



# Africa RISING Mali: Capacity needs assessment

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The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three regional projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads the program's monitoring, evaluation and impact assessment. <http://africa-rising.net/>



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## Acronyms and abbreviations

2G	Second-generation cellular technology
3G	Third-generation cellular technology
4G	Fourth-generation cellular technology
AMEDD	Association Malienne d’Eveil au Développement Durable
CBO	Community Based organisation
CNA	Capacity needs assessment
CSO	Civil society organisations
DSL	Digital Subscriber Line
F2F	Face to face training
FBO	Faith based organisations
FENABE	Fédération Nationale des Producteurs de l’Agriculture Biologique et Equitable du Mali
FGD	Focus Group Discussion
FtF	Feed the Future
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICT	Information and communications technology
IEC	Information, education and communication materials
IER	Institut d’Economie Rurale
IFPRI	International Food Policy Research Institute
IITA	The International Institute of Tropical Agriculture (IITA)
ILRI	International Livestock Research Institute
ISDN	Integrated Services Digital Network (ISDN)
IVR	Interactive Voice Response
KII	Key informant interviews
LOA	The Loi d’orientation Agricole
M&E	Monitoring and evaluation
NGO	No-governmental organisations
SCERP	The Strategic Framework for Growth, Employment and Poverty Reduction
SI	Sustainable Intensification
SMS	Short Message Service
SNSA	The Stratégie Nationale De Sécurité Alimentaire

# Executive summary

This Executive Summary of the Capacity Needs Assessment (CNA) provides a snapshot of the process, findings and recommendations. The overall objective of the CNA was to understand current capacity in scaling sustainably intensified farming systems by staff and partners of the Africa RISING (Africa RISING) Mali project.

The CNA focused on identification of capacity gaps that could impede Africa RISING's ability to achieve the overall Africa RISING project objectives, and possible actions to address these. The CNA used several approaches, including: a desk review of key project documents to understand and document the project's objectives and approach; an assessment of capacities at individual level using an individual scoring tool; key informant interviews with selected project staff and stakeholders; infrastructure assessment using an infrastructure tool to assess access to key technological infrastructure.

## Key findings

Following is a summary list of the assessment findings:

*Policy.* The CNA discovered that there is weak implementation of key relevant policies that provide the regulatory framework within which agriculture interventions are designed and implemented. This therefore hinders full implementation of sector plans by lower tiers of the government structure due to an unsupportive environment in terms of resources to deliver the interventions and which slowly has led to over dependency on partners.

*Knowledge.* Attaining, retention and transfer of knowledge is key to the Africa RISING project and to the intention of scaling up innovative sustainable intensified farming systems; staff and partners are tasked with transferring this new knowledge to farmers yet capacities in knowledge management were identified as areas where the project is not doing well in. Although there is a well laid out structure for knowledge management, the full potential of these structures were not being utilised. There was limited learning from the periodic project reports; trainings were done but measuring the impact of the training beyond the training environment was found to be missing; training for non-technical skills like partnership building is needed; monitoring processes need to be reviewed to consider the environmental contexts that the partners operate in.

*Partnership.* Partnership building and coordination capacities were identified as areas that staff and partners were not confident in, yet the project operates through a partnership model where the importance of these capacities is paramount.

*Implementation.* Project staff and partners indicated insufficient financial and budget management skills. They also identified monitoring and communication as areas that needed bolstering together with communication. Low literacy levels of members in some of the groups that the partners work with also came out as a barrier to implementation affecting partners and this was also linked with language barriers to self-learning when materials were not in French.

## Recommendations

The following list summarizes recommendations based on the assessment findings:

*Policy.* There is need to create demand for full implementation of policy in the lower levels of administration through awareness. This can be done by involving all stakeholders (CBOs,

FBOs, CSO, communities) in policy matters and in the long run enhance the engagement of the government on policies and influence prioritisation of government resources. This takes time to get to fruition.

*Knowledge.* Propose learning events and ‘failure fairs’ to encourage documentation of positive and negative results. Undertake training needs analysis to inform capacity building and embed training monitoring and evaluation to measure change in knowledge and practise.

*Partnership building.* We propose targeting field coordinators and partners with key non-technical trainings especially partnerships, communications and coordination. This will strengthen soft skills that are key to working in a multi-partner environment or model.

*Implementation.* Low cost training solutions should be used to train and or retrain staff and partners on key areas that were identified with capacity gaps, e.g. finance for non-finance staff, monitoring and communications. The project should also review its monitoring tools to ensure that computer access is not a prerequisite for data collection and storage.

More detailed recommendations and suggested interventions are found on chapter 4 of this report.

# CHAPTER 1: Introduction of capacity development in the Africa RISING program

The Africa Research in Sustainable Intensification for the Next Generation (Africa RISING) program comprises five component projects focusing on the sustainable intensification (SI) of key agricultural production systems in sub-Saharan Africa:

- Africa RISING in East and Southern Africa operating in Tanzania, Malawi and Zambia and managed by the International Institute for Tropical Agriculture (IITA)
- Africa RISING in the Ethiopian Highlands managed by the International Livestock Research Institute (ILRI)
- Africa RISING in West Africa operating in Ghana and Mali and also managed IITA
- Monitoring and evaluation (M&E) of these three regional projects is managed by the International Food Policy Research Institute (IFPRI)
- A modest program-level communications project is managed by ILRI on behalf of the partners, and similarly, but at an even more modest scale, a capacity development effort, of which this report is part.

The purpose of Africa RISING is, through action research and development partnerships, to create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base. The approach has been proposed as a key plank of programs, such as FtF (Feed the Future), seeking to meet increased food demand from a vulnerable natural resource base under the spectre of climate change and other environmental unintended consequences. However, operationalizing the SI paradigm, i.e. defining adoptable and SI trajectories for specific contexts, is not a simple matter. Multiple stakeholders with diverse and sometimes conflicting objectives have needs that must be accounted for, particularly in order to find sustainable solutions.

# CHAPTER 2: Design, methodology and process

## **Introduction design and methods**

Capacity assessment framework and tools were developed for Africa RISING partners with a review of program documents, theory of change and impact pathways. This capacity needs assessment sought to identify capacity gaps in four key capacity areas: policy, knowledge, partnership and implementation. The assessment adopted a cross-sectional study design with a mixed-methods approach. Quantitative and qualitative data was collected using two data collection methods: key informant interviews (KIIs) and focused group discussions (FGDs). KIIs targeted strategic resource persons in the project such as, country coordinators, project managers and coordinators as well as policy shapers in the responsible government ministries. FGDs were held with homogenous project participants.

## **Tools**

To understand the current organizational and individual capacity of the Africa RISING program to successfully achieve its objectives, a number of generic data collection tools were employed targeting organizational, technical and functional capacities. Organizational capacity was assessed through the organizational assessment tool targeted to specific key informants responsible in the project. Individual capacities were assessed through individual scoring and infrastructure evaluation tools. Stakeholder analysis allowed a mapping of Africa RISINGs partners operating at various levels-national, regional and local level. This tool was deployed both with key informants as well as in group sessions. Problem tree analysis was used to identify specific capacity challenges in respect to: policy, knowledge, partnership and coordination and implementation.

## **Study site and respondents**

The assessment focused on Africa RISING at both national, regional and local levels. The capacity needs assessment was conducted from 18-20 July 2017. 4 key informant interviews were held with key project staff at the national level including, the Africa RISING regional coordinator, and Africa RISING country program manager as well as 2 field coordinators.

2 field sites were made: Koutiala (18th July) Bougouni (19th July), where focused group discussions were held with project implementers in the government, partners' and selected stakeholders working with Africa RISING in Mali.

The number of staff that participated in the group assessment was 32, and four senior staff members participated in the individual assessment.

## **Sampling**

The assessment identified respondents in Africa RISING and its partners through purposive sampling. This approach made it possible to interview only those resource persons who are knowledgeable on the program responsibilities, as well as specific individuals tasked with implementing various functions in the program.

## **Data management**

Data gathered from the capacity assessment exercise was analysed using Ms Excel 2013 software.

Descriptive statistics, such as means and frequencies was used to analyse the quantitative data in Ms Excel 2013. Qualitative data was analysed manually using a thematic approach.

The audio recorded interviews were used to seek clarification in cases where the notes taken were not clear on specific message. The audios were also used to confirm the time each tool takes to administer. Responses from participants had a unique identifier to allow confidentiality and anonymity.

### **Assessment limitations**

A limitation of group and individual self-assessments is the possible exaggeration of actual scores.

Another limitation is that problem tree analysis tool can often be used as an opportunity to indicate displeasure or complain which can blur the objective of the exercise.

Time was also a limitation for the capacity needs assessment exercise as the activities were limited to only three days of data collection. This was especially difficult especially when travel was required between field sites leaving limited time available accorded to facilitating KII and FGDs. This further limited the number of key targeted participants as well as adequate number of site visits.

## CHAPTER 3: Results

The results are discussed in two main sections in tandem with the assessment goal and objectives. The first section is an overview of Africa RISING and its capacity to internally meet the requirements necessary to implement the project as indicated in the project logical framework mission and vision.

The second section focuses on capacity of individual components. In both sections, the results are triangulated to improve discussion of the results.

### **Policy capacity**

This component of the assessment explored the environment within which Africa RISING Mali project operates in and to what extent this environment enables the project to provide opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems.

Africa RISING Mali project operates within the regulatory framework of the Ministry of Agriculture which in turn is supported by several policy frameworks identified by assessment respondents as follows:

- The *Strategic Framework for Growth, Employment and Poverty Reduction* (CSCERP). This provides the overall framework for all public investment and planning aimed at promoting economic growth and poverty reduction and aligns with Africa RISING's aim of helping smallholder farmers to move out of poverty.
- The *Loi d'orientation Agricole* (LOA). This establishes a long-term vision for the agriculture sector based on the promotion of a sustainable, modern and competitive agriculture sector that is targeted on smallholder farmers. The Africa RISING Mali targets this same smallholder farm households and therefore contributes in achieving the vision set by this framework.
- The *Stratégie Nationale De Sécurité Alimentaire* (SNSA). This policy lays out a vision of long term sustainable food security based on improved food availability, access, utilisation and stability, and establishes a set of tools to deal with transitory food crises. Basically, providing the bandwidth to manage both short-term and long-term food related crisis through agriculture. Africa RISING project in MALI participates by intervening to alleviate food insecurity on the long-term through transfer of agriculture innovations that increase production.

From the policies above, the Ministry of Agriculture has a clear mandate with adequate regulatory framework and plans to support the agriculture sector. Assessment participants identified motivation to apply the policies as the major handicap. For example, extension systems are very weak and therefore improved farming technology from research programs require a great deal of effort to reach the farmers. These policies define rules and regulations that inform the agriculture sector e.g. some pest control substances are not allowed in the country due to their adverse effects; without a proper enforcement and extension to provide alternatives, some traders take advantage of farmers' ignorance and sell illegal products from neighbouring countries which have not been quality assured by the government.

The assessment found that there is an adequate regulatory framework with evidence of periodic updating to improve the mandates. What is lacking is the implementation of these policies. Availability of resources both human and capital was cited as the major reason why

there is poor implementation of the otherwise good policies. Donor supported programmes were identified as the major source of resources for implementing these policies and Africa RISING is part of a small list of programmes without which the objectives of these policies are unlikely to be met.

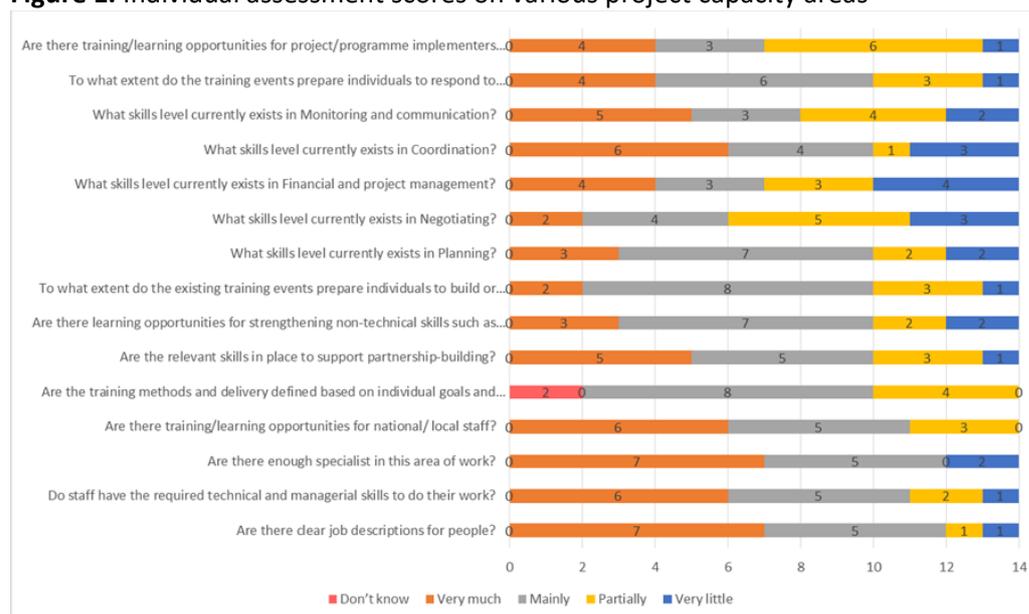
### **Knowledge capacity**

This component of the assessment examined the possibility of changing attitudes and behaviours of the staff/change agents through imparting knowledge and developing skills not only through training but also by participating in activities and processes within the projects and programmes they work in.

At the national level, the assessment showed that Africa RISING Mali already has a structured knowledge sharing mechanism in through trainings, seminars, job aids in the form of information, education and communication (IEC) materials for use by staff and other change agents/partners involved in the project. Reports were identified as one of the most active tool of knowledge capture and sharing. However, there was little evidence of a formal or structured process of ensuring intra-learning from the reports to ensure that successes and challenges experienced in the field and communicated through reports were quickly cross-shared and most importantly considered for timely application of intervention by others within the project.

Africa RISING Mali has invested in transfer of knowledge through formal trainings targeting project partners as 7 out of 14 participants (Figure 1 below) indicated that there were sufficient training opportunities in the programme. Training and seminars targeting scientific staff were identified to be more targeted as reported from the key informant interviews. Lower level training targeting field staff were less so with only 8 out of 14 participants indicating they were satisfied that the trainings were targeted; 4 participants out of the remaining 6 indicated that the trainings were partially targeted with 2 participants reporting they had no idea whether the trainings were targeted on individual goals (Figure 1). This means that although half of the participants were satisfied with training opportunities in the project, 6 of the 14 respondents thought the trainings were not matched to their individual goal. This is likely to impact negatively on the success of the trainings and the project's ability to transfer knowledge and skills to the staff or partners involved.

**Figure 1.** Individual assessment scores on various project capacity areas



Related to this, there was no evidence of effort to measure the effectiveness of the trainings beyond the training environment and through outputs that could be linked back to the various trainings. For example, data management by local partners was reported by a key informant as a significant problem; this observation and the fact that 6 of the 14 respondents reported that the trainings do not prepare them to respond to the projects' needs shows there is a need to undertake training needs assessment informed by both the project design and the capacities of key project partners at the individual level (Figure 1). This will ensure any skill transfer initiative is individually targeted and enhances the success rate at which these individuals transfer the knowledge and skills to farmers they are working with. The project should also have better communication with those being trained on how the trainings are arrived at and what impact they are expected to have on the project; this should be measured.

The government has what could be considered as knowledge centres e.g. government research centres. Respondents said these research institutes have a big handicap in sharing the technologies they produce mostly due to inadequate resources and lack of innovative use of locally available resources for dissemination. The assessment showed that knowledge transfer through training of ministry staff is well structured on professional training e.g. veterinary training or agriculture economics but poor on non-technical training like communications. Knowledge centres like the research institutions are not able to fully carry out their mandate of transferring knowledge due to what key informants cited as inadequate capital resources – tools, equipment etc. Therefore, continuous or in-service trainings majorly depends on development partners' initiatives like the Africa RISING Mali project. Respondents said that the problem with relying on development partners for ministry of staff training and capacity development initiatives was that the partners only focus on specific knowledge areas that they have an interest in and often only target or limit participation to regions that they have activities in.

Individual interviews showed that the Africa RISING project both at national level and in the project sites has access to relevant Ministry of Agriculture information and there is no particular difficulty in accessing information from other partners. The assessment observed that there is a great deal of effort that usually goes into getting timely information from the

Ministry of Agriculture's observation units; respondents cited delays in collecting and collating information by observation units as the major problem. A discussion with a senior government personnel indicated lack of resources to facilitate efficient monitoring processes and relaying of data for central collating as the major problem. A key informant from a government research institute said in some cases staff use their own funds to send data.

### **Partnerships**

Africa RISING project works in partnership with the Institut d'Economie Rurale (IER) under the Ministry of Agriculture. The project works with local NGOs due to their experience in local mobilisation including setting up farmer groups. This diversity of partners is important and helps the project to leverage on the strengths/specialties of the different partners. The diversity also enriches the level of intra-project learning which takes place in the process of implementation; at the end of the phase, the local NGOs will be better in research skills and the research projects will have improved local mobilisation and development skills.

Partnership building relies heavily on communication and negotiation skills. The assessment found that the project has dedicated communication staff who handle or provide communication services. However, the fact that communication staff were available also meant that the other staff were not particular confident in their skills to dialogue with other stakeholders. Four of the 14 respondents felt that the skill level to support partnership-building was not adequate; this is significant coming from project partners who rely on partnerships to impart knowledge and transfer skills to the smallholder farmer. Africa RISING being a project founded on science innovations for smallholder farmers needs to consider non-technical skills especially because the delivery of these knowledge relies on partners in the field whose work significantly relies on some of these non-technical skills like negotiations, partnership-building, communication etc.; 4 of the 14 respondents believe that the opportunities for these types of training are inadequate (Figure 1).

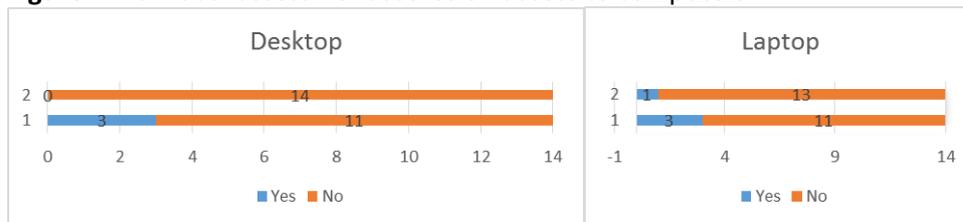
### **Implementation capacity**

There is a proper program structure to guarantee smooth running of project interventions. Africa RISING Mali project is under West and Central Africa research program and the regional director is the principle investigator. The project has a national manager, regional coordinators finance staff and monitoring and evaluation specialist. The structure is elaborate and decentralised enough to facilitate implementation. Interviews with these key staff showed that there is ownership and commitment to overall project aim of scaling up sustainably intensified farming systems to smallholders. The project coordinators were enthusiastic on the challenge of scaling these innovation systems in their site areas.

While the project structure seems sufficient for the project needs, there were other factors that might obstruct attaining of project objectives. Seven of the 14 respondents were dissatisfied with the finance and project management of the project (Figure 1). Group discussions cited logistic planning as a major problem that had a significant impact on their performance and ability to deliver the project promise. Field coordinators cited low literacy level as an underlying problem to transfer of knowledge and skills and felt that the limited resources were not enough to re-train the partners and farmers enough times. Shortage of extension tools, language barrier also came up in the group discussions as resource shortage areas. Low cost formats for extension tools and translation services should be considered to help alleviate these barriers to knowledge transfer. With four of the 14 respondents feeling that planning and coordination were inadequate, there is a need to strengthen the planning exercises ensuring active participation by all project partners and not just as implementers. This will enhance commitment and ownership of project interventions. Six out of the 14

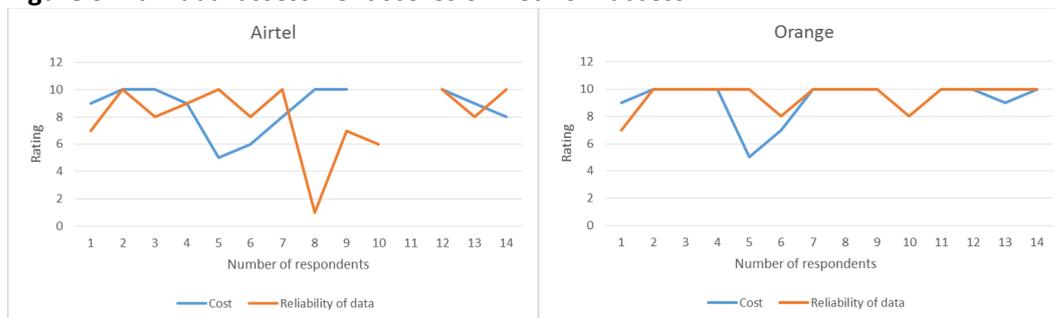
respondents were not satisfied with the monitoring and communication within the project and which has direct negative impact on implementation. This could be as a result of the fact that 11 of the 14 respondents indicated they do not have access to either a laptop or a desktop which also affects access to electronic communication like emails, electronic learning materials, relaying of data etc. (Figure 1). To bolster implementation, the project needs to review monitoring and communication in-country to ensure that problems and frustrations are fixed early and that staff and partners do not increase their tolerance for these problems which is likely to negatively affect the project implementation; this review should consider innovations that are not reliant on computers for M&E. Any materials core for implementation e.g. training manuals, M&E tools should be centrally printed and distributed since 9 of the 14 respondents indicated they have no ready access to a printer.

**Figure 2.** Individual assessment scores on access to computers



From individual assessment, mobile connectivity (internet and voice) was deemed reliable in terms of internet connection and cost effectiveness. Orange and Airtel were reported as the best networks on these two variables (Figure 3). Mobile interventions and communication would be ideal for Africa RISING project.

**Figure 3.** Individual assessment scores on network access



# CHAPTER 4: Conclusion and recommendations

## Summary of findings and recommendations

The Africa RISING Mali project showed some strong abilities in most of the capacity areas with most respondents indicating they are confident with the abilities available in more than half of the capacity areas. This assessment’s recommendations will dwell on the areas that revealed important capacity gaps that have the potential of negatively affecting the project’s ability to achieve its overall objectives. Below is a summary list of findings and recommendations followed by a detailed list of suggested capacity development interventions to address these.

**Figure 4.** Table of identified gaps and recommendations

<b>Capacity area</b>	<b>Identified gaps</b>	<b>Recommendations</b>
<b>Policy</b>	<ol style="list-style-type: none"> <li>1. Weak or incomplete implementation of relevant policies due to inadequate resources</li> <li>2. Over reliance on partners to support full implementation of policies</li> </ol>	<ol style="list-style-type: none"> <li>1. Africa RISING not currently in a position to intervene in this area</li> </ol>
<b>Knowledge</b>	<ol style="list-style-type: none"> <li>1. Limited learning from project reports</li> <li>2. Trainings done are not always targeted to individual goals</li> <li>3. Trainings done not measuring effectiveness of training beyond pre- and post-tests</li> <li>4. Government staff who are project partners have limited access to non-technical skills</li> <li>5. Delay in collecting and relaying of data by government observation units</li> </ol>	<ol style="list-style-type: none"> <li>1. Frequent and multi-layered learning events and ‘failure fairs’ to encourage documentation of lessons whether good or bad</li> <li>2. Trainings should be informed by <i>training needs analysis</i></li> <li>3. M&amp;E for training should be done to measure change in knowledge and most importantly practise</li> <li>4. Consider partners from the government departments for non-technical trainings so they can facilitate the project better</li> <li>5. Mobile phones can be used to relay data using the transport costs that is planned for monitoring</li> </ol>
<b>Partnership capacity</b>	<ol style="list-style-type: none"> <li>1. Partnership building came out as an area that staff are not confident in yet the project operates on a partner model</li> </ol>	<ol style="list-style-type: none"> <li>1. There is need to undertake training or refresher training on non-technical skills like partnership –building, negotiations, communication and knowledge management</li> </ol>
<b>Implementation</b>	<ol style="list-style-type: none"> <li>1. Project partners don’t feel confident that there is enough skill level in financial and budget management</li> </ol>	<ol style="list-style-type: none"> <li>1. Undertake a finance training for non-finance staff</li> <li>2. Train and retrain staff on M&amp;E and consider non-electronic tools for M&amp;E</li> </ol>

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>2. There is limited skill level in M&amp;E</li> <li>3. Inadequate communication especially to the field staff and partners.</li> <li>4. Low literacy and language barrier impede use of technical materials</li> </ul> | <ul style="list-style-type: none"> <li>3. Enhanced communication with defined protocols and not reliant on email.</li> <li>4. Use of simple job aids for technical reference. Low cost translation solutions for materials for trainings should also be considered.</li> </ul> |
|---|--|

## **Suggested capacity development interventions**

### **Policy implementation and enforcement**

(Related to policy recommendation 1)

Intervention in policy is not often a precise exercise and interventions have to reflect this complexity. Implementation of policy by government policy is not a caused by a knowledge capacity gap and therefore is not a training issue; the staff in government do not simply have the opportunity to implement due to inadequate resources. Africa RISING might not be in a position to effectively intervene on this problem at the moment as it requires a more coordinated donor and government effort.

### **Monitoring and Evaluation learning and knowledge application**

(Related to knowledge recommendation 3, 5)

Monitoring of training outcomes was identified as area of growth and if Africa RISING is to meet its objective of scaling up innovations, trainings must meet their objectives. Measuring of training outcomes should be purposively embedded for all trainings where pre- and post-tests can be used to measure change in knowledge and observation for desired practices can be made to determine if there was change in practise as a result of the trainings and coupled with a qualitative analysis to collect information on the transfer and application of the knowledge. To measure whether capacity development activities have subsequently been applied we would take a random selection of participants to follow up with remote key informant interviews. This could happen 1 to 3 months after the training.

M&E can be designed in simple ways that it can be implemented even at community level trainings. Low technology monitoring and evaluation tools should be employed to enhance monitoring process whilst overcoming the challenge of limited access to computers. For example, simple printed tools could be used to collate data whilst mobile phones (SMS, photo) can be used to relay the data. The printed forms can later be sent/collected e.g. quarterly and used to validate the electronically sent data. The cost of mobile data can be mobilised from transport costs usually budgeted and used for monitoring.

## **Design complementary learning platforms to increase access to new knowledge and skills**

### **Job aids**

(Related to implementation recommendation 4)

Critical knowledge regarding areas such as policy do not always have to be remembered, in some cases having the knowledge at hand in a job aid is preferable for knowledge sharing. An audit and analysis of knowledge areas needed at different levels related to policy, implementation of knowledge would provide a catalogue of areas where job-aids would support performance. This would then inform the development of appropriate job aids in the form of checklists, decision trees or flow charts that can be used when needed.

Pictorial job aids should be developed and used to replace some written materials to enhance implementation of project activities in cases where there's low literacy. This can be in form of job cards used by extension officers to support farmers.

### **Lessons learned**

(Related to knowledge recommendation 1)

To encourage intra-project learning from different partners within the Africa RISING project, we propose multi-layered learning events and "failure fairs" where partners in the different sites come to showcase their successes and failures for enhanced learning. The most successful one can be escalated to higher level learning events which will work to motivate the partners to implement and importantly to document the success. The need to include such events is to encourage openness and accountability even when processes and events do not work out as planned; these lessons are important to document so that others can avoid the same problems and this will improve the designing of future projects.

### **Blended learning**

(Related to implementation recommendation 2, partnership recommendation 1)

Face to face (f2f) training is considered as the best solution for learning, however, this is associated with high cost of moving people around and the fact that all target persons must be available at the same time for the training which is not always feasible. Blended learning provides capacity development support where face to face alone is not enough, or is too expensive as the only form of training. Lack of computer infrastructure and computer literacy of the target groups poses a challenge to conducting distance learning using computers but network access through mobile was identified as a potential area. We propose using the mobile phone to reach more participants through mobile learning or mobile reinforcement of already existing training; this way Africa RISING can do refresher courses without incurring the costs usually associated with f2f trainings. Voice services or SMS services are available to nearly all, even in rural areas, and can be used to reinforce knowledge sharing and provide support for knowledge and skills before and after the training. With the lower level of cascade training it supports better understanding of core areas because it does not rely solely on the trainers. It also improves retention over time of key concepts and ideas.

**Mobile as a farmer tool**

(Related to implementation recommendation 2, partnership recommendation 1)

Low literacy level as a barrier to learning can be overcome through use of interactive voice response (IVR) service for training and as an extension tool to reach groups that are both digitally and academically illiterate. This service can be delivered in local languages like Bambara where farmers can listen to pre-loaded voice messages using their mobile phones. The service can be designed to be free of charge from the farmer where the project can use part of training and extension budget to support this intervention.

# Appendices

## Appendix 1. Tools

### *Organizational assessment*

#### Policy

1. Can you tell us a bit about the policies that affect your program

Follow up: How can they be improved?

Follow up: Where do you see the weaknesses? These could be

- a. awareness of policy
  - b. coordination challenges
  - c. enforcement of policy mandates
  - d. conflicts with other policies
  - e. resources (human, capital, time)
2. Which ministries and departments are already involved in the development and administration of legislations relevant to .... (the programme)

Follow up: Do you feel they have clear mandates?

3. To what extent are CBOs and CSOs involved in planning and developing these mandates?
4. Do the relevant ministries departments have a programme for staff training to improve skills at various levels?

#### Knowledge

5. Do national legislation and regulations enable adequate access, management and exchange of information and knowledge in the relevant sector? What are the challenges in this regard?
6. Is access to research, education and training regulated by legislation or regulations? Which regulations and how are they implemented and monitored?
7. Do agencies (central, regional, local) adequately access, manage and exchange information and knowledge in the relevant sector? If no, what are the constraints to effective organizational knowledge management processes and practices?
8. Are there institutional processes for knowledge sharing? How effective are these processes?
9. Are there any training opportunities for national staff?
10. Has any training been carried out in knowledge-sharing techniques? If yes, what has it addressed and how effective was the training?

#### Partnering capacity

11. Is the project part of or becoming part of a national or sub national partnership network? If yes, what are those networks?
12. Do national agencies have the capacity to support access to information belonging to other organizations and partners?
13. To what extent do staff have the necessary skills to engage in dialogue with other stakeholders and in strategic partnerships?
14. Are there learning opportunities to strengthen negotiation and communication skills?

## Implementation

15. Are central and decentralized authorities committed to programme implementation and how is this commitment reflected in accountability mechanisms?
16. Are CSOs and CBOs involved in programme implementation and evaluation?
17. Is there adequate funding to support programmes in the relevant sector?
18. Is knowledge in financial management, human resources management, accounting, planning, budgeting and M&E at a sufficient level for implementation?
19. Are there systems to monitor and evaluate programme implementation?

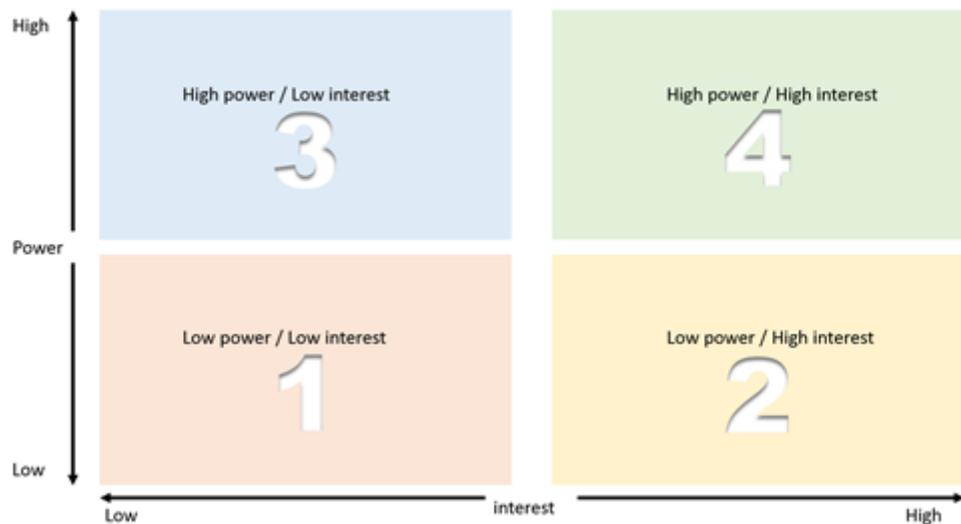
## Individual assessment

1. What types of learning opportunities are needed to develop appropriate competencies?
2. Are there clear job descriptions for people?
3. Do staff have the required technical and managerial skills to do their work/
4. Are there enough specialist in this area of work?
5. Are there training/learning opportunities for national/ local staff?
6. Are the training methods and delivery defined based on individual goals and profiles?
7. How are individual learning needs defined?
8. Are the relevant skills in place to support partnership-building?
9. Are there learning opportunities for strengthening non-technical skills such as facilitation skills and communication skills?
10. To what extent do the training events prepare individuals to respond to project/programme needs?
11. Are there training/learning opportunities for project/programme implementers or managers?
12. Can you tell us about any policies that affect, positively or negatively your work?
13. Are there any basic resources that are missing that affect your ability to meet your objectives?

## Stakeholder Analysis

1. Can you provide names of the people in your team?
2. Do you work with other ILRI organisations? If yes, then who?
3. What government departments are you working with? At what level?
4. What non-government entities are you partnering with? At what level?
5. Are there any private sector actors that you are partnering with? Who?
6. Map the identified stakeholders according to their power and interest in Africa

RISING



**Problem tree analysis**

Problem	Cause	Effect

**Infrastructure evaluation**

A. Do you have the following at work or at home?

- i. Desktop computer
- ii. Laptop computer
- iii. Mobile smartphone
- iv. Mobile feature phone
- v. Printer/scanner
- vi. Digital camera

B. Fixed Internet

- i. Dial up
- ii. ISDN
- iii. Satellite dish
- iv. Cable
- v. DSL
- vi. Fibre optic

C. Mobile coverage

- i. None
- ii. 2G
- iii. 3G
- iv. 4G

## Appendix 2. List of respondents

Name	Structure/organization	Origin/locality
Siaka Coulibaly	AMEDD Affiliated	Kontiala
Yaya Bagayoko	AMEDD Affiliated	Kontiala
Noumimy Dembefi	AMEDD Affiliated	Kontiala
Pueue Coulibaly	AMEDD Affiliated	Kontiala
Mahamadon Traole	AMEDD Affiliated	Kontiala
Fataumata Dao	AMEDD Affiliated	Kontiala
Karamoko Traore	AMEDD Affiliated	Kontiala
Kramane Dao	AMEDD Affiliated	Kontiala
Theophile Dembele	AMEDD Affiliated	Kontiala
Ibrahima Traore	AMEDD Affiliated	Bamako
Daonda Kane	FENABE	Kontiala
Moussa Dia Wane	FENABE	Bougouni
Hamidou Bagayoko	FENABE	Bougouni
Mahamadou Dicko	ICRISAT	Bougouni
Birhanu, Zemadim	ICRISAT	Bamako
Noah Ahmadon Sow	ILRI	Bamako
Toumani Sidibe	FENABE	Bougouni