uptake strategies in Central, Northern, and Southern Africa demonstrated comparatively low levels of engagement. This phenomenon may be attributable to a number of factors, including a paucity of research institutions engaged in the process of research-to-policy work, constrained capacity and funding, an underrepresentation of respondents from these regions within the sample, or the presence of structural or political barriers that impede the utilization of evidence.

6 Conclusions, policy recommendations and future outlook

6.1 Key outcomes

Analysis of the barriers to integrating research evidence into policymaking reveals a shared perspective among researchers, policymakers and brokers: poor communication between the research and policy communities is the most significant and consistently identified obstacle. Up to 89% of researchers, 80% of policymakers, and 85% of brokers rated this barrier as important or highly important, indicating a systemic and widespread communication breakdown across all stakeholder groups.

In addition to communication challenges, inadequate research and dissemination funding, limited technical capacity among policymakers, and institutional constraints such as misaligned priorities and insufficient resources to implement research recommendations were also identified as significant barriers. These were considered to be more influential than important issues traditionally assumed to be influential, such as the quality of evidence or the lack of scientific consensus. All groups consistently rated these issues as relatively unimportant.

The findings clearly indicate that the primary challenges to evidence uptake are structural and relational rather than epistemic. The absence of effective dialogue, translation and mutual understanding mechanisms between the communities of evidence production and policy practice inhibits the effective use of research in decision-making processes.

Key findings:

- Engagement between stakeholders is mainly driven by formal, long-term relationships and professional networks. Informal engagement methods (e.g., expert calls, personal requests) were rarely used, indicating a need to foster more inclusive and diverse interaction approaches.
- Roundtable discussions were infrequent, particularly in East Africa, policy events, symposia, and committee meetings varied across groups, suggesting differing engagement norms that warrant further exploration.
- Strong consensus on the importance of integrating scientific evidence into policymaking. 95% agreed on the necessity of close researcher–policymaker interaction, particularly in policy design and priority setting. But widespread dissatisfaction with the current level of collaboration indicates a need for improved communication and engagement.
- Researchers stressed the need for evidence-informed policymaking and better interaction, while policymakers emphasized improved use and translation of research, favoring intermediary support. Brokers supported policymakers' involvement in research design and emphasized their bridging role. All groups agreed on the need for clearer, more actionable policy recommendations from researchers.
- Regional gaps became evident, in North Africa, no respondents expressed views on the role of intermediaries in translating evidence—indicating a potential gap or underutilization of brokers.

- Poor communication between research and policy was the most cited barrier across all stakeholder groups. Issues like evidence quality or lack of consensus were not seen as major barriers, pointing to problems in translation and alignment rather than research availability.
- Involving policymakers in research design was rated as less important, suggesting a disconnect between ideal practices and actual priorities. Relationship-building is valued more than technical training. Researchers focused more on internal capacities (e.g., funding, data), possibly underestimating relational dynamics emphasized by brokers and policymakers.
- All groups identified improved data access as a top priority for effective research–policy interaction. Each group desires more collaboration, but approaches differ. Researchers seek co-development of solutions. Brokers aim to bridge and facilitate cooperation. Policymakers want clearer communication of their needs and greater trust-building.
- Effective communication emerged as a critical factor across all groups. Researchers need support in disseminating findings. Policymakers seek better expression of needs and trust-building. Brokers prioritize science-for-policy communication and cooperation.
- Researchers rely on traditional dissemination tools (journals, policy briefs), with limited emphasis on interactive engagement. Brokers act as intermediaries, balancing dissemination with policy relevance. Policymakers showed least interest in listed strategies, favoring funding programs over academic publications.
- East and West Africa exhibited greater engagement in research uptake, potentially due to donor influence or shared institutional culture. Central, Northern, and Southern Africa showed lower engagement, possibly due to fewer institutions, limited capacity, political barriers, or sample underrepresentation.

6.2 Policy recommendations

The establishment of institutionalized science-policy platforms is of paramount importance. Such platforms should include the formal and permanent establishment of structures such as science advisory councils and evidence units within government institutions. The purpose of such structures is to facilitate regular and structured interaction between scientists and policymakers. It is imperative that these platforms possess clearly defined mandates, sufficient financial resources, and the autonomy to function efficiently.

It is recommended that investment be made in capacity building on both sides, including the development and funding of training programs for researchers on policy processes and communication, and for policymakers on interpreting and applying scientific evidence. Furthermore, the establishment of joint fellowships, secondments, or co-training initiatives to foster mutual understanding and skills exchange is advised.

It is important to promote early and inclusive stakeholder engagement, that is to say, from the outset of research design, civil society and affected communities must be involved, in addition to policymakers, in order to enhance relevance, legitimacy and uptake. Furthermore, participatory and co-creation approaches in research that prioritize stakeholder input throughout the policy cycle must be encouraged and supported.

It is vital to elucidate the roles and strategic alignment of the parties involved, encompassing the delineation of roles, responsibilities, and expectations for researchers and policymakers within

collaborative endeavors or advisory mechanisms. Furthermore, there is a necessity to ensure the alignment of research agendas with policy priorities through strategic planning exercises and collaborative agenda-setting processes.

The establishment of trust and communication channels is of paramount importance in fostering long-term relationships that are founded on trust, openness, and consistent dialogue between the scientific and policy communities. The provision of support to science communication strategies that translate findings into accessible, policy-relevant language, and the utilization of trusted intermediaries when necessary, are also crucial elements in this process.

In order to enhance transparency in the decision-making process, it is essential to ensure that scientific evidence is utilized in a transparent manner in policy decisions. Furthermore, the rationale behind policy choices must be documented, and relevant research must be cited. This includes also encouraging open data policies and evidence-sharing platforms that allow public scrutiny and foster accountability.

The provision of support for both Knowledge Exchange and South-South Collaboration is vital. The promotion of peer learning and knowledge-sharing across countries and regions, with a particular focus on the Global South, is identified as a means of achieving this. The objective of this approach is twofold: firstly, to bridge the existing knowledge production divides, and secondly, to facilitate the establishment of networks that connect policymakers and researchers across a range of institutional and national contexts.

It is recommended that investment be made in the development and testing of new methods (for example, scenario modelling, real-time policy labs) with a view to encouraging methodological innovation and evaluation. Such methods would support policy-relevant research and enable monitoring and evaluation mechanisms to assess the effectiveness of science–policy integration efforts and to improve them iteratively.

6.3 Future outlook

StEPPFoS is contributing to the bridging of the divide between research and policy by supporting platform development, expanding the PANAP network, and capacity building through the organization of training in e.g., economic modelling as well as institutional capacity building. Furthermore, StEPPFoS provides support to mentoring programs and staff exchanges, as well as developing and establishing a variety of activities to support communication and exchange between relevant stakeholders, such as donor roundtables, webinars, co-creative scenario development workshops, dialogues, and policy living labs. The expansion of the PANAP network necessitates the establishment of formal structures.

It is asserted that the present report will provide support for the aforementioned activities by offering comprehensive information regarding the barriers and facilitators of policy research interaction, in addition to the requirements of the relevant stakeholders.

7 References

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Annex

Documentation of the systematic literature review

A systematic literature review is conducted to ensure the selection of relevant, high-quality sources. This process is guided by well-defined inclusion and exclusion criteria. These criteria are carefully developed to align with the research questions. Key considerations for the criteria include:

- Publication date: Only literature published within the last 24 years is included, as this period offered an appropriate and sufficiently broad temporal scope for capturing trends and developments in the field.
- Study design: Studies with rigorous and clearly defined methodologies are prioritized to ensure the credibility and reliability of the findings.
- Geographic focus: While the primary focus of the study is sustainable food systems in Africa, literature with a global perspective is also included to provide broader insights and enable comparative analysis.
- Relevance to the research objectives: Only sources that directly address the research questions or provide valuable context for understanding the interaction between scientific evidence and policymaking are considered.

The literature search and analysis for this study are conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. The decision to use PRISMA is guided by its widespread endorsement and adoption across various research disciplines, which attests to its credibility and robustness as a methodological tool (Page et al., 2021). According to Scopus citation data, the PRISMA framework has been widely adopted within the biomedical research community (Page & Moher, 2017). Studies from various disciplines that have employed the PRISMA tool for their analyses include those by Bastidas-Orrego et al. (2023), Breen et al. (2018), Votruba et al. (2020) and Page and Moher (2017).

The PRISMA framework ensures the transparency and comprehensiveness of the systematic review process adopted by this study. The PRISMA framework is developed to improve the clarity and rigor of systematic review reporting by providing a structured approach to documenting and presenting this methodology. This study utilizes the updated PRISMA 2020 guidelines, reflecting recent advancements in systematic review methodology and terminology. Although the PRISMA 2020 checklist was originally designed for reviews assessing the effects of health-related interventions, it can also be applied to the evaluation of non-health-related interventions, including social, environmental, and educational interventions (Page et al., 2021). Given this study's interdisciplinary focus on the interaction between scientific research and policymaking in sustainable food systems, the flexibility and adaptability of the PRISMA framework made it an ideal choice.

The PRISMA flow diagram summarizes and documents the systematic review process. This visual tool provides a clear and transparent overview of the various stages involved, from identifying the literature to screening it for eligibility and inclusion. The number of articles recorded at each stage, along with the reasons for exclusion, are systematically documented.

- Initial identification: The number of articles retrieved during the initial search, including duplicates identified and removed, is recorded.

- Screening and eligibility: Articles are screened based on the inclusion and exclusion criteria outlined in an earlier section. The reasons for excluding certain articles are explicitly noted to maintain transparency.
- Final inclusion: The final number of articles included in the analysis is documented, providing a clear audit trail of how the dataset was narrowed down.

To ensure a comprehensive understanding of the relationship between research and policy, the literature review covers a wide range of sectors. While agriculture is prioritised due to its pivotal role in sustainable food systems, other sectors such as the environment, sustainability, food systems, and health are also incorporated. Similarly, the geographical scope of the review is broad, covering literature from Europe, North America and the Global South, with a particular focus on Africa. This focus on Africa aligns with the study's primary objective of gaining insight into the dynamics of research–policy interactions within the African food system. Meanwhile, insights from other regions provide a valuable comparative perspective.

This study covers the past 24 years, focusing on literature published since 2000. This period coincides with two major global development initiatives: The Millennium Development Goals (MDGs) (2000–2015) and the Sustainable Development Goals (SDGs) (2015–2030). These international frameworks represent critical milestones in the global effort to achieve sustainable development and provide a unique context in which to analyze policy formation and implementation. Established in 2000, the MDGs transformed decision-making processes in both developed and developing nations (Kumar et al., 2016). They outlined eight key objectives aimed at addressing urgent global issues such as poverty reduction, environmental sustainability, and global partnerships. Notably, goals 1 (eradicate extreme poverty and hunger),4 (reduce child mortality), 5 (improve maternal health), 7 (ensure environmental sustainability) and 8 (develop a global partnership for development) are directly or indirectly connected to agrifood systems. Following the conclusion of the MDGs, the SDGs were adopted in 2015 as a broader and more comprehensive framework. Goal 2, which aims to end hunger, achieve food security, and promote sustainable agriculture, goal 6 of access to clean water and sanitation, goal 12 of responsible consumption and production, goal 13 of climate action and goal 15 of life on land with indirect support from the other SDGs are particularly relevant to the focus of this study on sustainable food systems. The timeframe also captures the influence of these international initiatives on policymaking processes, particularly in an African context where numerous policies and strategies have been developed in response to the MDGs and SDGs to achieve sustainable outcomes. Emphasis is also placed on years in which regional decisions, initiatives, and agreements were announced, such as the Comprehensive Africa Agriculture Development Programme (CAADP) in 2003, Agenda 2063 in 2013, and the African Continental Free Trade Area (AfCFTA) in 2018.

An extensive search was conducted across multiple sources to gather relevant literature, including academic journals, review articles, reports, case studies, grey literature and books. Literature is gathered from two renowned digital databases: Scopus (www.scopus.com) — recognized as one of the leading scientific abstract and citation databases — is used as the primary source for identifying peer-reviewed articles and high-quality literature. Google Scholar (GS) is used as a supplementary database to access additional materials, including grey literature and less conventional sources, ensuring a broader capture of relevant data.

Search Queries

The first query, 'Search Query 1', is run on Scopus, the main database used for this study. It is specified as follows:

"TITLE-ABS-KEY ((evidence* OR research) AND (policy* AND political) AND decision-making AND (interface OR interaction)) AND PUBYEAR > 1999 AND PUBYEAR < 2025"

- The search query is carefully crafted to identify literature addressing the key themes and dimensions of the science–policy interface. Specifically, the query aims to detect and retrieve studies that meet the following two criteria:
    1. The science–policy interface, including articles exploring the interaction between scientific research and policymaking in the context of sustainable food systems and other fields;
    2. Evidence-based policymaking, including literature discussing the integration of scientific evidence into policymaking and evidence-informed policy development.
- Thematic dimensions: studies focusing on either scientific research or policymaking.

Specific parameters are applied to enhance the precision of the search and minimize irrelevant results. As mentioned earlier in this section, only articles published from 2000 onwards are considered. Additionally, articles focusing heavily on partisan politics or political ideology rather than the interaction between science and policy are excluded, to maintain the study's focus on the science–policy interface. This carefully structured query ensures that the retrieved literature is relevant to the research objectives, enabling a focused and comprehensive exploration of the topic.

The second query, 'Search Query 2', is run on Google Scholar (GS) and is specified as follows:

"(evidence* OR research) AND (policy* AND political) AND decision-making AND (interface OR interaction)"

GS was used as a supplementary database to identify additional articles and grey literature, in addition to the main literature search conducted through Scopus. This supplementary search was conducted using the Publish or Perish software (Harzing, 2007), which is recognized for efficiently extracting bibliographic data from GS. This approach aligns with the recommendations of Haddaway et al. (2015), who identified GS as a valuable supplementary source for systematic reviews, particularly for accessing grey literature and less conventional publications.

To keep the search manageable and focused, only the first 200 GS results were considered. This threshold, as recommended by Haddaway et al. (2015), has been shown to effectively cover the most relevant grey literature while minimizing redundancy and irrelevance. The articles and documents retrieved through this supplementary search were prioritized based on their relevance to two key thematic areas: (1) agriculture and food systems (literature explicitly addressing topics related to sustainable agriculture and food systems, as well as their broader implications, was chosen); and (2) Africa (articles or literature engaging with issues pertaining to the African continent were chosen to reflect the study's emphasis on the science–policy interface in African food systems).

Combining Scopus with the supplementary GS search ensures the study captures a comprehensive and diverse range of literature, including peer-reviewed articles, reports, and grey literature. This integration provides a robust foundation for analyzing the interaction between research and policymaking in the context of sustainable food systems.

Abstract screening and duplicate removal

The abstracts of the literature retrieved from Scopus are screened using ASReview, a software platform which uses advanced active learning techniques to streamline the review of large volumes

of text. ASReview is chosen for this task due to its efficiency in handling extensive datasets, making it ideal for systematic literature reviews. The dataset was initially downloaded from Scopus in Excel or CSV format and then uploaded to the ASReview platform, which only provided access to the abstracts. During the screening process, relevant articles are marked and exported into a new Excel file for further analysis. ASReview's analytics features enables real-time tracking of the screening process, including progress monitoring and counting the number of irrelevant articles excluded from the dataset. This systematic approach ensures transparency in the selection process.

The same methodology is applied to the dataset extracted from GS via the Publish or Perish software (Harzing, 2007) to ensure consistency when screening the two datasets. New files containing the relevant articles are created for each dataset, and clear records are kept of the number of articles included or excluded at this stage. To eliminate duplicates between the datasets, Scopus and GS files were uploaded to Zotero, a user-friendly, open-access reference management tool. Zotero automatically identifies duplicate entries using its 'Duplicate Items' feature. This step ensured that all duplicates are systematically removed before proceeding to the next stage of analysis. Following the abstract screening and deduplication process, a substantial portion of the literature is excluded due to irrelevance or failure to meet the inclusion and exclusion criteria outlined earlier in this section. This rigorous filtering process significantly refines the dataset, leaving only the most pertinent articles.

Detailed Literature screening and Analysis

Following the initial screening of the abstracts and removal of duplicates, the remaining articles were reviewed and analyzed in more detail. This involved reading the full texts of articles identified as relevant during the abstract screening process for both the Scopus and Google Scholar datasets. Articles that directly addressed the research questions or provided meaningful insights were prioritized. Those that did not align with the research objectives or fell outside the defined scope were excluded at this stage. This secondary filtering process resulted in the removal of further articles, thus refining the dataset. Although fewer articles were removed in this phase than in the initial abstract screening, this process was instrumental in ensuring that the final literature selection was highly focused and pertinent to the study's goals. This rigorous approach enhanced the quality and relevance of the dataset, forming a solid foundation for subsequent analysis.

Bibliometric Analysis of the literature

Bibliometric analysis is a structured approach used to examine scientific literature in order to identify patterns, trends, and the overall impact within a particular field of study. This method is particularly valuable for managing large volumes of scientific data and plays a crucial role in assessing the influence and reach of research. Researchers utilize bibliometric analysis for a variety of purposes, such as detecting emerging trends in article and journal performance, understanding collaboration networks, and examining the composition of 14 research contributors. Additionally, bibliometric analysis serves as a tool to explore the intellectual framework and development of a specific domain within the body of existing literature, offering insights into how the field evolves over time (Passas, 2024). Through these applications, bibliometric analysis not only helps in understanding the current state of research but also aids in forecasting future directions and potential areas of innovation.

A comprehensive analysis is conducted on all the articles deemed suitable for review, with the quantitative analysis focusing on the overall statistical attributes of the reviewed literature. The analysis encompasses several key characteristics. Firstly, it examines the number of publications or documents and their temporal evolution, providing insights into how the topic of the policy-research interface has developed over time. Secondly, the study analyzes the sectors covered by these

documents, with particular attention given to how the policy-research interface has been addressed in the agricultural sector or food systems. Thirdly, the territorial scope of the literature is scrutinized, with a focus on the continents where the studies are conducted. This aspect aims to determine the extent to which scholars have explored this topic within an African context, thereby gauging the volume of research focused on Africa. Lastly, the analysis categorizes the types of documents included in the study, providing an understanding of the various forms of literature that have addressed the subject. Together, these dimensions provide a comprehensive overview of how the policy-research interface has been approached in different contexts and sectors.

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