



LEAP4FNSSA Project



Deliverable N.: D1.2

Annotated bibliographies on selected topics: Inventory and analysis study

Funding scheme:	Coordination and support action
Project Acronym:	LEAP4FNSSA
Project Full Title:	Support to the implementation of the Long-term EU-AU Research and Innovation Partnership for Food and Nutrition Security and Sustainable Agriculture
Grant Agreement n°:	817663
Project duration:	48 months

Published by the LEAP4FNSSA Consortium
Dissemination Level: **Public**



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No. 817663

LEAP4FNSSA CONSORTIUM

The project consortium is composed of:

AUSTRIA	Universitaet fuer Bodenkultur Wien (BOKU)
BURKINA FASO	Fonds National de la Recherche et de l'Innovation pour le Developpement (FONRID)
CZECH REPUBLIC	Ceska Zemedelska Univerzita V Praze (CULS)
DENMARK	Kobenhavns Universitet (UCPH)
EGYPT	Ministry of Higher Education and Scientific Research (MHESR) Knowledge Economy Foundation (KEF)
ETHIOPIA	African Union – Union Africaine - The African Observatory for Science Technology and Innovation (AOSTI)
FINLAND	Luonnonvarakeskus (LUKE) Jyvaskylan Yliopisto (JYU)
FRANCE	Agence Nationale de la Recherche (ANR) Centre de Cooperation Internationale en Recherche Agronomique pour le Developpement (CIRAD) – COORDINATOR
GERMANY	Bundesanstalt für Landwirtschaft und Ernährung (BLE) Deutsches Zentrum für Luft und Raumfahrt EV (DLR) Go Africa Katharina Kuss (GAKK) Universitaet Hohenheim (UHOH)
GHANA	Council for Scientific and Industrial Research- Science and Technology Policy Research Institute (CSIR-GH)
GREECE	Knowledge & Innovation Consultants - Symvouleftiki Monoprosopi Epe (KINNO)
HUNGARY	Szent Istvan University (SIU)
ITALY	Centro Internazionale di Alti Studi Agronomici Mediterranei (CIHEAM-IAMB)
KENYA	Ministry of Education Science and Technology (MEST) Network of African Science Academies (NASAC)
NIGERIA	International Institute of Tropical Agriculture (IITA)
PORTUGAL	Fundacao para a Ciencia e a Tecnologia (FCT)
SENEGAL	Ministere de l'Enseignement Superieur, de la Recherche et de l'Innovation (MESRI-DFRSDT)
SOUTH AFRICA	Agricultural Research Council (ARC) Department of Science and Technology (DST) National Research Foundation (NRF)
SPAIN	Instituto Nacional de Investigacion y Tecnologia Agraria y Alimentacion OA MP (INIA)
SWEDEN	Sveriges Lantbruksuniversitet (SLU)
THE NETHERLANDS	Stichting Wageningen Research (WR)
UGANDA	Regional Universities Forum for Capacity Building in Agriculture Limited (Forum) by Guarantee (RUFORUM) The Registered Trustees of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
UNITED KINGDOM	Association of Commonwealth Universities (ACU) Forum for Agricultural Research in Africa (FARA) Natural Resources Institute-University of Greenwich (NRI)

Disclaimer

This document reflects only the Author's views and the European Union is not responsible for any use that may be made of the information contained therein.

DOCUMENT INFORMATION

Project number	817663	Acronym	LEAP4FNSSA
Full title	Support to the implementation of the Long-term EU-AU Research and Innovation Partnership for Food and Nutrition Security and Sustainable Agriculture		
Project URL	www.leap4fnssa.eu	Document URL	
EU Project Officer	Soriani Cristina		

Deliverable	Number	D1.2	Title	Annotated bibliographies on selected topics: Inventory and analysis study
Work Package	Number	WP1	Title	Support to the FNSSA Partnership and the HLPD Bureau

Date of delivery	Contractual	M12	Actual	M13
Status	Version 1.0		Draft	
Final review	20/11/2019		Formatting by WP1	15/11/2019
Type of document	<input type="checkbox"/> prototype <input type="checkbox"/> report <input type="checkbox"/> demonstration <input type="checkbox"/> other			
Dissemination level	<input type="checkbox"/> public <input type="checkbox"/> confidential			

Authors (Partner)	IITA, UCPH, WR			
Responsible Authors and contributors	Name	Kwesi Atta-Krah Niels Fold Pieter Windmeijer	Email	K.Atta-Krah@cgiar.org , nf@ign.ku.dk , Pieter.windmeijer@wur.nl
	Partner	IITA UCPH WR	Phone	+234 8039784433 +45 35322561 +31317486858

Abstract (for dissemination)	This report is an inventory and analysis study that has been conducted to provide a basis for the High Level Policy Dialogue (HLPD) Bureau and the FNSSA Working Group to decide on possible topics of studies to be conducted in a later phase of the LEAP4FNSSA project in order to support the establishment of a broader FNSSA Platform. This study is based on the outputs from other support projects to the HLPD like CAAST-Net Plus, RINEA, PROIntensAfrica and LEAP-Agri. In addition, African and European policy documents were used to analyse the institutional context for the FNSSA Platform. Eight topics for further study are proposed.
Keywords	Food and Nutrition Security, Sustainable Agriculture, EU AU Partnership

Index

Abbreviations.....	5
Executive Summary	7
1. Introduction	8
1.1 Purpose, context and scope of this deliverable	8
1.2 Structure and content of this deliverable	9
2. The EU-AU FNSSA Roadmap: the strategic context for the FNSSA Partnership and future FNSSA Platform	10
2.1 Introduction	10
2.2 Rationale and objectives of the EU-AU FNSSA Partnership	10
2.3 Funding mechanism for the Partnership	11
2.4 A jointly developed research agenda for the Partnership	12
2.5 M&E criteria	12
2.6 Implementation of the EU-AU R&I Partnership on FNSSA	13
2.7 Developing the EU-AU R&I Partnership on FNSSA	14
2.8 Summing up	15
3. The outputs of policy supporting projects: tangible results?	16
3.1 Introduction	16
3.2 Key messages: main achievements	17
3.3 Summing up	24
4. An Africa perspective: Role and importance of the main themes in strategic documents of Africa-based organisations	26
4.1 Introduction	26
4.2 Synthesis of strategic documents across LEAP4FNSSA domains Creating strategic alliances of actors to align their R&I activities	26
4.3 Concluding remarks	30
5. A Europe perspective: Towards an Africa Europe Partnership for sustainable development and jobs in rural Africa (Task Force Rural Africa)	32
5.1 Introduction	32
5.2 Strategic areas for action	32
5.3 Action Plan towards Innovative Partnership	33
5.4 Main recommendation to the EU Commission	34
6. Ways ahead: Suggestions and rationale of further studies	35
6.1 Main findings	35
6.2 Suggestions for further studies	36
Appendix A: List of documents	39
Appendix B: Profiling of African-based organisations and main strategy documents	43
Appendix C: Research and innovation themes and crosscutting issues as suggested in the FNSSA Roadmap	47

Abbreviations

AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
AGRF	African Green Revolution Forum
ASARECA	Association for strengthening Agricultural Research in Eastern and Central Africa
ATPSA	Agricultural Transformation Program for Southern Africa
AUC	African Union Commission
AU-EU	African Union-European Union
CAADP	Comprehensive Africa Agriculture Development Programme
CAAST	Coordination and Advancement of Sub-Saharan Africa-EU Science and Technology Cooperation
CAAST-Net	Advancing Saharan Africa-EU cooperation in Research and Innovation for Global Challenges
CAP	Common Agricultural Policy
CCARDESA	Centre for Coordination of Agricultural Research and Development for Southern Africa
CGIAR	Consultative Group for International Agricultural Research
CRP	CGIAR Research Programme
CORAF	West and Central Council for Agricultural Research and Development
CSA	Coordination and Support Action
ECAAT	East and Central Africa Agricultural Transformation Program
EDCTP	European and Developing Countries Clinical Trials Partnership
EIP-AGRI	The agricultural European Innovation Partnership
EJP	European Joint Programme
ERA-ARD	European Research Area – Agricultural Research for Development
ERAfrica	Developing African-European Joint collaboration on Research and Innovation
ERANET	European Research Area Net
ESASTAP	European-South African Science and Technology Advancement Programme
FARA	Forum on Agricultural Research in Africa
FNSSA	Food and Nutrition Security and Sustainable Agriculture
HLPD	High Level Policy Dialogue
IFAD	International Fund for Agricultural Development
IRC	International Research Consortium
JAES	Joint Africa-EU Strategy
JPI	Joint Programming Initiative
KMCF	Knowledge Management and Communication Framework
KMCS	Knowledge Management and Communication System
KMIS	Knowledge Management and Information System
LEAP-Agri	Long-term EU-Africa research and innovation Partnership on food and nutrition security and sustainable Agriculture
M&E	Monitoring and Evaluation
NARS	National Agricultural Research System
NEPAD	New Partnership for Africa's Development
PAEPARD	Platform for African-European Partnership on Agricultural Research for Development
PIMC	Programme and Innovation Management Cycle

RINEA	Research and Innovation Support for Europe and Africa
R&I	Research and Innovation
RMC	Regional Member Countries
RTD	Research and Technological Development
SINCERE	Strengthening International Cooperation on ClimatE Change Research
SRO	Sub Regional Organisations
STI	Science, Technology and Innovation
STISA	Science, Technology and Innovation Strategy for Africa
S3A	The Science Agenda for African Agriculture
TAAT	Technologies for African Agricultural Transformation
WAATP	West Africa Agricultural Transformation Program

Executive Summary

The LEAP4FNSSA project supports the High Level Policy Dialog (HLPD) Bureau and the Working Group on Food and Nutrition Security and Sustainable Agriculture (FNSSA-WG) in implementing the AU-EU FNSSA Roadmap. The objective of the project is to establish a AU-EU FNSSA Platform to support the Partnership between the two continents in this domain. This report presents the results of an examination of the outputs of other support projects to the HLPD Bureau and to the FNSSA-WG, as well as European and African policy documents focusing on FNSSA. Eight topics are proposed for studies to be implemented in the LEAP4FNSSA project to contribute to the FNSSA Roadmap and support the development of the AU-EU FNSSA Platform. These are 1) organisational aspects and funding mechanisms of the Platform 2) the value of the FNSSA Platform for Food and Nutrition Security and Sustainable Agriculture in Africa and Europe 3) how to apply a food system approach 4) youth, women and job creation for inclusive socioeconomic development 5) how to deal with food system diversity and multiple solution pathways 6) potential role of the various representatives of the Private Sector 7) trade of agricultural goods and processed food between the two continents 8) changes in dietary patterns in both continents. The selection of topics will be made in dialogue with the HLPD Bureau and the FNSSA-WG and implemented in the frame of task 1.3.

1. Introduction

1.1 Purpose, context and scope of this deliverable

As described in the project Grant Agreement, task 1.3, this report is an inventory and analysis study that has been conducted to provide a basis for the High Level Policy Dialogue (HLPD) Bureau and the FNSSA Working Group (FNSSA-WG) to decide on possible topics of studies to be conducted in a later phase of the LEAP4FNSSA project. This report has been listed in the Grant Agreement under the title “Annotated bibliographies on selected topics”. The topics will be selected if they aim at improving the FNSSA Roadmap, strengthening the FNSSA Partnership and contributing to develop a sustainable Platform for this Partnership.

By summarizing and analysing previous policy support projects, this study can provide, as an additional outcome, an overview that brings all partners to the same level of understanding of the LEAP4FNSSA project objectives.

Three categories of documents were analysed as follows:

- 1) The AU-EU FNSSA Roadmap that was endorsed in 2016. It describes the overarching goals of the FNSSA Partnership and the short, medium and long-term actions to be implemented. It gives guidance to the support projects listed under bullet 2. The document sets out also general ideas about the Partnership, and some guidelines about the expected Platform. Various topics need further development. The policy documents used to develop the Road Map were not directly included in this study.
- 2) The outputs produced by the following four projects:
 - a. Research and Innovation Network for Europe and Africa (**RINEA**);
 - b. Advancing Sub-Saharan Africa-EU Cooperation in Research and Innovation for Global Challenges (**CAAST-Net and CAAST-Net Plus**);
 - c. Pathways to sustainable intensification of the agri-food systems in Africa (**PROIntensAfrica**); and
 - d. A long-term EU-Africa research and innovation Partnership on food and nutrition security and sustainable Agriculture (**LEAP-Agri**).
- 3) Most relevant documents of European and African organisations involved in the FNSSA domain in Africa and dealing with the issues listed in the AU-EU FNSSA Roadmap. These organisations and their activities form the “environment” for the Platform to be developed. In particular, the recent advice of the Task Force Rural Africa to the European Commission has

been included in this category. Until today, it has been considered as the most politically relevant document, since its conclusions were endorsed by the Ministers of agriculture from Europe and from Africa in June 2019, in Rome. For practical reasons, global or generic documents on FNSSA were not studied, they will be consulted in the thematic studies.

An overview of these documents can be found in Appendix A. They are referred to in the text with superscript letters (e.g. ^{a,g}).

These documents have been analysed in liaison with four intervention (or action) domains of the LEAP4FNSSA project:

1. Creating strategic alliances of actors willing to align their R&I activities:
 - a) formal and informal dialogue between stakeholders
 - b) agenda setting
 - c) improving coherence between projects and programs
 - d) common R&I policies
 - e) joint funding mechanism
2. Strengthening the knowledge base:
 - a) new instruments for data analysis
 - b) linking research and innovation to generate better knowledge to be used by end-users (strengthening research uptake)
 - c) support existing knowledge networks
3. Facilitating research and innovation networks in dissemination of already existing and new information
4. Proposing options for the organisation of the bi-continental Platform and establishing it.

1.2 Structure and content of this deliverable

The structure of the report follows the analytical entry point given above. Hence, the following chapter deals with the Roadmap, followed by Chapter 3 on the four supporting projects. The contributions from documents of African-based institutions is analysed in Chapter 4 followed by an outline of the recent Task Force Rural Africa report in Chapter 5. In the concluding Chapter 6 some suggestions for further studies are suggested based on the findings in the previous chapters.

2. The EU-AU FNSSA Roadmap: the strategic context for the FNSSA Partnership and future FNSSA Platform

2.1 Introduction

Shared vision and common objectives between Africa and Europe regarding the contributions of scientific and technological research and innovation to social and economic growth laid the foundation within the framework of the Joint Africa-EU Strategy (JAES) for the emergence of a High Level Policy Dialogue (HLPD) on Science, Technology and Innovation (STI) in 2010.

In 2014, the HLPD on STI was invited to work towards a long-term, jointly funded and co-owned AU EU Research and Innovation (R&I) Partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA)¹.

The resulting ‘Roadmap towards a jointly funded EU-Africa Research & Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA)’ was endorsed in 2016. It proposes the basis for a joint research agenda, short to medium term actions towards implementation (2014-2017) and reflections on long-term options for implementation (2018-2020 and beyond). It is based on the proposal of an *ad hoc* working group of European and African experts, and further inputs by three different working groups of the HLPD Bureau (scientific, instruments and implementation, monitoring and evaluation).

As the Roadmap is the base document for the follow-up activities of different projects, and it is the guiding document for the LEAP4FNSSA project, it is considered important to provide a clear summary of the Roadmap. It will allow an analysis of the outcomes of the support projects, contextualise the objectives with other ongoing activities in the FNSSA domain, and to identify gaps for future studies. The following paragraphs outlines the main content of the Roadmap.

2.2 Rationale and objectives of the EU-AU FNSSA Partnership

Some of the challenges of the current cooperation between Europe and Africa on STI for food and nutrition security and sustainable agriculture (FNSSA) are fragmentation of efforts and knowledge (new and traditional) being insufficiently mobilised to sustain innovation processes. The objective of the EU-AU Research and Innovation Partnership on FNSSA is to contribute to overcome these challenges in an innovative manner. Hence, the key ambitions of the Partnership are to enhance coordination of FNSSA relevant research and innovation policies, programmes and funding

¹ Consistent with the relevant policy developments in Europe and Africa; STISA-2024, S3A, CAADP, Europe 2020, EU CAP, EU Agenda for Change

mechanisms between Europe and Africa, to create synergies, optimise investment and identify gaps. This is envisioned to materialize through the following collaborative elements:

- Operating in a food system approach and across the entire value chain, linking research to innovation.
- Involving all relevant stakeholders from private sector (including farmers), civil society, government and research organisations for enhanced impact at local level, generating locally relevant innovation and exchangeable knowledge and know-how.
- A jointly designed, owned, managed and resourced Research and Innovation Partnership.
- A jointly designed, owned, managed and resourced Research and Innovation Agenda.
- An integrated approach, recognising the cross-cutting nature of entrepreneurship, research infrastructures and research and innovation capacity building and attention to critical policy and market conditions for sustainable agricultural production and food security.

2.3 Funding mechanism for the Partnership²

A core feature of the R&I Partnership is that of co-funding and the co-ownership that co-funding and joint governance engender. Co-funding – and the additional core features of including activities that cover the full value chain and of integrating research and innovation – necessitates recourse to a full suite of funders and mechanisms. That suite should include, but not be limited to at least three broad groupings:

- conventional research funding agencies (such as continental / regional commissions, national research councils, philanthropic and private sector companies),
- development agencies (such as continental and national agencies, development banks, global & national partnerships), and
- business investment partnerships including venture capital funds, other investments funds, and private sector companies.

The fundraising strategy implemented in the longer term, in addition to contingency on a diversity of funding agencies, would employ an array of mechanisms according to purpose, including but not limited to:

- non-returnable conditional grants,
- co-funded grants,
- loans and guarantees,

² In the Roadmap no specific or preferred mechanism for the FNSSA Partnership is suggested. In the report of the HLPD Working Group 1, which was used as input in the formulation of the Roadmap, a number of successful examples of running partnerships are shortly described, like Global Alliance on Improved Nutrition (GAIN), Roll Back Malaria (RBM), and the Water Efficient Maize for Africa (WEMA) partnership.

- intellectual property,
- venture capital,
- targeted commissioning,
- mobility and exchange programmes,
- collaboration support tools and workshops.

For any individual initiative, the support of multiple funding agencies might be contingent on the part of the value chain they like to support or the research-innovation spectrum being addressed.

2.4 A jointly developed research agenda for the Partnership

It is proposed that the R&I Partnership on FNSSA be organised around a set of four priority areas. The selection of priority areas is guided by five criteria:

- Relevance of the research domain to African and European priorities for sustainable agriculture and food and nutritional security (e.g. CAP and CAADP objectives).
- Expected impact of research and likelihood of uptake contributing to solutions and evidence for policy change, to positive agricultural and nutritional outcomes and to significant improvements in economies, wellbeing and resilience.
- Capacity for joint research in both African and European scientific communities.
- Scalability of research & innovation to generate impact at national or regional scales.
- Complementarity to existing bilateral and multilateral collaboration.

Three priority areas and crosscutting issues are suggested in the Roadmap. For more details on the research and innovation areas for each of the three priority areas, please see Appendix C:

- **Theme 1: Sustainable Intensification**
- **Theme 2: Agriculture and food systems for nutrition**
- **Theme 3: Expansion and improvement of agricultural markets and trade**
- **Cross-cutting issues**
 - Improved coordination between European and African FNSSA R&I projects.
 - Supporting innovation processes.
 - Strengthening collaborative capacities of R&I communities.
 - Social and cultural contexts of FNSSA production systems.

2.5 M&E criteria

Assessment of the implementation of the AU-EU R&I Partnership, its programs and its individual projects, will be based on progress, between baseline and final surveys, in input, output, outcome and overall impact indicators driven by the following (non-exclusive) set of R&I Partnership criteria:

- Advancement of knowledge;
- Conduct of capacity building and targeted research activities;
- Uptake of research outputs to scale;
- Improved coordination of European and African R&I activities;
- Effectiveness of multi-disciplinary teams in mobilizing stakeholders and sourcing funds;
- Operationalization of capacity and mechanisms for knowledge and innovation mobilization;
- Institutional and technical evolution of the R&I Partnership;
- Enhancement of collaborative capacities of European and African R&I communities;
- Impact of research on communities;
- Capacity to inform and influence policy and decision making;
- Dissemination of knowledge.

The process thus integrates *ex-ante*, *in-itinere* and *ex-post* evaluation processes adapted to the R&I Partnership, its thematic programs and diverse individual activities, across their varying temporal scales. External stakeholder input should be foreseen, with key M&E outputs being regular reporting and proposals for corrective measures.

2.6 Implementation of the EU-AU R&I Partnership on FNSSA

The partnership will not start from scratch, but builds on numerous past and ongoing activities, projects and programs, completed and still ongoing. Many lessons can be learned from these existing Africa-Europe STI collaborations on FNSSA. Of particular interest are those initiatives of a longer-term nature, multidisciplinary initiatives addressing research, innovation and capacity building together, and those that have employed co-funding financial models and novel collaborative mechanisms: ERANETS like ERAfrica and ERA-ARD1 and 2, EDCTP, and the JPI Water are just some of many initiatives that deserve mention.

To be selected as forming part of this R&I Partnership, activities should fulfil the following criteria:

- Alignment with the AU-EU FNSSA Roadmap principles and content;
- Joint interest (including co-design and joint scoping), joint governance, joint investment for and by Europe and Africa;
- Promoting a systemic approach to research and innovation;
- Adapted to a program level partnership;
- Strengthening collaboration between researchers and other stakeholders;
- Novelty and with a potential for leverage;
- Focused on STI but within a vision for impact.

2.7 Developing the EU-AU R&I Partnership on FNSSA

Actions in developing the AU-EU R&I Partnership on FNSSA are envisaged in the Roadmap to start in the short, medium and long-term. The timing broadly aligns with the milestones as foreseen in ‘The Way Forward’³, with each action building progressively on the previous.

Short term (started up to 2016⁴)

Work starts with the joint development of a research agenda by jointly designing a roadmap and meta mapping, building on existing initiatives in developing the R&I Partnership on FNSSA, whose goals and activities broadly align with those of the R&I Partnership. Projects and initiatives such as CAAST-Net Plus, PAEPARD, ERAfrica and ESASTAP are each supporting the emerging R&I Partnership during this phase. Competitive calls for joint research and innovation and for capacity building are launched that lead to the establishment of other projects (for example the RINEA and PROIntensAfrica projects funded through calls of the RTD Framework Programme). Initiatives are clustered and a process of interaction between researchers and, policy makers and the private sector, including farmers, is initiated to achieve impact on the ground.

Medium term (started up to 2017)

The medium term actions are those of consolidation, investing in reducing fragmentation in the landscape, in building synergies and clustering, and fostering co-ownership of a range of stakeholders of the value chain and financing mechanism. This phase sees the appearance of a new suite of co-funded EU-AU initiatives, more explicitly associated to and driven by the R&I Partnership’s objectives and its FNSSA focus, such as an ERANET Cofund (LEAP-Agri) and the African Union Research Grants. Work continues on jointly developing a research agenda and reflections start on long-term options for the R&I Partnership.

Long term (started up to 2018-2020)

Longer term success relies on the complete establishment and integration into the landscape of the R&I Partnership, supported by its fully operational organisational/governance structure. An optimised organisational backbone, with local, national, regional and bi-regional elements allows for development of mutually strengthening activities of the different partners and their shared ownership while retaining individual identity and goals. The partners would represent the full value chain.

As it expands over the next 10 years, the R&I Partnership will also evolve organisationally. A Partnership of variable geometry, without entry and exit barriers, allows the institutional agility to

³ Annex to the conclusions of the 2013 meeting of the EU-Africa HLPD on STI

⁴ These are the years mentioned in the Roadmap. During implementation some actions were delayed. Most of the actions continue over longer periods.

support an array of activities. A consistent approach to governance and to the relationship with the formal HLPD process, supported by a rigorous administrative and managerial structure that includes project management capacity is also necessary. Projects as LEAP-Agri and LEAP4FNSSA contribute to this long-term objective and is expected to support the HLPD in further developing the Partnership.

2.8 Summing up

The Roadmap provides the general building blocks for the AU-EU FNSSA Partnership and future Platform. Many aspects needs further thinking and articulation, including funding mechanism, organisation of the Partnership, stakeholder involvement, and how to capitalize on the added value of the Partnership.

3. The outputs of policy supporting projects: tangible results?

3.1 Introduction

In this chapter, the contributions of the four support projects implemented in order to validate the concept and further the development of the Partnership are examined.

Their objectives need to be recalled. CAAST-Net Plus and RINEA were policy support projects to the EU-AU Partnership on Science, Technology and Innovation (STI), and both had their specific objectives;

- CAAST-Net Plus on strengthening bi-continental partnerships.
- RINEA specifically provided support to the HLPD Bureau and organized dialogues between stakeholders and the secretariat of the FNSSA Working Group. In addition, the project developed a methodology to monitor and evaluate (M&E) the Partnership.

PROIntensAfrica was a science driven Coordination and Support Action (CSA) designed to prepare the ground for a long-term partnership in the field of sustainable intensification of agri-food systems. The final report provided the summary of the outputs of PROIntensAfrica, including (a) a vision and mission for the Partnership and the future Platform, (b) a possible research agenda, (c) approaches to be applied in executing projects funded under the future Partnership, and (d) possible organisational structure and funding mechanisms.

LEAP-Agri is an ERA-Net Cofund project, and, as such, falls in a different category. Its major partners, the research funders from Europe and Africa, are pooling their resources to fund research projects. LEAP-Agri established a secretariat to implement the application and selection process. LEAP-Agri is experimenting on what was proposed by the three policy support projects in order to build a long-term partnership through joint funding of projects.

All the research projects funded by LEAP-Agri apply, at various degrees, multi-stakeholder approaches, and research uptake is a particular point of attention. The LEAP-Agri programme supports the joint learning between the projects funded by organizing (and funding) learning workshops. It is the first time that African and European R&I programme funders and programme owners participate in a joint funding and joint implementing mechanism reaching this level of investment: more than 20 projects, for a total funding of more than 20 Million euros.

The analysis of the projects documents conducted in this chapter will be solely based on *key points* from *project documents*, based on the project partners' reports of activities and their evaluation of achievements and challenges. Therefore, this study is a meta-analysis of the self-reporting and self-evaluation from the projects, and not a third-party evaluation of actual outcomes. The type of projects'

document varies greatly, from bibliometric studies and workshop reports to interview-based studies, policy briefs, and book chapters. PROIntensAfrica was assessed only on the basis of the final project document which summarizes all individual outputs of the project work packages whereas nine documents from CAAST-Net Plus have been examined.

When synthesizing findings across projects, it is important to bear in mind that the lessons drawn can only be considered as important steps *towards* the bi-continental Platform. In bringing together partners and results of the described projects, LEAP4FNSSA intends to bridge the experiences of the different projects in a joint effort to launch the Platform. Summarizing the outputs of the various projects, synthesizing the lessons learned, and thinking ahead of how LEAP4FNSSA can achieve its final goal will therefore be a critical part of this study.

3.2 Key messages: main achievements

The diversity in content and dissemination style complicates comparison and synthesis both within and across the four projects. With this in mind, some patterns still emerge when thematically synthesizing the main messages across document types. As illustrated in the overview of the four individual projects (Table 1), the projects have different focus areas and target different aims and processes of the Africa-Europe collaboration. While there is some important complementarity across projects, some specific challenges and gaps are also found, indicating a potential for further studies and activities towards LEAP4FNSSA. Some general reflections across the project documents include:

- i) Many project documents report on aims and intentions, especially when it comes to agenda setting (1.b), improving project coherence (1.c) and research uptake (2.b). Development and implementation of concrete strategies or actual activities within these themes are pending;
- ii) There are remarkably few cross-relations or cross-references between the four projects, which seem to run largely in isolation from each other (working against 1.c on coherence); a number of partners, however, are active in multiple projects;
- iii) A direct link to policy (1.d), e.g. in terms of policy recommendations and political context, is largely absent or weak in many documents (except in a few CAAST-Net Plus and RINEA documents). This could indicate a persistent science-policy boundary possibly impeding the transformational change needed to strengthen the Africa-Europe collaboration. This gap is particularly interesting, as the projects by definition are supposed to provide “policy support”.

Table 1 presents an overview of **findings** from project documents according to the thematic domains presented above. These findings take shape as concrete output or main messages. The table format provides an overview of the findings *per project* (vertical axis) and *per theme* (horizontal axis). The intensity of the background colour for each cell is based on the analysis of reported findings from

project documents (Appendix A) and the colour indicates the extent to which the specific sub-themes are addressed in the documents from the specific project. A light colour indicates that the sub-theme is not a main focus in the project documents, whereas a more saturated background colour suggest that this sub-theme is a main project priority. We acknowledge the arbitrary nature of this approach but maintain that the colour shading allows for a visualization of thematic complementarity across the four projects and potential thematic gaps.

TABLE 1 – part A	CAAST-Net Plus 2013-2017	RINEA 2015-2018	LEAP-Agri 2017-2021	PROIntensAfrica 2015-2017
1) Creating strategic alliances of actors to align their R&I activities				
a) Formal and informal dialogue between stakeholders	Organized, co-organised and presented at multiple information sessions, trainings, and stakeholder forums ^{b,c,d,e,f}	Initiated several workshops and support activities, travels grants, round tables ^{i,k} . Trainings and workshops facilitated learning and networking ^m	Mentions that project proposals should be developed in partnerships across sectors and target groups ^o . Consultations and liaison with relevant stakeholder communities ^q Research uptake and multi-stakeholder approaches are key in projects funded under LEAP-Agri.	Multi-stakeholder approaches proposed in future projects, multi-stakeholders involved in case studies.
b) Agenda setting	Recommends development of common research agenda and shared matrix to evaluate success ^g	Meetings among project coordinators to improve mutual understanding – FNSSA became one priority area ^l	Calls for a joint Strategic Research and Innovation Agenda in the FNSSA ^{q,r} . Proposes analysis and development of research agendas ^t	Research agenda developed, themes and sub-questions, including approaches for multi-level, trans disciplinary, etc.
c) Improving coherence between projects and programmes	Working with partners across countries and contexts ^b . Links to SINCERE and RINEA projects ^d . KMCS blueprint adopted by the LEAP-Agri consortium ^c	Projects share Partnership values, operate effectively and (partially) achieve outputs, but face constraints, and risk disconnection ^m	Pooling resources of African and European funders and using Roadmap themes for the call, will reduce fragmentation. Will organize workshops across previous initiatives ^s	Propose a stronger alignment of funding, Agenda setting, and R&I implementation to increase impact ^u
d) Common R&I Policies	Classifies conditions in regulations, instruments or management tools ^e . Provides recommendations for policy makers ^{l,h} and involves governments ⁱ	Contributed to the evidence base for policy for future strategic decision making (FNSSA Roadmap and HLDP) ^j . Recognizes competing priorities ^m	Suggests that the KMCS framework increase coherence and efficiency of FNSSA AU-EU cooperation by providing science-based recommendations to HLDP ^t	Acknowledgement of policy level involvement in programming of research ^u Policy included as a major driver for pathways
e) Joint funding mechanisms	Proposes joint EU-AU R&I projects and synergy between H2020 and development funds ^e	Overview of funding and potentials ^m . Calls for stakeholder inclusion ^k	Joint call for proposals for collaborative R&I projects between European & African partners ^p In project the EU ERA-Net Cofund mechanism is applied.	Funding mechanism analysed. Several options (Article 185, IRC, ERA-Net Cofund, EJP, JPI) discussed.

TABLE 1 – part B				
	CAAST-Net Plus	RINEA	LEAP-Agri	PROIntensAfrica
2) Strengthening the knowledge base				
a) New instruments for data analysis	Proposes five conditions of success for collective impact ^g . Conceptualizes framework conditions, and proposes a typology ^e	Bibliometric analysis of hotspots of collaboration ^l , impact-oriented M&E criteria framework ⁿ , and partnership indicators ^o	<i>(not a main focus area)</i>	Proposes a typology of pathways: conventional, eco-technical, agroecological and organic ^u
b) Linking research and innovation (research uptake)	Interviews of actors within value chains ^c . Launch of ‘capacity platform’ ^d	Feedback loops exist, but room to improve indicators ^m . Suggests value chain approach ^k and M&E ⁿ	Proposes a ‘sorting house’ mechanism (building on existing initiatives and activities) to translate science based recommendations for practice and to identify knowledge and strategical gaps ^t All projects aim to strengthen research uptake by building multi-stakeholder involvement ^t	In research approach proposed importance research and innovation link highlighted
c) Support existing knowledge networks	Various events ^{b,f} and working sessions, including group-based work where early-career African researchers could seek advice and receive coaching ^d	Various events and activities ^{j,k,m} . Knowledge sharing and cooperation between institutions and programmes have improved ^m	Proposes to initiate regular African workshops and networks ^t . Activities for knowledge sharing and research uptake, especially through learning between the various stakeholders ^s	<i>(not main focus area)</i>
3) Facilitating research and innovation networks				
a) Dissemination of already existing and new information	H2020 Information sessions facilitated clearer understandings and peer learning ^b . Provides an analysis and report on existing EU-AU R&I projects ^g	Knowledge created and shared within and between organisations ^m . Set-up of AU-EU-STI Portal ^l . Shows that early stage of a research career is critical ^o .	The CAAST-Net + project come up with the concept of KMIC, the Knowledge Management and Information System. It is further developed under LEAP-Agri, and important part of LEAP4FNSSA	Dissemination of project information / results through the “normal” channels. Existing information of projects (case studies) used for defining pathways and driving forces.

TABLE 1 – part C	CAAST-Net Plus	RINEA	LEAP-Agri	PROIntensAfrica
4) Possible organisation of the bi-continental Platform				
a) Structure and organisation	Co-leading Work Package system assisted mutual learning ^f . Synthesizes current practices and good practices, and suggests monitoring indicators and funding mechanisms ^e .	Institutional, political, bureaucratic, and logistic factors (beyond project influence) require partnership resilience ^o . Partnership as diplomacy tool in shifting policy contexts ^m	Outlines aim and calls for a strategy ^s . Proposes framework for a “lightweight consortium agreement for future cooperation”, launch of operational Research Alliances ^t and a Programme & Innovation Management Cycle (PIMC) ^t	Suggests to explore a “Joint Programming Initiative-like” instrument, for instance an International Research Consortium, and an Institutions Support group ^u
b) Knowledge and capacity	Concludes that personal commitment and continuity are key elements ^f . Suggests joint capacity development and network platforms ^e , support for junior researchers, private-public partnership models, and seed funding ^h	Trust as the single most important characteristic – investments in people and early career support mechanisms are required ^o . Co-ownerships are essential ^m	Proposes framework based on free, but controlled communication, data and knowledge exchange, where actors freely move, exchange and provide ideas and solutions via interfaces (KMCF) ^t	<i>(not main focus area)</i>

As detailed in Table 1, main achievements from the four projects include:

- numerous events facilitating dialogue between stakeholders and supporting knowledge networks,
- joint calls for a common agenda and understanding,
- input into EU and AU R&I policies,
- joint funding options,
- new instruments and frameworks for analysis,
- attention to and ambitions for research uptake, and dissemination of information through events, reports and web-based tools.

Together, all these activities provide knowledge and experiences, which are useful for the organisation of a bi-continental platform. Lessons and suggestions from the four projects include, but are not limited to:

- aspects of mutual learning,
- monitoring indicators and funding mechanisms,
- internal and external factors influencing platform success,
- communication strategies, and
- organisation of stakeholders.

The following paragraphs provides a more detailed overview of these main achievements *per project* and *per theme*.

A synthesis of finding *per project* (vertical view) shows that key activities and findings from **CAAST-Net Plus** has centred around networking (2.c), dialogues between stakeholders (1.a) and dissemination (3.a) through various events, and the project has contributed with analytical advancements (2.a) and policy perspectives (1.d). Building on these achievements, a key message for the possible organisation of the bi-continental Platform concerns the value of good practices, mutual learning, and personal commitment.

Turning to **RINEA**, this project has also facilitated dialogue (1.a), networks (2.c) and knowledge sharing (3.a) along with analytical contributions in terms of M&E and partnership indicators (2.a). Working towards a bi-continental Platform, RINEA sheds light on the importance of partnership resilience in a changing external (political) context, and highlights internal factors, such as trust and co-ownership, as being essential.

PROIntensAfrica developed a mission and vision for the Partnership to enhance alignment of programs and projects (1.c), has developed a research agenda including methodological approaches (1.a and 1.b and 2.b) and has conceptualized a typology of pathways for analysis (2.a) and dissemination (3.a). The final report of PROIntensAfrica summarizes the outcomes of the project. In addition to the point above, it provides ideas on organisation and funding of the partnership (1.e and 4.a).

Lastly, in **LEAP-Agri**, a joint European and African funding mechanism (ERA-Net Cofund) is the central pillar (1.c and 1.e). In addition, important characteristics are the links between research and innovation shown by the multi-stakeholder approaches of the projects, the effort for research uptake, the sorting house (2.b) and cross-project learning. In LEAP-Agri, the ideas for knowledge sharing and project management as conceptualized under CAAST-Net Plus are further developed in concepts of a *framework* for knowledge management and communication (KMCF), as well as a management cycle (PIMC). Under LEAP4FNSSA these concepts and ideas will be further tested or developed with possible adaptation to be applied within the Platform.

Hence, the individual focus areas become clear as visualized in Table 1. For instance, as indicated by more saturated background colours, CAAST-Net Plus and RINEA have been strong in bringing stakeholders together (1.a) and supporting existing knowledge networks (2.c), which are inherently connected sub-themes. CAAST-Net Plus and RINEA have also developed new concepts for instruments for data sharing (2.a) and information dissemination (3.a), and CAAST-Net Plus in particular have considered and included policy issues (1.d). LEAP-Agri on the other hand, centres more on joint funding mechanisms (1.e), which is not a key focus area in the other projects, and proposed concrete frameworks and structures for developing a bi-continental platform (4.a and 4.b). The PROIntensAfrica project is focusing on projects' coherence (1.c) - or lack hereof - and on providing a typology of different pathways to sustainable intensification (2.a and 3.a).

Synthesizing findings *per theme* (horizontal view) shows that **dialogue between stakeholders** (1.a) has been facilitated through various and numerous events, including meetings, trainings, and workshops. **Agenda-setting** is mentioned and requested by the projects (see above). Initiatives to **improve project coherence** (1.c) is set in motion through upcoming workshops and vision and mission for the future partnership (PROIntensAfrica), since this coherence has been seen as constrained and challenged across projects. The link to **policies** (1.d) is addressed in some projects through policy recommendations, involvement of government actors, and a classification of conditions and drivers for change. An overview of **funding mechanisms** (1.e) is provided and a joint call for proposals for collaborative R&I projects between European & African partners was launched through LEAP-Agri. Development of **new instruments for analysis** (2.a) include frameworks and

indicators for M&E, partnership evaluation, knowledge management, innovation cycles, and sustainable pathways. **Linking research and innovation** or research uptake (2.b) is approached by launching – or aiming to launch – platforms, alliances and transdisciplinary R&I projects, responding to a need to join forces across sectors. The many events reported for facilitating dialogues (1.c) have also provided meeting spaces to **support existing knowledge networks** – and creating new ones, for instance supporting early-career researchers. These events also provided a space for dissemination of information, which is also communicated through written reports and web-based tools, but with the suggestion of expanding the communication toolkit.

Specific suggestions for a possible **organisation of a bi-continental Platform** (4.a and 4.b) are anchored in project experiences and formal description. Project experiences of RINEA and CAAST-Net Plus show how a co-leading Work Package system has facilitated mutual learning and how such co-ownership along with good practices, personal commitment and trust are essential elements for reaching successful partnerships. These are more internal, processed focused conditions for the Partnership, also applied in LEAP4FNSSA. Other specific inputs for the Platform focus on organisation and funding aspects of the Partnership: PROIntensAfrica, for instance, made propositions on aspects of knowledge management, communication and innovation strategies and frameworks, and establishment of concrete initiatives, consortia and support groups. M&E indicators and frameworks are also proposed as important elements for ensuring desired partnership progress.

The problem with the horizontal analysis of the outputs and outcomes of the 4 projects is that they are formulated at different levels. They are often (a) project process and experience based (CAAST-Net Plus and RINEA), (b) formulated and defined as final conclusion of a project (PROIntensAfrica, and the M&E of RINEA) or (c) still preliminary as the project is not yet completed (LEAP-Agri, evidence and success of alignment). This makes the comparative analysis between the results and outcomes challenging. Despite this caveat, the general picture regarding the individual thematic areas is that the projects largely supplement each other.

3.3 Summing up

Some overarching lessons learned for the future Partnership can be formulated along the “Light interim M&E report” of the RINEA project:

- Assurance of a good communication with policy level representatives to align them to the overall mission, vision and objectives of the Partnership is important to avoid that national/institutional interest become leading;

- This communication is also very critical to get other stakeholders fully engaged in the Partnership, like researchers, innovators, and financial institutions, and keep projects connected to the overall objectives of the Partnership;
- Asymmetries in access to knowledge, facilities, infrastructure and resources, are said to challenge important values, such as shared responsibilities and co-ownership, as well as limit effectiveness, efficiency, and partner engagement. These asymmetries can in turn undermine trust, widely accepted as a critical feature of successful partnerships^m. The trust element is also central; trust among individuals is the single most important characteristic of successful partnerships and the resilience of a partnership is an important factor in overcoming external constraints, *i.e.* mitigating their effects is a matter for effective personnel and partnership management^o;
- Highlighting challenges of public-private partnerships is crucial, for instance a tendency on the part of public sector actors to refer to the private sector as a homogenous group concealing the diversity of interests, incentives and collaborative approaches adopted by individual private actors^o. Barriers to joint publication are also noted, arising from cultural differences that go from commercial sensitivity to a lack of incentive among private sector actors to publish^o.

4. An Africa perspective: Role and importance of the main themes in strategic documents of Africa-based organisations

4.1 Introduction

Considering that the launch of an AU-EU FNSSA Research & Innovation Platform is the final expected outcome of the LEAP4FNSSA project, it is important to take into account recent development in the FNSSA domain in Africa. This chapter deals with selected strategic regional and continental organisations operating in food and nutrition security with a specific focus on Africa of relevance to collaboration avenues and potential to the LEAP4FNSSA implementation.

Three groupings of Africa-based organisations have been identified for analysis. These are:

- i) Pan-African Political Organisation, the Africa Union Commission, and its Comprehensive Africa Agriculture Development Programme (CAADP). In this segment we review the strategic documents relating to CAADP, Malabo Declaration and Africa Union's Agenda 2063
- ii) International Research and Development Organisations. In this grouping, we review the strategy documents of the Forum on Agricultural Research in Africa (FARA); the Alliance for a Green Revolution in Africa (AGRA); and the CGIAR.
- iii) Multilateral Agencies engaged in funding of agriculture in Africa. Three Agencies are analysed in this group: the African Development Bank (AfDB); the International Fund for Agricultural Development (IFAD); and the World Bank.

The outlines of the documents and organisations that have been selected for the purpose of analysis are given in Appendix B. Below is a synthesis across the different strategy documents in relation to the main focus areas of the LEAP4FNSSA programme and as potential inputs for the bi-continental FNSSA Platform to be established.

4.2 Synthesis of strategic documents across LEAP4FNSSA domains

Creating strategic alliances of actors to align their R&I activities

The African Union strategies relating to Agenda 2063, CAADP, and Malabo declaration, all have components addressing and supporting strategic alliances through formal and informal dialogue between stakeholders. The "Malabo declaration" sees enhanced policies and institutional conditions and efficient support systems as an enabler of agricultural development in Africa. The entire CAADP

framework is a strategic alliances framework bringing countries together for achieving food and nutrition security for the continent. In the AU-EU Roadmap, key features of the Research and Innovation Partnership are the enhanced coordination of Food and Nutrition Security and Sustainable Agriculture-relevant research and innovation policies, programmes and funding mechanisms between Europe and Africa.

The research and development organisations also have an active focus relating to this theme.

- FARA has a strong Alliances component developed at two levels: by construction, FARA is built upon sub-regional networks of research organisations (CORAF, ASARECA and CCARDESA), themselves representing national institutions, and because FARA is a “multi-stakeholder” Forum, it also integrates organisations representing other actors than the research institutions; furthermore, FARA collaborates with other continental organisations active on food security in Africa. FARA’s new Strategy (2019-2028) is designed to respond to its Value Proposition, “Africans’ unique partnerships connecting science to agriculture for livelihood impact at scale”, following a broader stakeholder assessment.
- AGRA has established itself as a ‘thought partner’ based on analytical capability and a delivery partner with countries. At continental level, AGRA works with partners such as the AUC and NEPAD to support achievement of CAADP goals through support to countries for strategic planning. AGRA’s contribution in creating Strategic Alliances of Actors is best demonstrated through its hosting and organisation of the African Green Revolution Forum (AGRF) that brings together political leaders, policy makers, development partners, research organisations and other actors in agriculture, food and nutrition security for Africa, to deliberate on strategies and plans for moving Africa forward.
- The CGIAR works through people, partners, infrastructure and a presence on the ground in over 60 countries to work on breakthrough discovery research all the way to integrated delivery to millions of farmers. CGIAR focusses on Global Challenges and builds Strategic Alliances with diverse actors for the resolution of these challenges.

The multilateral agencies also show a strong orientation to creating strategic alliances.

- AfDB, through its focus on Regional Member Countries operates through strategic alliances to spur sustainable economic development and social progress in its regional member countries (RMCs). One of the High 5s, Feed Africa, is the overall framework for supporting FNSSA. A good example of the Bank’s use of strategic alliances is the TAAT program that engages various actors in the transformation of agriculture through selected value chains.

- IFAD facilitates multi-stakeholder partnerships between governments, the private sector and small-scale rural producers, including through South-South and Triangular Cooperation. The organisation has ample experience in contributing to and shaping national policies and programmes, and in providing investment vehicles for governments, other development partners and the private sector, with smallholder farmers, pastoralists, artisanal fishers and other rural people at their centre.
- The World Bank is very actively engaged in supporting agricultural transformation in all regions of Africa. This is done, in part, through the regional Agricultural Transformation Programs (originally known as Agricultural Productivity Programs). The various programs are: WAATP – West Africa Agricultural Transformation Program (originally known as the West Africa Agricultural Productivity Program, WAAPP); ECAAT - East and Central Africa Agricultural Transformation Program, (originally known as the East Africa Agricultural Productivity Program, EAAPP); and ATPSA – Agricultural Transformation Program for Southern Africa (originally known as Agricultural Productivity Program for Southern Africa, APPSA). All these programs are run in partnership with sub-Regional Organisations – CORAF for West Africa; ASARECA for East and Central Africa; and CCARDESA for Southern Africa, with strong country participation and ownership.

The above analysis also embodies engagements in agenda setting, coherence between projects as well as joint funding mechanisms. For example, AfDB connects and coordinates co-financing arrangements with partners on both public and private sector projects and especially with partner development institutions such as the World Bank, the European Union and major bilateral development agencies working on the continent. The Bank's African Financing Partnership coordinates co-financing among private development finance institutions so that one partner can take the lead on a given project while others follow, avoiding any duplication of effort and doing more projects more efficiently.

Strengthening the knowledge base to increase the efficiency of the AU-EU Research and Innovation Partnership on FNSSA

Various strategic documents of the organisations operating on FNSSA in Africa emphasise the importance of strengthening the knowledge base for African agriculture through science and innovation. The strategy instruments of the AU Malabo Declaration and CAADP both call for strengthening national and regional institutional capacities for knowledge and data generation and management that support evidence-based planning, implementation, monitoring and evaluation. AU is committed to ensuring research uptake by creating and enhancing necessary appropriate policy

and institutional conditions and support systems for facilitation of private investment in agriculture, agri-business and agro-industries, by giving priority to local investors. Part of the strategy in the AU-EU Roadmap is the “seamless” linking of research to innovation, considered as a continuum and not a two steps process, involving all relevant stakeholders at all stages for enhanced impact at local level; jointly designed, owned, managed and resourced; taking an integrated approach, recognising the cross-cutting nature of entrepreneurship, research infrastructures and research and innovation capacity building. This would contribute to a strengthening of the knowledge base for FNSSA.

The research and development organisations also make major contribution in this respect. FARA, through its leadership in the development of the Science Agenda for Agriculture in Africa (S3A), advocates strongly on the need to strengthen the knowledge base through science-led research and innovation, in consonance with the tenets of the Science, Technology and Innovation Strategy for Africa (STISA 2024). AGRA is helping countries to develop the knowledge base for linking policy to implementation of strategies for achieving economic development and FNSSA. This involves supporting and partnering with both the public and private sectors to develop the systems that ensure implementation of policy towards sustained agricultural development and productivity. The CGIAR through its various research and delivery programs across the continent and in partnership with NARS, contributes to the knowledge base in relation to policies, germplasm conservation and gene bank management, crop improvement and biotechnology, plant and animal health and pest control, natural resources management and climate smart agriculture, and other domains of research in furtherance of FNSSA.

Facilitating within the relevant FNSSA research and innovation networks, the dissemination of information already existing or generated by the CSA project and the partners

Networking is recognised across the various levels of organisations and policies as an essential mechanism to enhance synergy development, collaboration and joint action towards the goals of FNSSA. AU supports existing knowledge networks by fostering alignment, harmonization and coordination among multi-sectorial efforts and multi-institutional platforms for peer review, mutual learning and mutual accountability. The AU through the Malabo declaration process has established seven Technical Networks to facilitate realization of the seven commitments of the Malabo Declaration and to enable co-creation of research, capacity development, and dissemination of existing and new information through supply of appropriate knowledge, information, and skills to users and actors.

Networking and facilitation of networks is a key instrument of the operations of CGIAR in Africa. In Science Agenda, CGIAR is mentioned as a key partner of the NARS and SROs. It plays a critical

role as a convener and facilitator of major international initiatives especially as the agri-food research agendas of developed and developing countries overlap in areas such as climate change or food safety. CGIAR Research Programs (CRPs) targeting collaboration on specific themes are designed in such a way as to offer networking facilities and opportunities for the different technical areas of work. It also supports networks established through the sub-regional organisations and in partnership with development organisations. AGRA, through its work in seeds and soil health, is building on the CGIAR experience, expertise and partnerships to take innovative crop varieties and soil and crop management techniques to scale, through facilitation of networks.

Exploring potential contribution, relevance and engagement in the bi-continental Platform on Europe-Africa FNSSA

In the various strategy documents, there was little or no direct reference to the Europe-Africa Partnership, nor of the potential transformation of the Partnership into a bi-continental Platform to be established. This is because most of these instruments, with the exception of those associated with the AU, were developed separately and in parallel to the EU-AU Partnership efforts. In a number of cases however, EU has featured as part of the funding mechanism and strategic partner in the work being done.

4.3 Concluding remarks

Some brief commentary relating to the three groupings are provided below:

- i) The instruments and strategies relating to the Africa Union and CAADP, all show substantial areas of priority and significance for driving Africa's political and technical agenda for FNSSA and indicating avenues and opportunities for strengthening Europe-Africa collaboration. All these programmes do show strong engagement and/or opportunities for Europe-Africa partnership, and would be a strong base for the bi-continental Platform.
- ii) The Research for Development organisations show great similarity and alignment with the key themes addressed in the EU-Africa Roadmap on FNSSA. The themes of (i) creating strategic alliances of actors and (ii) Strengthening the knowledge base, are very well domiciled in the operations of FARA, AGRA and CGIAR for achieving food and nutrition security and sustainable agriculture. Same applies to the themes of improving coherence between projects and also supporting joint funding mechanisms. With respect to creating Platform for strategic alliances, AGRA's hosting of the AGRForum is given as one such example. Strengthened continental, regional, and government multi-sectoral coordination and mutual accountability in the agriculture sector is seen as key for all the organisations. The centrality and significance of government and

continental bodies in setting the agenda for and driving sustainable transformation is emphasised.

iii) The strategies of the multilateral agencies are very much in line with the themes identified in the Roadmap. This cuts across all the three themes of (i) Creating strategic alliances of actors, (ii) Strengthening the knowledge base and (iii) facilitating research and innovation networks. The AfDB's process of connecting and coordinating co-financing arrangements with partners on both public and private sector projects and especially with partner development institutions such as the World Bank, the European Union and major bilateral development agencies working on the continent, is another great platform that can be further explored in relation to EU-AU Platform development.

Moving forward in respect of the Africa-perspective, the following key issues are identified for further action and strengthening.

- The need for stronger coordination among projects and programs addressing FNSSA in Africa.
- Strengthened alignment of projects and programs to upper-level goals, at 3 levels:
 - Global – Sustainable Development Goals (SDGs) – particularly in relation to SDGs 1 and 2.
 - Regional – Comprehensive Africa Agriculture Development Programme (CAADP), and
 - Country Strategic Goals – National Agriculture Investment Plans.
- Strengthened youth engagement in Agriculture and FNSSA, through incubation, empowerment and investment initiatives. This can be done through the FNSSA Platform in the context of Europe-Africa collaboration on FNSSA.

5. A Europe perspective: Towards an Africa Europe Partnership for sustainable development and jobs in rural Africa (Task Force Rural Africa)

5.1 Introduction

The EU Commission established in 2018 the ‘Task Force Rural Africa’ to advise on how best to contribute to sustainable development and job creation in Africa’s agriculture and food sectors and rural economy. It asked the TFRA experts to focus on better coordination of existing initiatives, on boosting investments, sharing knowledge, prioritizing policy and regulatory reforms, and strategies to support youth.

The Task Force presented its key areas for action and recommendations in 2019, situating them in the context of the new Africa-Europe Alliance for Sustainable Investment and Jobs, which aims to deepen the EU’s economic and trade partnership with Africa through investment and job creation.

Creating enough jobs for the rapidly increasing labour force will be the greatest challenge facing African societies and political leaders in the years and decades ahead. In 2020, 20 million African women and men will enter the labour force: this number will rise to 30 million per year by 2030.

The Task Force’s central recommendation is that Africa and the EU should implement an innovative partnership for the inclusive and sustainable development of Africa’s agriculture and food sectors and its rural economy, taking into account a gender approach. This partnership would operate at three levels: people to people, business to business, and government to government. It would facilitate a multi-stakeholder dialogue and enable a broad connection between African and European societies, business communities, and governments to build on development experiences.

5.2 Strategic areas for action

Within the partnership, four priority strategic areas for action are proposed, with African political and policy leadership over the medium to long term, supported by European finance, knowledge and implementation capacity.

- i) A territorial development strategy for income and job creation

Pursue a territorial approach towards rural development, highlighting the benefit of increased public and private investment and the provision of basic services in medium sized and small towns and rural areas.

- ii) Sustainable land and natural resources management and climate action

Sustainably manage Africa's land and natural resources and use opportunities for climate action as part of a strategy of systematically building resilience against the impacts of climate change. Adopt a food systems approach to agri-food policies and investments, simultaneously targeting economic, environmental and social sustainability.

iii) Sustainable transformation of African agriculture

Acknowledging the wide diversity in agricultural situations among African countries, seek to achieve rapid inclusive agricultural growth, using and preserving the full potential of ecological resources to co-design with local actors a new development paradigm. Within this area, the report consider as “key” to boost “research, education and innovation systems”.

iv) Development of the African food industry and food markets

Support the African food industry in doing business, by local and regional value chain development, better access to finance and by the creation of an enabling environment. Improve value addition through increased private sector investments, enhance resource efficiency and food safety standards, and promote intra-Africa trade for agricultural and food products.

5.3 Action Plan towards Innovative Partnership

To implement the proposed Africa EU partnership for the development of the African agriculture and food sectors and its rural economy, the TFRA proposed an Action Plan to be fast tracked within the Alliance and other instruments/frameworks of Africa EU cooperation (policy level).

The EU and its Member States can complement each other in supporting the different elements of the Action Plan. There is a need for assigning clear responsibilities and timeframes for the implementation and monitoring of these policies to be agreed, including follow-up mechanisms, such as the biannual Joint AU-EU Agricultural Ministerial conference, and involvement of all stakeholders concerned.

Africa has an overall plan for its agricultural development: the Comprehensive African Agricultural Development Programme (CAADP) which operates at national, regional and continental level. The proposed four strategic areas are critical to transformation: they should be consistent with any CAADP plans and complement CAADP's implementation, e.g. by bringing a territorial dimension and the necessary articulation between agricultural development, the diversification of the rural economy and the sustainable management of land and natural resources.

5.4 Main recommendation to the EU Commission

Six main recommendations to the EU Commission for short to medium term action, which the Task Force believes the EU should discuss, support and implement with their African partners:

- Support rural governance and an innovative local action programme, based on a territorial approach.
- Mainstream environmental sustainability and promote climate action.
- Start a knowledge, innovation and networking initiative for transformation of agriculture and rural areas.
- Improve access to private finance and to EU cooperation instruments for small and medium size agriculture and food businesses.
- Scale up sustainable value chain development, regional integration and intra-regional trade.
- Bring together European and African expertise for agriculture and rural development.

Summing up, Africa and Europe should scale up existing initiatives and implement a comprehensive and innovative partnership, enabling a broad connection and collective action between African and European societies, business communities and governments. Such a partnership can make agricultural and rural transformation a reality in Africa contributing to sustainable development and employment.

The recommendations cover most of the objectives and ideas described in the AU-EU FNSSA Roadmap and detailed by the projects implemented in support to implement the Roadmap. Only the efforts proposed to improvement of access to private finance is a themes not very specifically mentioned in the AU-EU FNSSA documentation.

6. Ways ahead: Suggestions and rationale of further studies

6.1 Main findings

The four projects in support to the implementation of the Roadmap yielded in knowledge and growing understanding on key-elements of the future FNSSA Partnership, compared to the ideas formulated in the Roadmap, endorsed in 2016.

The 'Rational and Objectives' of the Partnership are confirmed during the activities of the 4 support projects and are shared with a wider FNSSA community of various stakeholders. Various stakeholder meetings organised by RINEA and CAAST-Net Plus contributed strongly to the sharing and support to the rationale and objectives of the Partnership of stakeholders involved in the various activities of the projects. A good communication and concerted action are required, however, to increase this understanding of the Partnership (and future Platform) among other stakeholders not yet aligned to optimise the impact of the future research and innovation projects under the AU-EU Partnership.

The Roadmap is not very specific about the funding mechanism for the Partnership/future Platform. PROIntensAfrica analysed a number of existing funding mechanisms of existing multi country/bi-continental research and innovation partnerships, including EU mechanisms like Article 185 and ERA-Net Cofund and European Joint Programme (EJP), International Research Consortium (IRC), and others. LEAP-Agri is the first ERA-Net Cofund programme where African and European funders pool their financial resources to fund common projects. Evaluation of the LEAP-Agri experiences and its future propositions (in particular as regards innovative funding mechanisms) will be an important source to develop funding modalities for the Partnership/future Platform.

The most specific and elaborated section of the Roadmap document concerns the jointly developed research and innovation agenda for the Partnership. Main themes are formulated and for each of these themes a list of possible research questions. The Roadmap themes have been used in the LEAP-Agri call for proposals. Only the PROIntensAfrica project developed a more comprehensive Research & Innovation framework, including performance dimensions, levels and conditions, and specific performance domains. LEAP-Agri might further develop the research agenda for the Partnership, as this is one of the activities planned.

Important steps are made by the RINEA project in the development of the M&E system to assess the impact of the Partnership. These activities will continue under the LEAP4FNSSA project.

All projects contributed to the implementation of the Partnership as being active within one of the projects, partners were automatically part of the partnership. Activities of the various projects focussed on many aspects mentioned to be relevant for the Partnership, as multi-stakeholder involvement, joint learning, agenda setting, pooling resources etc. Only PROIntensAfrica looked at the institutional aspects of the future Platform. In the framework for the IntensAfrica Partnership, three levels are distinguished: (1) the Policy Domain (the HLPD on FNSSA), (2) the Joint Programming & Funding Domain, including the stakeholder advisory board, a governing board, and a scientific advisory board, and (3) the Implementation Domain, including programmes like LEAP-Agri.

Thus, important contributions are made to implement the Roadmap.

As for the African-based organisation they are of great relevance in the establishment of the AU-EU Partnership. It is important that collaborative relationships are created with all these programmes and for some integration to be done to enhance alignment and synergy development with the goals of AU CAADP in accordance with AU Agenda 2063 and with the EU-AU Roadmap goals. It is also anticipated that enhanced coordination of FNSSA relevant research and innovation policies, programmes and funding mechanisms between Europe and Africa would create synergies and optimise investment to tackle identified gaps.

6.2 Suggestions for further studies

Analysis of the Roadmap and the outcomes of the four support project, in relation with the African and European policy documents used, shows clearly that there is a good progress in the development from the Roadmap outlines towards a Partnership, which is still not very tangible for a number of stakeholders potentially interested. However, the policy support for the overall objectives is repeated in many of the more recent documents on improving the FNSSA in Africa.

The LEAP4FNSSA project is strengthening the Partnership by bringing together the partners involved in the four support projects. The consortium has formulated a number of activities to further develop the contours of the Platform and possible steps in formalizing and operatizing the Platform.

Based on the analysis made for this report, and confronting these results with the work plan of the LEAP4FNSSA project, it is concluded that a number of topics relevant for the future Platform neither received sufficient attention in the four analysed support projects nor will be addressed sufficiently in the LEAP4FNSSA work plan. These topics can be subject for study under the task 1.3 of the LEAP4FNSSA project.

These topics include:

- The Roadmap envisages a reciprocity of the Partnership and Platform activities, strengthening the FNSSA in Africa **and** Europe. Sometimes it is mentioned in the different project reports, but it was never made very tangible. A study can be assigned to develop this concept of reciprocity more in detail, to be included in the work plan and approaches (also to be integrated in the Calls for Proposals issued under the Platform) to be used in research and innovation activities.
- The Food System approach is advocated in different documents related to the HLPD, in the Roadmap it is one of the five collaborative elements. However, the Food System concept needs further elaboration, and based on scientific experience, knowledge and insights elaborated in a shared vision, concepts, and approaches for the FNSSA Platform work plan and project approaches.
- In the PROIntensAfrica final report, the importance of overarching driving forces for change has been mentioned as research domain. One of the often mentioned driving forces is the role of the private sector in FNSSA. A potential study could be on how a transformation strategy aligned with the AU-EU FNSSA Roadmap and mobilising the private sector can account for: 1) the differences between the private sectors in Europe and in Africa and their respective roles to play to enhance the FNSSA, and 2) the great diversity/heterogeneity of constituents of this “private sector”.
- Youth, women and job creation are very trending topics in many policy documents as they are some of the cross-cutting societal issues which should be the guiding principle in developing the FNSSA Research and Innovation. To have a higher societal impact, youth, women and job creation should not be an expected outcome of the Platform programme, but should be the guiding principle in orientation of the R&I and development activities. The question is how the R&I activities of the future Platform can be embedded in the overall and leading objectives of improving the development of women and youth by job creation.
- How to embrace diversity? The majority of national policies in Africa promote only the “modern” (*Green Revolution*), high input agricultural systems for FNS. While there is an opened debate on the potential of organic systems to solve the FNS challenges in Africa, there are many other “improved” systems. PROIntensAfrica highlighted four different intensification pathways for FNSSA. Food systems falling under different pathways can be found within one geographic area, due to different driving forces occurring and decision taken by farmers. How do we have to take into consideration the diversity, in research and innovation and policies?

- To be able to establish a Platform, different aspects need to be analysed, discussed and agreed upon. Issues that need probably more targeted action include:
 - What is the best way to organise the bi-continental platform? In one or several circles of members?
 - Who will be the members? Is it only or mainly a grouping of public and private programme funders and programme owners like an International Research Consortium?
 - The Platform is an instrument for alignment. The Platform should avoid creating a parallel mechanism to other regional organisations. As it is now known what are the main other networks active in the FNSSA domain, it is needed to study how the AU-EU FNSSA Platform should link to, on the African side, for instance CAADP, and on the European side, to other relevant pan-European initiatives (like the EIP-AGRI).
- What are the salient issues in the trade with agricultural goods and processed food products between the EU and Africa, in both directions? The Roadmap envisages an increase in the inter-continental flows of agricultural products. A study could provide a transparent overview of barriers to trade, a prioritized list of their impact/seriousness and propose ways of how to deal with the obstacles.
- Important changes in dietary patterns in both African and European countries are taking place in these years. Among other things, these changes are related to growing urban middle classes in Africa and new demand trends towards non-meat based food products in Europe. A study could address the following over-arching questions: How will these dietary changes affect the inter-continental trade structure? What kind of opportunities will the expected changes entail for diversification of agricultural production?

Appendix A: List of documents

Chapter 1

A landscape analysis of potential instruments for implementing the research and innovation partnership of the High Level Policy Dialogue (HLPD) roadmap. Input from HLPD Working Group 1, led by South Africa and the United Kingdom, 2016. (https://issuu.com/caast-netplus/docs/caast-net_plus_landscapeanalysis_w).

Chapter 2

Roadmap towards a jointly funded EU-Africa Research & Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture. European Union and African Union, 2016. (https://ec.europa.eu/research/iscp/pdf/policy/eu-africa_roadmap_2016.pdf).

Chapter 3

CAAST-Net Plus

^aGeneral information on project objectives and goals: <https://caast-net-plus.org/> and <https://cordis.europa.eu/project/rcn/105794/factsheet/en>. On website list of key reports.

^bBuilding Bi-Regional Partnerships for Global Challenges: a support service needs assessment, 2017. (https://caast-net-plus.org/object/document/1677/attach/D5_1_Support_service_needs_assessment_Final.pdf).

^cWorkshop Report: CAAST-Net Plus Knowledge Management and Communication System, 2017. (https://caast-net-plus.org/object/news/1675/attach/KMCS_Brussels_Workshop_Report1.pdf).

^dCAAST-Net Plus's contribution towards strengthening EU-Africa capacities and collaborations for climate change research: a summary of outputs, outcomes and next step, 2017. (https://caast-net-plus.org/object/news/1673/attach/CN_SummaryNextSteps_V5_WEB.pdf).

^eFramework Conditions for Africa-EU Research and Innovation Cooperation in the Field of Food and Nutrition Security: an action research report, 2016. (https://caast-net-plus.org/object/document/1626/attach/D1_4_FINAL_WEB.pdf).

^fEU-Africa Research and Innovation Cooperation for Food and Nutrition Security: a review of programming experiences and future options, 2016. ([https://caast-net-plus.org/object/news/1599/attach/0_ProgrammingExp_FutureOptions_V3_\[WEB_.pdf](https://caast-net-plus.org/object/news/1599/attach/0_ProgrammingExp_FutureOptions_V3_[WEB_.pdf)).

^gPotential Instruments for Implementing the EU-Africa Research and Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture, 2016. ([https://caast-net-plus.org/object/document/1560/attach/CAAST-Net_Plus_LandscapeAnalysis_\[WEB_.pdf\]](https://caast-net-plus.org/object/document/1560/attach/CAAST-Net_Plus_LandscapeAnalysis_[WEB_.pdf])).

^hDesigning an Africa-EU Research and Innovation Collaboration Platform on Climate Change, 2016. ([https://caast-net-plus.org/object/document/1523/attach/TheBergenReport_V6_\[WEB_.pdf\]](https://caast-net-plus.org/object/document/1523/attach/TheBergenReport_V6_[WEB_.pdf])).

ⁱBuilding bridges for Africa-EU scientific cooperation. In “Investing in European success EU-Africa cooperation in science, technology and innovation”. EC, 2015, Directorate-General for Research and Innovation. (https://caast-net-plus.org/mobile/object_view/1219).

RINEA

^jRINEA project document. General information on <https://cordis.europa.eu/project/rcn/194395/factsheet/en> under “Reporting”.

^kThe Role of Non-traditional Funding Partners in Food and Nutrition Security and Sustainable Agriculture (<https://www.africa-eu-sti-portal.net/media/content/RINEA%20Non-traditional%20Funders%20FNSSA%20workshop%207%20Dec%202016%20FINAL.pdf>).

^lAnnual policy brief on Africa-EU cooperation: a bibliometric assessment of joint publications (https://www.africa-eu-sti-portal.net/media/content/Deliv.1.1_Annual_policy_brief_on_Africa-EU_cooperation.pdf).

^mReport of a light interim evaluation of the Africa-EU Research and Innovation partnership on Food and Nutrition Security and Sustainable Agriculture (FNSSA). (<https://cordis.europa.eu/project/rcn/194395/results/en>).

ⁿConcept note for a full M&E methodological framework for the FNSSA Partnership. (<https://cordis.europa.eu/project/rcn/194395/results/en>).

^oDeliverable 1.4. Interview Report, Final, Feb 2018.

LEAP-Agri

^pLEAP-Agri Call for Proposals document: <http://www.leap-agri.com/index.php/2014-10-27-15-56-44>.

^qProject Objectives. Summary description on LEAP-Agri web site: <http://www.leap-agri.com/index.php/2014-10-27-15-56-40/project-objectives> .

^rFact sheet: <https://cordis.europa.eu/project/rcn/208059/factsheet/en>.

^sLEAP-Agri: A long term EU-Africa research and innovation partnership on food and nutrition security and sustainable agriculture (LEAP-Agri). Project document Annex 1, part A and part B. European Commission, 2016.

‘The Programme & Innovation Management Cycle (PIMC) and The Knowledge Management and Communication Framework (KMCF): A Framework for future collaboration within the AU-EU Partnership. Version 11. WP6 draft document. Developed in LEAP-Agri, now part of WP2 of LEAP4FNSSA project.

LEAP-Agri funded projects: Projects’ Information Booklet. LEAP-Agri, 2018. (List of LEAP-Agri documents in general: https://leap.iamb.it/?page_id=119, list of funded projects: https://leap.iamb.it/?page_id=51).

PROIntensAfrica

‘Harnessing the potential of diverse intensification pathways for Food and Nutrition Security and Sustainable Agriculture. Outline for a long-term EU-Africa Research and Innovation Partnership. PROIntensAfrica, 2017. Editors: Pieter Windmeijer, Huub Löffler, Philippe Petithuguenin, and Wole Fatunbi.

(<https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5b1601c3c&apld=PPGMS>).

Chapter 4

Africa Union / CAADP

African Union Agenda 2063: The Africa We Want – A Shared Strategic Framework for Inclusive Growth and Sustainable Development. (https://au.int/sites/default/files/documents/36204-doc-agenda2063_popular_version_en.pdf).

The Comprehensive African Agricultural Development Programme. CAADP Implementation Strategy and Roadmap. (<https://www.nepad.org/publication/implementation-strategy-and-roadmap-achieve-2025-vision-caadp>).

CAADP Results Framework -2015-2025 – Going for Results and Impact. African Union / NEPAD. (https://au.int/sites/default/files/documents/31250-doc-the_caadp_results_framework_2015-2025_english_edited_1-1.pdf).

Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, 2014. (<https://www.nepad.org/caadp/publication/malabo-declaration-accelerated-agricultural-growth>).

International Research and Development Organizations

Forum for Agricultural Research in Africa (FARA). Strategic Plan 2014-2018 (https://issuu.com/fara-africa/docs/lowres_strategic_plan2014-18_englis).

AGRA Strategy Overview for 2017-2021. Agricultural Green Revolution for Africa. (<https://agra.org/wp-content/uploads/2018/02/AGRA-Corporate-Strategy-Doc-3.-2.pdf>).

CGIAR Strategy and Results Framework, 2016-2030. CGIAR Consortium, Montpellier, France. (<https://cgspace.cgiar.org/handle/10947/3865>).

Multilateral Agencies in funding of agriculture in Africa

African Development Bank's Strategy for 2013-2022. AfDB. (<https://www.afdb.org/en/about-us/mission-strategy/afdb-strategy>).

IFAD Strategic Framework 2016-2025 – Enabling inclusive and sustainable rural transformation. (<https://www.ifad.org/en/web/knowledge/publication/asset/39369820>).

Africa Food Security Leadership Dialogue (AFSLD). World Bank Group, AUC, AfDB, IFAD. (<https://africafoodsecurity.org>).

Chapter 5

An Africa-Europe Agenda for Rural Transformation. Report by the Task Force Rural Africa. European Commission, 2019. (https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/report-tfra_mar2019_en.pdf).

Appendix B: Profiling of African-based organisations and main strategy documents

The vision of the African Union (AU) is for an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the international arena. In this context, the AU has developed the long-term strategic framework entitled ‘Agenda 2063 – The Africa We Want’. This strategic document is Africa’s blueprint and master plan for transforming Africa into the global powerhouse of the future. It focuses on inclusive and sustainable development for the socio-economic transformation of the continent over the next 50 years. Covering the period 2013-2023, it is the first of a series of five ten-year implementation plans to be developed to realize the vision of the “Africa We Want By 2063”.

‘The Comprehensive Africa Agriculture Development Programme’ (CAADP) is an African-led agenda designed to guide Africa’s agricultural transformation for sustained food security and socio-economic growth. It provides a set of principles and broadly defined strategies to help countries in the process of agricultural transformation and the reform of the agricultural sector. An implementation strategy and roadmap for achieving the CAADP vision was developed in 2014 as part of the Malabo Declaration, and consists of two key objectives harbouring a set of 11 strategic action areas:

Objective 1: Transformed agriculture and sustained inclusive growth

- 1a: Increase production and productivity
- 1b: Enhance markets, trade and value chains
- 1c: Increase resilience of livelihoods and systems
- 1d: Strengthen governance of natural resources

Objective 2: Strengthened systemic capacity to implement and deliver results

- 2a: Strengthen capacity for planning
- 2b: Strengthen policies and institutions
- 2c: Strengthen leadership, coordination and partnerships
- 2d: Enhance skills, knowledge and agricultural education
- 2e: Strengthen data and statistics
- 2f: Institutionalize mutual accountability
- 2g: Increase public and private financing

The Malabo Declaration builds upon the earlier Maputo Declaration (2003) of the AU. It is a re-commitment to the CAADP principles adopted by AU Heads of State and Government to provide effective leadership for the attainment of specific goals for the agricultural sector by the year 2025. This includes ending hunger, tripling intra-African trade in agricultural goods and services, enhancing resilience of livelihoods and production systems, and ensuring that agriculture

contributes significantly to poverty reduction. These goals must be considered as central in the framework of collaboration and partnership for agricultural transformation in Africa.

The Forum for Agricultural Research in Africa (FARA) is the apex continental organisation responsible for coordinating and advocating for agricultural research for development (AR4D). In this context, FARA has strong links with the Sub-Regional Organisations for agricultural research and development (CORAF, ASARECA, CCARDESA, etc.) as well as with national agriculture research systems (NARS) and with international agriculture research centres like CGIAR. Additionally, FARA serves as the technical arm of the Africa Union Commission on matters concerning agriculture science, technology and innovation in relation to CAADP implementation. The new strategy of FARA (2019-2028) is designed to respond to its Value Proposition: *“Africans’ unique partnerships connecting science to agriculture for livelihood impact at scale”*, following a broader stakeholder assessment. The goal of the strategy is directly aligned to the CAADP

The Alliance for a Green Revolution in Africa (AGRA) is a partnership-driven institution that is African-led and farmer-centred. Founded in 2006, AGRA is transforming smallholder farming in Africa beyond the solitary struggle for survival, into thriving businesses. AGRA’s strategic plan is to contribute to doubling the yields and incomes of 30 million targeted smallholder households in targeted countries. AGRA’s goal and objectives are aligned with the CAADP objective of agriculture led economic development, inclusive agriculture growth and strengthened system capacity to deliver results, as well as the Sustainable Development Goals (SDGs) vision for poverty eradication, food security, inclusive and sustainable growth and resilience to climate change. It is also well aligned to individual country objectives. AGRA has over the last few years made a significant re-alignment in its operations, towards building on its vast expertise and knowledge of the continent to support governments - particularly ministers of agriculture and related institutions to strengthen capacities to deliver on agricultural transformation for the continent. AGRA uses its continental presence to move what works from one country to another. In doing this, AGRA aims to support countries to strengthen dialogue and engagement within and across sectors to improve coordination and resource allocation while building sector wide delivery and accountability mechanisms.

African Green Revolution Forum (AGRF) is considered by some observers to be the world’s most important and impactful forum for African agriculture, pulling together stakeholders in the agricultural landscape to take practical actions and share lessons that will move African agriculture forward. The Forum annually brings together Heads of State, Ministers, business leaders, private sector, development partner leadership, researchers, thought leaders, farmer organisation representatives, youth entrepreneurs, and other critical stakeholders to focus on the actions and policies needed to move the continental agricultural agenda forward. The forum recognizes that Africa is rising, with signs of prosperity and progress in the lives of millions of individuals and entire economies. But for all of the signs of progress, Africa still needs to move from food shortage to surplus, drive beneficial continental trade, and create millions of jobs and opportunities, particularly for women and youth. The Forum looks at how stakeholders can do more and do it more successfully. Further, by helping scale the required policies, programs, and investments, the

Forum supports governments and partners in the African agricultural landscape to transform the lives of millions of smallholder farmers and put a good number of countries on the path to a sustainable agricultural transformation and economic development.

CGIAR is the world's largest global agricultural innovation network. It works through a network of 15 research centres, dedicated to reducing rural poverty, increasing food security, improving human health and nutrition, and ensuring sustainable management of natural resources. Four of the fifteen centres have their headquarters located in the continent. These are (i) the International Institute of Tropical Agriculture (IITA); (ii) the International Livestock Research Institute (ILRI); (iii) The International Center for Research in Agroforestry (ICRAF); and (iv) Africa Rice Center (AfricaRice). As a body, the CGIAR plays a significant role in the match towards food and nutritional security, livelihoods enhancement and poverty alleviation for the continent. CGIAR's Strategy and Results Framework provides the strategic direction to deliver on its mission and contribute strongly to the United Nation's Sustainable Development Goals (SDGs). To achieve its goals, CGIAR focuses on eight research priorities where it has a comparative advantage to tackle humanity's greatest challenges. These are: (i) Climate-smart agriculture, (ii) Gender and inclusive growth, (iii) Genetic improvement, (iv) Nutrition and health, (v) Nurturing diversity, (vi) Natural resources and ecosystem services, (vii) Agricultural systems and (viii) Enabling policies and institutions. Currently the CGIAR is undergoing a phase of reform (2019-2021) aimed at developing a new Business Plan that would be better targeted at identified global challenges and implemented through a unified CGIAR AS ONE framework.

Finally, the Africa Food Security Leadership Dialogue (AFSLD) is a recent initiative (2019) of the World Bank. It aims to strengthen the coordination of development partners and regional efforts to support countries to accelerate progress towards their collective food and nutrition security goals as envisioned in the Comprehensive Africa Agriculture Development Program (CAADP). The Dialogue is convened and coordinated through a partnership of the Africa Union (AU) with four multilateral agencies – the World Bank, the Food and Agriculture Organisation of the UN (FAO), the Africa Development Bank (AfDB), and the International Fund for Agricultural Development (IFAD). The core participants of the Dialogue are high-level decision makers and leading technical subject matter specialists in African and international organisations, such as the AU, UN Agencies, CGIAR, AfDB, World Bank, agricultural science organisations, bilateral development partners, and private sector representatives. The very first AFSLD Dialogue was held in Kigali, Rwanda, 5-6 August, 2019. At the end of the consultation, a Communique was signed among the core partners. Among the key Agreements in the Communique were:

- Support for urgent action to adapt Africa's agriculture to climate change; eradicate hunger and malnutrition; promote resilient, efficient and inclusive food systems; and exploit the potential of food systems to drive poverty reduction and create jobs in agricultural value chains for a rapidly growing youth population;

- Support the existing CAADP mutual accountability framework through regional, sub-regional and national platforms, including strengthening the Donor Agriculture Sector Working Groups in countries; and
- Commit financial and technical support that is commensurate to the size of the food security challenge, use the convening power of AFSLD partners to leverage financing for adaptation of Africa's agriculture and food systems to climate change.

Appendix C: Research and innovation themes and crosscutting issues as suggested in the FNSSA Roadmap

Three priority areas are broad themes for research and innovation activities, with the fourth comprising a group of crosscutting issues. The research and innovation themes and crosscutting issues are:

- **Theme 1: Sustainable Intensification** with the following areas for research and innovation:
 - Ecological intensification approaches, which optimise the use of ecosystem services to produce food at low realistic costs and lowest environmental impact.
 - The identification and breeding of animals and crops to maintain/increase productivity and resilience under conditions of limited external inputs and increased abiotic and biotic stresses.
 - Animal (incl. fish) and crop health, from farm to international scales, to develop sustainable approaches to optimising resource efficiency, minimising production losses and avoiding geographical spreading of diseases/pathogens.
 - Appropriate soil, water, land and input management, including improved mechanization, integrated pest management, precision agriculture and good irrigation practices, with the aim of delivering food and non-food products at low costs and lowest environmental impact.
 - Advanced informed marine spatial planning and functioning of marine ecosystems, and aquaculture technologies and systems that are environmental and economically sustainable, towards increased production with minimal impact on ecosystem functioning and reduced environmental footprint.
 - Organisational innovations, through new business models, farmer market information systems, insurance, and land use and availability, facilitating uptake of innovations across farms and rural communities.

- **Theme 2: Agriculture and food systems for nutrition** with the following areas for research and innovation:
 - Improved food value chains (conventional and organic) for delivering and accessing more nutritionally rich food to all (urban, local markets, vulnerable groups) with

minimal loss of nutritional value, reduced wastage (along the whole food chain) and a high level of safety.

- Improved nutritional value of crops and animal products through advances in breeding and biotechnological innovation, such as bio-fortification as well as new or adapted innovative protein sources for cost-effective and resource-efficient alternatives (proteins of the future).
 - Understanding consumer behaviour with respect to healthy diets and nutrition, and the role of education and incentive systems, for improved nutrition.
 - Public-private partnerships on improved nutritional quality of foods, particularly horticultural products and processed foods, in the marketplace.
 - Developing a common methodology for the physiological basis of nutrition, its relation to diets, the microbiome, age and general health and the influence of genotype and personal history on individual nutritional profiles.
- **Theme 3: Expansion and improvement of agricultural markets and trade** with the following areas for research and innovation:
 - Non-tariff trade barriers: Understanding differences of perception about quality and safety attributes for informing evidence-based decisions on non-tariff barriers to trade.
 - Surveillance, monitoring and diagnostic systems: Lack of harmonisation of import and export requirements constitutes an impediment to regional and international trade. Collaborative development and broad application of methodologies for food safety issues, standardisation and traceability would permit improved trade in food products.
 - Innovation in the bio-economy: Both regions / countries within the regions are developing bio-economy strategies but with differences in their reliance on scientific inputs.
 - Food and input price stability and system resilience: The two regions have common interest in reducing price volatilities in national and international markets. Research on agricultural and food markets, institutional arrangements, infrastructure and information systems aimed at reducing price volatility and building resilience will benefit consumers and agribusiness.
 - Global value chains and markets: Possible topics for joint research & innovation activity could include, among many others, mechanisms for linking smallholder farmers & rural communities to markets; access to credit and investments; adding value to respond to market opportunities including horticultural, organic, fair-trade and

other quality label production and through the processing chain; the impact of urbanization on trade and rural-urban linkages; and new approaches to food safety.

- **Cross-cutting issues**

- Improved coordination between European and African FNSSA R&I projects.
- Supporting innovation processes.
- Strengthening collaborative capacities of R&I communities.
- Social and cultural contexts of FNSSA production systems.