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ADRESSE COWI Belgium sprl
Bluepoint Building
80 Bd A. Reyers Laan
B-1030 Brussels
Belgium

TEL +32 (0)2 897 53 20

WWW cowi.com

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DELEGATION OF THE EUROPEAN UNION IN SIERRA LEONE

Mid-Term Evaluation of the Boosting Agriculture and Food Security Project in Sierra Leone

DRAFT EVALUATION REPORT

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ELABORATED Giorgio Brandolini and Jean-Louis Couture

CONTROLLED Alberto Martin-Ballesterro

APPROVED Alberto Martin-Ballesterro

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Name Alberto Martin-Ballestero

Company COWI BE

Date 26/12/2019

Signature:

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LIST OF ACRONYMS

A4D	Agriculture for Development
BAFS	Boosting agriculture and food security (in Sierra Leone)
CSO	Civil Society Organisation
EU	European Union
FAW	Fall Army Worm (outbreak of)
FBO	Farmers based organisation
GIZ	Gesellschaft für Internationale Zusammenarbeit
IPM	Integrated Pests Management
MAF	Ministry of agriculture and forests
M&E	Monitoring & Evaluation
NAO	National Authorising Officer
NGO	Nongovernmental organisation
PCU	Project coordination unit
PE	Programme estimates
PESMD	Planning, Evaluation, Statistics & Monitoring
PSC	Project Steering Committee
SLARI	Sierra Leone Agricultural research institute
SPS	Sanitary and Phyto-Sanitary
TAT	Technical Assistance Team
ToR	Terms of Reference
ToC	Theory of Change
ToT	Trainer of trainee
WARC	West African Rice Company
4W	Who, What, Where, When (scoping study)

Introduction

1.1 The action

The *Boosting Agriculture and Food Security* (BAFS) programme constitutes a sector wide approach promoting agricultural development, food security and resilience in Sierra Leone funded under the 11th European Development Fund. It strengthens natural capacities to formulate and implement agricultural and resilience policies and promotes the most promissory value chains while ensuring the inclusion of marginal groups of the rural population in such approach along the priorities of the national development agenda.

The *overall objective* of the BAFS Programme is the reduction of poverty and food insecurity in Sierra Leone through better governance and improved household living conditions.

Its *specific objectives* and *results* are:

SO 1. Institutional capacity building and formulation of food security strategies and sector policies

R. 1.1 Strengthened government institutional capacity

R. 1.2 Enhanced research capacity and practice

SO 2. Support to cashew, cocoa and coffee (CCC) for export

R. 2.1 Increased CCC productivity and income generation

R. 2.2 Efficient and effective CCC export value chains promoted

SO 3. Support to environmentally sustainable agricultural diversification

R. 3.1 Diversified agricultural and livestock production promoted

R. 3.2 Improved access to credit for agribusiness development

Components. The programme components strengthens the MAF and assists it in framing and implementing new policies through several grants, one directly awarded to SLARI to test and disseminate innovation and the other ones, tendered through two Calls for Proposals, to NGOs and other organizations that assist the producers to increase production and achieve food security. Three Programme Estimates (PE) have been signed between the EU Delegation and the Implementing partners:

- BAFS MAF Startup PE and Multiannual operational PE,
- BAFS SLARI Direct action Grant PE.

Chronology. The EU Delegation and the Sierra Leone Ministry of Planning and Economic Development (MOPED, the Contracting Authority) and the Ministry of Agriculture and Forestry (MAF, the Supervising Authority) have signed the BAFS Financial agreement, with a budget of EUR 35 million on 19/09/2016. Addendum 1 (24/5/2018) has extended the duration of the Implementation phase to 7 years, until 19/09/2023 (84 months), and that of the Execution phase to 19/9/2025 (108 months). Addendum 2 (8/8/2019) has extended the contracting period to 19/3/2020. The startup PE have extended from 1/11/2016 to 28/2/2017 and the Multiannual operational PE from 27/3/2018 to 26/2/2021, when the imprest component will expire. The Project Coordination Unit (PCU) that assists MAF in the implementation of the PE was launched in November 2016. The PCU includes a technical assistance performed by the consortium made of GIZ Consulting and West Africa Rice Company (March 2017 – February 2021). The Sierra Leone Agricultural research institute (SLARI) implements a direct grant for the

generation and promotion of innovative agricultural technologies in the tree crops, horticultural and livestock sectors (November 2018 – November 2021) with the technical assistance of Volunteers Services Overseas (contracted in 2019).

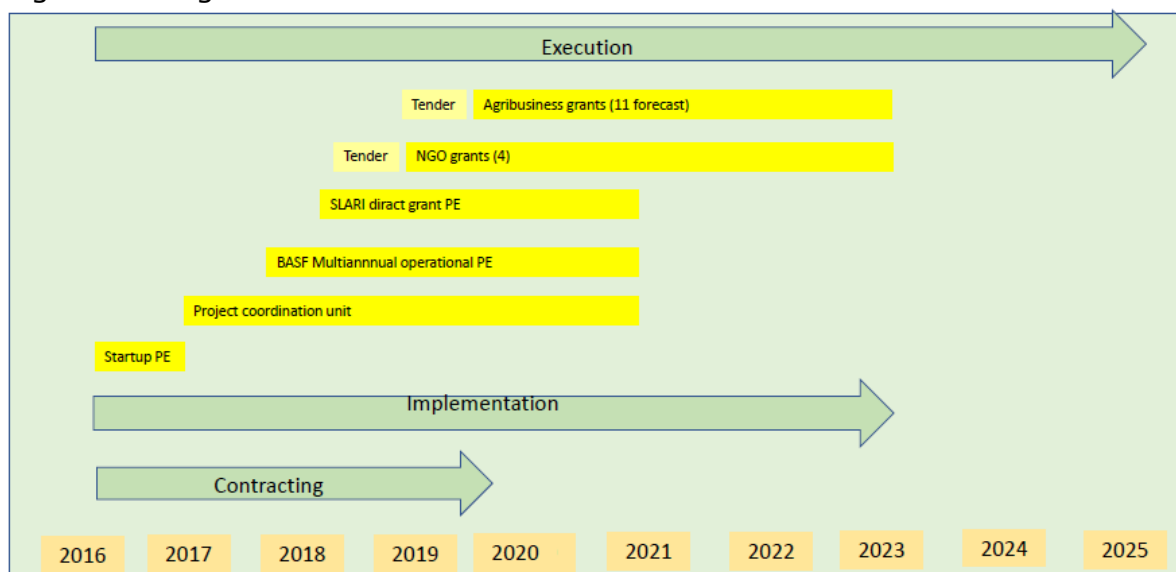
Calls for proposals. The first Call for Proposals was launched at the end of 2018 and has led to the selection and signature of four action grant contracts with three international NGO for assisting farmers and livestock growers in and cocoa, coffee and cashew value chain and agricultural diversification:

- Develop a vibrant, competitive and profitable Sierra Leonean cocoa, coffee and cashew economy, driven by private supply chain actors within a regulatory framework (grantee: Solidaridad)
- Diversifying and boosting crop production in Sierra Leone (grantee: Oxfam)
- Diversifying and boosting livestock production in Sierra Leone (grantee: Oxfam)
- Improving food security and increasing income for smallholder farmers through sustainable livestock production in Sierra Leone (grantee: BRAC)

The implementation of these grants has started in the second half of 2018.

The second call for proposal launched in the second half of 2019 and has selected eleven projects for assisting agribusinesses completing the agricultural value chains whose contracts have been signed in December 2019 (see figure 2).

Figure 1. Programme timeline



1.2 The context

Agricultural sector. The Sierra Leone economy is largely depending on the exploitation of natural resources. Agriculture represent about half of the country Gross domestic product. The sub-optimal utilisation of the production inputs, notably agri-biodiversity, soil and water, and the fragmentation of the production limit the expansion and intensification of the farm production. The history of this country and most specifically the marginalisation of the farmers and livestock growers have led to conflicts and retarded the development of capacities and investments in technology. Farmers are not able to intensify, diversify and add value to their produce due to a lack of access to inputs such as improved vegetables materials (IVM) or fertilisers and calcic amendments, know-how, microfinance, and access to markets. With 78% of the poor living in rural areas, many people there suffer malnutrition and are food insecure, being more liable to shocks, dependent on assistance, and unable to contribute to the growth of the national economy.

Agricultural policies. The national government has undertaken an ambitious effort to restructure the agricultural sector in line with the overall Sierra Leone's Vision to become a middle-income country by 2035. Specifically, the Medium-term National Development Plan (2019-2023) aims to build up a sustainable, diversified, and commercial agricultural sector ensuring food self-sufficiency, increasing exports and creating job opportunities for Sierra Leonean women and men. The economic and technical challenges of the intensification and expansion of the agricultural production have been addressed through the National Sustainable Agriculture Development Plan (NSADP) 2010-2030 that aims at increasing agricultural productivity, promoting commercial agriculture, promoting sustainable land use and improving agricultural research. Its market orientation is fostered by the National Agricultural Transformation Plan 2019-2023 (NAT 2023) that identifies four priorities areas for investment in the agricultural sector: 1. Rice Self-sufficiency; 2. Livestock Development; 3. Crops Diversification; and 4. Sustainable Forest Management and Biodiversity Conservation. To achieve these priorities, the NAT 2023 envisages i) the improvement of policy coherence, joint & strategic planning, coordination, research, and resource mobilisation; ii) a protagonist role of youth and women to catalyse agribusiness development; and iii) Investments in catalytic technology: e.g. mechanisation, irrigation, water management, remote sensing feeder roads by government and private sector.

MAF role - MAF plays a central role in creating the conditions for the transformation of the Sierra Leone agriculture from subsistence to market orientated. The national agricultural development strategy (like NAT 2023) promotes (1) the value chain development through market openness and added value gains thanks to export promotion for CCC crops and few others and (2) food security reinforcement (with nutrition improvement) through crop and livestock diversification. The first challenge (1) requires gains in land and crop but also in labour productivity, plus a decrease in natural and commercial risks exposure and diminishing transaction costs along value chains that establish dialogue and confidence between the actors. The second challenge (2) consists in the cohabitation of specialised plantations for export (still rare in Sierra Leone) with the production of staple crops through equitable land tenure rights/security to avoid the marginalisation of subsistence agriculture, land grabbing and conflicts.

BAFS programme role. The BAFS programme been designed to support MAF in improving the sector's governance and strengthening governmental assistance mechanisms for vulnerable populations through smallholder agricultural development. Furthermore, BAFS aims to promote a comprehensive approach to food security taking

into consideration the environmental sustainability of the actions promoted, in line with the EU Agenda for Change objective of promoting a sustainable agricultural system.

Figure 2. Map of Sierra Leone



1.3 Intervention Logic and reconstructed Theory of Change

The *Theory of Change* (ToC) of the *programme* identifies the sequence of conditions and factors deemed necessary for programme outcomes to yield impact (including context conditioning and actor capacities) and assesses the current status of and future

prospects for results. The ToC is a framework designed to discuss the *programme effectiveness* from output all the way through immediate outcomes and intermediate states to impact and sustainability, in order to make clear its contribution to the *overall development strategy*. In order to analyse BAFS ToC, it should be considered that this program is embedded in the National Sustainable Agriculture Development Plan (NSADP) 2010-2030 and National Agricultural Transformation Plan (NATP) 2019-2025.

Programme strategy. The programme strategy aims at improving the efficiency and market orientation of agriculture to reduce poverty and enhance food insecurity. The economic shocks incurred in the recent history of Sierra Leone show that the plantation production creates socio-economic diseconomies that negatively impact on the welfare of the rural population. This situation has brought MAF to elaborate new policies that link the transformation of the agricultural production to the satisfaction of the food needs of the farmers' households. This approach obliges MAF to redesign its role and develop capacities that are not only technical in the assistance to the farmers. The key implication of this strategy is that actions in the agricultural sectors have to involve all the stakeholders to ensure a balanced growth that does not undermines the livelihood and welfare of the marginal groups of the rural population. In fact, in the past, the top down approach limited to supplying production inputs has raised the yield of smallholder farming and livestock growing, a timebound effect that has expired with the end of the subsidies. In practice, the achievement of sustainable local development is a goal of the agricultural policies and a means for the macro socio-economic stabilisation of Sierra Leone.

Assumptions. The assumptions of the programme are aligned to the national agricultural plans. The programme establishes operational linkages with the agriculture stakeholders. It fosters their collaboration with MAF, reinforcing and complementing its field reach. Their role is consistent with the objective of diversification of agriculture from plantation crops to enhance the food and nutritional security of the peasants. The leadership of MAF enables the involvement of the national actors in the shaping of the policies, plans and interventions.

Goals. The achievement of the Development goal of the programme (Reduction of poverty and food insecurity) implies a structural change in the policy making and delivery of services by MAF that cover (a) the creation of and access to technical innovation [research, extension], (b) the participation of local actors to the governance of the agricultural transformation [participation, inclusion] and (c) the preservation of / regulated access to the natural resources [productive use linked to protection of their reproduction].

Strategy. (a) The technical focus of the programme strategy is strengthened by the collaboration with SLARI in testing and demonstrating innovation. However, the programme strategy side-lines the role played by financial institutions in orientating the investments in crops, livestock and forests, through their connections with trade and industry – i.e., with the farmers' access to suppliers and customers -. This situation is especially a challenge to the agribusinesses' commitment to the programme goals, as they are market orientated and hence strongly influenced by financial considerations. (b) The programme builds the capacities of MAF in policy making and access to technology across its main sectors of operations (the six divisions) and fosters its field delivery through the collaboration with NGOs, etc. providing technical services to the farmers. The NGOs play a role complementary to that of the extension services in assisting the farmers. The partnership with the NGOs is expected to provide further services in the social and local governance (farmer's based organisations) field. (c) The conservation of natural resources is many folds: through the green economy approach of the NGOs grants, the diversification priority, and the interventions in the forestry

sector. Plantation and community forestry, as well as water and soil farming practices, contribute to the preservation of the natural resources that are used by farmers and livestock growers.

Limitations. The programme reinforces the role of MAF in promoting innovation. The influence of the external factors on its adoption by farmers is specific for each human and natural context. The analysis of the human factors conditioning such process is insufficiently developed in the programme document. In particular, the central role played by technology transfers side-lines the tackling of the cultural and social factors that condition the rural production are sidelined. In the past, the supply of external improved inputs to and creation of skills of smallholders has failed due to their refusal to take risk. With the civil war, the subsidized inputs were discontinued and the producers reverted to the use of locally available inputs and their ancestral practices with a correspondent fall of productivity. The communities play a critical role in orientating the individual producers, as their action is embedded in all the social and economic functions that ensure the welfare of the households and cohesion of the village. Individual choices are discouraged as they could undermine the community cohesion. The adoption of innovation is screened against its coherence with the whole set of relations of the community members for many reasons. For example, its impact on the employment of the household work force and the costs of assisting its adopter in case of failure. The access to natural resources is another discriminating element. As they are multipurpose inputs of the household and community life, their employment is also conditioned to feedback from several stakeholders. In practice, such context limits the flexibility of the producers that limit risks. External subsidies work as much as they are supplied for free. Also, in the most favourable conditions, when innovation is freely available, its effect is limited by the fact that the shortage of other production co-factors limits its impact¹.

Sustainability. The lack of clarification of the modalities of interaction of the transferred technology with the external factors that influence the rural economy is reflected in the linear, narrow-focused technology-centred strategy of the programme document. Although the impact of the local elements on the adoption of innovation could not have been calculated at the time of the programme identification, their mention would have made clear that collateral actions are needed to create the favourable conditions for the appropriation of innovation by farmers and livestock growers. Such actions are essential to make possible the accurate customisation of the proposed innovation and its compatibility with the other economic, social and cultural factors that ensure the sustainable use of the programme inputs.

Annex 1 presents the diagram of the reconstructed ToC of the BAFS programme.

1.4 The key actors and their interactions

The *stakeholders' analysis* presents the conditions and contribution of the key actors to the performance of the BAFS programme.

The identified key actors of the programme are:

- MAF, both at the national, provincial and local levels (districts and chiefdoms branches), linked to.

¹ Cfr. the Mitscherlich law that states that the crop response to the increase in the doses of a fertilizer follows an exponential growth pattern ending in a horizontal asymptote (decreasing efficiency due to limiting factors).

- The research and education sector (SLARI and universities and agricultural colleges and schools).
- The private sector (growers, suppliers, value chains actors, processors, traders, exporters...)
- The finance sector (banks and microfinance).
- The smallholders, farmers and rural households, including vulnerable groups like women and youth, within communities and traditional governing bodies like chiefdoms.
- The traditional leaders, peasants' communities, farmers' groups with their multiple actors that deeply influence the action of the farmers and livestock growers.
- The farmers' associations structured from the national to the local level.
- The development NGOs, CSOs, national and international, in connection with donors.
- The bilateral and multilateral cooperation and funding bodies like donors and development banks.
- The rural services platforms and farmer-based organisations.

Challenges. In each district, the supporting partners like MAF, NGOs and donors face three challenges to improve the livelihood and welfare of the peasants: (i) the conflicts arising from the tensions on the access to resources to be avoided and solved through local governance mechanisms as the setting of rules to manage them, (ii) the interface among population groups whose cohabitation is slowly evolving after the end of the civil war and (iii) the arenas where the conflicts express(-ed) or happen(-ed) which could be the organisations, both traditional or modern, formal and informal, the territories and the institutions (governing bodies). Our analysis includes the features of the stakeholders critical for their participation to the transformation of agriculture by combining the observations made during the field visits with the interviews of the key informants and recorded information.

2 The evaluation

2.1 Goals

The *overall objective* of the Mid-term evaluation (MTE) is to provide the Government of Sierra Leone and the European Union with independent and reliable evidence-based performance assessment of the achievements, the quality and the results of the programme and its activities in the context of an evolving cooperation policy and its contribution towards the implementation of the SDGs.

Its *specific objectives* are:

- An overall independent assessment of the ongoing performance of the BAFS programme, paying particular attention to its expected results measured against its expected objectives; and the reasons underpinning such results;
- Key lessons learnt, conclusions and related recommendations in order to improve implementation for the remaining operational period of the programme (up to September 2023).

In addition, this evaluation assesses:

- The complementarity with the ongoing EU-funded West Africa Competitiveness Programme titled "Increasing Sierra Leone's competitiveness through enhanced

productivity and trade compliance in selected value chains" and implemented by UNIDO and ITC;

- The EU added value (the extent to which the action brings additional benefits to what would have resulted from Member States' interventions only) and the coherence of the action/programme itself with EU policies on climate change, smart and green agriculture and protection of vulnerable groups (youth, women).

The *output* of this exercise is expected to contribute to the finetuning of the programme and identification of new initiatives in agriculture, food security, as well as contribute to the better management of Sierra Leone's climate change resilience, therefore improve the livelihood and welfare of the farmers and vulnerable and poor rural households (Annex 2 presents the Terms of Reference of the MTE).

2.2 Strategy

The two experts have taken all necessary measures to make the evaluation as systematic, coherent and objective through the access to independent sources, by cross-checking and validating qualitative and quantitative information. This approach has enabled to produce accurate and customised conclusions, recommendations and lessons learnt that can be incorporated into the decision making of the stakeholders.

Tools and phases. We have finetuned out survey tools and harmonised our interview modalities during the Inception Phase. We have elaborated the evaluation matrix to ensure the completeness and coherence of the survey and analysis of the information. Stakeholders and field visit sites have been identified to cover all the components of the programme. The successive phases have been devoted respectively to documents collection and analysis, methodology tools elaboration (Inception Phase), field visits and interviews (field phase), and elaboration of the analysis and validation of our findings (Synthesis Phase). Our assessment covers the programme's relevance, efficiency, effectiveness, early signs of impact and sustainability, cross-cutting issues (gender, SDGs, environment leave no-one-behind principle), as well as the EU added value and visibility. The evaluation questions, agreed during the Inception Phase, points to the critical elements for the success of the programme. The preliminary findings have been discussed at the restitution meeting at the end of field phase through a slides presentation also including our preliminary conclusions and recommendations.

2.3 Itinerary

The in-country mobilisation of the experts started on 18 November 2019 with the kick-off meeting held at the EU Delegation in Freetown. Our work plan has been finetuned after the preliminary meetings with the PCU and MAF representatives.

Following the preliminary meetings, we have revised the evaluation questions (see Annex 3) focusing on the critical issues for the strengthening of the agricultural sector and implementation of the grants. Their integration with the key elements of the programme Logframe has allowed the elaboration of the evaluation matrix (see Annex 4) with the headings of the Survey grid used in interviewing the key informants.

MAF actions and SLARI / NGO grants are in their early stages of implementation. Only orientation activities had already been performed in communities at the time of the field survey. Thus, the original field visit plan has been shortened by focusing on the meeting with agricultural authorities in districts representative of the different agro-ecological

region of Sierra Leone, SLARI research centres, the implementing NGOs district teams, farmers' based organisations and a sample of communities where the NGOs are already actively collaborating with the agricultural authorities.

Meeting in Freetown have included the PCU / TAT, six MAF divisions, SLARI directorate, Oxfam and BRAC NGOs country offices, UNIDO agribusiness programme (19-27/11). The field visits were conducted in the following sites, representatives of the West, North West, South, East and North regions of Sierra Leone:

- Waterloo (Western Rural District): District Agricultural Office, BRAC, Rombis Farmers' Group, New London Mango Fan Farmers' Group (28/11).
- Port Loko District Agricultural Office, Oxfam Field Office, Cashew Commodity Association (29/11).
- Njala University, Cassava and Roots Research Centre (Moyamba District) (2/12).
- Kenema District Agricultural Office, Forestry and Tree Crop Research Centre, Solidaridad extensionists' team, SCADeP-SD (WB) project, Njala University (3/12).
- Bo District Agricultural Office, Solidaridad Country Office, Seneone Farmer Women's Group in Fala Village, Njala University (4/12).
- Kabala, Koinadugu District Agricultural Office, Horticultural Crops Research Centre (5/12).
- Makeni, Bombali District Agricultural Office, Oxfam District Office, Livestock Research Centre in Teko (6/12).

Discussions with the PCU and MAF (technical assistance unit, Chief Agricultural Officer) have been held after the end of the field trip (9-10/12) to cross-check information and clarify the key elements of this analysis. Following the elaboration of the preliminary findings and their presentation at the reference group in Freetown on the 16 December 2019, the *evaluation team* prepared this Draft Evaluation Report. Annex 5 presents the phases of the evaluation and itinerary of the field work. Annex 6 lists the key informants met. Annex 7 presents the documents consulted.

Figure 3. Itinerary of the Evaluation

Places visited in Sierra Leone during the BAFS MTR field mission (28 Nov-6 Dec 2019):

1. **Western Rural:** District council, District Agriculture Office, BRAC in 2 villages Robis & New London Mango Farm
2. **Port Loko:** DAO interim (crops div.), BAFS Cashew workshop, OXFAM NGO branch & IPs
3. **Njala University:** SLARI (soil lab #1), University Vice-Chancellor
4. **Kenema:** SLARI (Fruit Trees, Coffee, Cocoa) & Bambawo research station, DAO, SCADEP-WB, Solidaridad NGO
5. **Bo:** DAO, Solidaridad in Fala village (women cooperative)
6. **Njala University:** Pr Sawyer (agri faculty, soil & quality control lab #2)
7. **Kabala (Koinadugu):** DAO, SLARI (vegetables), OXFAM NGO & IPs local branch
8. **Makeni (Bombali district):** DAO, SLARI Teko (livestock)

= 21 interview and visits



The *evaluation team* has a broad experience in agriculture and food security in Africa. The two consultants shared the programme analysis in relation to their respective skills, the with the Team Leader concentrating on the strategy, configuration and operations and the Expert 2 on the technical and economic aspects of the BAFS programme. Annex 8 presents the profile of the evaluators.

2.5 Limitations

The key informants and visited sites cover all the components of the programme. The documentation consulted is complete except for the third batch of grants for agribusiness including the tendered programme documents and the level of expenditures. The contracts have been signed but their implementation had not started by the conclusion of this field mission, this gap does not impact on the assessment of the programme implementation to the time of our survey.

3 Findings

The findings are clustered by OECD / DAC criteria and synthesised in the answers to the evaluation questions.

3.1 Relevance

Identification. The BAFS programme follows the previous EU-funded Agriculture for Development (A4D) project that supported the economic recovery of MAF and agricultural sector after the civil war. BAFS is trying to ensure the sustainability of A4D fragile first results through a comprehensive approach strengthening MAF and SLARI capacities and assisting the producers to access to innovation. The programme identification was strictly embedded in the Sierra Leone agricultural policy and planning processes. The creation of surpluses is expected to stimulate the smallholders to produce for the market although the broader impact of such economic change is not considered. The smallholder farmers' and livestock growers' integration into the value chains in fact is not a linear process. In fact, this transformation implies not only technical and economic but also cultural and social changes (land tenure, community rules and customary institutions) that are not impacted by the programme's activities.

Strategy. The programme goals and results are coherent with those of the national agricultural policies aimed at the diversification, intensification, expansion of agriculture. The programme concentrates on the technical elements that are needed to implement them, i.e. the generation, demonstration and transfer of technology to smallholder farmers and livestock growers. The programme strategy expects that this adaptation during the field implementation notably through the farmer's field schools demonstration. The programme design confides in the alliance between MAF extension service, NGOs and private sector, and the farmers' based groups and associations to adapt the proposed technologies, along an experimented approach.

The programme brings together public and private partners in the execution of its components: MAF and SLARI that are in charge of the PE; the NGOs and agribusinesses contribute to the execution of such actions at the level of the beneficiaries. In practice, the programme strategy exploits their consolidated relations with farmers and livestock growers, processors and traders, to pipeline innovation to the producers to achieve diversification, intensification and expansion of production at once.

The programme design emphasizes the building of technical capacities of MAF and SLARI staff. It has not yet built their managerial capacities needed to promote the new policies among the agricultural sector stakeholders and to facilitate, supervise the transfer of innovation to the from research to the farmer's field. This is a major gap in the programme strategy as the strengthening of the value chains shifts the focus of MAF intervention from the delivering technical inputs to guiding and supervising the partners of the agricultural value chains. This change of perspective is moving the focus of MAF's capacity building from the technical to the managerial field.

Evaluation question 1. Coherence of the project strategy with the agricultural policies

The programme supports MAF in implementing the National Sustainable Agriculture Development Plan and the National Agricultural Transformation Plan. It strengthens MAF's capacity, and ability to assist in providing services to the farmers and livestock growers. The programme strategy focuses on transfer of technology in line with the agricultural development priorities. The establishment of alliances between MAF, NGOs, agribusinesses and farmers' groups are expected to adapt the innovation to the context and expectation of the producers.

Implementation strategy. The programme strengthens MAF's policy approach to ensuring a productivism strategy centred on the supply of capital inputs - mainly seeds, improved vegetable materials (IVM) and hybrid livestock - to the farmers and livestock growers. The training and technical assistance is improved by including agro-ecology/agro-forestry and climate smart agriculture practices to the technology packages. However, such "modifying factors" are supplied without an analysis of the modalities of their customisation to the local context. The role played by the availability of labour to perform agriculture practices - in relation to the different livelihood sources of the rural household - is not considered². In practice, the programme concentration on the technical aspects of innovation has sidelined their interaction with other aspects of the farmers' livelihoods and the importance of their welfare which are important in shaping the technology transfer modalities. This top down approach satisfies the immediate expectation of the programme partners but presents unsolved problems that will reappear in time during the implementation of the programme activities.

Limitations. The topics, critical for the programme's success, that have not been fully elaborated in its strategy, are:

- The influence of farming systems, traditional knowledge, access to natural resources, and the social and cultural drivers of the peasants' household and community life have not been integrated in the elaboration of the proposed innovation packages. This is a transversal issue that impacts on the appropriation of innovation and that should be considered in selecting the beneficiaries. Stronger emphasis on creating knowledge management mechanisms should have tackled such gap.
- The role of the farmers' associations advocacy and communication are not considered in the programme strategy. Most of them are grassroots bodies not integrated in a broader umbrella organisation. Farmers groups tend to be opportunistic to capture aid and divert it towards the solution of immediate needs. Stronger emphasis on communication should have tackled such gap.
- The creation of capacities and sharing of knowledge are a core issue of the programme strategy. This is a transversal issue that has not been addressed as a fully fledged component of its strategy. This point is relevant for MAF and SLARI but also for the NGOs and farmer organisations. A programme-wide capacity building strategy should have tackled such gap.
- The agricultural policies connection with financial and trade policies present some critical issues in relation to their commitment to invest in agricultural transformation. Stronger emphasis on communication should have tackled such gap.
- The SLARI strategic research programme (2012-2021) is outdated. The research activities supported are not linked to its renewal and other ongoing initiatives

² Paul Richards (2017) shows how the new transport light vehicles like « kekes » and tricycles in Sierra Leone are boosting more the production and productivity of the rural women by facilitating the crucial step to bring products to local markets (consumers and collectors or buyers).

strengthening its capacities (JICA). Stronger emphasis on building planning capacities should have tackled such gap.

Field delivery. The programme strategy paramount focus on the transfer of technology has created a strong consensus among the stakeholders on its ability to tackle the critical hurdles to productivity. This optimistic perception is largely due to the lack of appreciation of the external factors that condition the efficient use of innovation by smallholder producers, i.e. its coherence with the other priorities of the rural household and community priorities and practices. In case such integration would not materialise, yield would be inferior to the expectation, and innovation not sustainable. The programme strategy has not enough elaborated the modalities of intervention that are needed to ensure the appropriation of the proposed technology by the smallholders, possibly because it relays on the NGOs and agribusinesses to harness it to the local context. However, also the NGOs, agribusinesses and their local partners have to identify and tackle the conditions that would ensure the success of innovation. However, the programme strategy is weak in the design of the complementary measures that will facilitate the broker role of these organisations in transferring the technology to the peasants. These measures will be analysed in the following sections as they concern the strengthening of MAF and SLARI action at the field level.

Evaluation question 2. Degree of satisfaction of the stakeholders in the delivery of the activities

The programme has raised the expectation of local actors (institutions and local authorities, farmers' organisations, communities) to intensify production and include smallholders in the modernisation of agriculture. The representatives of the NAO, MAF and SLARI appreciate the programme contribution to the strengthening of the agricultural sector. They consider its technology orientation a progress with respect to previous interventions that tackled individual problems without creating MAF structural capacities to lead the transformation of agriculture. Insufficient analysis of the conditions ensuring the appropriation of the proposed technologies by the beneficiaries could challenge such optimistic perception at the time of their implementation.

3.2 Efficiency

Programme steering and coordination. A technical advisor of the Minister supervises the BAFS programme. A Project steering committee (PSC) is in charge of the coordination of MAF PE component. A similar PSC is in charge of the SLARI PE component. MAF has established a Technical Working Group (TWG) that guides and coordinates the planning and implementation of the activities of its own services. The PCU of MAF PE is daily communicating with MAF and NAO to address the financial and administrative aspects of the programme implementation. MAF PSC has met once since its establishment and the TWG tackles technical and operational problems only. This situation has created a gap in strategic decision making, where the TWG has been unable to coordinate the different components. The TWG composition still reflects the first part of the implementation in which the NGOs and local partners played no role. As a result, the steering of the programme strategy and coordination of its components is very weak.

MAF PE component. MAF Startup PE covered the period 6/11/2016-6/3/2017 (budget: Euro 280,000). It concerned the initial setup of the PCU and definition of the procurement rules. MAF PE Technical Assistance Team (TAT) - mobilising three long term expats, short term expat consultants and several local experts (Imprest

Administrator and Imprest accountant, two policy and two agronomic assistants, M&E officer, etc.) has joined the PCU on the 14th March 2017. Its present composition is the result of several changes of staff and delayed recruitment. MAF PE centred on the Imprest component cover the period 27/3/2018-26/2/2021. The Addendum n. 1 has also raised the PE budget from Euro 4,249,136 to Euro 7,112,711 to support the value chains (i.e., the implementation of the agribusinesses grants) and ongoing technical assistance to MAF.

SLARI PE component. The PE of the SLARI direct action grant (budget: Euro 2,000,000) cover the period 27/03/2018 to 26/11/2020 and includes a technical assistance unit (VSO, four volunteers) dealing with administrative financial (Team Leader and Administrator) and technical issues (2 research assistants). The Voluntary Overseas Service (VSO) was contacted to hire four volunteers of which two are assisting the management of the PE and two are based at Kabala and Teko research centres where they advise on the implementation of the research and demonstration activities. This duplication of the technical assistance is consistent with the appropriation of two separate PE to support MAF (expat staff works part time) and SLARI independently. However, it encompasses extra costs and does not contribute to the cohesion of the implementation of the programme components.

Procedures. The programme operational manual has established the MAP PE procurement, contracting and expenditure rules in line with those set in the EU Practical guide to procedures for Programme Estimates (PRAG). Contracts are concluded directly by the NAO (Contracting Authority) that has delegated procurement activities to MAF (Supervising authority). The NAO has delegated the responsibility for management, coordination and monitoring of MAF PE to the PCU that works on behalf of MAF. The PCU executes the expenditure commitments, payment authorisations and recoveries of the "imprest" component. Otherwise, the PCU limits itself to managing processes and general programme administration rather than individual activities. The TAT verifies the compliance with the rules and procedures pertinent to procurement, except for direct purchase. The same arrangements have been established for the SLARI PE.

Delays. The signing of the agreement on the Programme Estimate, establishment of the PCU / TAT supporting MAF and launching of the Calls for Proposals, have faced substantial delays. This situation is the result of several factors, starting with several changes in the political direction of MAF. Another source of delay has been the extensive time spent to reach an agreement between the NAO and MAF on the operational modalities of execution of the PE. As the PCU acts as a delegate of the NAO on behalf of MAF, the programme operational manual has established a long authorisation procedure for procurement that has delayed the mobilisation of the access to external resources.

Procurement. The causes of delay of procurement are manifold. Approval of some TAT expenditures requires a broad consultation among the partners (PCU/TAT-NAO-EUD-NAO-PCU or PCU-NAO-EUD-TAT) and PCU's reporting and consulting goes through the same channels. The NAO performance of expenditure verification prior to payment of the second pre-financing instalment has delayed decisions and their implementation at the beginning of 2019. The changes in the PCU staff (Imprest Administrator and Imprest Accountant, and TAT Team Leader) and lack of appointment of key PCU staff (technical coordinator, Grant Monitoring Officers) has weakened its support to MAF in procurement as advising in the technical areas.

Field implementation. The slow execution of the programme budget has been caused by such delays. The late signing of MAF and SLARI agreements with the NAO and hiring of the PCU staff. The creation of capacities of MAF / SLARI, mostly performed in Freetown had been completed while in the target districts they had just started at the time of the field survey. The NGOs have identified the chiefdoms but not the assisted communities, thus their activities are still limited to planning and orientation of the potential beneficiaries. For instance, they have still to agree with the farmers' groups and local partners before starting to perform field actions. The district agricultural officers were starting to sign Memorandums of Understanding with the NGOs at the time of the MTE. An addendum has been signed to extend the programme duration by two year to allow execution of the grants.

Planning. The weak managerial capacities of most MAF and SLARI units is confirmed by the lack of sufficiently detailed implementation plans for MAF actions and SLARI research / demonstration programmes. Their connection with the grants is expected from the case-by-case interaction of their field offices. The PCU has not established the three sub-offices initially forecast to assist the implementation of activities in the districts that should have contributed to the field level coordination. The resulting fragmentation of the forecast actions makes difficult to align the contribution of the partners to a shared work plan. The action fiches of MAF and SLARI activities have been drafted during the Inception Phase. No systematic planning exercise has been done to transform them into practical work tools. The assignment of the NGOs and agribusiness grants and shift of focus to implementation of the actions in the field have not been reflected in the revision of the PE work plan also if it is clear that the alignment of the timeline of the programme components is essential for their efficient implementation.

Indicators. Each component or grantee has elaborated its own Logframe and indicators. The PE Logframe incorporates the overall programme indicators, whose values are expected as a result of all the components contributions (see Annex 9). The programme has performed sectoral assessments – IT hardware, software and capacities, SLARI equipment and capacities, gender, livestock production health – and used to identify the gaps in capacities of MAF and SLARI. However, the information collected has not been used to set the baseline of the indicators measuring the capacities of MAF and SLARI. The baseline values of the programme "objective level" indicators have not yet been set, also due to the late recruitment of the monitoring and evaluation officer. The SLARI and grant NGOs Logframes and indicators are not integrated into the PCU reporting that until now concerns the execution of MAF PE only. In practice, there is no systematic assessment and presentation of the programme progress, as its components are monitored independently and the values of their indicators are not cumulated.

Monitoring. The monitoring function is facing the challenge of measuring the progress of field activities by sector without considering their cumulative effects and impact at the level of the programme goals. A baseline study (situation analysis) of agriculture and food security in Sierra Leone has been conducted in 2018³. Its results were used for revising the logical framework of MAF PE and establishing the baseline and target indicators (10 for the objectives and 20 for the results).

<i>Evaluation question 3. Changes in the project action plan and impact on the delivery of activities</i>

³ Situation analysis. 21/3/2018

The programme partners implement their components (PE, grants) quite independently. The execution of MAF Programme Estimates is the backbone of the programme, but it has not produced a global implementation plan. The strategic decision making and performance of planning and coordination, monitoring and communication activities that should have assure the coherence of the implementation of the programme components have been very weak. As a result, the programme components cooperate through case-by-case agreements without integrating their planning exercises. This situation is a direct threat programme success as the delivery of activities is not aligned among and inside its components.

Budget. The delay in the start of the programme activities has negatively impacted on its budget “burn” rate. At the time of the ROM mission (19/12/2018). the donor had released Euro 2,769,171 out of the 9,143,045 contracted through the PE. At the time of the MTE, the NGOs had been contracted for the execution of their four grants (Euro 8,558,091.31) and the 11 agribusinesses grants were ready for signature (about Euro 10,300,000). In practice (on the eve of the agribusiness contracting), the use of the programme resources is on the eve to be contracted while the actual expenditures can be estimated in the order of 10-15% of the global programme budget. Annex 10 presents the programme budget.

Leveraged funds. The NGOs counterpart contribution amounts to 14% and the agribusinesses own contribution is expected to be about 25% of the grants. Until now, the programme partners have made no effort to collaborate with other initiatives active in the same agricultural sectors to join forces and resources to achieve the common goals (e.g., EU-funded West Africa Competitiveness Programme implemented by UNIDO that strengthens the cashew value chain). This situation confirms the weak leadership of MAF on the programme execution. Annex 8 presents the BAFS programme budget.

Evaluation question 4. Execution of the budget, leveraging of external resources

Quite all the programme budget was on the eve to be contracted at the time of the MTE. However, due to the substantial delays in the signature of the PE and awarding of the grants, the programme expenditures were minimal. The only expected leveraged external resources are the own contribution requested to the grantees as no connection has been done with other initiatives active in the same sectors.

3.3 Effectiveness

Achievements. The programme main progress is recorded in the strengthening of MAF and SLARI capacities to access to and transfer innovation. The 4 NGOs grants – still in their early stages at the time of the MTE - had produced some coordination and awareness of the target farmers. The implementation of the agribusiness grants has not yet started. In this section we present the progress made in the performance of activities and their early results and potential contribution to the achievement of the programme objectives.

3.3.1 Performance of activities

A. MAF PE

The main *achievements* of MAF PE component are:

- Elaboration of the PCU Administrative and operational Manual.
- The performance of the project baseline situation analysis (study of agriculture and food security, 2018).
- The elaboration of four policies (cocoa, coffee, cashew, gender inclusion) and their respective Implementation plans.
- The training of MAF 285 technicians and of 200 Trainers of trainees (ToT).
- The procurement of office and technical equipment.

More in detail, MAF divisions have performed the following *activities*:

- 1.1 *Conduct a comprehensive national soil survey* (Agricultural mechanisation division): elaboration of the National soil survey strategy and plan
- 1.2 *Promotion of IPM specifically in respect of the current outbreak of Fall Armyworm infestation* (Crops division): Fall Army Worm (FAW) taskforce established. Survey on the status of the FAW. Study mission to Brazil of MAF, Njala University, SLARI and BAFS & report. 5-year strategic plan to control FAW. Training of 200 trainers (ToT) of District and HQ MAF staff on IPM for FAW. 3000 farmers' sensitised and trained in Tonkolili District. 7 MAF staff Cashew Master Training Programme in Ghana and Ivory Coast
- 1.3 *Elaboration and implementation of an extension service delivery system* (Extension division): Procurement of IT equipment for e-extension. CSA manual for frontline MAF extension staff. ToT training for MAF HQ and District extension staff. Training of Field extension workers and lead farmers on Climate Smart Agriculture in Kenema
- 1.4 *Establishment of a pilot community based forest management project and capacity building initiatives* (Forestry division): 11 community based forestry sites identified. 4 Community Based Forestry sites (Kono, Tonkolili, Karene and Kambia District) selected for piloting. 4 Community based management committees, each formed of 11 people, having one person at each site. Four CFM each having seven members at each formed site. More than 1,000 local authorities sensitised on CBFM principles, practices and benefits. Two communities were sensitised on woodlots management.
- 1.5 *Undertake elaboration and design of a curriculum or curricula for the livestock sub-sector and veterinary science studies* (Livestock division): 2 stakeholder workshops on curriculum for veterinary and para-vet training. Validation and rolling out of the Para Veterinary curriculum. Scoping and bill of quantities for dilapidated livestock posts reconstruction, evaluation of bids for veterinary kits and vaccines
- 1.6 *Assist PEMSD to conduct (annual) crop yield and farm income assessment (x3)* (Planning, evaluation, monitoring and statistics [PEMSD division]): Crop yield studies conducted and report presented. 115 MAF/PEMSD staff trained on crop yield measurement and area measurement using GPS. SPSS statistical programme installed on 25 on PEMSD HQ and district computers. SPSS training of 43 participants on how to use SPSS to input and analyse data and how to interpret the results. 120 MAF staff trained on how to use crops moisture meters and to measure moisture content of various crops. Crop moisture content guide booklet produced. More than 15 moisture meters procured and distributed to all agricultural District Offices. 4W data/information collected/received
- 1.7 *Cross-cutting issues*
 - 1.7.1 *Policy development*: Desk review of MAF policies: National cashew value chain policy and Implementation plan. Cashew Production Manual (tested on site). National cocoa and coffee policies and the implementation plans. Gender in Agriculture Policy (GiAP) and GiAP implementation plan.

- 1.7.2 *Institutional Capacity Development*: Agribusiness Unit of the extension division equipped. 3 BAFS TWG meetings. Training plan development and hardware needs assessment ongoing. MAF study tour to of high level MAF staff in Ghana and Ivory Coast and of Livestock Division in Uganda
- 1.7.3 *Communication and visibility*: Steering Committee Meeting (3/7/2019). Updates, showcased moisture meters, radio discussion on FAW. BAFS programme website, radio discussion on FAW
- 1.7.4 *Digital Financial and Other Services*: analysis/review of the digital financial services (DFS) ecosystem ongoing
- 1.8 *Grant monitoring*. M&E officer hired, late tendering of the hiring of the grant monitors.

Hurdles to achieving. An in-depth analysis of the performance of these actions shows that their retard depends on the difficulty encountered in refining their strategy, in mobilising adequate capacities and in defining the specifications of their technical and operational elements, in practice in their insufficient planning. For example, the MAF has not yet translated the planning of the Soil survey action into a coherent set of implementation provisions. Uncertainty exists about how to source or prepare the professional skills needed to perform the survey and soil analysis and in defining the specifications for the collection of the soil specimens and cartographic restitution of the survey results.

The weakness in the planning of these actions is also due to the insufficient need assessment they are based on. For example, the plan for the IPM for FAW has not yet identified the exigencies and capacities of different kinds of farmers that will make possible the finetuning and appropriation of the proposed innovation. In fact, the use of natural predators to control this parasite is quite surely not affordable for most smallholder farmers. The conditions that ensure their affordable use should be defined in order to properly target the beneficiaries. The same problems can be evidenced for each of these actions. In absence of a detailed work planning, their performance will be incoherent and inadequate to achieve the expected results or at least face substantial delays disrupting the collaboration with the other programme components.

B. SLARI direct grant

Achievements. The main progress made towards the programme results consist in the collection, introduction and characterisation of high breeds and establishment of research and demonstration plots. In practice, SLARI has created the working conditions for breeding, experimental trials and demonstration of high yielding breeds of crops and livestock. The progress made in building SLARI capacities is ongoing. The headquarters and three research centres staff have been trained on programme, financial management and ICT. SLARI staff has performed several missions abroad to identify innovation, access to technology and build professional skills. SLARI has contributed its expertise also to the design of actions planned under the PE components: soil survey, para-vet curriculum, IPM of the FAW. The rehabilitation of infrastructures (completed or quite finished) includes two chicken houses and one feed mill, one water well and connection in Teko, one piggery, one goat and sheep shelter and two small ruminant buildings in Teko along with fences.

The progress made in developing and making available to smallholder farmers the *technology packages* or innovation for the enhancement of value chains, consists in:

- the assessment and creation of SLARI capacities, including training of researchers and procurement of equipment, varieties and hybrids of onion and Irish potatoes,

tree crops (CCC), roots and tubers, pulses, high value spices and essential oils, etc. This is the area where more progress has been made.

- the elaboration of the research working programme and performance of 16 researches by three different SLARI research units: Kenema Forest and Tree Crops Research Centre, Kabala Horticultural Crops Research Centre and Teko Livestock Research Centre; these centres have started the rehabilitation of the demonstration plots where improved varieties and hybrids of CCC, vegetables, fruits and forest trees will be tested and of the building hosting the improved livestock (poultry, small ruminants and pigs).
- technology transfer activities are still limited to the establishment of demonstration fields / herds for the testing and dissemination of high breeds to smallholder farmers and livestock growers. SLARI has started coordinating with extensionists at DOA level, NGOs and local partners, signing Memorandums of Understanding with the NGOs.

The 16 research activities have been launched:

1. *Development of suitable high yielding, pest/disease tolerant Cocoa varieties for farmers in Sierra Leone*: 15.4 ha of cocoa has been rehabilitated at Pendembu (8.4 ha) and Kpuwabu: (7 ha)
2. *High-yield Robusta Coffee propagation and market potential exploration of Liberica and Stenophylla*: 6,2 ha of Robusta coffee; Pendembu (8.4 ha) and Kpuwabu: (7 ha), Collection of wild stenophylla
3. *Development of high yielding, pest/ disease tolerant cashew varieties*: Cashew Seedling procurement
4. *Sustainable Fruit Trees Production for Farmers in Sierra Leone*: 6,7 ha of five grafted fruit trees (mango, orange, lime, avocado, and banana) were sourced from farmers in Guinea and have been established at Pendembu
5. *Identify viable agroforestry systems for cocoa and coffee*: 2 ha of agroforestry-cocoa intercrop has been established
6. *Screening, characterisation, and testing of new and/or underutilised crops*: Trials and accessions, setting up the physical structures and procurement of field equipment and materials, Preliminary evaluation of Tomato, Pepper and Eggplant Variety, Local germplasm collection of horticultural crops (162 accessions from 16 vegetable crops were collected across 10 districts)
7. *New and underutilised crops: Baseline and Feasibility studies*: Acclimation and adaptation of Potato plantlets accessions. Trials, selection of three best performing potato and Accessions. 157 accessions of local (62) and exotic (95) germplasm of ten new and underutilised crops collected locally and introduced
8. *Production and plant health management of horticultural crops*: preparatory stage
9. *Strengthening nutrient and food security through mushroom cultivation and marketing*: preparatory stage
10. *Climate change adaptation techniques in crops*: preparatory stage
11. *Small ruminant (goat and sheep) production and breed improvement*: Introduction of local animal breeds
12. *Poultry production and hatchery establishment*: preparatory stage
13. *Epidemiology and Identification of "Peste des Petits Ruminants" (PPR) Virus in Small Ruminants*: virulence of PPR mapped in five districts
14. *Characterisation and conservation of forage resources for increasing livestock production*: 1 of the identified forage trials have been established at Musaia
15. *Enhancing small stock productivity for smallholder farmers*: preparatory stage
16. *The role of animal traction technology*: preparatory stage

Hurdles to achieving. The programme is assisting SLARI research centres in adapting the results of previous research (Sierra Leone, Ghana, Peru, Mexico, Nigeria, etc.) by establishing demonstration plots where they preserve (purity, health), characterise, and test high breeds to the local conditions. The adaptation to the farmer's field will depend on the collaboration with the DAO extension services and NGOs (farmers' field school). Agreements to perform such collaboration have still to be signed. The programme is expected to achieve by the last year of its execution: 5,540,000 IVM, seed and seedlings of cocoa, coffee, cashew and fruit trees distributed to farmers, 1,700 ha of vegetables and crops established by farmers, 6,090 head of sheep, goats, chicken and rabbits reared by livestock growers for reproduction. The main challenge for this SLARI component is the establishment of the multiplication system that will ensure the supply of the high breeds. This requires the establishment of seed nurseries, seed producers, livestock breeding centres endowed with technical and entrepreneurial capacities. A strong collaboration and integration with MAF (notably, the sanitary and phytosanitary services [SPS]), NGOs and agribusiness grants (or another intervention) is needed to establish the multiplication of the basic breeding materials provided by SLARI research centres as a market orientated business.

C. Grants for cocoa, coffee cashew value chains, crops diversification and agribusiness promotion

The programme awarded four grants for "Other crops and livestock" grant facility and 11 grants of the "Promotion of agribusiness and innovative farming" (2019):

- Solidaridad: Develop a vibrant, competitive and profitable Sierra Leonean cocoa, coffee and cashew economy (including maize, cassava, vegetables)
- OXFAM: Diversifying and boosting crop production in Sierra Leone (maize, cassava, vegetables)
- OXFAM: Diversifying and boosting livestock production (small ruminants, poultry, pigs, rodents)
- BRAC: Improving food security and increasing income for smallholder farmers (small ruminants, poultry, pigs, rodents)

Until now the NGOs have strengthened their district teams, raised the awareness of their partners and peasants, and discussed the collaboration with the district agricultural officers / extension services and SLARI. The selection process of target communities is ongoing.

Hurdles to achievements. The NGOs actions face numerous technical challenges, the main one consisting in the creation of the centres / enterprises for the multiplication, storage and distribution of the high breeds (seed / IVM multiplication fields, seed nurseries, hatcheries, buck centres). To become efficient and profitable, these have to develop technical and entrepreneurial capacities to continue the access to and multiply breeding stock materials as well as to access to SPS inputs after the programme end. A strong collaboration with MAF services, SLARI, the agribusiness grants (or another intervention) is needed to multiply the basic breeding materials provided by the research centres as a market orientated business.

3.3.2 Achievement of the results

Result indicators. The situation analysis has systematised information on agriculture and food security that should be used in calculating the baseline values of the Logframe indicators. The baseline values of the Objectives indicators have to be set on the basis of such study. The initial progress towards the achievement of the Results indicators consists in:

- 1.1 Strengthened government institutional capacity
 - MAF Staff Training Plan developed. Staff trained: 285.
 - Agriculture-related national policies validated: 4.
- 1.2 Enhanced research capacity and practice
 - 16 Research activities planned
 - Para Veterinary curriculum validated
- 3.1 Promotion of diversified agricultural and livestock production
 - 200 ToT trained on IPM for FAW. 1,000 local authorities sensitised on CBFM principles

These values show that the main achievement of the programme to date consists in the improvement of MAF technical and operational capacities. Their employment in the implementation of the agricultural policies is still limited. Furthermore, they are not complemented by the building of managerial capacities. This is particularly critical for the deployment of the agricultural policies in the target districts. The coordination with partners and peasants, the integration of the actors of the value chains, requires or depends not only on the availability of knowledge and skills but also on their management to target the needs and expectations of the beneficiaries. For instance, the independent planning of the programme activities by each partner inside and outside MAF point to insufficient progress made in this area.

3.3.3 Results contribution to the General and Specific Objectives

It is too early to measure the progress made towards the *programme objectives*. Here after we present some consideration on the initial results contribution to their achievement.

Specific objectives

1. Institutional capacity building and formulation of food and nutrition security strategies and sector policies

MAF and SLARI have been strengthened in professional knowledge and skills (training, studies), especially at the headquarters level, and physical endowments (procurement of equipment and high breed materials). This progress is consistent in term of individual technical capacities, equipment and biological materials (seed), operations. The main effect of such effort is the planning of the programme-supported activities. However, its impact on MAF functioning could be insufficient to properly implement the new policies as it has not complemented by the build up of managerial skills. The linkage of the central policy making and planning exercises with the operations in the districts is still to be achieved through the strengthening of the capacities of the DAOs in the intervention areas and of the planning, coordination and management capacities of MAF.

2. Support to cashew, cocoa and coffee (CCC) for export

The elaboration of policies, implementation plans and training manuals has created, has allowed to MAF, in collaboration with the granted NGOs, to raise the awareness of farmers on the CCC value chains. SLARI is re-establishing demonstration plots for testing high breeds of crops and livestock, dissemination of hybrids and improved varieties of these crops and support the training of the producers. They are connecting with the extension officers and grant NGOs to collaborate in disseminating such high breeds along with the creation of capacities of the target farmers. Such collaborative approach is intended to customise the innovative technology to the diversified contexts and capacities of the peasants. Their participation is ensured by the partnership of the

NGOs with farmers' associations and farmer-based organisations in the 11 assisted districts. Capacity building of the partners (NGOs, agribusinesses, farmer-based groups and associations) and their coordination, training and knowledge sharing are the key activities to ensure progress to achieve this objective.

3. Support to environmentally sustainable agricultural diversification

The programme has identified several promissory crops / livestock selections (high breeds) and innovative production practices (IPM for the control of the FAW, climate smart agriculture, etc.) that can contribute to the diversification of the smallholders' production. They enlarge the genetic basis of high breeds available for intensifying and expand the agricultural production. The NGOs play a central role in this effort. However, it should be clarified the different targets of crops intensification (concerning the most endowed peasants) and food security (concerning the marginal peasants). The former ones expect to improve productivity through the access to high breeds of crops and livestock and can afford the mobilisation of resources to sustain such production. The latter ones expect to access to inputs that enhance the efficiency of their farming systems, centred on staple crops (rice, maize, cassava, sweet potato) and minor species that complete their diet (beans, fruits, etc.). Their different contexts, capacities and interest are going to strongly impact on the adaptation and appropriation of innovation. Progress to achieve this objective depends on the collaboration of the local partners and sharing of knowledge on the beneficiaries' household economy and agricultural practices. The NGOs play the main role in orientating their choices. Their capacities to transfer technology to the beneficiaries that can exploit it should be strengthened. For example, the identification of the research programmes could involve the participatory need assessments establishing their constraints and capacity of appropriation of innovation.

WQ5. Reliability of the forecast project impact on the socio-economic indicators

The programme lacks an overall, comprehensive plan linking MAF and SLARI actions to those of the grantees that ensures that their components converge to impact on the beneficiaries' livelihoods (agricultural production) and welfare (food security). This coordination is especially critical for the identification of the target groups – on the basis of their needs and expectations – of the proposed technology transfer. The greatest technical challenge of the programme is that the innovation be appropriate by farmers and livestock growers able to exploit it. This depends on their context farming system i.e.; it is highly variable across the country. This requires the integration of vertical planning (transfer of technology) with horizontal coordination of the programme partners at the district level, to finetune the proposed technologies along the feedback of the target groups. The independent performance of the programme components negatively impacts on the planning of field actions that until now has not been systematic. This situation requires that MAF and SLARI plan their field intervention on the basis of the grantees' need assessments (still to be done) to match the opportunities and constraints of each target group in each district, chiefdom, community. Otherwise, the programme impact will be diluted by the imprecise targeting of the beneficiaries that will make a sub-optimal use of the new technologies.

General objective

Reduction of poverty and food insecurity in Sierra Leone through better governance and household improved living conditions and higher incomes

The situation analysis (2018) and 2015 Agricultural Census shows that the transformation of the Sierra Leone agriculture is a complex challenge encompassing technical, social, economic and cultural constraints. Past interventions to introduce innovation that increases yield and expands production achieved temporary results lost

once the subsidies were discontinued during the civil war. The return to low input farming and livestock rearing has responded to a food security logic that avoid risks to ensure the subsistence of the rural households.

Institutional capacities. The programme support to MAF in the elaboration of policies, plans, manuals, and creation of its capacities is orientated to the transformation of survival farming into market orientated commercial farming. Its lack of differentiation of the conditions that ensure the appropriation of the proposed technologies could result in poor targeting of the peasants' needs and limited appropriation of the proposed technologies. The new policies implementation depends on the execution of the programme activities (PE and grants). It is especially important to develop the value chain coordination countrywide along with the district level implementing partners' coordination to make possible their systematic and coherent implementation.

Farmers' capacities. Rooting technical innovation alone in highly diverse farming systems requires the differentiation of technological packages and transfer approaches. Different peasants have different propensity to improve agricultural production for the market or strengthen their food security, depending on their capacities and endowment. The best farmers constraints reside in the low genetic potential of crops and livestock available and lack of capacities and tools to deal with agribusinesses. They have sufficient resources and propensity to risk to invest in high breeds. They are willing to participate to the value chains coordination to tackle such hurdles. This effort exceeds the capacities of the subsistence farmers. These would rather opt for improving their basic production inputs, tools and capacities to reduce the environmental and economic risks of farming and livestock rearing, as they are unable to mobilise enough resources to make good use of the high breed genetic potential. They, rather, expect to organise to access to production inputs for the staple crops production and share experience along to lower risk and achieve food security. The programme strategy has not differentiated these two situations in framing the technical packages corresponding to the exigencies of these different groups of peasants. The NGOs and agribusiness grants are expected to customise innovation. The strengthening of their capacities and coordination to exchange knowledge and experiences should ensure progress to achieve this objective

<i>Evaluation question 6. Agricultural output of selected crops, Malnutrition rate, Average incomes</i>

According to the agricultural census (2015), the average yield of staple crops - the main source of livelihood of the rural population - is less than kg/Ha 250, a value proper of low-inputs farming systems. The programme baseline study (2018) confirms that the access to food and income of the peasants are at the subsistence level. Crop sales make up the majority of cash income households in rural zones. According to the situation analysis, food insecurity is high in most rural districts ranging from 40% to 60% of the households. Agricultural labour - the main source of income for the subsistence farmers - earn significantly less than other jobs.

3.4 Impact

Institutional capacities. The programme has strengthened MAF capacities and endowments in policy making, accessing to and planning technology transfer and SLARI capacities and endowments in planning research and demonstration. MAF has elaborated policies and framed technology transfer intervention in a broad set of sectors, and it is establishing collaborations with service providers for delivering these technologies to the farmers. However, the strong programme focus on technical issues

has sidelined the strengthening of the management of technical services (coordination, training, monitoring and reporting, communication). These gaps could jeopardise the impact and appropriation of the proposed technologies.

Professional capacities. MAF technicians and SLARI researchers are employed in the generation and transfer of innovative technologies at headquarters and in the districts. These capacities are being used in the implementation of the agricultural policies and transformation plans. However, the technical and operational capacities of MAF staff posted in the districts are still insufficient to mainstream the new policies there.

Institutional framework. The separate elaboration of the research programmes and technical assistance / extension services actions is a field of concern for the achievement of the programme goals. For instance, MAF divisions and SLARI collaborate in their execution rather than in their conception. The programme has supported the PMES division in building technical capacities and tools without renovating its work planning approach that could have contributed to ensure the cohesion and coherence of research and technology transfer.

Technology change modalities. The proposed technologies have a high potential for transforming the Sierra Leone agriculture. The main concern for their impact is that they be transferred to the farmers and livestock growers that have capacities and means to exploit them. The collaboration of MAF and SLARI with farmers' associations and NGOs is critical for ensuring the appropriation of innovation by the beneficiaries. It should be noted that the subsistence farmers mostly need to improve their access to inputs such as water, cropping practices, work tools, fertilisers, while the commercial farmers are more interested in the access to high breeds and in linking to agribusinesses. The agricultural policies envision this dual approach whose implementation requires the strengthening of the managerial capacities of MAF (in practice the programme support to improve its planning, monitoring and communication capacities) and a strong coordination of the programme partners at the districts level.

Smallholder producers. The forecast programme impact on the smallholders depends on the coordination of the PE components with the action of the grantees (NGOs, agribusinesses) and their partners at the field level. The NGOs are mobilising the farmers along with their community groups and coordinating with their associations. This is a positive contribution to the programme impact although it the creation of the capacities of these bodies to represent the farmers' needs and expectations in the shaping of agricultural policies, research programmes and value chains has not yet started.

Evaluation question 7. Impact of the changes in agricultural policies, institutions capacities on the delivery of activities

The strengthening of the capacities of the staff of MAF and SLARI headquarters has resulted in the formulation of four sector policies and identification of innovative technologies and research / demonstration programmes with a high potential for the transformation of the Sierra Leone agriculture, whose fitness has to be tested in the field. These capacities concern technical skills. They could not be enough to significantly impact on the implementation of these policies in the farmer's field. Some of the proposed actions are expected to have an indirect impact on the agricultural production, as the soil survey, or will need careful follow up to produce results, as the IPM of the FAW and introduction of high breeds. The selection, testing and dissemination of high breeds of crops and livestock have a high potential impact if they are appropriate by producers already well endowed with resources and

capacities. This requires a careful targeting and analysis of the context and capacities of the beneficiaries, i.e. the concerted management of the programme components and coordination of its partners. The transfer of technology is hampered by low managerial skills of MAF headquarters and the low capacities and endowments of the district offices that limit their ability to assist farmers and livestock growers. The proposed model of intervention – collaboration of the institutions with NGO / agribusinesses and farmers associations / groups overcomes such hurdle. However, its viability depends on the fact that: (a) MAF exercises its leadership by means strong managerial skills and (b) the local partners mobilise systematic technical capacities. The programme has not impacted on such. In fact, the programme focus on strengthening MAF technical capacities has sidelined the role played by managerial skills in the delivery of the agricultural policies.

3.5 Sustainability

Potential sustainability. The programme support to MAF and SLARI in the elaboration of policies and identification of innovation has created the conceptual and knowledge basis for the transfer of technology to farmers and livestock growers along the agricultural transformation plan of Sierra Leone. MAF and SLARI staff have been trained, have exchanged experiences and improved their equipment but their managerial capacities to guide the implementation of the new policies is unchanged and uneven to the task. The proposed technologies have the potential to reduce the environmental impact of agriculture. However, they do not directly tackle some major constraints such as water economy in horticulture (many communities face wells depletion in the dry season), the exploitation of wild trees for firewood and charcoal production (increasing soil erosion, water table depletion and climatic variability), and the higher susceptibility to parasites of the high breeds (due to their lower rusticity and larger edible biomass). SLARI research programmes lack the resources to enlarge the scope of its research from adaptive to more strategic research, thus some of the proposed technology could be not sustainable in the long term. Another topic of concern consists the hurdles faced by smallholder producers in adopting innovation. Their weak propensity to capital investment means that the co-factors of production could be insufficient to ensure the efficient use of the new technologies. For them, disinvestments to cope with more urgent needs that agricultural production is often an obliged choice. The NGOs grants support food security (access to production inputs, diversification of livelihoods, improvement of the household nutrition, etc.) along with the strengthening of the farmers' based organisations to reduce such risks.

Hurdles to sustainability. The NGOs intervention supports MAF extension services in technology transfer and the smallholders in food security at once. Their capacities to tackle the first issue could be inadequate if they lack proper guidance and capacity building. The MTE interview of the programme partners in the districts show that the NGOs are still uncertain about the modalities of the collaboration with MAF field offices as no plan has been draft on how to raise their understanding and management of the proposed technology transfer. This fact points to the fact that MAF leadership to guide the transformation of the Sierra Leone agriculture is still insufficient also if the value chain approach attributes a larger role of the private sector in decision making. In this context, the core tasks of the agricultural institutions consist in orientating and supervising the producers and their good and service suppliers, rather than in providing technical assistance. The programme has little impacted on MAF capacities of planning, monitoring and communication, that will ensure its active role in guiding the creation of the capacities of its partners to transfer technology and in supervising the value chains.

Such situation could jeopardise the sustainability of the new agricultural policies once the subsidies provided by the programme will end.

Evaluation question 8. Participation and satisfaction of the agricultural authorities in the project results

MAF national authorities appreciate the programme strategy centred on the strengthening of the agricultural sector along the priorities established by the national development and agricultural strategies. MAF staff in the districts have high expectations in relation to the contribution of innovative technology to the farm and livestock production. They consider appropriate the proposed implementation through collaboration with NGOs and the private sector. They are concerned about the fragmented implementation of the programme that is delaying the delivery of activities in the districts and at the level of the peasants. They show an insufficient understanding of the shifting of their role from that of suppliers of inputs and technical assistance to the producers to that of guide and supervisors of the agricultural transformation.

3.6 Cross-cutting issues

Gender. The programme is heavily investing in gender. It has developed a gender analysis assessing needs and the capacities of MAF to promote gender equality. On its basis, gender equality and participation are being integrated in MAF policies and plans. The field level activities, notably the NGO grants, target women as priority recipients of assistance. They participate to the transfer of technology as organised groups with their own leaders.

Environment. The identification of the technologies promoted through the programme has included the assessment of their contribution to environmental conservation. Several actions, e.g. reforestation, intercropping and animal traction, the study of soils capability and promotion of IPM for FAW control, high breeds characterisation and adaptation trials, ensure that the proposed innovation will have a limited environmental impact. Specifically, the programme supports the elaboration and integration of climate smart agriculture practices in the extension service delivery system. This technology is especially relevant in relation to the horticultural crops that are production input intensive. To this effect, the programme will identify 15 model demonstration farms at district level, to test agro-ecological techniques. All these initiatives are expected to contribute to the environmental sustainability of the agricultural transformation. However, their implementation requires the creation of capacities that are still insufficiently embedded in MAF and programme partners.

Knowledge sharing. The delay in the field implementation has limited the sharing of knowledge among stakeholders until now. The programme emphasis on the knowledge creation and sharing is not reflected in a training and knowledge management strategy, notwithstanding its contribution to strengthen MAF extension and monitoring function. The assistance to the farmers is based on the collaboration of MAF District agricultural offices and SLARI research centres with the NGOs and local partners to perform each planned technology transfer action. While this approach is appropriate to transfer technology, it has not yet elaborated a mechanism to share knowledge to tackle the inter-sector problems faced by the subsistence farmers. Their farming systems benefit from cross-sector contributions as in the case of manure used in fertilising horticultural crops, or exploit common resources for different production, as in the case of the water serving domestic, crop and livestock uses. These topics that require multidisciplinary approaches could benefit from a systematic knowledge sharing and training that programme strategy leaves in the hands of the NGOs only.

Complementarity. The programme has performed its activities along independent work lines addressing specific technical sectors of the agricultural research and production. Coordination and exchanges of experiences with other interventions is still minimal also in the framing of the value chains. For example, no collaboration has been established with the West Africa Competitiveness Programme (UNIDO) that promotes the value chain approach, among other, to cashew production.

4 Overall assessment

Progress. The BAFS programme supports MAF in expanding its capacities to assist farmers and orientate the long term transformation of Sierra Leone agriculture. The programme has made possible the elaboration of sector policies and strengthened the technical capacities of MAF. It has created the conditions for the collaboration of the public and private sector in transferring technology to the smallholders and linking them to the market without neglecting their food security. SLARI has steadily progressed in the creation of capacities and launching of research and demonstration actions facilitating the transfer of technology to peasants. It is establishing collaborations with MAF district agricultural offices and NGOs that contribute to the technology transfer. These along with FBOs and farmers associations are starting to coordinate to exploit the complementarity of their capacities within those of DAO and SLARI research centres.

Constraints. The programme has faced several constraints in setting up its components. These are loosely coordinated and their implementation faces substantial delays. The difficulties encountered in the coordination between the Contracting (NAO) and the Supervising (MAF) Authorities have been the main reason of delay in establishing the PCU (delegated by the NAO to manage, coordinate and monitor the overall programme implementation). The marginalisation of the Steering Committee and Agriculture Advisory Group (forecast in the MoU between NAO and MAF) and lack of establishment of the three field offices in Kenema, Makeni and Mile 91, reduces MAF leadership on the programme implementation. These arrangements were functional to the initial stages of the programme, centred on the Freetown based activities and tendering of the grants and procurement of international expertise. However, they threaten MAF leadership in the implementation of the activities in the field and coordination of the grantees with the other actions, as it has originated multistep authorisation practices that delay the performance of its coordination actions. In fact, the strengthening of the value chains requires that MAF focus shifts from the supply of technical assistance to smallholders to the governance of agricultural policies through coordination, monitoring and communication actions, activities in which, until now, it has been little active.

5 Conclusions and recommendations

5.1 Conclusions

Relevance. The BAFS programme is framed in the agricultural development policies of Sierra Leone. It supports the *transformation of the farm and livestock production from subsistence to market orientated* by adapting and transferring innovation to the smallholder producers in the frame of a value chain approach. Its strategy focuses on the strengthening of the institutional capacities and technical assistance to farmers and livestock growers along public-private partnerships spanning from research to planning and from policy making / supervision to delivery of technical assistance. The technical orientation of the programme strategy little considers the peculiarities of the different farming systems and socio-cultural contexts of the beneficiaries, a situation that could challenge the appropriation of the proposed innovation (accuracy in the targeting of the peasants' and community needs and expectations). While commercial farmers may mobilise external and technical resources to mainstream technology into their farming systems, smallholder subsistence farmers face structural constraints in adopting technical solutions that interact / interphase with their other spheres of action (family, neighbourhood networks, beliefs, etc.).

Design. The programme strengthens MAF and SLARI, support them in designing policies and research programmes for the transformation of agriculture along the market orientated value chain approach and funds their implementation through technical assistance and grants supporting the value chain stakeholders. The programme strategy insufficiently articulates the relations among its two complementary purposes – increasing the agricultural output and ensuring food security of smallholder farmers and livestock growers –. In fact, these targets partly coincide, the modality of technical assistance to them differ and their participation to the value chains depends on factors whose nature is not only the technical or economic factors at the centre of the programme strategy. For instance, the proposed technologies have been defined in their technical, economic and operational terms through the conceptual fiches drafted at the beginning of the programme and included in the progress reports. The available programme documents do not show any further elaboration of their planning into fully fledged action plans including the quantitative description of resources, modalities of collaboration of the partners, collateral measures such as creation of capacities, monitoring and communication to address the constraints and exigencies of different kinds of beneficiaries. MAF attempts to formulate comprehensive work plans have failed until now. The NGOs contribution to finetune technology to the local context is expected at the last stage of the technology transfer. This approach could be insufficient to tackle the structural constraints to this process, if not integrated in an accurate beneficiaries' targeting process. As the farmers' association and groups are structurally weak, this approach could result in the insufficient coordination of the field activities and imprecise targeting of the beneficiaries.

Efficiency. The design and launching of the two PE and awarding of grants have faced several constraints and produced substantial delays and limited expenditures, resulting in the addendum extending the programme implementation phase by two

years. Notwithstanding the contracting of TAT, the PCU has been focusing mainly on the administrative and financial aspects of the programme implementation. MAF has exercised limited leadership on the programme components due to the extended authorisation pipeline and insufficient coordination at the *strategic* level. Thus, the PSC has met once, the TWG focuses on the technical and operational aspects of the actions and the grantees have still to be incorporated in it, the agricultural advisory group has not been established. Such weak strategic direction threatens the coherence of the execution of the programme strategy by producing a fragmented planning, coordination and timing of the implementation of the activities in the field.

Efficiency. The creation of capacities of MAF services at the headquarters has allowed the identification and formulation of technical packages across a broad set of agricultural sectors, the linkages of research to extension, and is now establishing the condition for their transfer to the farmers and livestock growers. The shifting of the focus of the programme strategy from the framing of policies and technical packages to their execution faces the constraints of the limited capacities and endowments of MAF peripheral offices and the complexity of coordinating several local partners. The care of the PCU has been absorbed by the resolution of the administrative and financial constraints created by the extended authorisation procedures. Its technical assistance has mainly concerned the advice to MAF headquarters, harvesting positive results in the assistance to the elaboration of policies and in to the access to sources of innovation. On the other hand, it has not established the three initially forecasted sub-offices and fatigues to deploy its staff in the target districts. This situation could jeopardise the success of the technology transfer as the mentioned complexity of the rural household economy interaction with the peasants' commitment to take risk in adopting innovation in their economic sphere of action.

Effectiveness. The programme initial results consist in the assessment of MAF and SLARI capacities and endowments, strengthening of its technical knowledge and skills, framing and validation of four policies and of the para veterinary curriculum and training of staff and endowment of equipment in the sectors and production practices object of the technology transfer. The forecast activities aim at pipelining innovation in the six thematic areas covered by MAF divisions and sixteen adaptive research topics. Initial planning and coordination of the collaboration with the grantees (NGOs and in perspective agribusinesses) and farmers' associations and groups, service providers (e.g., Njala university, economic boards, foreign research institutions) are underway at the national and district level. Until now, the programme, by concentrating on the central MAF and SLARI services, has minimally strengthened the local partners that have to source extra capacities and integrate their actions to customise innovation to different production contexts and groups of beneficiaries.

Monitoring. The programme has not yet put together the pieces that constitute its monitoring system. Each programme component (the two Programme Estimate, the grantees) has developed its own logical framework and indicators that are loosely connected to those of the programme document. The programme has elaborated as baseline a situation analysis of Sierra Leone agriculture that concerns the producers' income generation and food security status. The PCU is formulating a monitoring plan covering the implementation of the programme activities. The collection of the

data from the programme to calculate the indicators values could be of little use for decision makers in absence of fully elaborated implementation plans for each of the proposed MAF and SLARI actions (namely, research and technology transfer) that ensures their integration with the grantees partners and subsequent execution.

Communication. The communication actions have been very limited due to the fact that most activities until now have been performed inside MAF and SLARI headquarters. The programme has not developed an approach to systematise and exchange knowledge and experiences among thematic sectors and partners notwithstanding the proposed technologies are strongly interlinked in the smallholders' farming systems and community governance. The programme lacks a communication and visibility plan encompassing all its components and that supports the implementation of the proposed policies. Each action is expected to communicate with its stakeholders, without a common umbrella framework. Also, the exchange of information until now is limited to the participation of some stakeholders to the TWG meetings and communications internal to MAF and SLARI and some broadcasts to the general public on the proposed actions. The information of the beneficiaries in the districts is assigned to each individual action. Such approach is clearly insufficient to ensure the widespread awareness and commitment of farmers, livestock growers and other national and local partners on their role in implementing new agricultural policies and could jeopardise their engagement to the technology transfer.

Impact. The programme impact is expected from the coordinated strengthening of capacities and execution of the research and technology transfer actions in collaboration with the grantees' partnership with the beneficiaries. The adaptation of innovation to the farming systems and conditions of the beneficiaries, and their collaboration in the value chains, have still to be achieved. For instance, the grantee NGOs have to perform the needs assessments of farmers and livestock growers in relation to the proposed technology packages fitness to their farming systems and household economy. Such exercise is critical for the customisation of the new policies and appropriation of the proposed technology, as it will integrate the beneficiaries' exigencies and constraints into the proposed actions. On the other hand, the initial creation of capacities has focused on the central services of MAF and SLARI and formulation of the conceptual framework for the execution of actions that will transform the Sierra Leone agriculture (policy making, access to innovation, mobilisation of the programme partners). These activities have raised MAF and SLARI capacities to tackle the political, technical and operational problems facing the transformation of agriculture. The shift to the implementation of the planned activities in the districts and farmers' field depends on the systematic establishment of the capacities of the local stakeholders (DAO, NGOs, producers' groups, etc.) and coordination of the programme components at the national and local level at once. This process is underway although it is challenged by the weakness of the present complementary actions such as detailed planning, creation of capacities, monitoring and communication.

Sustainability. The programme strengthens MAF and SLARI in framing new policies and promote new technologies aimed at the transformation of the Sierra Leone agriculture. They have identified and accessed to innovation such as genetic materials, farming practices, technical assistance tools that have a great potential for improving the agricultural output and food security of this country. The programme is now shifting its focus to the demonstration and transfer of this technology by strengthening the peripheral units of the mentioned institutions and involving the beneficiaries and other stakeholders in the technology transfer process. The sustainability of the proposed innovation is highly dependent on its adaptation and customisation to the producers'

context and exigencies. Until now, the programme has concentrated on technical and operational issues with little consideration for the complementary factors that ensure the local appropriation of the proposed technologies. The proposed collaboration of institutions, service providers (NGOs), and producers' associations and groups to supply the technical assistance and capacity building to farmers and livestock growers is appropriate to orientate their farming systems to meet the market exigencies provided each partner is endowed with adequate knowledge and skills. For example, cropping of high breeds, the adoption of IPM to control the FAW, of climate smart agriculture practices, the raising of the para-vet capacities, the knowledge on the soil capabilities, enhance the efficiency of the agricultural production and farmers' income. But they require the access to resources and taking risks that are highly variable among the different groups of farmers. These have to be carefully orientated in making decisions by extensionists, services providers, farmers' based organisations, whose capacities have to be raised to the task, and linked to the agribusinesses that will ensure the producers' access to inputs and the market. Thus, the sustainability of the programme results depends on putting in place complementary actions (planning, training, monitoring, communication) that enhance the knowledge, skills and engagement of the value chain stakeholders to the new policies.

Cross-cutting. The programme has supported MAF in addressing gender equality through the elaboration of a gender analysis in critical production areas (Cocoa, coffee, cashew value chains, fruit and horticulture, community forestry, livestock rearing, etc.) and of the GiAP and its implementation plan. The same endeavour is recorded the NGO grants that emphasizes the empowerment of women to become active partners of their household economy.

The proposed innovation packages have been designed to reduce the environmental impact of the planned intensification and expansion of agricultural production. SLARI is testing and adapting high breeds, farming practices in its specialistic regional centres, by considering the local environmental constraints. The sources of external technology however could be challenged by the limited emphasis put on the role played by the human factor and traditional knowledge in the Sierra Leone farming and livestock rearing systems. The recourse to the farmer's field schools to train peasants and adapt technology partly fills in this gap because the proposed actions are conducted independently and the programme strategy does not assure the sharing of knowledge across partners and components.

The programme fragmented approach and loose steering has limited the opportunities of collaboration with other initiatives that contribute to the transformation of the Sierra Leone agriculture and establishment of value chains. The implementation of the new agricultural policies – emphasising value chains and inclusion - is expected to reduce such gaps. However, the programme has not yet implemented activities that strengthen or create the value chain coordination mechanisms, as confirmed by the lack of exchange of experiences with the UNIDO, IFAD, WB, ADB interventions in this field.

5.2 Recommendations

[MAF/DAO, SLARI, NGOs] Establish district level coordination to align actions and exchange experiences, knowledge. Such coordination could be thematic [e.g., by value chain] and include the organisation of stakeholders' events for the systematisation of experiences, knowledge. This action complements the capacity building events organised in the frame of each MAF Division / programme thematic actions by ensuring that the local partners strengthen complementary knowledge and skills and adapt their actions to the different exigencies of the peasants and their production systems.

[MAF / PCU, SLARI] Shift the focus of technical assistance from policy making and building capacities of the headquarter staff to planning and coordination of field activities, building capacities and endowment of district and field offices, monitoring and communication. This shift has not only to produce detailed work plans for the actions of the six MAF divisions and sixteen research programmes but also link them to capacity building and knowledge management, monitoring and communication plans covering all the programme components. This shift ensures that MAF exercises its leadership on the implementation of the programme activities and that its partners actively participate to the execution of the new policies.

[MAF with NAO, SLARI] Strengthen the coordination of the programme components by regular Steering Committee meetings and the establishment of the agricultural advisory group, thus separating the strategic from the operational decision making. Ensure the collaboration of the PCU with SLARI Technical assistance. Shorten the procurement procedures for the smaller amounts by abiding to the thresholds set in the operational manual without further authorisation. Elaborate the exit strategy of the PE and ensure that the destination of the programme inventory be agreed before the end of each component. Once approved the PE and awarded the grants, the PCU / technical assistances, the focus MAF / SLARI action should shift to the support of the local partners performing field activities. A more regular performance of the Steering Committee meetings and the recourse to the counsel of the agricultural advisory groups are expected to reduce the involvement of the NAO and EU Delegation in the day by day management of the programme activities and procurement authorisation, thus improving the pace of execution of the field actions.

[MAF / PCU] Include in the exit strategy of the PE components an event for the systematisation of the programme experiences with the participation of programme partners and of other programmes, initiatives active in the same production sectors for the public presentation of the progress of all the programme components and sharing of experiences.

[MAF / PCU] Elaborate a capacity building and knowledge management plan coordinating the different activities forecast for the training of technicians at the district level. Link it to the technical assistance activities, establish the three forecasted sub-offices and deploy not financial – administrative staff there. This plan should include the training of MAF senior staff on management tools such as planning, monitoring, communication. The proposed simplification of the procurement authorisation process will enable the PCU to better focus on the actions of implementation at both the district level and community level.

[MAF / PCU with SLARI] Ensure that the monitoring plan encompasses all the programme components. To calculate the values of the programme Logframe indicators, the monitoring plan has to include: 1) establishment of the programme Logframe baseline values, e.g. by using the information of the 2015 agricultural census and of the situation analysis, 2) identification of a set of 3-4 indicators in the Logframes of each programme components (MAF, SLARI, grantees) to be used for the joint representation of the programme progress. 3) reporting the programme Logframe indicators along with the 3-4 key indicators of each programme component in a joint monitoring report including their integrated analysis, 4) including a capacity building activity to establish the capacities of reporting

indicators by the programme partners, 5) coordinating MAF divisions, SLARI and the grantees in reporting their components indicators along a routine procedure (3, 6, 12 months indicators values collection) through a mutually agreed report form and schedule, 6) performing surveys / visits of the programme component sites to collect first hand evidence that cross-check the values of the indicators reported by the programme partners.

[MAF / PCU] Elaborate a communication and visibility plan that encompasses all the programme components. Its activities should be associated to the activities planned to strengthen the PMES and Extension divisions. They should be linked to the advocacy of the new policies and include: 1) awareness raising activities linking the value chain stakeholders to policy makers, 2) coordination with the district agricultural officers to elaborate customised communication campaigns raising the awareness of the peasants on the programme activities performed there.

[MAF / PCU with TAT] Elaborate work plans of the field actions incorporating the results of the needs assessments made by the grantees. These have to identify the beneficiaries' farming systems, their constraints, traditional knowledge and natural resources basis. The presentation of these studies should be open to all the programme partners. This exercise is expected to provide inputs for the research and adaptation of technology to the local conditions too. Expat technical assistance could be sourced to ensure the consistency of such exercise across the technical sectors / partners. A specific initiative should be elaborated to establish the multiplication capacities needed to disseminate the high breed selected and demonstrated by SLARI research centres. Such initiative should source and build managerial and technical capacities to multiply basic genetic materials in purity and health along a market driven approach.

[MAF / PCU with SLARI technical assistance] Develop detailed work plans for the six MAF and activities. ensure that the planning of the transfer of technology include the identification of targets, indicators and resources, collaborations and assignment of tasks to partners, chronogram, communication and reporting. Link this exercise to the other programme activities to ensure coherence and integration of its components, typically the PE with the grants. Discuss such plans at the strategic level (PSC and agricultural advisory group). The work plans are strategic tools to link the policy making to its implementation. This exercise requires the strengthening of MAF planning processes through capacity building and communication events that contribute to creating the consensus of policy makers and other stakeholders of the value chains.

[MAF / PCU] Coordinate the programme activities with the other initiatives active in the same sectors at the national level, to ensure that they complement and converge in the strengthening of the value chains and achievement of the agricultural development goals. Invite them to events of common interest, presentations and sharing of experiences, participation to the elaboration of communication actions, etc.

5.3 Lessons learnt

[MAF] Systematically assess the role the farming systems, traditional knowledge, cultural and social constraints, community governance in technology transfer to

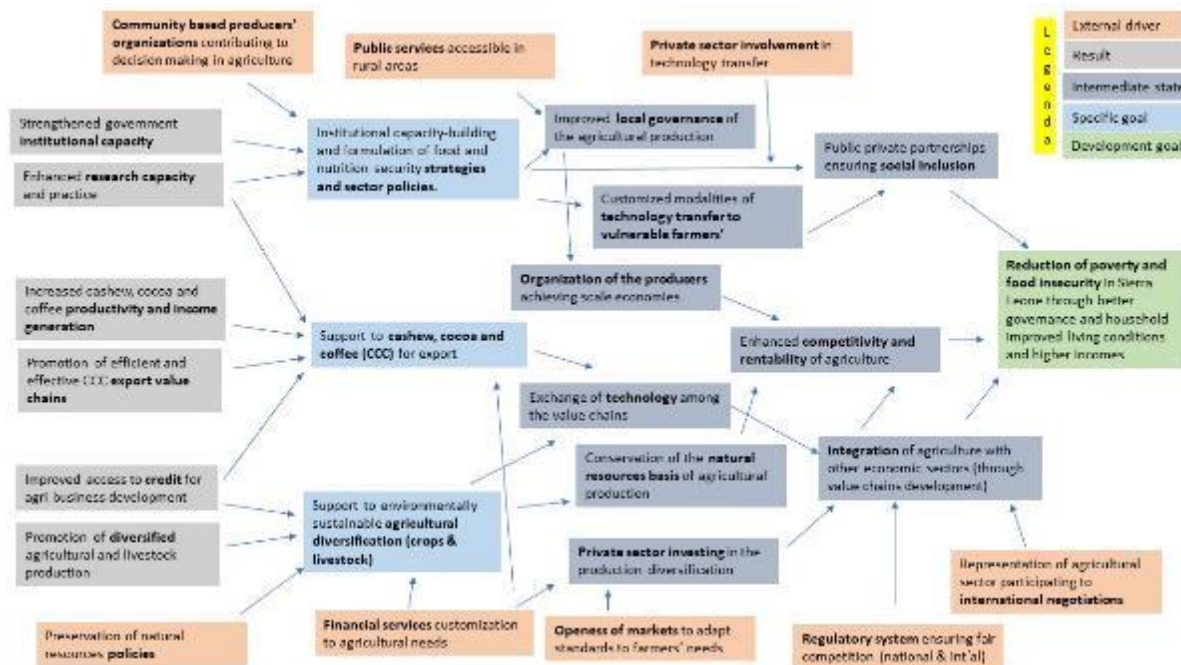
tackle the needs and expectation of peasants in a holistic way. This will make possible to guide and supervise the adaptation and finetuning of innovation creation and technology transfer to cultural and socio-economic constraints that have insufficiently considered at the time of framing the technology packages promoted by this programme. To expect that the only the NGOs and local stakeholders tackle these problems undermines the leadership of MAF in the transformation of the Sierra Leone agriculture.

[EU Delegation, NAO] Separate the strategic from the operational decision making by (a) ensuring that the Steering Committee exercises its strategic supervision and decision making tasks routinely, and that (b) the programme Supervising Authority has full control of the execution of the activities by shortening the PE authorisation processes.

[MAF, SLARI] The diversity of the agro-regions and ecosystems impacts on the fitness of the proposed technical innovation. For example, some NGOs plan to promote cocoa production to all the districts they are active in without having tested its environmental and economic fitness for the target smallholders (the size of the family workforce and its cash flow/savings seasonal system influence its production choices). In such case, the promotion of innovation has to be linked to its testing, e.g. by means the supply of methodological assistance by the research / extension services.

6. Annexes

1. Reconstructed ToC of the BAFS programme



2. Terms of Reference of the MTE

1. BACKGROUND [...]

2. DESCRIPTION OF THE EVALUATION ASSIGNMENT

2.1 Objectives of the evaluation

Systematic and timely evaluation of its programmes and activities is an established priority³ of the European Commission⁴. The focus of evaluations is on the assessment of achievements, the quality and the results⁵ of Actions in the context of an evolving cooperation policy with an increasing emphasis on result-orientated approaches and the contribution towards the implementation of the SDGs.

From this perspective, evaluations should look for evidence of why, whether or how these results are linked to the EU intervention and seek to identify the factors driving or hindering progress.

Evaluations should provide an understanding of the cause and effect links between: inputs and activities, and outputs, outcomes and impacts. Evaluations should serve accountability, decision making, learning and management purposes.

The main objectives of this evaluation are to provide the relevant services of the European Union, the interested stakeholders and the wider public with:

- An overall independent assessment of the ongoing performance of the BAFS programme, paying particular attention to its expected results measured against its expected objectives; and the reasons underpinning such results;
- Key lessons learnt, conclusions and related recommendations in order to improve implementation for the remaining operational period of the programme (up to September 2023).

The MTE report will identify key lessons and make practical recommendations to central government institutions (MAF, SLARI), district councils, NGOs and CSOs. Practical recommendations shall also be made regarding the role devoted to the TAT (FED/2017/382-763) during the second phase of the programme.

The MTE report will also provide recommendations that can be readily taken into account for the preparation and implementation of future EU-funded initiatives in the Agriculture and Rural Development sector (e.g. Jobs and Growth Programme). As part of the latter programme that is currently under preparation, a Call for Proposals shall be launched by the EU Delegation in 2020-21, hence this MTE report can make practical recommendations that will be taken into account during the drafting of the guidelines to applicants.

2.2 Requested services

2.2.1 Scope of the evaluation

The evaluation will assess the BAFS programme using the five standard DAC evaluation criteria, namely: relevance, effectiveness, efficiency, and early signs of sustainability. In addition, the evaluation will assess:

- the complementarity with the ongoing EU-funded West Africa Competitiveness Programme titled "Increasing Sierra Leone's competitiveness through enhanced productivity and trade compliance in selected value chains" and implemented by UNIDO and ITC (EUR 4,575,000 from 14/12/2018 to 13/12/2022);
- the EU added value (the extent to which the action brings additional benefits to what would have resulted from Member States' interventions only) and the coherence of the action/project itself with EU policies on climate change, smart and green agriculture and protection of vulnerable groups (youth, women).

The evaluation team shall furthermore consider whether cross-cutting issues such as gender, the relevant SDGs and their interlinkages were identified; the principle of Leave No-One Behind and the rights-based approach methodology was reflected in the implementation of the programme, its governance and monitoring.

2.2.2 Indicative evaluation questions

The specific evaluation questions as formulated below are indicative. Based on the latter and following initial consultations and document analysis, the evaluation team will discuss them with the Evaluation Manager⁷ and propose in their Inception Report a complete and finalised set of evaluation questions with indication of specific judgement criteria and indicators, as well as the relevant data collection sources and tools.

Once agreed through the approval of the Inception Note, the evaluation questions will become contractually binding.

(a) Design and Implementation

1. To what extent was the project properly designed? In particular, were the links between the objectives, purpose, results and activities logical?

2. To what extent were the assumptions made during the design phase valid? How did these assumptions affect the project's achievements so far?

(b) Relevance

3. To what extent did the project correctly identify the problems and the context at national level? To what extent were the tools and initiatives used appropriate?

(c) Efficiency

4. To what extent were inputs and means converted into activities and what level of quality was achieved so far by the results? In particular, why was project implementation so seriously delayed? To answer this question, the consultancy will assess the quality of the institutional, organisational and managerial arrangements put in place to reach the project objectives. The assessment will include structures, internal implementation procedures, allocation of staff and reporting relations and tools.

5. To what extent were project activities correctly prioritised in order to achieve the desired objectives/impact/results? To answer this question, the consultancy will review the utilisation of project funds and personnel quantitatively and qualitatively in order to assess whether or not there is a correct balance/weighting of efforts and resources.

6. To what extent were the recommendations of the ROM implemented and with what results?

(d) Effectiveness

7. To what is the project contributing to the achievement of the expected results under the Specific Objectives SO1 to SO3? This will include an assessment of the benefits accruing to the final beneficiaries of the intervention.

8. What are the factors that facilitated or impeded the achievement of results so far?

(e) Sustainability

9. What is the level of ownership of the project components by the direct beneficiaries and the likelihood that the positive outcomes of the project will continue after the funding will end in 2023? Answering this question will allow the consultants to make recommendations to enhance sustainability of future projects in the sector.

(f) Complementarity and coherence

10. What is the level of coherence of the project itself with the EU strategy in the agriculture sector and to what extent did it complement other EU interventions (e.g. the West Africa Competitiveness Programme) as well as donors' interventions such as the World Bank-funded SCADEP programme? The methodology to be used is based on the DEVCO Evaluation methodology for projects/programmes as set out on the website <http://ec.europa.eu/europeaid/node/71165>

2.3 Phases of the evaluation and required outputs

The evaluation process will be carried out in three phases: an Inception Phase (including the desk analysis), a field phase and a Synthesis Phase.

The outputs of each phase are to be submitted at the end of the corresponding phases as specified in the synoptic table in section 2.3.1.

2.3.1 Synoptic table

The following table presents an overview of the key activities to be conducted within each phase and lists the outputs to be produced by the team as well as the key meetings with the Contracting Authority and the reference group. The main content of each output is described in Chapter 5. Phases of the evaluation	Key activities	Outputs and <i>meetings</i>
Inception Phase (including a desk analysis)	Initial document collection Desk analysis of available documents Methodological design of the evaluation (evaluation questions with judgement criteria, indicators and methods of data collection and analysis) and evaluation matrix	Kick-off meeting with the EUD, NAO and MAF (face-to-face meeting at EUD Freetown) Inception Note
Field Phase	Gathering of primary evidence with the use of interviews, focus	Slide Presentation of key findings of the field phase with key stakeholders

	groups, storytelling sessions, surveys etc. Data collection and analysis (linked to the hypotheses to be tested in	
Phases of the evaluation	Key activities	Outputs and meetings
the field and in view of filling the gaps defined during the desk phase)		
Synthesis Phase	Final analysis of findings (with focus on the evaluation questions) Formulation of the overall assessment, conclusions and recommendations Reporting	Draft Final Report and Quality Assessment Grid (QAG) Executive Summary according to the standard template published in the EVAL module Final Report and Press Release

2.3.2 Inception Phase

This phase aims at structuring the evaluation and clarifying the key issues to be addressed.

The phase will start with initial background study, to be conducted by the evaluators from home. It will then continue with a kick-off session in Freetown between the EU Delegation (Evaluation Manager), NAO, MAF and the evaluators. Half-day presence of the Team Leader is required. The meeting aims at arriving at a clear and shared understanding of the scope of the evaluation, its limitations and feasibility. It also serves to clarify expectations regarding evaluation outputs, the methodology to be used and, where necessary, to pass on additional or latest relevant information.

In the Inception Phase, the relevant documents will be reviewed (see Annex II).

The evaluation team, in consultation with the Evaluation Manager, will reconstruct or as necessary construct, the Intervention Logic of the Action/Programme to be evaluated.

Furthermore, based on the Intervention Logic, the evaluators will develop a narrative explanation of the logic of the action that describes how change is expected to happen within the action, all along its results chain, i.e. ToC. This explanation includes an assessment of the evidence underpinning this logic (especially between outputs and outcomes, and between outcomes and impact), and articulates the assumptions that must hold for the action to work, as well as identification of the factors most likely to inhibit the change from happening.

Based on the Intervention Logic and the ToC the evaluators will finalise i) the evaluation questions with the definition of judgement criteria and indicators, the selection of data collection tools and sources, ii) the evaluation methodology, and iii) the planning of the following phases.

The methodological approach will be represented in an evaluation design matrix, which will be included in the Inception Note. The methodology of the evaluation should be gender sensitive, contemplate the use of sex- and age-disaggregated data and demonstrate how actions have contributed to progress on gender equality.

The limitations faced or to be faced during the evaluation exercise will be discussed and mitigation measures described in the Inception Note. Finally, the work plan for the overall evaluation process will be presented and agreed in this phase; this work plan shall be in line with that proposed in the present ToR. Any modifications shall be justified and agreed with the Evaluation Manager.

On the basis of the information collected, the evaluation team should prepare an Inception Note; its content is described in Chapter 5.

2.3.3 Field Phase

The field phase starts after approval of the Inception Note by the Evaluation Manager.

If any significant deviation from the agreed work plan or schedule is perceived as creating a risk for the quality of the evaluation or not respecting the end of the validity of the specific contract, these elements are to be immediately discussed with the Evaluation Manager and, regarding the validity of the contract, corrective measures undertaken.

In the first days of the field phase, the evaluation team shall hold a briefing meeting with the project management (BAFS PCU), local authorities and other relevant stakeholders.

During the field phase, the evaluation team shall ensure adequate contact and consultation with, and involvement of the different stakeholders; with the relevant government authorities and agencies.

Throughout the mission the evaluation team will use the most reliable and appropriate sources of information, respect the rights of individuals to provide information in confidence, and be sensitive to the beliefs and customs of local social and cultural environments.

At the end of the field phase, the evaluation team will summarise their work, analyse the reliability and coverage of data collection. A Slide Presentation will be prepared; its content is described in Chapter 5.

The evaluators will present their preliminary findings in a meeting with the project /programme management (BAFS PCU), the EU Delegation and the reference group.

2.3.4 Synthesis Phase

This phase is devoted to the preparation by the contractor of two distinct documents: the Executive Summary and the Final Report, whose structures are described in the Annex III; it entails the analysis of the data collected during the desk and field phases to answer the evaluation questions and preparation of the overall assessment, conclusions and recommendations of the evaluation.

The evaluation team will present, in a single Report with Annexes, their findings, conclusions and recommendations in accordance with the structure in Annex III; a separate Executive Summary will be produced as well, following the compulsory format given in the EVAL module (see Annex III).

The evaluation team will make sure that:

- Their assessments are objective and balanced, statements are accurate and evidence-based, and recommendations realistic and clearly targeted.
- When drafting the report, they will acknowledge clearly where changes in the desired direction are known to be already taking place.
- The wording, inclusive of the abbreviations used, takes into account the audience as identified in art. 2.1 above.

The evaluation team will deliver the Draft Final Report to the Evaluation Manager and the reference group to discuss the draft findings, conclusions and recommendations.

The Evaluation Manager consolidates the comments expressed by the reference group members and sends them to the evaluation team for the report revision, together with a first version of the QAG assessing the quality of the Draft Final Report. The content of the QAG will be discussed with the evaluation team to verify if further improvements are required, and the evaluation team will be invited to comment on the conclusions formulated in the QAG (through the EVAL module).

The evaluation team will then finalise the Final Report and the Executive Summary by addressing the relevant comments. While potential quality issues, factual errors or methodological problems should be corrected, comments linked to diverging judgements may be either accepted or rejected. In the latter instance, the evaluation team must explain the reasons in writing.

For dissemination purpose, A Press Release summarising the key findings, conclusions and recommendations of the Final Report will be drafted by the evaluators and submitted to the Evaluation Manager. After approval of the Final Report/Executive Summary/Press Release, the QAG will be updated and sent to the evaluators via EVAL module.

2.4 Specific Contract Organisation and Methodology (Technical offer)

The invited Framework Contractors will submit their specific Contract Organisation and Methodology by using the standard SEIA template B-VII-d-i and its annexes 1 and 2 (B-VII-d-ii).

The evaluation methodology proposed to undertake the assignment will be described in the Chapter 3 (Strategy and timetable of work) of the template B-VII-d-i. Contractors will describe how their proposed methodology will address the cross-cutting issues mentioned in these Terms of Reference and notably gender equality and the empowerment of women. This will include (if applicable) the communication action messages, materials and management structures.

2.5 Management and Steering of the evaluation

2.5.1 At the EU level

The evaluation is managed by the Evaluation Manager of the EU Delegation in Freetown; the progress of the evaluation will be followed closely with the assistance of a reference group consisting of two members of the EU Delegation in Freetown and six representatives of main project beneficiaries and stakeholders: MAF (2 members), NAO (1 member), SLARI (1 member), GIZ (1 member), BAFS PCU (1 member).

The main functions of the reference group are:

- To define and validate the evaluation questions.
- To facilitate contacts between the evaluation team and the EU services and external stakeholders.
- To ensure that the evaluation team has access to and has consulted all relevant information sources and documents related to the action.
- To discuss and comment on notes and reports delivered by the evaluation team. Comments by individual group members on the Draft Final Report are compiled into a single document by the Evaluation Manager and subsequently transmitted to the evaluation team.
- To assist in feedback on the findings, conclusions, lessons and recommendations from the evaluation.
- To support the development of a proper follow up action plan after completion of the evaluation.

2.5.2 At the Contractor level

Further to the requirements set in the art. 6 of the Global Terms of Reference and in the Global Organisation and Methodology, respectively annexes II and III of the Framework contract SEIA 2018, the contractor is responsible for the quality of: the process; the evaluation design; the inputs and the outputs of the evaluation. In particular, it will:

- Support the Team Leader in its role, mainly from a team management perspective. In this regard, the contractor should make sure that, for each evaluation phase, specific tasks and outputs for each team member are clearly defined and understood.

- Provide backstopping and quality control of the evaluation team's work throughout the assignment.
- Ensure that the evaluators are adequately resourced to perform all required tasks within the time framework of the contract.

2.6 Language of the Specific contract

The language of the specific contract and all reports is to be English.

3. EXPERTISE REQUIRED [...]

4. LOCATION AND DURATION

4.1 Starting period

Provisional start of the assignment is second-half of November 2019.

4.2 Foreseen duration of the assignment in calendar days

Maximum duration of the assignment: 120 calendar days.

This overall duration includes working days, week-ends, periods foreseen for comments, for review of draft versions, debriefing sessions and distribution of outputs.

4.3 Planning, including the period for notification for placement of the staff⁹

As part of the technical offer, the framework contractor must fill in the timetable in the Annex IV. The 'Indicative dates' are not to be formulated as fixed dates but rather as days (or weeks, or months) from the beginning of the assignment (to be referenced as '0').

Sufficient forward planning is to be taken into account in order to ensure the active participation and consultation with government representatives, national / local or other stakeholders.

4.4 Location(s) of assignment

The Inception Phase will both take place in home country of the evaluators and in Sierra Leone. The field phase will be in Sierra Leone and will include field visits to at least one of the project sites to be defined by the evaluation team during the Inception Phase. The Synthesis Phase will take place both in Sierra Leone and in home country of the contractor.

5. REPORTING

5.1 Content, timing and submission

The outputs must match quality standards. The text of the reports should be illustrated, as appropriate, with maps, graphs and tables.

List of outputs: Number of Pages (<i>excluding annexes</i>)	Main Content	Timing for submission
Inception Note	10 pages Intervention Logic Stakeholder map Methodology for the evaluation, incl.:	End of Inception Phase
<ul style="list-style-type: none"> o Evaluation matrix: evaluation questions, with judgement criteria and indicators, and data analysis and collection methods o Field visit approach including the criteria to select the field visits o Analysis of risks related to the evaluation methodology and mitigation measures o Work plan 		
Slide Presentation	10-15 slides Key findings of the fieldwork Preliminary conclusions	End of field phase
Draft Final Report	50 pages Cf. detailed structure in Annex III Answer to the evaluation questions Synthesis of all findings, conclusions and recommendations into an overall assessment	End of Synthesis Phase
Draft Executive Summary – by using the EVAL online template	N/A Cf. detailed structure in Annex III	End of Synthesis Phase

Final report	50 pages	Same specifications as of the Draft Final Report, incorporating any comments received from the concerned parties on the draft report that have been accepted	Two weeks after having received comments to the Draft Final Report
Executive Summary	N/A	Same specifications as for the Draft Executive Summary, incorporating any comments received from the concerned parties on the draft report that have been accepted	Together with the final version of the Final Report

5.2 Use of the EVAL module by the evaluators

It is strongly recommended that the submission of deliverables by the selected contractor be performed through their uploading in the EVAL module, an evaluation process management tool and repository of the European Commission. The selected contractor will receive access to online and offline guidance in order to operate with the module during the related specific contract validity.

5.3 Comments on the outputs

The Inception Note will be approved by the Evaluation Manager within a maximum of two calendar days. For the Draft Final Report, the Evaluation Manager will send to the contractor consolidated comments received from the reference group or the approval of the report within 14 calendar days. The revised reports addressing the comments shall be submitted within 14 calendar days from the date of receipt of the comments. The evaluation team should provide a separate document explaining how and where comments have been integrated or the reason for not integrating certain comments, if this is the case.

5.4 Assessment of the quality of the Final Report and of the Executive Summary

The quality of the draft versions of the Final Report and of the Executive Summary will be assessed by the Evaluation Manager using the online QAG in the EVAL module (text provided in Annex V). The contractor is given – through the EVAL module - the possibility to comment on the assessments formulated by the Evaluation Manager. The QAG will then be reviewed following the submission of the final version of the Final Report and of the Executive Summary.

The compilation of the QAG will support/inform the compilation by the Evaluation Manager of the FWC Siena's Specific Contract Performance Evaluation.

5.5 Language

All reports shall be submitted in English.

5.6 Number of report copies

Apart from their submission via the EVAL module, the approved version of the Final Report will be also provided in eight paper copies and in electronic version at no extra cost.

5.7 Formatting of reports

All reports will be produced using Font Arial or Times New Roman minimum letter size 11 and 12 respectively, single spacing, double sided. They will be sent in Word and PDF formats.

ANNEXES [...]

3. Evaluation questions

<p>EQ-1: To what extent was the project properly designed? Does it match the needs and constraints of Sierra Leone agricultural sector?</p> <p>Inputs: national strategies, sector studies, project documents, stakeholder feedback, field visit interviews and observations, food balance and trade data. Verification means: Analysis of the overall Logframe and Activity Sheet, general project documentation desk study, survey of stakeholder needs, field visit interviews stakeholder interviews. Justification: This question covers the criteria of Design and Implementation issues</p>
<p>EQ-2: How is the institutional and socio-economic context influencing the project?</p> <p>Inputs: national strategies, sector studies, project documents, stakeholder feedback, field visit interviews and observations, food balance and trade data. Verification means: Analysis of the overall Logframe and Activity Sheet, general project documentation desk study, survey of stakeholder needs, field visit interviews stakeholder interviews. Justification: This question covers the criteria of Design and Implementation issues</p>
<p>EQ-3: How efficient is the integration of the project components and activities? What are the sources of delays?</p> <p>Inputs: Analysis of the overall Logframe and Activity Sheet, Financial and activity reports, ROM report, project procedures manual, stakeholders and beneficiary feedback, field visit observations, project steering documents, monitoring and evaluation results. Verification means: National sector plans, field visit interviews, national, PMU and TA feedback, +national and other stakeholders' interviews. Justification: This question covers the criteria of efficiency issues.</p>
<p>EQ-4: How is their project coordination contributing to the delivery and quality of the activities?</p> <p>Inputs: Analysis of the overall Logframe and Activity Sheet, Financial and activity reports, ROM report, project procedures manual, stakeholders and beneficiary feedback, field visit observations, project steering documents, monitoring and evaluation results. Verification means: national sector plans, field visit interviews, national, PMU and TA feedback, national and other stakeholders' interviews. Justification: This question covers the criteria of efficiency issues.</p>
<p>EQ-5: To what is the project contributing to transforming Sierra Leone agriculture from subsistence to market orientation and achieving food security?</p> <p>Inputs: Activity reports, stakeholders and beneficiary feedback, field visit interviews and observations, project steering documents Verification means: national sector plans, national and other stakeholders' interviews, survey feedback. Justification: This question covers the effectiveness issues.</p>
<p>EQ-6: What are the external factors influencing the achievement of results so far?</p> <p>Inputs: Activity reports, ROM report, stakeholders and beneficiary feedback, field visit interviews and observations, project steering documents. Verification means: national sector plans, national and other stakeholders' interviews, survey feedback. Justification: This question covers the Effectiveness issues. +</p>
<p>EQ-7: What is the level of engagement of the agricultural authorities and the likelihood of the continuation of the project results?</p>

Inputs: Activity reports, stakeholders and beneficiary feedback, field visit interviews and observations, project steering documents.

Verification means: national sector plans, national and other stakeholder interviews, survey feedback.

Justification: This question covers the sustainability issues.

EQ-8: How much the project is coherent with the EU country strategy? Does it complement other EU interventions and other donors' interventions in agriculture?

Inputs: Policies, strategies, activity reports of EU interventions in the region, national stakeholders' feedback, field visit interviews and observations, project developed documents for OS 1.

Verification means: national sector plans, national, regional and other stakeholder interviews, survey feedback.

Justification: This question covers the complementarity and coherence issues.

4. Evaluation matrix

EQ	Criteria	Question	Indicator	Source	Headings of the Survey grid
1	Relevance	To what extent was the project properly designed? Does it match the needs and constraints of Sierra Leone agricultural sector?	Coherence of the project strategy with the agricultural policies	Project agreements and progress reports, key informants' interviews, field survey	Participation to the identification of the project and its activities
2	Relevance	How is the institutional and socio-economic context influencing the project?	Degree of satisfaction of the stakeholders in the delivery of the activities	Progress reports, monitoring reports, key informants' interviews, field survey	Key challenges of agriculture and food security
3	Efficiency	How efficient is the integration of the project components and activities? What are the sources of delays?	Changes in the project action plan and impact on the delivery of activities	Project agreements and progress reports, key informants' interviews, field survey	Project activities performed, their results and constraints
4	Efficiency	How is their project coordination contributing to the delivery and quality of the activities?	Execution of the budget, leveraging of external resources	Key informants' interviews, field survey	Coordination with the project and within its stakeholders
5	Effectiveness	To what is the project	Reliability of the forecast project	Progress reports,	Expected achievements and

EQ	Criteria	Question	Indicator	Source	Headings of the Survey grid
		contributing to transforming Sierra Leone agriculture from subsistence to market orientation and achieving food security?	impact on the socio-economic indicators: Agricultural output of selected crops, Malnutrition rate, Average incomes	national statistics, sector studies	impact of the project activities
6	Effectiveness	What are the external factors influencing the achievement of results so far?	Impact of the changes in agricultural policies, institutions capacities on the delivery of activities	Progress reports, key informants' interviews, field survey	Capacities of the agricultural institutions capacities to steer the sector and assist the rural people
7	Sustainability	What is the level of engagement of the agricultural authorities and the likelihood of the continuation of the project results?	Participation and satisfaction of the agricultural authorities in the project results	Key informants' interviews, field survey	Participation to the steering and implementation of agricultural plans, activities, assistance
8	Coherence	How much the project is coherent with the EU country strategy? Does it complement other EU interventions and other donors' interventions in agriculture?	Coordination and exchanges of experience with other interventions in agriculture	Progress reports, key informants' interviews, field survey	Other initiatives in the sectors of intervention of the project activities

5. Phases of the MTE and itinerary of the field survey

Day		place	activity	informants
November				
13	Wed	home based	Collection and analysis of preliminary documents	
14	Thu	home based	Collection and analysis of preliminary documents	
15	Fri			
16	sat		Mobilisation travel E2	
17	Sun	Freetown, Sierra Leone	Mobilisation travel E2, TL	
18	Mon	Freetown, Sierra Leone	Mobilisation travel TL, kick-off meeting at EUD	

Day		place	activity	informants	
19	Tue	Freetown, Sierra Leone	Briefing with the PCU TAT staff		
20	Wed	Freetown, Sierra Leone	Briefing at MAF. Key informants' interview MAF, PCU		
21	Thu	Freetown, Sierra Leone	Key informants' interview, MAF		
22	Fri	Freetown, Sierra Leone	Key informants' interview, Oxfam		
23	sat	Freetown, Sierra Leone	Inception Report elaboration		
24	Sun	Freetown, Sierra Leone	Key informants' interview, BRAC		
25	Mon	Freetown, Sierra Leone	Inception Report elaboration, SLARI, EUD, PCU TAT		
26	Tue	Freetown, Sierra Leone	Key informants' interview MAF, PCU		
27	Wed	Freetown, Sierra Leone	Key informants' interview, UNIDO		
28	Thu	Western Rural district	District authorities, Farmers' groups		
29	Fri	Port Loko District	MAF district authorities, Oxfam, PCU TAT, Cashew Commodity Association		
30	sat	Freetown	Evaluation team coordination		
December					
1	Sun	Freetown			
2	Mon	Njala (Moyamba District)	Njala university, SLARI		
3	Tue	Kenema District	SLARI, Solidaridad, SCADeP-SD, MAF district authorities		
4	Wed	Bo District, Njala (Moyamba)	MAF district authorities, Seneone		

Day		place	activity	informants
			village, Njala university	
5	Thu	Kabala (Koinadugu District)	MAF district authorities, SLARI, Oxfam	
6	Fri	Makeni, Teko (Bombali District)	MAF, SLARI	
7	sat	Freetown	Field survey data systematisation	
8	Sun	Freetown		
9	Mon	Freetown	PCU / TAT, MAF	
10	Tue	Freetown	MAF	
11	Wed	Freetown	Preliminary findings elaboration	
12	Thu	Freetown	Preliminary findings elaboration, demobilisation travel E2	
13	Fri	Freetown	Preliminary findings elaboration	
14	sat	Freetown	Preliminary findings elaboration	
15	Sun	Freetown		
16	Mon	Freetown	Preliminary findings presentation	
17	Tue		Demobilisation travel TL	
18	Wed		Demobilisation travel TL	

6. Key informants met

surname	name	organisation	task	phone	email
		EU Delegation			
		EU Delegation			
		BAFS TAT	Agronomist		
		BASF PCU TAT	Team Leader		
		Île de France	Agronomist Expert		
		MAF Crop division, Youyi	Director		

<i>surname</i>	<i>name</i>	<i>organisation</i>	<i>task</i>	<i>phone</i>	<i>email</i>
		building, Brookfield			
		BAFS Project - PCU	Imprest Administrator		
		SLARI	Director		
		Ministry of agriculture and forestry	Deputy Minister		
		BASF PCU	Communication & Visibility Officer		
		BASF PCU	M&E Officer		
		MAF, Agricultural Engineering Division	Director		
		MAF, Agricultural Engineering Division	Water Engineer		
		Extension division	Director		
		Forestry division	Acting Director of Forestry		
		Forestry division	Acting Deputy Forestry Director		
		Forestry division	Assistant Conservator of Forests		
		CPU	Policy Officer		
		BRAC	Deputy Country Representative		
		BRAC	Livestock Expert		
		Oxfam	Head of Programme		
		Oxfam	M&E Officer, Crop Project		
		Oxfam	M&E Officer, Livestock Project		
		Oxfam	Business Development Lead		
		SLARI	Director General		

<i>surname</i>	<i>name</i>	<i>organisatio n</i>	<i>task</i>	<i>phone</i>	<i>email</i>
		MAF Division of Planning, monitoring, Evaluation and Statistics	Director, Planning, Statistics, Monitoring		
		MAF Division of Planning, Monitoring, Evaluation and Statistics	Planning Officer		
		Monitoring and evaluation officer	Monitoring and Evaluation Officer		
		PCU	Policy Officer		
		UNIDO	Chief technical advisor		
		Njala university	Director of Research and Development, Acting Deputy Vice Chancellor		
		MAF Kenema	District Agricultural Officer		
		MAF Kenema	Extension Officer		
		Solidaridad, Bo	Technical Advisor, Programmes		
		Njala university	Soil Science Teacher		
		Kabala, Koinadugu District	District Agricultural Officer		
		Oxfam Kabala	Area Programme Manager		
		University of California at Davis	Ecologist		
		MAF	Technical Assistance and Coordination		
		MAF	Director General		
		BAFS TAT	Agronomist		

7. Documents consulted

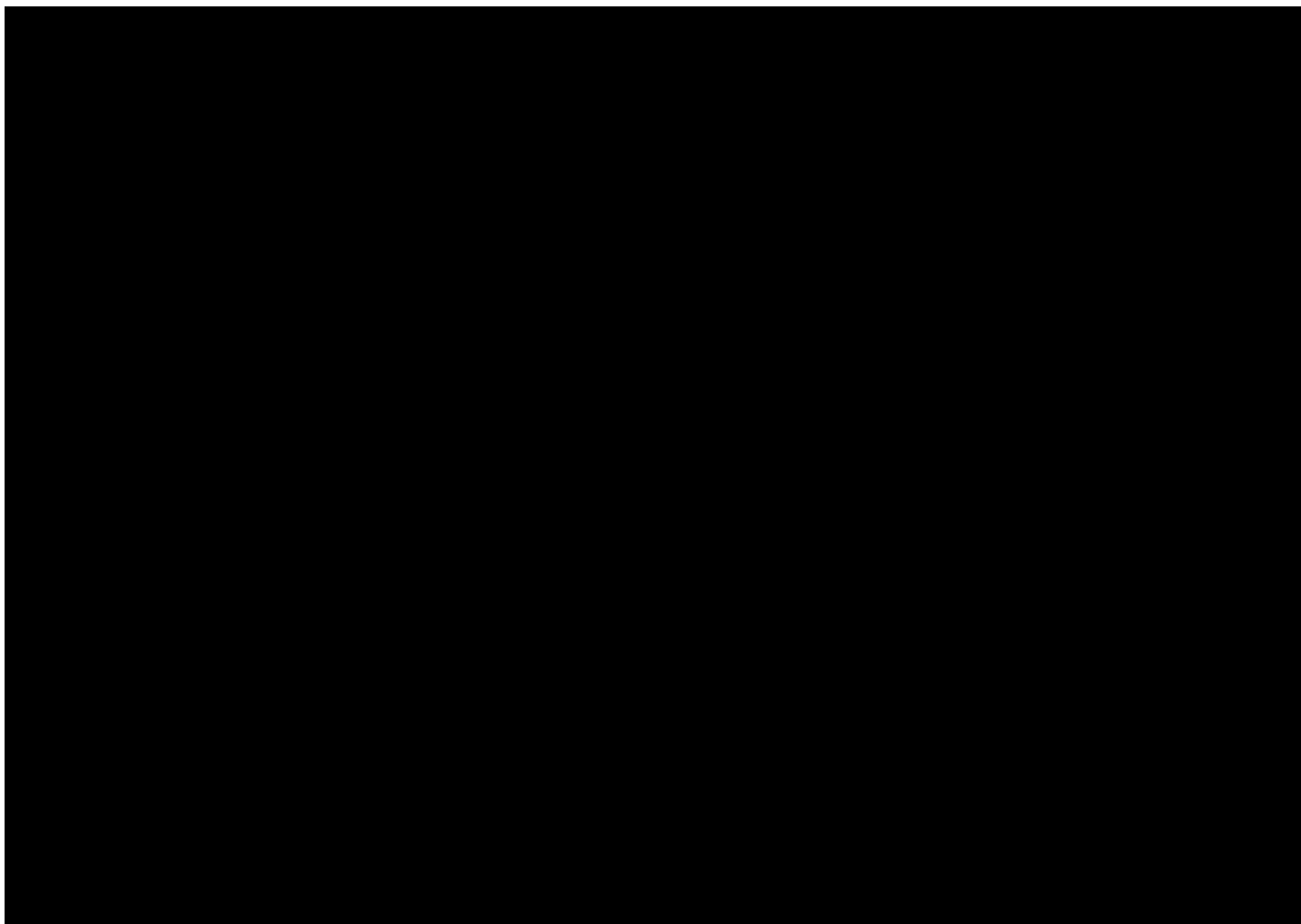
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Addendum n. 2, 2019

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BAFS project M&E Plan, 2019
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Guidelines for Grant Applicants, BASF, 2018
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TAT Inception Report, 2017
TAT First progress report, 2017
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SLARI grant component, mission report, 2017
BAFS Programme operations manual, 2018
BASF Situation analysis, 2018
Draft Sierra Leone cashew policy, 2018
Investigation of the cocoa and coffee value chain in Sierra Leone, 2018
Gender analysis of the BAFS, 2018
Investigation of the livestock production and animal health sector in Sierra Leone with specific reference to the provision of government services and the role of the private sector, 2018
Assessment of data management and ICT capacity of the MAF of the Republic of Sierra Leone and proposal for a basic management information system, 2018
Draft coffee policy, 2018
Gender in agriculture policy, 2018
Assessment of livestock posts nationwide, 2018
Cocoa Policy Implementation Plan, 2019
National coffee value chain strategic implementation plan, 2019
Gender in agriculture, policy implementation plan, 2019
Gender in agriculture, policy implementation plan, validation workshop, 2019
Soil resources of Sierra Leone: survey and mapping at the semi detailed and detailed levels for land suitability assessment and optimization of crop production
Stocktaking of Information on Agro-climatic Regions, Agro-ecological Zones, Land Use/Vegetation, Soils, Soil Fertility and Land Suitability for Cropping in Sierra Leone
National Agricultural Transformation Plan (NAT 2025) 2019-2025

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SLARI. EU Support to SL Enhancing Livestock Productivity for Small Scale Farmers. December 2019
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Feed the future. Fall Armyworm in Africa: a guide for integrated pest management. 2018
FAO. Integrated management of the Fall Armyworm on maize. A guide for Farmer Field Schools in Africa. 2018
Mini atlas of crops of Sierra Leone. 2019
Sierra Leone 2015. Population and Housing Census Thematic Report on agriculture



9. Project Logframe

A. MAF PE (revised 2018)

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
Overall Objective	Reduction of poverty and food insecurity in Sierra Leone through better governance and household improved living conditions and higher incomes	Agricultural output of selected crops among target farmers increased (in volume) by 20%	2018 Programme Baseline Survey	20%	Baseline and final or ex-post evaluation reports	No external events, e.g. insecurity, medical pandemics, natural disasters, to interrupt or interfere with project implementation	
		Food insecure households, as calculated by the CFSVA [1], reduced by 20%	2018 Programme Baseline Survey	-20%	Interim / six-monthly reports	Collaboration with MAF (and particularly with the PCU / PIU) runs smoothly	
			Food insecurity: 49.8% of households nationally (CFSVA 2015)		CFSVA 2020		
		Average real incomes among targeted project participants (along key value chains) increased by 10% by February 2021 (end of project)	2018 Programme Baseline Survey	10%			
Project Purpose / Specific Objectives	1. Institutional capacity building and formulation of food and nutrition security strategies and sector policies	At least three agriculture-related national policy papers formulated and legally adopted	Reference value 0	>3	Policy documents	As above	4
		# staff from at least three MAF divisions (e.g. PEMSD, Extension and Livestock) receive specialised training, including mentoring by TAT KEs and NKEs	Reference starting value to be based on Training Needs Master Plan 2018	>39 (13 x 3)	Training plan and training reports	MAF (and particularly the PCU) is fully staffed / operational / effective	285
		MAF SAU functioning as a stand-alone, one-stop shop in opinion of MTE / MTR	Reference value 0	1	TAT project, MTE/MTR and NKE reports	Proposed agricultural policies adopted by GoSL	

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
	2.Support to CCC for export	Cash crop projects underway select CCC producing districts by mid-2019			Baseline and final or ex-post evaluation reports	Farmers show interest in new crops and farming techniques	
	3.Support to environmentally sustainable agricultural diversification	30,000 CCC farmers assisted by BAFS by 2021		30000		Suitable grant recipients identified and selected	
		One agricultural pilot project underway per each of 13 rural districts by January 2019		13			
		At least one agribusiness credit facility operational and disbursing credit by mid-2019	Reference value 0	>1		Suitable micro-credit and SME institutions identified and agree management terms	
Results	1.1 Strengthened government institutional capacity	Comprehensive staff Training Plan (jointly developed with the PCU) in place within 6 months of full project launch and # staff from at least 3 MAF divisions + 13 rural districts receive specialised training (TBA)	Reference starting value to be based on Training Needs Master Plan 2018	>39	Training plan and training reports	MAF (and particularly the PCU) fully staffed / operational /effective	MAF Staff Training Plan developed. Staff trained 285
		Fully functional MIS, housed in MAF PEMSD, within 18 months of project launch, producing quarterly reports	Reference starting value based on ICT NKE report 2018	1	Monitoring visits to district agriculture offices	Proposed agricultural policies adopted by GoSL	
		Proposed MAF Certification Unit operational (within 36 months of project launch)	Reference value 0	1	Policy documents prepared using MIS-generated data and PEMSD analysis		
		At least three agriculture-related national policy papers formulated by MAF divisions by February 2021	Reference value 0	>3	Final or ex-post evaluation report		4

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
	1.2 Enhanced research capacity and practice	Minimum of five research activities conducted / ongoing in at least 3 different SLARI research centres on specified research topics within 18 months of project launch	Reference value 0	>5	ToR for targeted research activities. Grant contracts. Monitoring reports	SLARI Research Centres competent and able (institutionally, logistically and in terms of HR) to manage grant funds and conduct research activities	16 Research activities planned
		Veterinary services and animal husbandry course curricula developed by July 2019	Reference starting value based on livestock sector study 2018	>1	Vet. services and animal husbandry course curricula	MAF (and particularly the Livestock Division) fully staffed and participating effectively in curriculum development	Para Veterinary curriculum validated
		Gender gaps study conducted within 9 months of project launch and gender mainstreaming policy adopted by MAF and 90% of non-state actors awarded grants under Call for Proposals	Reference starting value based on gender gaps assessment 2018	90%	Gender gaps study and project gender policy	Gender policy accepted	
	2.1 Increased CCC productivity and income generation	50% of estimated 60,000 cocoa and coffee farmers benefit from policy development and targeted research by January 2021	2018 Programme Baseline Survey	>30,000	Cocoa and coffee sector policies	MAF trains / deploys specialised extension staff at district level	
		75% of 15,000 cocoa farmers assisted by BAFS / ProAct using e.g. improved fermentation techniques and equipment by January 2021 (resulting in higher quality cocoa)	2018 Programme Baseline Survey	>11,250	Baseline and final or ex-post evaluation reports	Farmers adopt new / improved brushing and fermentation techniques and / or agree to cut and clear old trees	
		30,000 farmers assisted by BAFS and ProAct realise a 20% increase in real CCC incomes by January 2021	2018 Programme Baseline Survey	20%	Statistics from MAF PEMSD		
					Baseline and final or ex-post evaluation reports		

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
	2.2 Promotion of efficient and effective CCC export value chains	Cashew, cocoa and coffee exports increase in 4 years.	Reference: 2017 export volumes			Increased private sector involvement in CCC, particularly processing, certification and packaging	
		Cashew: increase to 2,000 tones		2,000 MT	PEMSD, MTI, & NRA statistics	GoSL involvement in private sector trade benign and supportive	
		Coffee & Cocoa: increase by 20%	Reference starting value to be based on Cocoa Working Group survey data 2018	20%			
		20% of total cocoa production receives quality certification prior to export		20%	Cocoa working group		
	3.1 Promotion of diversified agricultural and livestock production	13 – 16 district level specialised pilot 'microprojects' (at least one per district) funded / under implementation by January 2019	Reference starting value to be set in OC+L Guidelines 2018	>13	Grant contracts	OC+L Fund grantee found to administer a microprojects programme comprising multiple sub-grants / sub-projects	
		Number of district agriculture office staff provided with specialised training	Reference starting value to be based on Training Needs Master Plan 2018	>39 (13 x 3)	Project progress and monitoring reports	MAF district level technical capacity adequate for provision of extension services and joint activity monitoring	200 ToT trained on IPM for FAW. 1,000 local authorities sensitised on CBFM principles
		50% of households adopt at least 1 new crop	2018 Programme Baseline Survey	50%	Training needs assessment and plan		
		20% of farmers receive veterinary visits	2018 Program Baseline Survey	20%	Training reports		
		Average Community Animal Health Worker real income increases by 20%	2018 Program Baseline Survey	20%	Baseline and final or ex-post evaluation reports		
	3.2 Improved access to credit for agribusiness development	Number of credit institutions contracted to disburse agricultural and agribusiness capital	Reference starting value to be set in Agribusiness Grant Call Guidelines 2018	1	Project contracts	Financial institutions available to receive and disburse agribusiness funds	

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
		Number of small loans disbursed to farmers and % rate of repayment		>100	Progress reports	Economic situation conducive, e.g. political stability, low rate of inflation, etc. for business and enterprise development	
		Number of loans disbursed to SMEs and % rate of repayment		>50	Monitoring reports		
Activities	Means	Costs	Assumptions / Risks				
1.1.1 Policy coordination, including standardisation of policy formats and improved coordination between GoSL Ministries	PCU staff, inclusive PCU staff on placement in MAF divisions and Units, with TAT support (KEs and NKEs)	€ 6,100,000	No external events, e.g. insecurity, medical pandemics, natural disasters, to interrupt or interfere with project implementation				
1.1.2 Selective policy gap filling, e.g. development of a MAF gender policy	MAF Divisional and Unit staff (PEMSD, Extension, Livestock, SAU etc.).		MAF (and particularly the PCU / PIU, PEMS, the Livestock Division, etc.) fully staffed / effective				
1.1.3 Finalisation of the Forestry Act and its approval by Parliament	SLARI staff and (where applicable) personnel of other, alternative educational and research institutions		Proposed agricultural policies adopted by GoSL				
1.1.4 Development of the Forestry Act Implementation Plan	District Agriculture Office staff in 13 rural districts		Economic situation conducive, e.g. political stability, low rate of inflation, etc. for business and enterprise development				
1.1.5 Training of MAF Forestry Division and NPAA staff	Staff of SLPMB and SLPMB (Sierra Leone Produce Marketing Company and Sierra Leone Produce Monitoring Board)		District level data collection system is functional, effective and sustainable				
1.1.6 Dissemination of policies among	International partner bodies such as FAO,						

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
stakeholders and MAF officials and office holders at district level	GIZ ComCashew and various NGOs						
1.1.7 Upgrade the existing MAF MIS system via test activities	Transport and means of mobility (for field work and monitoring)						
1.1.8 Tutoring of MAF staff in data analysis for policy formulation	Training plan and training manuals						
1.1.9 Assist MAF PEMSD to conduct a National Farmers' Census	Existing draft policy documents						
1.1.10 Assist MAF (PEMSD) to collect farm yield and farm income data	Data management software						
1.1.11 Introspection into the MAF organogram and organisational structure and assessment of hardware needs	IT equipment and communications hardware						
1.1.12 Support MAF in building capacities in produce certification and setup a Certification Unit within MAF							
1.1.13 Improved project coordination between MAF and non-state actors							
1.1.14 Preparation of a comprehensive MAF Staff Training Plan and Gaps Assessment							
1.1.15 Implementation of the comprehensive							

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
MAF Staff Training Plan and Gaps Assessment							
1.1.16 Training of MAF staff and other local government officials / office bearers, such as those in agribusiness promotion							
Activities	Means	Costs	Assumptions / Risks				
1.1.17 Maintain and strengthen levels of technical support received from GIZ ComCashew							
1.1.18 International networking / external capacity building and collaboration							
1.1.19 Training PCU staff							
1.1.20 Initiation of a scholarship / sponsorship programme at five educational entities, in agriculture-related disciplines							
1.1.21 Promotion of IPM (integrated pest management) specifically the current outbreak of FAW							
1.1.22 Facilitation of PSC Meetings							
1.1.23 Showcasing outstanding interventions for experience sharing and lessons learnt							

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
1.1.24 Design and implementation of a programme visibility strategy							
1.2.1 Elaboration and design of a curriculum or curricula for the livestock sub-sector and veterinary science studies in Sierra Leone	MAF Divisional and Unit staff (PEMSD, Extension, Livestock, SAU etc.).	€ 2,000,000	As above				
1.2.2 Initiation of a scholarship / sponsorship programme for MAF Staff, mainly in livestock and other related disciplines in the agricultural sector	SLARI staff and personnel of other, alternative educational and research institutions	€ 1,300,000	No major outbreak of pests and diseases (crops and livestock)				
	International research institutions		Education and research institutions willing to collaborate with BAFS and each other in education, training and research activities				
	District Agriculture Office staff in 13 rural districts		MAF participating effectively in curriculum development				
	Transport and means of mobility (for field work and monitoring)		Gender policy accepted				
	Data management software		Research institutions compete for grant funding				
2.1.1 Establishment of MAF / PCU Integrated Extension Services for BAFS field activities and routine M&E	PCU staff with TAT support (KEs and NKEs) MAF Divisional and Unit staff (PEMSD,	€ 4,500,000	As above				
			Suitable grant recipients identified and selected				

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
	Extension, Livestock, SAU etc.).						
	Non-state actors / grantees of the Call for Proposals						
	SLARI staff and personnel of other, alternative educational and research institutions						
	District Agriculture Office staff in 13 rural districts						
	Transport / means of mobility (for field work / monitoring)						
3.1.1 Establishment of MAF / PCU Integrated Extension Services for BAFS field activities and routine M&E	PCU staff with TAT support (KEs and NKEs)	€ 4,500,000	As above				
	MAF Divisional and Unit staff (PEMSD, Extension, Livestock, SAU etc.).		Farmers show interest in new crops and farming techniques				
	Non-state actors / grantees of the Call for Proposals						
	District Agriculture Office staff in 13 rural districts						
	Transport and means of mobility (field work / monitoring)						
3.2.1 Finalise formulation of detailed guidelines for the Call for Proposals for award of grants under the Agribusiness grant scheme	PCU staff with TAT support (KEs and NKEs)	€10,300,000	As above				
3.2.2 Establishment of MAF / PCU Integrated Extension Services for BAFS field activities and routine M&E	MAF Divisional and Unit staff (PEMSD, Extension, Livestock, SAU etc.).		Suitable micro-credit and SME institutions identified and agree management terms				

	Logic Intervention	Objectively Verifiable Indicators	Baseline Value 2018	Target Value 2021	Sources and means of Verification	Assumptions / Risks	Value
3.2.3 Further promoting the development of DFS in Sierra Leone	Non-state actors / grantees of the Call for Proposals		Financial institutions available to receive and disburse agribusiness funds				
	Training plan and training materials						

B. SLARI PE

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
Overall Objective - Impact	Reduction of poverty and food insecurity in Sierra Leone through better governance and household improved living conditions and higher incomes	1. Value of agricultural output of selected crops among target farmers	To be done	As baseline	1. Value increased by 20% by February 2021	<ul style="list-style-type: none"> Baseline and final or ex-post evaluation reports 	<ul style="list-style-type: none"> No external events, e.g. insecurity, natural disasters, to interrupt or interfere with project implementation 	
		2. Level of Malnutrition, e.g. stunting etc. among < 5 children of target farmers			2. Malnutrition levels reduced by 20% by 20121	<ul style="list-style-type: none"> Interim / six-monthly reports 	<ul style="list-style-type: none"> Smooth collaboration with MAF (and with the PCU / PIU) 	
		3. Average incomes among targeted project participants (along key value chains)			3. Average incomes increased by 20% by February 2021 (end of project)	<ul style="list-style-type: none"> Statistics from MoHS (Min. of Health) 		
Specific Objective - Outcome	Innovative agricultural technologies in the tree crops, horticultural and livestock sectors are generated and promoted	Number of technology packages developed for the enhancement of value chain activities ultimately benefitting smallholder farm+C39ers are available in each of the targeted sectors			<ul style="list-style-type: none"> At least 4 different packages are developed each by 	<ul style="list-style-type: none"> Research reports 		
					KFTCRC	<ul style="list-style-type: none"> Monitoring reports 		
					TLRC	<ul style="list-style-type: none"> Presentation of technology packages 		
					Kabala.....			
Outp	R1:	R.1.1 Cocoa:	Cocoa:	Cocoa:	Cocoa:	<ul style="list-style-type: none"> Yearly monitoring reports from KFTCRC 	<ul style="list-style-type: none"> No serious outbreak of Black Pod and insects/pests & others diseases 	

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
SLARI has contributed to the promotion of efficient and effective tree crop value chains for cocoa, coffee and cashew	<ul style="list-style-type: none"> Area of clonal garden rehabilitated 	<ul style="list-style-type: none"> Less than 1 ha of new clones planted at Kpuwabu & none in Pendembu in 2017 	<ul style="list-style-type: none"> Less than 1 ha of C77 x C67 clones available today 	<ul style="list-style-type: none"> 30ha rehabilitated (15ha in Pendembu and 15ha in Kpuwabu) 	<ul style="list-style-type: none"> Bi-yearly physical counting of trees in the clonal gardens 	<ul style="list-style-type: none"> No major incidence in climate pattern 	15.4 ha of cocoa has been rehabilitated at Pendembu (8.4 ha) and Kpuwabu: (7ha)
							1 student from Njala University has been recruited to conduct research related to cocoa
	<ul style="list-style-type: none"> Area of C77xC67 clones produced 		<ul style="list-style-type: none"> 5 new clones imported but not multiplied yet (< 1ha in 2018) 	<ul style="list-style-type: none"> 15ha of C77xC67: 	<ul style="list-style-type: none"> Monthly M&E report 	<ul style="list-style-type: none"> Availability on time of good planting materials certified 	Cocoa clone established
	<ul style="list-style-type: none"> Area of new imported clones produced 			<ul style="list-style-type: none"> +5Y: 3 million of IVM for 2.700ha of new plantation/year 	<ul style="list-style-type: none"> Contracts/ agreements with private sector on IVM marketing 		
				<ul style="list-style-type: none"> 7-15Y: 4.5-9 million IVM for 4.050-8.100ha of new plantation yearly 			
				<ul style="list-style-type: none"> 5ha of Imported clones: 			Preparation stage prior to production
				<ul style="list-style-type: none"> +5Y 1 million of IVM for 900ha of new plantation yearly 			
				<ul style="list-style-type: none"> 7-15Y: Production of 1.5-3 million IVM for 1.450-2.700ha of new plantation 			
Outp	R.1:	<u>R1.2 Coffee:</u>	<u>Coffee:</u>	<u>Coffee:</u>	<u>Coffee:</u>	<ul style="list-style-type: none"> Yearly monitoring reports from KFTCRC 	<ul style="list-style-type: none"> No serious outbreak of insects/pests & others diseases

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
SLARI has contributed to the promotion of efficient and effective tree crop value chains for cocoa, coffee and cashew	<ul style="list-style-type: none"> Area of clonal garden rehabilitated 	<ul style="list-style-type: none"> 12 ha of different clones of coffee in Pendembu and 1.6 ha in Kpuwabu; 	<ul style="list-style-type: none"> Total 13.6ha producing yearly 	<ul style="list-style-type: none"> 10ha rehabilitated (5ha in Pendembu and 5ha in Kpuwabu) 	<ul style="list-style-type: none"> Bi-yearly physical counting of trees in the clonal gardens 	<ul style="list-style-type: none"> No major incidence in climate pattern 	6,2 ha of Robusta coffee; Pendembu (8.4 ha) and Kpuwabu: (7ha)
							1 consultant from Njala University has been contacted to deliver training and field backstopping
	<ul style="list-style-type: none"> Area of Robusta clones (rooted cuttings) produced 	<ul style="list-style-type: none"> 3 Liberica and 1 Stenophylla trees in Pendembu only in 2017 	<ul style="list-style-type: none"> 31 tonnes of coffee seeds in Pendembu and 4 tonnes in Kpuwabu (2017) 	<ul style="list-style-type: none"> 4ha of <u>IVM Robusta clones:</u> 	<ul style="list-style-type: none"> Monthly M&E report 	<ul style="list-style-type: none"> Availability on time of good planting materials certified 	Cocoa clone establishment
	<ul style="list-style-type: none"> Area of Liberica and Stenophylla produced 			<ul style="list-style-type: none"> > 5Y: 2 million IVM yearly for 1.800ha of new plantation 	<ul style="list-style-type: none"> Contracts/ agreements with private sector on IVM marketing 	<ul style="list-style-type: none"> Land available for the establishment of the clonal garden in Bombali 	
				<ul style="list-style-type: none"> > 7-15Y: 4.5-9 million seeds yearly to cover between 4.050-8.100ha of new plantation 			
				<ul style="list-style-type: none"> 1ha of <u>Liberica/Stenophylla clones:</u> 			
				<ul style="list-style-type: none"> > 7-15 years: Production of 0.4-0.6 million seeds yearly to cover between 360-540ha of new plantation 			Collection of wild stenophylla
	R1.3 Cashew:	Cashew:	Cashew:	Cashew:			

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
	Area of cashew IVM produced	<ul style="list-style-type: none"> No cashew clonal garden with SLARI in 2017 	<ul style="list-style-type: none"> 0 ha of IVM of cashew with SLARI (2018) 	<ul style="list-style-type: none"> 4ha of cashew IVM: 			Cashew Seedling
1.				<ul style="list-style-type: none"> 4Y: 500.000 seeds yearly for 3.200ha of new plantation 6-14 years: Production of 1-3 million seeds yearly to cover between 6.400-19.200 of new plantation (156 trees/ha – 8x8m) 			
	<u>R1.4 Fruit trees:</u>	<u>Fruit trees:</u>	<u>Fruit trees:</u>	<u>Fruit trees:</u>			
	<ul style="list-style-type: none"> Area of various grafted/IVM fruit trees produced 	<ul style="list-style-type: none"> No fruit trees available at KFTCRC and no grafted seedlings and/or IVM available in the country in 2017 	<ul style="list-style-type: none"> No fruit trees except only 2ha of banana & plantain available in both clonal garden (2018) 	<ul style="list-style-type: none"> 8ha of fruit trees: 			6,7 ha of 5 grafted fruit trees (mango, orange, lime, avocado, and banana) were sourced from farmers in Guinea and have been established at Pendembu
				<ul style="list-style-type: none"> 4 years: 40.000 seedlings yearly 6-20 years: Production of 80-400.000 grafted fruits yearly to cover between 500-2.500ha of 			

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
Outputs					new plantation (156 trees/ha – 8x8m)			
		R1.5 Agroforestry:	Agroforestry:	Agroforestry:	Agroforestry:			
		<ul style="list-style-type: none"> Area of agroforestry research plots established 	<ul style="list-style-type: none"> No farmer based agroforestry research in the country (2018) 	<ul style="list-style-type: none"> Less than 1ha of Cocoa agroforestry plot, but not yet evaluated (2018) 	<ul style="list-style-type: none"> 2 ha agroforestry research plots established of intercropping crops/tree crops with cocoa + coffee (1ha) and cashew (1ha) 			2 ha of agroforestry-cocoa intercrop has been established
	R.2: SLARI has contributed to the promotion of efficient and effective horticultural value chains and the diversification of the crop sector	R.2.1 IVM of vegetable varieties:	IVM of vegetable varieties:	IVM of vegetable varieties:	IVM of vegetable varieties:	<ul style="list-style-type: none"> KHCRC project annual reports 	<ul style="list-style-type: none"> Favourable climatic conditions 	
	<ul style="list-style-type: none"> Number of varieties for major vegetables crops tested and selected 	<ul style="list-style-type: none"> None seeds production at Kabala office in 2018 	<ul style="list-style-type: none"> None as of May 2018 	<ul style="list-style-type: none"> At least 5 varieties/crops for 10 majors vegetables crops will be tested during 4 years and 2 varieties will be selected 	<ul style="list-style-type: none"> Monthly M&E reports 	<ul style="list-style-type: none"> No emerging threats of pests and diseases of new crops 		Trials and accessions
								Setting up the physical structures and procurement of field equipment and materials to facilitate field research Setting up the physical structures and procurement of field equipment and materials to facilitate field research
	<ul style="list-style-type: none"> Area of multiplication plots, and number of varieties for 			<ul style="list-style-type: none"> Production of seeds will enable the development of 	<ul style="list-style-type: none"> Specific survey and assessment 	<ul style="list-style-type: none"> Land available for the establishment of crops experimentation and multiplication 		Preparation stage prior to production

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
	each of the major vegetables			vegetable field as following:			
				➤ Year 2: 500ha	+• Specific monitoring tools	• Farmers or/and private sector interested by doing large scale seed multiplication	Preliminary evaluation of Tomato, Pepper and Eggplant Variety
				➤ Year 3: 750ha			162 accessions from 16 vegetable crops were collected across 10 districts
				➤ Year 4: 1.000ha			
				• 2 ha of multiplication plots producing IVM of 2 varieties for 10 major vegetables (20 type of seeds) from Year 2 to A multiplication system is in place outside the station for mass seed production			Preparation stage prior to production
	<u>R.2.2 Introduction and development of new crops</u>	<u>Introduction and development of new crops:</u>	<u>Introduction and development of new crops:</u>	<u>Introduction and development of new crops:</u>			
	Number of crops characterised, tested and producing seeds	• None	• None as of May 2018	• <u>5 Underutilised and 5 new crops are characterised, tested and producing available seeds</u>			Trials, selection of 3 best performing potato and Accessions

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
				<ul style="list-style-type: none"> • Production of seeds will enable the development of vegetable field as following: <ul style="list-style-type: none"> ➢ Year 3: 500ha ➢ Year 4: 750ha 			
				<ul style="list-style-type: none"> • A multiplication system is in place outside the station for mass production of IVM 			157 accessions of local (62) and exotic (95) germplasm of 10 new and underutilised crops collected locally and introduced
	<u>R.2.3 IPM:</u>	<u>IPM:</u>	<u>IPM:</u>	<u>IPM:</u>			
	Number of IPM control measures developed to fight major vegetable pests	<ul style="list-style-type: none"> • Common pests and diseases identified from farmers field through reconnaissance survey in 2017 	<ul style="list-style-type: none"> • No measures yet 	<ul style="list-style-type: none"> • At least one control measure is elaborated for each harmful pest/disease identified (9), and are disseminated to farmers within 4 years, 			Preparation stage prior to production
	<u>R.2.4 Mushroom production:</u>	<u>Mushroom production:</u>	<u>Mushroom production:</u>	<u>Mushroom production:</u>			
	<ul style="list-style-type: none"> • Number of mushroom types identified and tested for spawn production and number of farms developed 	<ul style="list-style-type: none"> • None-noticeable mushroom production in the country 	<ul style="list-style-type: none"> • None as of May 2018 	<ul style="list-style-type: none"> • At least 5 mushroom types are identified & tested and 2 commercials selected for large spawn production 			Preparation stage prior to production

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
					<ul style="list-style-type: none"> Year 3-4: spawn is available to develop at least 20 mushroom farms for smallholder farmers 			
Output	R.2: SLARI has contributed to the promotion of efficient and effective horticultural value chains and the diversification of the crop sector	R2.5: CCA	CCA	CCA	CCA			
		<ul style="list-style-type: none"> Number of technics developed to mitigate climate change, disseminated to farmers 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None as of May 2018 	<ul style="list-style-type: none"> Experimentation on existing technics to mitigate climate change and selection of the 3 most pertinent for vulgarisation 		Preparation stage prior to production	
	R.3: SLARI has contributed to the promotion of efficient and effective livestock value chains	R.3.1: Improved breeds of goat and sheep:	Improved breeds of goat and sheep:	Improved breeds of goat and sheep:	Improved breeds of goat and sheep:	<ul style="list-style-type: none"> Yearly monitoring reports from TLRC 	<ul style="list-style-type: none"> No serious threat of Animal disease out -break, 	
	2.	<ul style="list-style-type: none"> Number of improved goat variety produced for the production of off-spring Number of improved sheep variety for the production of off-spring 	<ul style="list-style-type: none"> 10 WAD goats and 10 WAD sheep available (not WAD X Sahelian breed) 2018 	<ul style="list-style-type: none"> 0 Number of WAD X Sahelian breeds of sheep and goats available as of today (2018) 	<ul style="list-style-type: none"> Production of goat/sheep 	<ul style="list-style-type: none"> Monthly M&E reports 	<ul style="list-style-type: none"> Drugs and vaccines are present 	Introduction of local animal breeds
					80	<ul style="list-style-type: none"> Year 1: <ul style="list-style-type: none"> Specific survey and assessment 	<ul style="list-style-type: none"> Certified Animals available on time 	
				80	<ul style="list-style-type: none"> Year 2: <ul style="list-style-type: none"> Specific monitoring tools 	<ul style="list-style-type: none"> No major incidence in climate pattern 		
				160	<ul style="list-style-type: none"> Year 3: 			

Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)			
				➤ Year 4: 320			
				Total: 640 improved breeds available for further multiplication			
	<u>R.3.2: Improved breed of chicken and introduction of new poultry:</u>	<u>Improved breed of chicken and introduction of new poultry:</u>	<u>Improved breed of chicken and introduction of new poultry:</u>	<u>Improved breed of chicken and introduction of new poultry:</u>			
	<ul style="list-style-type: none"> Number of locally adapted chickens crossed with improved chicken for the production of chicks Number of rearing protocol established for Guinea fowl, duck and turkeys 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> 0 Number of Chickens are available today (2018) 	<ul style="list-style-type: none"> Production of chicken 			Preparation stage prior to production
				➤ Year 1: 750			
				➤ Year 2: 1500			
				➤ Year 3: 1500			
				➤ Year 4: 1500			
				Total: 5.250 improved breeds available for further multiplication			
				<ul style="list-style-type: none"> New poultry available for dissemination, together with Protocol 			Preparation stage prior to production
	R.3.3: PPR:	PPR:	PPR:	PPR:	PPR study report	Fully equipped laboratory	

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
		R.3.6: Animal traction:	Animal traction:	Animal traction:	Animal traction:			
		<ul style="list-style-type: none"> Number of farmers trained in animal traction and small business management 	<ul style="list-style-type: none"> Very little in some Northern districts, 	<ul style="list-style-type: none"> No animal traction scheme available in Teko 	<ul style="list-style-type: none"> 100 farmers trained in managing work oxen and small business management by year 5 		Preparation stage prior to production	
	R.4: SLARI M&E and data management capacities are enhanced and the Grant is managed according to EU standards and regulations	R.4.1: M&E system:	M&E system:	M&E system:	M&E system:	<ul style="list-style-type: none"> Data collection and management system 	<ul style="list-style-type: none"> Internet facilities are available to researchers involved in the programme 	
<ul style="list-style-type: none"> A web-based data collection and data management system is developed and functioning within SLARI countrywide 	<ul style="list-style-type: none"> No system in place 	<ul style="list-style-type: none"> SLARI website not updated since 2015 	<ul style="list-style-type: none"> SLARI has a robust M&E system by year 2 	<ul style="list-style-type: none"> Progress reports for NAO/EU 				
				<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> SLARI website 			
Activities	R1.1: Development of suitable high yielding, pest/disease tolerant Cocoa varieties for farmers in Sierra Leone	Means:	Pest/disease outbreak					
		2 staff will be trained overseas in crossbreeding, specific equipment needed (greenhouse), land preparation for 20ha of new plantation	Climate even					
		Costs:	None availability of IVM					
		82.640 Euro (mainly training, planting material, labour)	Poor quality of IVM received					

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
Activities	R1.2: High-yield Robusta coffee propagation and market potential exploration of Liberica and Stenophylla	<u>Means:</u>	Pest/disease outbreak					
		2 staff will be trained overseas to get specialised knowledge in Robusta varieties (greenhouse), specific equipment needed, land preparation for 5ha of new plantation	Climate even					
		<u>Costs:</u>	None availability of IVM					
		83.240 Euro (mainly training, planting material, labour)	Poor quality of IVM received					
	R1.3: Development of high yielding, pest/ disease tolerant cashew varieties	<u>Means:</u>	Pest/disease outbreak					
		2 staff will be trained overseas to get specialised knowledge in cashew value chain, no specific equipment needed, land preparation for 4ha of new plantation	Climate even					
		<u>Costs:</u>	None availability of IVM					
		21.930 Euro (mainly training, planting material, labour)	Poor quality of IVM received					
	R1.4: Identify viable agroforestry systems for cocoa/ coffee	<u>Means:</u>	Pest/disease outbreak					
		1 staff will be trained overseas to get specialised knowledge in agroforestry, no specific equipment needed, land	Climate even					

Results chain	Indicators	Baseline	Current value	Targets		Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)				
R1.5: Sustainable fruit trees production for farmers in Sierra Leone	preparation for 2ha of new plantation							
	<u>Costs:</u>							
	74.200 Euro (mainly training, planting material, labour)							
	<u>Means:</u>	Pest/disease outbreak						
	2 staff will be trained overseas to get specialised knowledge in Fruit trees production/grafting, specific equipment needed, land preparation for 8ha of new plantation	Climate even						
R2.1: Screening, characterisation and testing of new and/or underutilised crops	<u>Costs:</u>	None availability of IVM						
	22.440 Euro (mainly training, planting material, labour)	Poor quality of IVM received						
	<u>Means:</u>	Pest/disease outbreak						
	1 staff will be trained overseas to get specialised knowledge in vegetable seeds production, specific equipment needed (greenhouse), land preparation for 2ha of new plantation	Climate even						
	<u>Costs:</u>	None availability of IVM						
	24.200 Euro (mainly equipment, planting material, labour)	Poor quality of IVM received						

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
Activities	R2.2: Characterisation and selection of best suitable varieties of vegetable crops	<u>Means:</u>	Pest/disease outbreak					
		1 staff will be trained overseas to get specialised knowledge in Irish potato, onion and spices production, specific equipment needed (greenhouse), land preparation for 2ha of new plantation	Climate even					
		<u>Costs:</u>	None availability of IVM					
		7.000 Euro (mainly planting material, labour)	Poor quality of IVM received					
	R2.3: Production and Plant Health Management of Horticultural Crops	<u>Means:</u>	Pest/disease outbreak					
		1 staff will be trained overseas to get specialised knowledge in IPM, specific equipment needed,	Climate even					
		<u>Costs:</u>						
		18.000 Euro (mainly bio/agro chemicals, equipment, labour)						
	R2.4: Strengthening nutrient and food security through mushroom cultivation and marketing	<u>Means:</u>	None availability of spawn or poor quality of spawn received					
		1 staff will be trained overseas to get specialised knowledge in mushroom production, specific equipment needed, substrate preparation						
		<u>Costs:</u>						

Results chain	Indicators	Baseline	Current value	Targets		Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)				
	8.800 Euro (mainly planting material, equipment and labour)							
R2.5: Climate Change Adaptation techniques in horticultural crops	<u>Means:</u>	Pest/disease outbreak						
	1 staff will be trained overseas to get specialised knowledge in CCA, specific equipment needed, land preparation for the experimentation of the various technics	Climate even						
	<u>Costs:</u>							
	11.340 Euro (mainly planting material, equipment and labour)							
R3.1: Small Ruminant (Goat and Sheep) Production and Breed Improvement	<u>Means:</u>	Pest/disease outbreak						
	2 staff will be trained overseas to get specialised knowledge in small ruminant breeding, specific equipment needed, rehab/construction of animal pens and fencing areas	Climate even						
	<u>Costs:</u>	Availability of improved animals, healthy						
	89.120 Euro (mainly equipment, construction/rehab of infrastructure, purchase of animal and feeds and labour)							
	<u>Means:</u>	Pest/disease outbreak						

Results chain	Indicators	Baseline	Current value	Targets		Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)				
R3.2: Poultry Production and Hatchery Establishment	2 staff will be trained overseas to get specialised knowledge in poultry breeding, specific equipment needed, rehab/construction of animal pens and fencing areas	Climate even						
	<u>Costs:</u>	Availability of improved animals, healthy						
	148.390 Euro (mainly equipment, construction/rehab of infrastructure, purchase of animal and feeds and labour)							
R3.3: Epidemiology and Identification of PPR Virus in Small Ruminants	<u>Means:</u>	Pest/disease outbreak						
	1 staff will be trained overseas to get specialised knowledge in small ruminant diseases and particularly PPR, specific lab equipment needed,	Climate even						
	<u>Costs:</u>	Availability of improved animals, healthy						
	21.600 Euro (mainly equipment/drugs, studies/assessment and labour)							
R3.4: Characterisation and Conservation of	<u>Means:</u>	Pest/disease outbreak						

	Results chain	Indicators	Baseline	Current value	Targets	Sources and means of verification	Assumptions	Values
			(incl. reference year)	Reference date	(incl. reference year)			
Activities	Forage Resources for Increasing Livestock Production	2 staff will be trained overseas to get specialised knowledge in forage/fodder production, specific equipment needed, land preparation and fencing	Climate even					
		<u>Costs:</u>	Availability of improved animals, healthy					
		52.270 Euro (mainly equipment, planting materials, land preparation and labour)						
	R3.5: Enhancing small stock productivity for small holder farmers	<u>Means:</u>	Pest/disease outbreak					
		1 staff will be trained overseas to get specialised knowledge in small stock production focused on rabbit and cane rat, specific equipment needed, construction of animal pens and fencing areas	Climate even					
		<u>Costs:</u>	Availability of improved animals, healthy					
		34.020 Euro (mainly equipment, construction/rehab of infrastructure, purchase of animal and feeds and labour)						
	<u>Means:</u>	Pest/disease outbreak						

Results chain	Indicators	Baseline	Current value	Targets		Sources and means of verification	Assumptions	Values
		(incl. reference year)	Reference date	(incl. reference year)				
R3.6: The Role of Animal Traction Technology	2 staff will be overseas to get specialised knowledge in animal traction, specific equipment needed, elaboration of appropriate tools, cow	Climate even						
	<u>Costs:</u>	Availability of improved animals, healthy						
	38.870 Euro (mainly equipment and elaboration of new tools, purchase of animal and feeds and labour)							

10. BAFS project budget

<i>result</i>	<i>item</i>	<i>Euro</i>	Euro	<i>modality</i>	<i>management mode</i>
	Support to MAF	7400000			indirect
1.1	Institutional capacities of MAF		6100000	PE	
1.1.3	Capacity building in agriculture, veterinary-animal husbandry		1300000	PE	
1.2	Grant to SLARI	2000000		direct award	indirect
	Grants supporting activities for specific objectives 2 and 3	19300000			indirect
2.1, 2.2	CCC value chains		4500000	call for proposal	
3.1	Diversification		4500000	call for proposal	
3.2	Agribusiness promotion		10300000	call for proposal	
	TA Service Contract/ Procurement	4600000		service contract	direct
<i>A</i>	<i>Sub-total</i>	<i>33300000</i>			
	Contingencies	1200000			
	Communication, evaluation and 2 audit contracts	500000			
<i>B</i>	<i>Sub-total</i>	<i>1700000</i>			
<i>C</i>	<i>Total</i>	<i>35000000</i>			

