Milestone 2 Progress Report for Research Themes 2 and 3

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Prepared by on behalf of SAIRLA
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Funded by the UK Department of International Development, SAIRLA is a five-year programme (2015–2020) that seeks to generate evidence and design tools to enable governments, investors and other key actors to deliver more effective policies and investments in sustainable agricultural intensification that strengthen the capacity of poorer farmers’, especially women and youth, to access and benefit from SAI in Burkina Faso, Ethiopia, Ghana, Malawi, Tanzania and Zambia. The SAIRLA programme is managed by WYG International Ltd and the Natural Resources Institute, University of Greenwich.

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1 Introduction

This report is in fulfilment of Africa RISING (AR) Sustainable Agricultural Intensification Research and Learning in Africa (SAIRLA) milestone 2 deliverables. It outlines progress in terms of the following activities in the work plan:

**Theme 2** focuses on activities that ensure that tools and indicators of gender and youth inequity are appropriately adapted to the local context by carrying out participatory indicator development with farmers, decision makers, and other stakeholders in Malawi and Ghana. In addition to developing a process for contextualizing equity tools and metrics for gender and the youth in terms of the quality of information (relative standard indicators in the literature), a critical evaluation will also be undertaken on the relative costs (cost effectiveness) of the contextualization process. Contextualizing equity tools and metrics will be done through participatory indicator development primarily using focus group discussions supported by individual key-informant interviews. Focus group discussions will be with farmers segregated by age and gender, extension agents, community leaders, local government officials, the private sector and other locally relevant stakeholders. The process will take advantage of AR’s existing cooperation with village and district fora to bring farmers together with decision makers. The number of communities per country has been increased from one to two to allow for a refinement of results through comparison and to harmonize and create synergies with Theme 3 research in the same districts and villages.

<table>
<thead>
<tr>
<th>Milestone 2, Theme 2, Activity description</th>
<th>Responsible partners</th>
<th>Milestones, deliverables, and deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Evaluation of platform composition in terms of gender and youth</td>
<td>Research leader</td>
<td>Milestone 2</td>
</tr>
<tr>
<td>2. Presentation and discussion of research plans at meetings of chosen platforms</td>
<td>Leo Zulu, Michigan State University (MSU)</td>
<td>Deliverables (partners to IITA):</td>
</tr>
<tr>
<td>3. Selection of two platforms (or community fora) per country for participatory indicator development after discussion and consent with members</td>
<td>Co-researchers</td>
<td>Results of review communicated through a report to all project partners, and the national learning alliances research, set up for question 2 completed</td>
</tr>
<tr>
<td>4. If necessary, inclusion of further relevant stakeholders (youth, women, and others) in selected platforms</td>
<td>• Akosua Darkwah and Irene Egyir, University of Ghana</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Judith Kamoto and Jessica Kampanje, Lilongwe University of Agriculture and Natural Resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Phil Grabowski, MSU</td>
<td>Deliverable (IITA to DFID): Progress report showing that research set-up has been completed</td>
</tr>
</tbody>
</table>

**Deadline: 01/07/2017**

**Theme 3** focuses on the following research question: To what extent and in which contexts can the use of tools (studied in theme 1 and theme 2) actually result in equitable benefits from sustainable intensification? Under what sociocultural conditions and in what policy contexts are transformative gender approaches needed? Case studies related to access to land will investigate how institutional rules not only produce and maintain inequalities but also provide avenues for change. This will result in a better understanding of where and under which conditions gender and youth transformative approaches are needed and how their tenets can be included in tool development.
### 2 Introductory Visits to Communities (Theme 2 and Theme 3)

#### 2.1 Malawi (Judith Kamoto and Jessica Kampanje)

The introductory visits were undertaken in Dedza, Ntcheu, and Mzimba districts within a 6-day timeframe spread over the period 2 to 16 May 2017, to potential communities to be considered for SAIRLA project themes 2 and 3. The aim of the introductory visits was firstly to introduce the research project to local level stakeholders in the three districts and secondly to discuss the draft sampling strategy with district and subdistrict (Extension Planning Area, EPA) level staff for more insights before finalization of the strategy. After the visits only two out of the three visited districts were chosen for further research.

In an effort to achieve the project aims, the research team met with the District Agricultural Development Officers (DADOs) at district level, Agricultural Extension Development Coordinators (AEDCs) at EPA level, and chiefs and community members at village level.

Africa RISING has been carrying out participatory agricultural research related to SAI in Dedza and Ntcheu districts since 2013. In Dedza district, apart from visiting the DADO at the Agricultural District Office, the team also visited Africa RISING study sites at Golomoti and Linthipe EPAs. In Ntcheu district, the team met with the AEDCs and Agriculture Extension Development Officers (AEDOs) from Kandeu and Nsipe, respectively, and with community representatives within these two EPAs. Both Dedza and Ntcheu districts have matrilineal inheritance of land. In Mzimba district, the team met with the DADO and the District Agricultural Extension Coordinating Committee (DAECC)\(^1\) members at district level and community members in Champhira EPA, and Magutubula-Nguluwe and Kadyeka Jere villages. Mzimba district was chosen to

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\(^1\) Coincidentally DAEC members had an ad-hoc meeting this day and the DADO recommended that we introduce our project to this committee, too.
implement the SAIRLA project in Malawi due to its patrilineal farming communities, which are important for a comparison of research results under Theme 3. In addition, specific communities practicing SAI technologies were considered to enable the researchers compare results with AR sites.

Lessons Learned from the Field Visits

Dedza Field Visits

a. Meeting with the DADO

The team met with Mr Chapotoka, the DADO for Dedza district, to introduce the project and to assess the active forums at district level that could be considered as implementation partners for the SAIRLA project Theme 2. According to the district level agricultural structures, the following committees exist and are active:

- Village Agricultural Committee (VAC) at village level (composed of farmers).
- Group Village Agricultural Committee (GAC) at group village head level (composed of farmers).
- Area Stakeholder Panel (ASP) at traditional authority level (composed of 50% smallholder farmers and 50% government extension workers).
- District Agricultural Extension Coordinating Committee (DAECC) (Composed of government officers, agricultural related NGO representatives, and traditional authorities [TAs]).
- District Stakeholder Panel (DSP) also at district level and is composed of chairs of the ASP, stakeholders from NGOs, and DADO. Members of DSP are almost the same as members of DAECC.

The team learned that all these committees are active and currently help to implement and coordinate agricultural activities within the district. Agriculture issues move from the VAC to ASP and are further analyzed at DAECC to achieve harmonization of voice in terms of agricultural extension messages and issues. The only challenge faced by these committees is lack of funding such that they meet on ad-hoc basis instead of the ideal month-to-month basis.

The DADO also recommended that additional stakeholders should include AR R4D group representatives, agro-marketing institutions, and informal trader representatives if DAECC will be considered as a potential evaluation platform for SAIRLA project (Theme 2).

The team also learned about the gender and youth composition of DAECC for Dedza district. Of the current 28 members, 10 of them are women. All the 28 members work in different organizations and there is currently no youth representation in the forum. Furthermore, membership of DAECC changes so often because of frequent movements of members due to transfers. However, this information was not readily available at the time of introductory visits for Mzimba DAECC and will be provided during focus group discussions for participatory indicator development, which is the next activity in the next milestone.

b. Meeting with AEDC and community representatives in Golomoti EPA

In Golomoti EPA, the team met with Mrs Martha Kumwela, the Agricultural Extension Development Coordinator (AEDC); Ms Judith Mgombe, the Agricultural Extension Development Officer (AEDO), two AR mother plot farmers (1 male, 1 female); two AR baby plot farmers (1 male, 1 female); and two chiefs (1 male, 1 female). The team specifically included Africa RISING mother and baby plot farmers in their discussions during introductory visits, firstly to inform our choice of respondents for the sampling strategy for theme! and secondly due to their ongoing engagement in SAI-related activities and hence their relevance as entry points for SAIRLA introductory visit.
The team learned that all AR mother and baby plot farmers are active members of the Golomoti Africa RISING Group. The team was also informed by the AEDC that within Golomoti EPA, there are a total of 384 AR farmers of which 10 are mother plot farmers and 374 are baby plot farmers. The AEDC was however unable to give the team disaggregated figures of the farmers by gender or age.

Apart from the AR farmer group, the AEDC also indicated that they had active agricultural structures such as the ASP at area level; the GAC at group village head level, and VACs at village level. Likewise, the team was unable to get concrete numbers and composition of these forums disaggregated by age and gender due to lack of readily available data at EPA level.

c. Meeting with AEDC and community representatives in Linthipe EPA

In the Linthipe EPA, the team met with the Chikuli Africa RISING mother and baby plot farmers, selected chiefs, and the AEDO for Linthipe. The attendance list for this meeting is presented in Appendix 1. The composition of Chikuli Africa RISING group is presented in Table 1.

Table 1. Chikuli Africa RISING farmers by gender.

<table>
<thead>
<tr>
<th>Farmer</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother plot</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Baby plot</td>
<td>12</td>
<td>65</td>
<td>77</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>65</td>
<td><strong>79</strong></td>
</tr>
</tbody>
</table>
Table 2. Chikuli Africa RISING farmers by age.

<table>
<thead>
<tr>
<th>Age bracket</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–35 (Youth Category)</td>
<td>4</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>36–45</td>
<td>6</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>46–65</td>
<td>4</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>65</strong></td>
<td><strong>79</strong></td>
</tr>
</tbody>
</table>

Apart from the Chikuli group, the team learned that there was no active VAC in the area. However, a week after the field visit, the AEDO informed the team that they had institutionalized a VAC comprising six men and four women.

Some of the pertinent issues raised by the farmers included lack of markets in their area despite their hard work in their gardens. As such, they welcomed the SAIRLA project as a potential gateway to solving their crop-marketing problem. In addition, they proposed that representatives of traders (both government and private) should be included in the evaluation platforms that the SAIRLA project intends to work with under Theme 2. The AEDO also informed the team that there were active GACs and ASPs at group and area level.

Ntcheu Field Visits

a. Meeting with AEDC, AEDO, and community representatives in Kandeu EPA and Nsipe EPA

In Kandeu EPA, the team met with the AEDC, AEDO, two chiefs, two AF mother plot farmers, and two baby plot farmers. Similarly, the team met with a similar audience at Nsipe EPA. The attendance list for both these meetings is presented in Annexes 2 and 3.

Figure 2. Introductory visit to Kandeu. Photo credit: J.Kampanje-Phiri.
In both communities, (Kandeu and Nsipe EPAs), the team learned that lack of reliable markets for crops promoted by Africa RISING and beyond is a challenge. This results in no change in farmers’ livelihoods due to poor marginal returns from the sale of crops produced. For instance, in Kandeu the team learned that pricing of agroproduce by government comes late in the marketing season and this gives room to opportunist vendors/traders to buy agroproduce from farmers at lowest prices. These unscrupulous traders also use tampered scales, hence double theft.

In addition to Africa RISING intervention groups, the team learned that the Ministry of Agriculture district structures for extension are also active. Thus, Kandeu, has an active ASP and GAC known as Lower Njolomole and Khomba, respectively, Kandeu also has 18 active VACs within the traditional authorities in which AR operates. Similarly, Nsipe EPA has one active ASP (Champiti) and two active GACs (Mandala and Champiti) under Africa RISING. Table 3 shows the composition of the Agricultural Stakeholder Panel (ASP) and group agricultural committees (GAC) in Kandeu and Nsipe.

Table 3. Composition of ASP and GAC in Kandeu and Nsipe in Ntcheu district.

<table>
<thead>
<tr>
<th>Kandeu EPA</th>
<th>Nsipe EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>Lower Njolomole ASP</td>
<td>12</td>
</tr>
<tr>
<td>Khomba GAC</td>
<td>8</td>
</tr>
<tr>
<td>Champiti GAC</td>
<td></td>
</tr>
</tbody>
</table>

Mzimba Field Visits

Mzimba district was chosen as a potential district to implement the SAIRLA project in Malawi due to its patrilinial farming culture, which is important for a comparison of research results under Theme 3. In addition, specific communities practicing SAI technologies were considered to enable the researchers to compare results with those of AR sites. Before visiting specific communities, the team had meetings at district level with DADO and DAEC members, who had a prearranged meeting with the DADO on the same day of the visit.

a. Meeting with the DADO

Prior to presenting the project to DAEC members, the team had a de-briefing meeting with the DADO (Mr Palichi Munyenyembe); the Assistant DADO (Mr Lonely Shawa), and the Legumes Officer (Mr Julius Banda). At the meeting, the team learned that the DADO had arranged a team visit to a field site in Champhira EPA where the Food and Agriculture Organization of the United Nations (FAO) is promoting legume production through the Farmer Field School extension approach. The choice of the EPA was based on the specifications that the team had shared with the DADO before the visit. Like for Dedza, the team was also informed by the DADO that agricultural structures such as VACs, GACs, ASPs, and DAEC do exist and are active in Mzimba district. In addition to these structures, a District Stakeholder Panel (DSHP) also exists whose composition is 50% smallholder farmers; 25% semi-commercial farmers, and 25% commercial farmers. However, this forum is not as active as the DAEC and ASPs. After this brief meeting, the team was introduced to DAEC members, who apparently had an ad-hoc meeting during the same day.
b. Meeting with DAECC members

Members present for the DAECC meeting welcomed the team and were keen to learn about the SAIRLA project. After a brief presentation of the SAIRLA project to the DAECC members, the team addressed some questions and concerns, and received some recommendation pertaining to additional stakeholders to consider for Theme 2 research.

Some of the key concerns were lack of market interventions for SAI initiatives and a lack of coordination among researchers, agricultural stakeholders, and agro-dealers. To this effect, the team was advised to consider involving a wide array of stakeholders to tackle the marketing aspect of crop promoted under SAI initiatives.

c. Meeting with AEDC and community representatives in Champhira EPA

Before meeting a specific community in Champhira EPA, the team learned that eight farmer field schools (FFS) had been instituted by FAO to promote legume production. These FFS sites had been selected based on agroecological zones. One such site is Champhira EPA, which lies on a high elevation topography with medium rainfall and high agriculture production potential. Each FFS experiments with two treatments (one control and one with best research technology selected through a participatory process). In each treatment the following parameters are considered for a growing season: soil conditions; weather, pest, and disease control; plant height or age; and number of flowers and pods in case of legumes. The aim of the school is to address specific challenges faced within the growing season. Farmers meet on a weekly basis to learn and plan for new interventions and tackle other topics such as food security, HIV/AIDS, malaria, village savings and loans, and gender issues. The composition of the field schools within Champhira EPA–Kazinjalira section is shown in Table 4.

Table 4. Field schools in Kazinjalira section, Champhira EPA.

<table>
<thead>
<tr>
<th>Name of field school</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percent female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamasongwe</td>
<td>22</td>
<td>10</td>
<td>32</td>
<td>31.3</td>
</tr>
<tr>
<td>Chipungu</td>
<td>9</td>
<td>23</td>
<td>32</td>
<td>71.9</td>
</tr>
<tr>
<td>Kanyalubwe</td>
<td>9</td>
<td>23</td>
<td>32</td>
<td>71.9</td>
</tr>
<tr>
<td>Kabunguzi</td>
<td>16</td>
<td>16</td>
<td>32</td>
<td>50.0</td>
</tr>
<tr>
<td>Takondwa</td>
<td>13</td>
<td>19</td>
<td>32</td>
<td>59.4</td>
</tr>
<tr>
<td>Chagumukire</td>
<td>12</td>
<td>10</td>
<td>32</td>
<td>31.3</td>
</tr>
<tr>
<td>Nkholowondo</td>
<td>19</td>
<td>13</td>
<td>32</td>
<td>40.6</td>
</tr>
<tr>
<td>Kachere</td>
<td>10</td>
<td>22</td>
<td>32</td>
<td>68.8</td>
</tr>
</tbody>
</table>

The first group of farmers to interface with the research team was from Levi Jere section of Champhira EPA. This is a local community club in Magutubula-Ngulube village. The group is known as Kamzenga and is composed of eight women and two men. The two men were within the age bracket of 18–35, while the 8 women were within the age bracket of 36–45. A list of members present in this meeting is presented in
Annex 5. This group grows beans, groundnuts, Bambara nuts, soybean, and cowpeas as part of an initiative in legume production through the Ministry of Agriculture, Irrigation and Water Development. As commonly pointed out within the other AR sites visited, marketing problems were singled out as being pertinent, since local vendors buy agro produce at lower prices using tampered weighing scales. This practice results in low or non-profitability of agriculture interventions affecting farmers’ wellbeing and livelihoods. As such, they welcomed the SAIRLA project as having the potential of understanding the marketing dynamics.

Figure 3. Meeting with Kamzenga farmers in Magutubula-Ngulube Village. Photo credit: Mr Julius Band.

After the village meeting with Kamzenga club members, the team had a tour to one of the FFS in the Levi-Jere section of Champhira EPA known as Phindu. This field school usually grows soybeans, beans, cowpeas, Bambara nuts, and groundnuts; some of the legumes promoted under the FAO FFS project. In this FFS there are 23 women and 9 men, making a total of 32. Of these, 75% are between ages 18 and 35; 25% between 36 and 45, and less than 5% aged over 45 due to the labor demands required. Membership of the FFS is on voluntary basis.

Field Visit Outputs

From the lessons learned, the team has finalized its sampling strategy and successfully introduced the project to the communities and stakeholders from Dedza and Mzimba districts. The team decided against including Ntcheu district in the research for reasons elaborated under sampling strategy for Malawi.

In total, the team visited 13 communities in the three districts. Of the 13 communities visited, the team selected two communities in each of the selected districts of Dedza and Mzimba. In Mzimba, Kazinjilira community was chosen while in Dedza district Golomoti was chosen. The communities were chosen on the basis of their engagement in research-based activities with legumes, land inheritance systems, crops grown, agroecosystems as well as their general engagement in farming. Therefore comparable insights from these selected sites can be drawn for the SAIRLA project.
2.2 Malawi (Gundula Fischer)

In February 2017 (14 to 18 February 2017) an Africa RISING monitoring visit to Malawi was used to explore land access issues to be addressed in Theme 3 of the Africa RISING SAIRLA project. In meetings with male and female farmers in the villages of Dedza, Ntcheu, and Machinga districts as well as in discussions with extension officers, district officials, partners from NGOs, and AR project staff, some of the following topics emerged (short excerpts based on field notes):

- **Land access in general**: Access to farmland can be gained through (i) inheritance, (ii) allocation of land through chiefs, or (iii) land purchase. A fourth potential way of gaining access, namely, renting land, was not mentioned, but needs to be explored further.

- **Land access and inheritance**: A senior agricultural expert outlined how in matrilineal settings the wife’s brother (in Chichewa *malume*, in Yao or Lomwe *mjomba*) is the main decision-maker in terms of land. He allocates land to his sisters and their husbands (the brothers-in-law). Although the Yao are predominantly Muslim, land allocation and micro-politics were seen as bearing little relation to Islam except for the role Islam plays in education (in the *madrasa*) and in rituals (initiation rituals, circumcision of boys). In the past years, however, an extreme kind of Islam has gained more influence, the respondent had observed. It is to be investigated how this could impact on gender relations and specifically land allocation. Another respondent emphasized that in spite of the wife’s brother’s influence on land access, husbands retain considerable decision-making power within the household.

- **Land access and chiefs**: Two respondents stated that in Yao communities most chiefs are men, but there are also female chiefs (one partner estimated around 30 percent). The same was true for Chewa communities where there are also more male than female chiefs. Several conversation partners explained that the Malawi government has entrusted land to chiefs, but can reclaim it at any time for development or public use. Over the years chiefs have increased their power and at times resist actions by the government. Through a recent land bill the government intends to establish committees at the community level that are meant to plan land use and oversee the sale of land. Many chiefs resist this land bill, fearing that the committees could restrict their power and access to income (through land sale). Respondents were of the opinion that land grabbing (allegedly endorsed by chiefs) had become more common on a larger and smaller scale. Examples mentioned for larger land grabbing were Crown Plantations in Bwanje Valley (Ntcheu district) and Mota Engil (Machinga district).
• Land sale and the matrilineal system: Some respondents described how the matrilineal system potentially contributes to land disputes within households and clans. For example, Household A bought land, the parents die, the children are told that they have no right to the land their parents bought, hence they should go back to their mother’s brother where they belong (clan-wise). The sisters of the father in household A claim the land for their children. The children in household A quickly sell the land (before others can take it). A new Malawian land law is meant to protect widowers and widows and their children in such a situation.

These topics provide an avenue for further investigation and validation, and relate to all four domains of Kabeer’s social relation approach that we have selected: household (land access in the matrilineal setting), community (land access through chiefs), market (land sale and grabbing), and government (new land bills). Interrelationship between the domains deserves special attention.

2.3 Ghana (Prince Otabil)

In Ghana, the team visited the Africa RISING SAIRLA selected community of Tingoli in the Northern Region of Ghana on 16 May and Nyangua in the Upper East Region of Ghana on 18 May. The purpose of the visit was to establish a relationship with opinion leaders/participants of the selected communities and to explain the research plans of the team. The visit was also to enable the team to create a participatory research set up, evaluate the selected communities for their appropriateness for the study, and discuss our sampling strategies with key selected respondents in order to keep them aware of their inclusion in the study. Different levels of meetings were held. In each selected community, chiefs and leaders were met separately from AR farmer group members and other groups that were available. One-on-one engagements were carried out with individuals selected for the study.

![Meeting with Africa RISING farmers in Tingoli. Photo credit: Prince Otabil.](image)

**Figure 5.** Meeting with Africa RISING farmers in Tingoli. Photo credit: Prince Otabil.

**Platform Evaluation: Gender and Youth Composition**

Table 5 gives a breakdown of the composition of the AR groups in the selected communities. The farmer groups are active and are willing to participate in the research. The group at Tingoli has met three times in the past six months; that of Nyangua has met twice in the past six months. There is currently no youth membership in the farmer group at Nyangua. However, there are other groups with youth membership and the team can draw from these. A list of the members of the AR farmer group who were at the meeting is presented in Appendix 1.
Table 5. Composition of AR farmer groups in selected communities.

<table>
<thead>
<tr>
<th>Community</th>
<th>Membership composition</th>
<th>Attendance at the introductory visit meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Tingoli</td>
<td>52</td>
<td>18</td>
</tr>
<tr>
<td>Nyangua</td>
<td>17</td>
<td>33</td>
</tr>
</tbody>
</table>

Figure 6. Meeting with chiefs in Tingoli. Photo credit: Prince Otabil.

Results of Introductory Visits and Justification for Site Selection

The selected communities are involved in AR research, and meet the criteria in the sampling strategy for the research. Discussion with chiefs and members of the farmer group indicates that AR and a few other projects have introduced SAI practices to them. SAI practices identified from farmers include crop rotation, row planting and spacing management, composting, strip cropping, agro-forestry, use of fertilizers, and agronomic practices. The selected communities meet the criteria outlined in the sampling strategy.

Inclusion of Additional Stakeholders in Platforms for Focus Group Discussions (Theme 2)

Table 6 gives a picture of the number of groups existing in the selected communities apart from the AR farmer group. The team can draw from this membership for the focus group discussions.
Table 6. Number of social groups existing in selected communities.

<table>
<thead>
<tr>
<th>Community</th>
<th>Number of groups apart from AR farmer group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tingoli</td>
<td>6</td>
</tr>
<tr>
<td>Nyangua</td>
<td>8</td>
</tr>
</tbody>
</table>

Figure 7. A section of Africa RISING and other group members at Nyangua. Photo credit: Prince Otabil.

3 Progress in Theme 2: Participatory Indicator Development

3.1 Literature Review and Methodology

The methodology used addresses SAIRLA project research question 2. Through participatory indicator development (PID), the research teams seek to bridge the gap between existing and emerging “universal” SAI indicators (Smith et al. 2017), the generally narrow (individual level) assessment frameworks on women’s empowerment in agriculture (Morgan 2014; Underwood et al. 2014), and barely existent tools to analyze how the youth affect or are differentially affected by SAI. We will use focus group discussions (FGDs) in participatory indicator development with farmers and other stakeholders in a participatory process to develop context-specific indicators of equity and critically evaluate the advantages and costs of the contextualization process for equity tools and metrics. This process will also be informed by participatory gender analyses using the Kabeer (1994) model and four domains to be applied under Theme 3. This will enable the measurement and improvement of the status of female farmers and the youth in SAI.
The researchers will use as a starting point the initial SAI indicators and framework under development by AR and its R4D platform (integrated into Theme 1 of the SAIRLA project—summary by domain is attached in Appendix 3). The framework organizes SAI indicators into five domains: productivity, economic, environmental, social, and human condition. The customization process will enhance and customize equity considerations already recognized in the social domain and across all other domains through notions of food security, nutrition, and poverty alleviation. It will also draw on the SAI indicator framework for operationalizing the indicators, which is under development by Michigan State University (MSU) and the University of Florida with funding from the United States Agency for International Development (USAID) through the Kansas State University Sustainable Intensification Innovation Laboratory.

**Focus group discussions**

Within broader parameters of AR’s action research methodology, focus group discussions (FGDs) are particularly suited for participatory indicator development because the open questions allow for (i) open discussion of issues and interaction among diverse farmers and other stakeholders and (ii) the generation of novel ideas and local consensus building on the social acceptability of those ideas and issues (Cresswell 2014). Focus groups will be split by age and gender, using the two AR R4D platforms or communities in Ghana and two in Malawi (see Table 8). These platforms include farmer representatives, community leaders, agriculture extension and other government agents, local government officials, NGOs, and private sector actors. The PID process will also be synchronized with SAI indicator testing under Theme 3 by bringing representatives of at least two test communities to participate in PID at the district level platforms (DAECC) in Malawi, and by including district level R4D platform members in community level FGDs on PID in Ghana.

Multi-stakeholder platforms have already been selected using purposive sampling based on a range of criteria which include representativeness, platform-members activity level, platform-members potential willingness to participate, land inheritance type (matrilineal/patrilineal), agroecological zone diversity, availability of records, and scope Aof development topics discussed at platform meetings. Notably, the Malawi platforms are both at district level but isolated by land inheritance type; one platform located in a matrilineal area (Dedza) within AR and the other in a patrilineal area (Mzimba) outside AR. The selected platforms for Ghana operate at community level, one located in the Kassena-Nankan District of the Upper East Region and the other in the Tolon-Kumbung District of the Northern Region.

Guide questions for FGDs will target various dimensions relating to equity between men and women and for the youth in relation to other age groups, across the five SAI indicator domains, and covering crop and animal production. Broad themes will be addressed before specific generic indicators, and they include historical perceptions of agricultural change and their impacts on men, women, and the youth; views on indicators of being better off from agricultural improvements; and future aspirations from SAI for men, women, and the youth (see Appendix 3). Discussions on more specific indicators will address issues of use, control, and ownership of land; management control; soil fertility; time allocation in agriculture; control of income; food security; health; and leadership and social capital. Questions will also include the additional resources (time, staffing, and financial) needed for a PID integrating gender and youth equity.

**Key informant interviews**

FGDs will be supplemented by individual key informant interviews. Respondents will be selected purposively, including the targeting of key stakeholders identified during the stakeholder analysis who are unable or unwilling to attend a group meeting. These interviews will also offer the opportunity to actively include groups that are underrepresented during the FGDs, including women, the youth, local government authorities, religious leaders (stakeholder analysis in Ghana revealed that religion influenced access to land among women), and new ones that are identified through snowball sampling. The number of key informants at each site will be determined by a combination of the gaps in representation requiring to be filled and when sample saturation is reached (but 15 per platform would be a guiding number). Researchers will ask similar open-ended questions to key informants as for the FGDs. Questions on additional resources (time, staffing, and financial) needed for a PID integrating gender and youth equity will be directed at targeted informants capable of providing the answers, including agricultural extension planners and field agents, and used in a separate costing exercise. The initial guide questions for key informant interviews are included in Annex 4.
The costs of carrying out this participatory process and the relative improvement in detecting inequities will then be analyzed. Costs will be based on additional resources (time, staff, and financial) used to integrate gender and youth equity through the participatory customization process, and will be shared in a systematic guide for decision makers.

Data analysis

All FGDs and key informant interviews will be audio-recorded with permission from participants and the resulting transcripts will be coded and analyzed using Nvivo or Atlas.ti qualitative data software. Using a process of open and axial coding (Priest et al. 2002), emerging themes and their inter-connections will be used to summarize FGD findings and key-informant participants’ perspectives on the indicators they developed. The findings will also be used to refine the SAI indicators for gender and the youth further. Some summary descriptive statistics will also be provided for contextual elements of the key informant interviews.

3.2 Preparatory Field Work

This section covers Milestone 2 activities conducted under Theme 2 by the partners at the University of Ghana (UG), Lilongwe University of Agriculture and Natural Resources (LUANAR) in Malawi, and coordination activities conducted by the Lead for Theme 2 at MSU, in collaboration with Leads for themes 1 and 2. For the reporting period, the aims of activities under Theme 2 were (Activity 2.1) to evaluate and select Africa RISING R4D platforms for participatory indicator development (PID), present research plans to R4D and key stakeholders and (Activity 2.2) to set up research for questions 2 and 3, contributing to the output for Theme 2: improved locally adapted tools for gender and intergenerational analysis grounded in smallholders’ reality are disseminated to project partners and national learning alliances. The Theme 2 team has successfully completed the planned activities.

Activity 2.1: Evaluate and select Africa RISING R4D platforms

The research teams in both Malawi and Ghana have successfully completed the evaluation of the composition of existing Africa RISING R4D platforms and selected purposively two platforms or locations each for Malawi and Ghana (see summary Table 8). This was done through consultations and interviews with AR project experts, agriculture officials, and other stakeholders. There was wide diversity in the nature, geographic scale, gender composition, and level or activity of the platforms within and across the two countries.

Dr. Leo Zulu visited Malawi and met Dr. Judith Kamoto and Dr. Jessica Kampanje on 10 March 2017. In addition to getting to know the SAIRLA team members reviewing the draft annual work plan for Theme 2 for Malawi, the meeting also reviewed the AR R4D platforms and the initial selection of sites with the input of Dr. Regis Chikowo, the AR coordinator for Malawi who joined the meeting. Lessons included the choice of AR experts to use the existing agriculture extension structures for the R4D platform, specifically the District Agricultural Extension Coordinating Committee (DAECC) and the development of an initial list for criteria and initial choice of sites.

Representation on the multi-stakeholder learning platforms was broad-based in both countries. It included government agencies dominated by the agriculture ministry, local government officials, farmer organizations, NGOs, and the private sector engaged in agriculture. However, men dominated district-level platform membership in Ghana (10.8 and 15.5 % female membership in two district-level platforms in Ghana), information on gender division of R4D groups was not readily available for Malawi (although women dominated membership of lower level groups including mother-baby-trial membership in AR sites in Dedza and in FFSs in Mzimba — see the Malawi report). Information on youth representation and even definition was mixed, variable, and mostly incomplete. This indicates the need to incorporate more women and the youth for purposes of the PID at district level (including from the lower level platforms that have more women), as needed, and to use the key informant interviews to purposively enhance the representation of the youth (ages 15–35 based on the African Youth Charter), women, agro-marketing institutions, and small-scale crop buyers. Further, lack of funds limits the frequency and regularity/predictability of meetings at least in Malawi, and suggests the need for very good timing for the focus group discussions or financial support to ensure that the meetings happen when needed.
Observed platform and context variability of AR R4D platform led to the choice of two platforms per country for PID instead of one, which are accommodated by budget adjustments. In Ghana, the effective operational scale was the sub-district ‘community’ level (the district level was never sustained due to logistical challenges) while in Malawi district-level R4D platforms are active. The AR sites in Malawi are located only in the matrilineal society, excluding land-access dynamics in patrilineal societies. The Theme 2 team picked two sites to capture diversity in access to land, expand representation beyond a single community R4D platform (Ghana), and harness the benefits of using some of the same communities for case study analysis under Theme 3 while targeting active groups and partners. Despite the difference in the R4D platform scale and consequent limitations for direct comparison of Ghana and Malawi, the scales are relevant for each country, and allow analysis of potential scale-related impacts on the PID process and the relative costs and benefits.

The sites finally selected for Malawi were one R4D platform in Dedza district, a matrilineal area, and the other platform in Mzimba district, a patrilineal area outside AR. In Ghana, of the 25 AR sites in six districts, two community level R4D platforms were selected in Nyangua in the Kassena-Nankana district of the Upper East Region and Tingoli in the Tolon-Kumbungu district of the Northern Region (Table 8). The criteria used for the purposive selection included representativeness, platform-members activity level, platform-members willingness to participate, and land inheritance (matrilineal/patrilineal), agroecological zone diversity, availability of records, and breadth of development topics discussed at platform meetings. Efforts were also made to synchronize sites for themes 2 and 3 in both countries in such a way that in Malawi representatives from two local indicator testing communities will be added to the district-level platforms for PID and vice versa while for Ghana district-level representatives of R4D will be included in the community level PID process.

3.3 Sampling Strategy

Malawi

In Malawi the sampling strategy for Theme 3, and also serving for Theme 2 on PID is based on introductory visits done in the AR districts of Ntcheu and Dedza and an additional district of Mzimba (Table 7). The criteria for sampling sites are purposive and are based on agroecological zones, land inheritance (patrilineal and matrilineal systems), crops grown, extension methods, and sustainable agriculture intensification initiatives.

Table 7. Sites visited within Africa RISING areas and outside—Malawi.

<table>
<thead>
<tr>
<th>District</th>
<th>Extension area planning</th>
<th>Community</th>
<th>Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ntcheu</td>
<td>Kandeu</td>
<td>Kampanje</td>
<td>Kampanje II</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kasese</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sitolo</td>
</tr>
<tr>
<td></td>
<td>Nsipe</td>
<td>Mpamadzi</td>
<td>Mandala Champiti</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mwalawoyera</td>
</tr>
<tr>
<td>Dedza</td>
<td>Linthipe</td>
<td></td>
<td>Mbidzi</td>
</tr>
</tbody>
</table>
According to Brown and Young (1965), the EPAs vary in geophysical features as Malawi's land surface straddles the North West to South East, low-to-high elevation parts of the African rift valley. The varying geographical gradient and climatic conditions play a role in influencing productivity. For instance, Kandeu and Nsipe have medium agricultural potential, and are located on medium elevation, with medium rainfall while Linthipe has high agricultural potential, high elevation site, and receives well-distributed rainfall. Golomoti is a low agricultural potential site located at low elevation, with high evapotranspiration and variable rainfall (Smith et al. 2017). Mzimba is characterized by high agricultural potential, high elevation, and medium rainfall (Mathews Nyirenda, personal communication 2017). Since Ntcheu EPAs are in the medium range of agroecological features, the choice was to go for high and low ends, hence Dedza and Mzimba EPAs were chosen for Theme 3 and Mzimba and Dedza districts (DAECC) as platforms for PID.

In Malawi, land inheritance has implications on equitable benefits from SAI. The recent approval of the new land bill in July 2016 means that women and men can gain access to land primarily through inheritance and marriage. The predominant way of accessing land is through inheritance from matrilineal and patrilineal descent. Within the matrilineal system of inheritance, studies have shown that about 80% of women own land in comparison to less than 20% of women who own land within the patrilineal system (Zuka 2015; Bezner Kerr 2005). However, women's ownership of land in such cases does not always translate to control of it. Men as designated household heads, based on western household models and gender stereotypes, often control land. Productive interventions by different interventionists are often directed at men as the presumed household heads and main food producers (Boserup 1970; Doss 1999; Ferguson 1994). It is against this background that the SAIRLA team in Malawi chose two districts with distinct predominant land
inheritance systems (Mzimba district in Northern Malawi is predominately patrilineal and Dedza district in Central Malawi is predominately matrilineal).

Dedza and Mzimba districts follow the general agriculture and lead farmer approach to extension, however Mzimba has experience with FFS extension approaches. In Mzimba, Champhira EPA, farmers are engaged in FFSs in a FAO project focusing on legumes such as soybeans, groundnuts, cowpeas, beans, and bambara nuts. The same legumes except bambara nuts are also a focus of AR in Dedza district following the lead farmer approach using mother and baby trials.

These criteria have helped the site selection process to inform our research interests, so as to understand how men and women farmers in the districts equally enjoy the benefits of SAI from production to the market.

In total the team visited 13 communities in the three districts during the introductory visit (Table 7). Of the 13, the team selected two communities in each of the selected districts of Dedza and Mzimba. In Mzimba, Kazinjilira community was chosen while in Dedza district, Golomoti was chosen. All communities were chosen on the basis of their engagement in research-based activities with legumes, land inheritance systems, crops grown, agroecosystems, and their general engagement in farming. Therefore comparable insights from these selected sites can be drawn for the SAIRLA project.

Ghana

For Ghana, justification for selection of the community level R4D platforms of Nyangua and Tingoli for PID is provided in Table 8. There is also some overlap with sampling for communities for SAI indicator testing through key informant interviews under Theme 3. The focus group discussions will be split by age (18–30, 31 and above) and gender using the existing community R4D platforms (both executive members and regular members). Since it is difficult to predetermine what the attendance will be among sections of the platforms, efforts will be made with the local extension and AR project staff in the recruitment process to ensure representation from all four of Kabeer’s domains—household, community, market, and government. These efforts will ensure representation of at least the following in the focus groups:

**Households participating in the Africa RISING project**

- 2 young men (below the age of 30)
- 2 young women (below the age of 30)
- 2 older men (above the age of 30)
- 2 older women (above the age of 30)

**Community**

- Male Chief (1)
- Male Tindanna (1)
- Female Magazia (1)
- Farmers on the community group platform (1 male, 1 female)

**Market**

- Extension agents (1)
- Farmer-based association executive (1)

**Government**

- District planning officer (1)
- District lands officer (1)

For key informant interviews to supplement the focus group discussions, the number per community will be flexible (but targeting roughly 15 per platform community), making sure that at least one person is interviewed in each of the subcategories of the sampling plan for Theme 3 for Ghana shown in the Theme 3 report. Priority will be given to those who were not able to attend the focus group discussions.
Table 8. Selected Africa RISING R4D and other platforms for participatory indicator development in Malawi and Ghana.

<table>
<thead>
<tr>
<th>Country</th>
<th>Site/R4D platform</th>
<th>Geographic scale</th>
<th>Key characteristics</th>
<th>Additional stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>Dedza District Agricultural Extension Coordinating Committee, DAECC.</td>
<td>AR R4D platform (District)</td>
<td>Low agroecological potential, Matrilineal society/land inheritance, Most active R4D platform, Within AR project</td>
<td>Agro-marketing agencies, Informal agro traders, Women, Youth</td>
</tr>
<tr>
<td>Mzimba</td>
<td>DAECC</td>
<td>District</td>
<td>High agroecological potential, Patrilineal society/land inheritance, Experience with the FFS extension approach, Outside AR project</td>
<td>As above</td>
</tr>
<tr>
<td>Ghana</td>
<td>Nyangua community, Kassena-Nankana District, Upper East Region of Ghana</td>
<td>Community, subdistrict level</td>
<td>Patrilineal community, Females viewed as farm hands, Records available, Within AR area, Extension agent very active/cooperative, Platform members trained at community level</td>
<td>Religious groups, District R4D members, Women, Youth, Traditional leaders, State officials</td>
</tr>
<tr>
<td></td>
<td>Tingoli, Tolon/Kum bungu District, Northern Region of Ghana</td>
<td>Community, subdistrict level</td>
<td>Patrilineal community, Females viewed as non-farm hands, Records available, Within AR area, Extension agent very active/cooperative, Platform members trained at community level</td>
<td>Religious groups, District R4D members, Women, Youth, Traditional leaders, State officials</td>
</tr>
</tbody>
</table>

Presenting research plans

Research plans (Theme 2) were presented to diverse stakeholders concurrently with identifying communities for case-study sites for testing the participatory SAI indicators (Theme 3), saving time and money. In Malawi, Dr Judith Kamoto and Dr Jessica Kampanje conducted these activities in three districts (Dedza and Ntcheu within AR, and Mzimba outside), visited agricultural extension agents at district and local level, community representatives and members at three sites in two districts, and the DAEC for Mzimba. The trip was undertaken from 2 to 16 May 2017 over a period of six days. Prince Otabil conducted a similar sensitization meeting in Ghana.

The project was well received in both countries, and there were no serious risks identified. Emerging issues included common complaints about poor and lack of markets and access for Malawi. This resulted in suggestions for the inclusion of agro-marketing institutions and informal traders as representatives in participatory SAI development and testing in case-study communities. It also raises expectations from the project that need to be managed. In Ghana, the community level emerged the realistic platform level for
PID, religion appeared to influence land access among women along with participation in the AR project. More details and lessons are covered under the country and combined reports for the progress of Theme 3.

### 3.4 Research Instruments

**Guiding Questions for Focus Groups, Theme 2**

While the focus groups will be flexible and open-ended, there are core themes that the researchers will seek discussion on. Following are the themes and types of questions that will be asked to guide the discussions.

**Preliminary**

How do you define youth in this community? Which people are youth? How are they different from adults?

**Historical focus on agricultural change and impacts on men and women:**

1. What have been the most important changes to agriculture in this area?
2. How have women in this community been affected by those changes? Share specific examples.
3. How have youth in this community been affected by those changes? Share specific examples.
4. How have men in this community been affected by those changes? Share specific examples.
5. Can you describe an example of someone in this community whose agriculture improved? What were the signs that showed you their agriculture had improved?
6. Can you describe an example of a family in this community whose agriculture improved but the wife did not benefit from that improvement? What were the signs that showed you she was not benefiting?
7. Can you give an example of a family in this community whose agriculture improved but the youth in that family did not benefit from that improvement? What were the signs that showed you that the youth in that family were not benefiting?

**Perceptions of indicators of being better off from agricultural improvements**

1. How can an outsider know if women were better off after an agricultural project? What clues can show the outsider that the women are better off, even without asking directly?
2. How can an outsider know if youth were better off after an agricultural project? What clues can show the outsider that the youth are better off, even without asking directly?
3. How can an outsider know if men were better off after an agricultural project? What clues can show the outsider that the men are better off, even without asking directly?

**Future orientation**

1. What do women in this community desire from an agricultural project? How would they decide if an agricultural project was successful?
2. How are men’s desires/goals for agriculture different from those of women?
3. How are youth’s desires/goals for agriculture different from those of adults?

**Guide questions about possible metrics of gender inequity**

**Part 1: Crop production**

**Indicators related to use, control, and ownership of land**

1. What are the differences between men’s fields and women’s fields in this community?
2. In your household, which fields are the responsibility of the man? Which fields are the responsibility of the woman? Why?
Management control

1. How are men’s and women’s responsibilities different by crop?
   a. Which crops are primarily grown by women?
   b. Which crops are rarely grown by women?
   c. Which crops are primarily grown by men?
   d. Which crops are rarely grown by men?
   e. What reasons are there for these differences?

2. How does the responsibility for managing a field relate to the history of ownership of the field (if they are from the woman’s family or the man’s family, or rented, or given directly by the chief)?

3. Would it be appropriate/relevant/suitable to ask a farmer who is responsible for each plot? Who would we have to ask to obtain this information reliably?

4. What does it mean when a farmer says that a field is managed jointly by a man and a woman?

Soil fertility

1. How are men’s and women’s responsibilities different regarding soil fertility management? How are the fields managed by men different from those managed by women in terms of soil fertility?

2. Would it be appropriate/relevant/suitable to ask a farmer to rate the soil fertility of a field (very fertile, fertile, somewhat fertile, and infertile) and then compare men’s and women’s plots? Who would we have to ask to obtain this type of information reliably?

Part 2: Animal production

1. How are men’s and women’s responsibilities different for main types of animal raised (cattle, goats, pigs, poultry, fish, others)?
   a. What reasons are there for these differences?

2. Would it be appropriate/relevant/suitable to ask a farmer who is responsible for each type of animal? Who would we have to ask to obtain this information reliably?

Time allocation in agriculture

1. Which agricultural tasks are primarily the responsibility of men?

2. Which agricultural tasks are primarily the responsibility of women?

3. What are the consequences when a man does not do the tasks that are his responsibility?

4. What are the consequences when a woman does not do the tasks that are her responsibility?

5. How are the agricultural responsibilities for a man and woman in a family decided or negotiated?

6. How is agricultural decision-making affected when the man and woman do not agree on many things or where one does not respect the other?

7. Would it be appropriate/relevant/suitable to ask a farmer how much time each household member spent doing various agricultural activities on a specific plot? What about for activities related to a specific type of animal? Who would we have to ask to obtain this information reliably?

Income control

1. How do men and women in a household decide who controls the income for each crop or livestock activity?

2. Would it be appropriate/relevant/suitable to ask a farmer who gets to make decisions about the money earned from each plot or each type of livestock? Who would we have to ask to obtain this information reliably?

Food security and nutrition

1. How is food allocated to the members of the household?

2. What different strategies do women follow to make sure their children have nutritious food?

3. What strategies do men take to make sure their children have nutritious food?

4. Would it be appropriate/relevant/suitable to use health clinic records of weight and height to see if boys and girls have any differences in the nutrition they receive? How reliable do you think such information would be?
5. How do women find enough food when their household supply runs out?
6. How do men find enough food when their household supply runs out?

Health

Would it be appropriate/relevant/suitable to use health clinic records of how many men and women were sick with diseases from livestock (ringworm, TB, bilharzia, tetanus, and sleeping sickness?) or malaria? How reliable do you think such information would be?

Leadership and social capital

1. Do women in this community belong to organizations (development and other)? Which ones?
2. Do men in this community belong to organizations (development and other)? Which ones?
3. Do the youth in this community belong to organizations (development and other)? Which ones?
4. Is there a different in types of organizations that men, women, and the youth join? Why?
5. Is there a difference in the number of organizations that men, women, and the youth join? Why?
6. Is there a difference in the freedom to speak in public among men, women, and the youth? Why?
7. Do women take on positions of leadership in organizations? Which types of organizations?
8. Do men take on positions of leadership in organizations? Which types of organizations?
9. Do the youth take on positions of leadership in organizations? Which types of organizations?
10. Why is there a difference in the number and types of leadership that men, women, and the youth take?
11. Is there a difference in the level of benefit from agricultural projects among men, women, and the youth because of who holds the main leadership positions (men, women, or the youth)?

Guiding Questions for Key Informant Interviews for Participatory Indicator Development

Preliminary

These guide questions are meant for officials of organizations including different levels of the Ministry of Agriculture and Food Security including the Department of Fisheries, Land Husbandry, and other relevant government and non-government agencies, and major project/program managers. This group uses English as the official language.

Guide questions

1. Does, has, or have:
   a) your agency conducted gender analysis in agriculture projects or programs?
   b) you personally conducted gender analysis in agricultural projects or programs?
2. If you or your agency has conducted gender analysis:
   a) How did the use of gender analysis come about? Who initiated it?
   b) What gender analysis tools have you used?
   c) How did/do you carry out the gender analysis?
3. Have you heard of or used the Women’s Empowerment in Agriculture Index (WEAI)?
   a) Based on your (agency) own analysis?
   b) Using findings from other projects or studies?
4. If so:
   a) At what administrative level have the findings been used in decision-making (e.g., policy, program, project, extension planning, etc.)?
   b) What have been the main impacts of gender analysis in cases where it has been done?
      i. On productivity.
      ii. Equality between men, women, and the youth.
iii. On labor distribution.
   c) Do you think the benefits of doing and using the gender analysis outweighed the costs?
5. What are the barriers to conducting gender analysis?
6. If it were completely up to you, would you require that gender analysis be conducted for new agriculture projects and programs to ensure equitable cost and benefit sharing of improvements in agriculture among men, women, and the youth? Why or why not?

Indicators

1. Would it be appropriate/relevant/suitable to ask a farmer who is responsible for each plot? Who would we have to ask to obtain this information reliably?
2. What does it mean when a farmer says that a field is managed jointly by a man and a woman?

4 Progress in Theme 3: Gender-transformative Case Studies on Access to Land

Milestone 2 activities in Theme 3 consisted of preparing field research in Malawi and Ghana in four areas: For a literature review, we evaluated existing documents on sustainable intensification and access to land with specific focus on gender and youth. This included ARs recent (and much broader) gender evaluations in both countries. Thereafter, we developed a sampling strategy for the choice of two different communities per country for the case studies. Through introductory visits we established a first working relationship with community members and their leaders and sought consent for our research plans. Finally, we produced and honed an interview guide that will frame our study with participants at the household, community, market, and policy level. The following section outlines activities in the described areas in more detail (except for introductory visits [see 2]).

4.1 Literature Review and Methodology

Gender and Agricultural Production

Beginning with Boserup’s (1970) seminal piece, a body of work has been developed which establishes clearly that males and females participate quite differently in agriculture. Young (1993) has built on Boserup’s categorization of farming systems into female, male, and mixed farming systems by introducing the concepts of sex segregation and sex sequential farming systems. In sex sequential farming systems, men and women perform quite different agricultural tasks. For example, clearing of virgin forest and the application of fertilizer might be the preserve of men while weeding, sowing, and harvesting might be done by both men and women, and processing left to women. In sex-segregated agriculture, on the other hand, certain crops or livestock are assigned to either men or women.

In Ghana, there does not seem to be much sex-segregated agriculture in the food crop industry. Men and women are equally as likely to grow certain crops (Duncan 2004) although there is a caveat—main staples such as millet and sorghum in Northern Ghana are more likely to be grown by males (Padmanabhan 2004) while vegetables like dawadawa, which is a crucial soup ingredient, are the preserve of women (Apusigah 2009). When it comes to crops grown for cash on either the local or international market, however, there is a much starker difference between men and women’s participation in agriculture. This is true both for Malawi and for Ghana. In both contexts, men are much more likely to be engaged in the cultivation of cash crops than food crops (Doss 2002; Hockett and Richardson 2016; Mathiassen et al. 2007). Malawian men grow the cash crop, especially tobacco (Chirwa et al. 2011). Maize, the major food crop in Malawi, is considered more gender neutral (Chirwa et al. 2011). However, even with that, on closer inspection, there are gender differences. Mathiassen et al. (2007) found that Malawian women are much more likely to grow local maize for household consumption while the men are likely to grow hybrid maize for commercial purposes. Similarly, in Ghana, only between 23 and 26% of yam farmers are women (Doss 2002) and similarly only 22–23% of cocoa farmers are women (Doss 2002).
Notwithstanding, however, it is important to keep in mind that distinguishing between male and female crops is not a simple matter. While it is true that there are “gendered patterns of cropping”, Doss (2002) points out that “the patterns are more complex than simply that some specific crops are grown by either men or women” (Doss 2002). To define a crop as a woman’s crop depends on how a farmer is defined; is it the one who owns the land on which the crop is farmed, the one who keeps the revenue from the crop, or the person who heads the household. There is also the matter of whether the crop should be grown entirely by male or female farmers for it to be defined as a male or female crop, respectively. Doss (2002) concludes that

... the proportion of women as farmers varies across crops. This implies that although there are no clearly defined men's and women’s crops, agricultural policies are not gender neutral if they focus on some crops rather than others.

Depending on the crop one looks at, it is important to pay attention to different categories of women whether in a female or male headed household (Doss 2002), whether a cooking or non-cooking wife in Northern Ghana (Pickbourn 2011), or whether considered a farm or non-farm hand (Apusigah 2009), for example, and the role the crop plays in their provisioning roles. All of these have implications for women’s participation in and benefits from agricultural production.

Another crucial variable that determines the extent to which women can participate in and benefit fully from agricultural production is access to land. This is determined in large part by whether one lives in a matrilineal context or not. In Ghana, as Duncan (2004) has argued, women from matrilineal communities have access to land that belongs to the family into which they were born. In patrilineal communities, on the other hand, a woman typically leaves her home to join her husband’s family and can access land that belongs to her husband’s family. In both cases, the head of the family who is usually male makes the final decision as to whether or not women get land as well as what kind of land they get. Women in matrilineal societies, whose access to land is determined by their family of origin, are more likely to have access to land than women in patrilineal societies whose access is determined by their family of procreation.

A similar situation occurs in Malawi. In matrilineal societies such as Dedza and Ntcheu, women have much greater access to land than women in patrilineal societies. In fact, studies have shown that while as much as 80% of women in matrilineal communities own land, the same is true for less than 20% of women in patrilineal societies (Bezner Kerr; 2005; Zuka 2015). However, ownership of or access to land does not necessarily translate into control over the proceeds of the land. As Zuka (2015) has shown in the case of Malawi, while women in matrilineal communities own their land, very few of them control the proceeds from the lands they own. For example, in Machinga District, while 73.8% of women owned land, only 19% had control over the land.

With the increasing development of sustainable intensification practices on the continent, the importance of gender has become ever more evident in terms of the ways in which it influences the adoption of practices as well as its implications for the gender order in farming communities.

**Gender and Agricultural Innovation**

Even though adopting agricultural innovations of various kinds improves agricultural productivity, rural women farmers rarely use such innovations, be they improved crop varieties, fertilizers, or agro-chemicals of different kinds. Among maize farmers in Ghana, for example, only 39 percent of female farmers as opposed to 59 percent of male farmers used improved corn seeds (Doss and Morris 2001). Interest in adopting improved crop varieties might be linked to the importance of the crop for the farmers. If men as opposed to women perceive a crop as of market value, they would be more likely to adopt improved crop varieties. If, on the other hand, the crop is viewed by the farmers as a subsistence crop, interest in adopting improved varieties might be limited (Padmanabhan 2004). Scholars in the Malawian context argue, however, that men and women value crops differently, with women valuing crops that are food sources while men value crops that have commercial value. Consequently, women will only adopt agricultural intensification practices if linked to food crops while men will do the same if linked to cash crops (Bezner Kerr 2005, 2008; Chirwa et al. 2011; Hockett and Richardson 2016).
Agricultural innovations include the adoption of fertilizers and agrochemicals. In studies of maize farmers’ use of fertilizer in both Ghana (Morris et al. 1999) and Malawi (Chirwa et al. 2011), the evidence shows that women applied less fertilizer than men. Female farmers’ poor use of fertilizers is due in large part to the poor levels of education they receive (Quisumbing et al. 1999).

Beyond who uses what, it is also important to also point out the possible ways in which agricultural innovations can undermine, entrench, or create problematic gender orders. New crop varieties will require different levels of labor intensity, which has implications for who would be displaced, or find themselves more burdened with work (Padmanabhan 2004). New crop varieties can also reconfigure the ways in which agriculture takes place in particular communities by creating/undermining either sex-sequential or sex-segregated agriculture. In Northern Ghana, for example, Padmanabhan (2004) has noted how the introduction of a new crop, maize, into the diet of the communities as a substitute for millet, undermined the sex-segregation agricultural system around which millet was grown. Unlike the traditional staple, which was viewed as the preserve of men, maize, as a new staple, is grown by both men and women. Similarly, in Malawi, a farm input subsidy program funded by the Department for International Development (DFID), which subsidized both seed and fertilizer for households, reconfigured the gender order in those households. The rate of adoption of modern maize cultivation increased by as much as 222% as compared to what occurred in average Malawian households (Chirwa et al. 2011; Fisher and Kandiwa 2014). Agricultural innovations can therefore reinforce gender differences in agriculture as in the case of the adoption of improved varieties of corn in Ghana or it can undermine the gender order as evident in the introduction of a new staple into Northern Ghana and the subsidization of seeds and fertilizers in Malawi. It follows from this that in the quest to find out what drives farmers (male, female) to adopt and adapt newly introduced technologies and innovations, one has to dive into seeking an understanding on how farmers combine new ideas with their own local knowledge in different social and geographical settings.

**Land Access as Focus of Theme 3 Research**

A redistribution of land (especially in the sense of access to and control over land) is key for equitable sustainable agricultural intensification processes for two reasons:

1. Sustainable intensification is meant to happen on the same land base (without expansion into new areas to avoid environmental costs) (see Garnett et al. 2013).
2. Only if disadvantaged groups involved in farming (e.g., women and youth) gain sufficient access and control of land (and the benefits derived from it) is intensification equitable and thus sustainable in the long run.

Research on gender and land has conventionally focused on intra-household negotiations and decision-making on land allocation (see Lambrecht 2016). Although these are important aspects of the topic, this focus underestimates forces outside the household that may shape who controls or accesses land. In 1997 Agarwal expressed that

“Models and policies could go awry if intra-household dynamics are assumed (as they often are) to exist in isolation, without examining the extra-household socio-economic and legal institutions within which households are embedded, and how these institutions might themselves be subject to change” (p. 2).

Kabeer’s (1994) social relations approach (see Figure 8) offers a framework through which extra-household institutions and their role can be included in gender research at the household level.
Kabeer (1994) identifies four key institutions that have internal dynamics as well as interaction with each other. These are the household, community, market, and state. Investigations that address gender and land issues within this framework will correct the problem outlined by Agarwal (1997).

In a recent study Lambrecht (2016) used Kabeer’s framework for a study on gendered land access in Ghana that provides new and important insights. However, her focus was not on the context of sustainable agricultural intensification. This project will build upon Lambrecht’s results and compare them with data generated through our SAI research in Malawi and Ghana.
4.2 Sampling Strategy

Malawi

The team shall work in two communities of Kanzinjilira in Mzimba and Golomoti in Dedza) and will use the four components of Kabeer’s (1994) social relations framework (household, community, market, and government) as various social institutions to study gender inequalities. The team will interview 26 farmers and stakeholders and conduct four focus group discussions with village heads for the research based on the four components categorized as follows:

**Household**

In each community the following will be interviewed

- 4 adult farmers from MHH (2 female, 2 male)
- 4 adult farmers from a Single HH (2 male, 2 female)
- 4 farmers from polygamous HH (2 female, 2 male)
- 4 youth farmers (18–35 years (2 female, 2 male)

**Community**

In the two communities the following FGD will be done

- 4 FGDs with village heads (2 with female 2 with male)

**Government**

- 2 extension workers (1 per EPA)
- 2 DADO (1 per district)
- 2 land officers (1 per district)

**Market**

- 4 agro dealers (NASFAM, ADMARC, ETG) (2 per district)

Ghana

As shown in Table 9, Africa RISING works in 25 communities across six districts in three regions in the North of Ghana (2 districts in the Northern Region, 2 districts in the Upper East Region, and 2 districts in the Upper West Region).

**Table 9. Africa RISING communities in Ghana**

**NORTHERN REGION**

<table>
<thead>
<tr>
<th>SAVELEGU-NANTON DISTRICT</th>
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<tbody>
<tr>
<td>Jana</td>
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<td>Duko</td>
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<td>Botingoli</td>
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<td>Tibili</td>
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<td>Kpallung</td>
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<td>Region</td>
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<td>TOLON-KUMBUNGU</td>
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<td>UPPER EAST REGION</td>
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<td>BONGO DISTRICT</td>
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<td>KASSENA-NANKANA</td>
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<td>UPPER WEST REGION</td>
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<td>NADOWLI DISTRICT</td>
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Based on the work of Apusigah (2009), we know that female farmers in the Northern Region of Ghana tend to think of themselves as non-farm hands while those in the Upper East and Upper West Regions tend to think of themselves as farm hands. In communities where women are conceptualized as farm hands, they are expected to work alongside men in the various stages of agricultural production. Since we want to interrogate the extent to which conceptualization of women as full participants in productive activities impacts their ability to access land in the context of sustainable agricultural intensification processes, we were interesting in sampling one district from the Northern Region and another from either the Upper East or Upper West.

The decision to work in the Upper East or Upper West region was informed by the similarities in socioeconomic contexts between those two places and the Northern Region. According to the Ghana Living Standards Survey VI (2012/2013), the poverty rate in Northern Region is 50.4%, that in Upper East Region is 44.4%, and that in Upper West Region is 70.7%. We therefore chose to work in the Upper East Region and the Northern Region. In selecting which districts to work in, we were guided by similarity in crops grown. We chose Kassena Nankana in the Upper East Region and Tolon-Kumbungu district in the Northern Region; in both districts, similar crops such as groundnuts and millet are grown.

As with our choice of regions and districts which is purposive, our choice of specific communities in the districts in which to work for both PID (theme 2) and SAI indicator testing (theme 3) is also purposive and informed by our research questions as well as the willingness of the community participants to work with us. Apart from that, we are interested in analyzing the role, if any, that religion (Christianity versus Islam) plays in improving women’s access to land. Thus we chose both rural communities where there was a Christian as well as Moslem population. Three communities in our two districts of interest fit this bill: Tingoli in the Tolon/Kumbungu District of the Northern Region), Samboligo in the Bongo District in the Upper East Region, and Nyangua in the Kasena-Nankana District also in the Upper East. We chose Tingoli and Nyangua.

In each community, we will interview 29 people. In determining exactly whom to interview in each community, we are guided by Kabeer’s (1994) model of the various social institutions that perpetuate gender inequity (household, community, market, government). We will choose respondents from each of these categories:

**Households**

- 4 adult farmers from MHH (2 female, 2 male)
- 4 adult farmers from a Single HH (2 male, 2 female)
- 4 farmers from polygamous HH (2 female, 2 male)
• 4 youth farmers (18-35 years (2 female, 2 male)

**Community**
- Male Chief (1)
- Male Tindanna (1)
- Priest, preferably Catholic (1)
- Imam (1)
- Female Magazia (1)
- Farmers on the Community group platform—1 male
- Farmers on the Community group platform—1 female

**Market**
- Extension agents (2)
- Farmer-based association executive (2)

**Government**
- District planning officer (1)
- District lands officer (1)

4.3 Research Instruments
The following interview guide below was developed for interviews with members of farming households in the chosen communities in Ghana and Malawi. For interviews with key informants sections 5 to 7 will be used. All interviews will be recorded (after having received informed consent from respondents), transcribed, and translated into English. A section will be added to the interview guide that records information on the household and respondent demographics.

**Section 1: Introduction**
- Information on research project, donors, and participating partners
- Information on voluntary participation in research
- Request for informed consent
- Request for consent to record interviews

**Section 2: Introductory Questions for Farmers**
- Describe your current farming activities!
- What do you cultivate?
- Do you have joint or separate fields in your household? Describe your field management

**Section 3: Access to Land in the Household of Origin**
- When you think back about your household of origin, how much agricultural land did your household own?
- Who in your household was the official owner of the agricultural land (a person, a group)? Why?
- Who was given access and right of use? Why?
- Who was not given access and right of use? Why?
- Describe for each person with access to land the size of the plot and how it was used?
- Describe how the benefits from each plot were shared. Why were they shared in this manner?
- Who in your household took decisions on granting access to land?
- Describe the rules underlying the process of granting access.
- Do you remember that there were negotiations among household members on access to land? If no, why not? If yes, what do you remember?
- How did women gain access to land? Were there differences as compared to men? How were these differences justified?
- How did young people gain access to land? Were there differences as compared to elderly people? How were these differences justified?
- Since you were a child have you seen any changes in how households organize access to land?

Section 4: Access to Land in the Household of Procreation

- How much agricultural land does your current household own?
- Who in your household is the official owner of the agricultural land? Why?
- Who has access and right of use? Why?
- Who has no access and right of use? Why?
- Describe for each person with access to land the size of the plot and how it is used.
- Describe how the benefits from each plot are shared. Why are they shared in this manner?
- Who in your household takes decisions on granting access to land?
- Describe the rules underlying the process of granting access?
- In your current household are there negotiations among household members on access to land? If no, why not? If yes, can you describe the negotiations?
- How do women gain access to land? Are there differences as compared to men?
- How do young people gain access to land? Are there differences as compared to elderly people?
- Do you think that land in your household could be distributed in a different manner? If no, why not? If yes, what would need to happen to make redistribution possible?

Section 5: Access to Land in the Community

- In your community, are there any rules on access to land? Describe them!
- Who are the authorities that decide on how land is used? Outline the role and decision-making power of each authority!
- In your community, have there been any negotiations/conflicts on land use in the past or in recent years? Describe the involved parties, the conflict issues, and how they were resolved!
- What is the role of women in community decision-making processes on land use? Why do they have these roles?
- What is the role of young people in community decision-making processes on land use? Why do they have these roles?
- In recent years have there been any changes in how land is allocated within your community? Describe!
- What would need to happen in your community to achieve a more equitable allocation of land? Describe markers of change!
- Who in your community would opt for changes? Who would opt against changes?

Section 6: Access to Land and the Market

- In your community, have there been any cases were agricultural land was sold off? If yes, please describe. If no, describe why land is not sold.
- If agricultural land is sold, who is involved in the decision to sell? Describe cases!
- Who gains the benefits from sale? Describe cases!
- What kind of land is usually sold? Describe cases!
- Who used to work on this land before it was sold? Describe cases!
- What are the effects on those who lost access to this land through sale? Describe cases!
- Who is the land sold to? Describe cases!
- Are there cases where land is rented out? If yes, what kind of land is usually rented out?
- Who is involved in the decision to rent out land? Describe cases!
- Who gains the benefits from rent? Describe cases!
- What are the effects on those who lost access to this land since it was rented out?
- In recent years, has there been any increase/decrease in renting or buying of land? If yes, describe how and why.
- Do women in your community rent or buy land? If no, why not? If yes, describe how.
- Do young people in your community rent or buy land? If no, why not? If yes, describe how.
- What would need to change to ensure equal access to land through the market? Describe markers of change.
Section 7: Access to Land, the State, and Development Organizations

- How far are national laws on land tenure applied in your community? Describe.
- Who would be the authorities in your community to turn to to make use of national laws on land tenure? Outline the role of these authorities.
- Have there been any recent changes in laws on land tenure or in their application? If yes, describe how.
- How far do national laws conflict with other rules of access and ownership of agricultural land? If there are conflicts between different legal systems, how are they resolved?
- Who benefits from the application of national land tenure laws? (men, women, youth, certain ethnic or religious groups, etc.)
- Who is disadvantaged by the application of national land tenure laws?
- In recent years, have there been sensitization campaigns by the government or development organizations on agricultural land issues?
- How have government activities impacted on access and ownership of land in your community?
- How have development activities impacted on access and ownership of land in your community?
- Who benefits from changes? (men, women, youth, certain ethnic or religious groups, etc.)
- In your eyes, what would need to change in the legal system to ensure equal access and ownership of land? Describe markers of change.

All interviews will be recorded (after having received informed consent), transcribed, translated into English, and finally evaluated using Atlas.ti or NVivo qualitative data analysis software.
5 Planned Activities for Subsequent Milestones

The following activities are planned for theme 2 and 3 in the subsequent milestones:

**Activity 2.2 Conduct Focus Group Discussions to Contextualize Indicators:** In this activity we will conduct focus group discussions and interviews with R4D platform members to contextualize indicators and assess the relative value and costs of this process.

<table>
<thead>
<tr>
<th>Milestone 3, Theme 2, Activity description</th>
<th>Responsible partners</th>
<th>Milestones, deliverables, and deadlines</th>
</tr>
</thead>
</table>
| 1. Development of focus group discussion methodology, guide, and sampling approach (with special consideration of gender and youth) | **Research Leader**  
Leo Zulu, MSU  
**Co-researchers**  
- Akosua Darkwah and Irene Egyir, University of Ghana  
- Judith Kamoto and Jessica Kampanje, Lilongwe University of Agriculture and Natural Resources  
- Phil Grabowski, MSU | **Milestone 5**  
**Deliverables (partners to IITA):**  
- Focus group discussions completed in all communities  
- Draft Participatory Indicator Report  
**Deliverable (IITA to DFID):**  
- Participatory Indicators Report  
Deadline: 01/01/2019 |
Activity 3.2 Field Work for Case Studies: In this activity we will collect, transcribe and analyse data related to the case studies on gender/youth and land access in Ghana and Malawi.

<table>
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<tr>
<th>Milestone 3, Theme 3, Activity description</th>
<th>Responsible partners</th>
<th>Milestones, deliverables, and deadlines</th>
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</thead>
<tbody>
<tr>
<td>1. Interviews with several members per household separately, members of farmer associations, local authorities, etc.</td>
<td><strong>Research Leader</strong> Gundula Fischer, IITA <strong>Co-researchers</strong> Akosua Darkwah, University of Ghana Judith Kamoto, Lilongwe University of Agriculture and Natural Resource</td>
<td>Milestone 6 <strong>Deliverables (partners to IITA)</strong> Interview recordings and complete translations Results of qualitative data analysis (report) Results of community validation (report) List of references with other research questions and policy environments <strong>Deliverable (IITA to DFID):</strong> Case studies report, journal article Deadline: 01/07/2019</td>
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<tr>
<td>2. Interview transcription and analysis with qualitative data analysis software</td>
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<td>3. Establishment of a list of proscriptive and alternative statements to be validated with selected community members</td>
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<td>4. Establishment of references with policy environments at higher levels and results from research question 1 and 2</td>
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</table>

### 6 References


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Hockett, M. and R.B. Richardson. 2016. Examining the drivers of agricultural experimentation among smallholder farmers in Malawi. Experimental Agriculture (Online First).


Lambrecht, I. 2016. As a husband I will love, lead and provide. Gendered access to land in Ghana. World Development 88: 188–200.


