

Integrating Gender and Nutrition within Agricultural Extension Services

RWANDA

Landscape Analysis

Working Document March 2016



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Working document

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Abbreviations

CAADP Comprehensive Africa Agriculture Development Programme

CDCS Country Development Cooperation Strategy – II

EAS Extension and Advisory Services

EDPRS2 Economic Development and Poverty Reduction Strategy

GOR Government of Rwanda

ICT Information and Communication Technology

INGENAES Integrating Gender and Nutrition within Agricultural Extension Services

MINAGRI Ministry of Agriculture and Animal Resources

MINALOC Ministry of Local Government

MINECOFIN Ministry of Finance and Economic Development

NAEB (Rwandan) National Agricultural Export Board

NISR National Institute of Statistics of Rwanda

RAB Rwandan Agricultural Board

USAID United States Agency for International Development

Introduction

The Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project, funded by the United States Agency for International Development (USAID), is designed to strengthen the efforts of the Feed the Future initiative to reduce global hunger and food insecurity. INGENAES endeavors to further integrate nutritional programming and gender sensitivity into agricultural extension and advisory services (EAS) in target Feed the Future countries, with the end goals of increasing agricultural productivity, improving nutritional outcomes, and reducing poverty.

This landscape study provides an overview of issues that may influence how INGENAES' project objectives are implemented in Rwanda. All of rural Rwanda and 27 out of 30 districts in the country, are included in Feed the Future's Zone of Influence, excluding only three districts in Kigali City (Feed the Future, 2011). This report starts by providing general information on the historical and development contexts, geography, and demographics of the country. It next delves into the gender dynamics impacting Rwandans and the current health and nutrition status for the nation. A summary of issues that are currently impacting Rwandan's land rights, including recent laws that impact greatly on agricultural capacity, leads into an overview of the agricultural sector and how women in particular are faring. This is followed by information pertaining to recent reforms to how extension information and services are delivered as well as a number of gaps that still remain. The narrative concludes with a description of Feed the Future's Multi-Year Strategy and a summary of USAID's Country Development Cooperation Strategy.

INGENAES supports the development of improved extension and advisory systems (EAS) to reduce gender gaps in agricultural extension services, increase empowerment of women farmers, and improve gender and nutrition integration within extension services by directly or indirectly assisting multiple types of stakeholders within a country, such as farmers, producer groups, cooperatives, policy makers, technical specialists, development NGO practitioners, and donors.

INGENAES efforts will strengthen the capacity of key stakeholders and providing the fora and networks for them to coordinate and reach agreement on policies and strategies to implement improved EAS that better meet the needs of men and women farmers. While INGENAES project will not directly monitor beneficiary impact, it will focus on changes in institutions that directly impact men and women who access agricultural information, training, technologies and nutrition information. Improved services empower women and engage men.

INGENAES will strengthen institutions by identifying their needs and strengthening their capacity to effectively integrate gender and nutrition sensitive information and activities into agricultural extension systems with the aim to promote gender equality, improved household nutrition, and increased women incomes and, subsequently, household food security. Based on the identification of four main gaps in extension services in terms of gender and nutrition integration, INGENAES activities can be divided into the following action areas:

- Build more robust, gender-responsive, and nutrition-sensitive institutions, projects, and programs capable of assessing and responding to the needs of both men and women farmers through extension advisory services (EAS);
- Identify and scale proven mechanisms for delivering improved EAS to women farmers;
- Disseminate technologies that improve women's agricultural productivity and increase household nutrition; and,
- Apply effective, nutrition sensitive, extension approaches and tools for engaging both men and women.

Indicative activities of the INGENAES project include: learning exchanges, assessments, curricula development, training into action, mentoring relationships, internship experiences, and networks that focus on identifying gender-responsive and nutrition-sensitive innovations that can be promoted by EAS organizations, and adopted by men and women farmers. Developing these outputs collaboratively with agricultural extension experts and other partners will transform extension-relevant institutions working directly with men and women farmers.

In each country INGENAES needs to examine the relationships, identify the key change actors, build their capacity, and provide them the incentives to make changes (e.g., set new policies, employ new management practices, modify organizational structures, make changes in practice, adopt innovations). The key actors will vary from country to country, although policy makers, the Ministries of Agriculture and Health, NGOs and the private sector, and of course, women farmers, are likely to be involved in most countries. Key actors will be identified as part of the needs and scoping assessments. Thus, and in preparation of country level activities, the consortium gathers information and key contacts to develop a landscape study of the agricultural sector in that country, a simple description of the pluralistic extension system, nutrition related initiatives, and gender issues. As such, the landscape study is intended as a preparatory tool and handy reference document for work in country. Each landscape study will be updated periodically as INGENAES continues to engage in that country and identifies new key contacts, organizations, and initiatives.

Background

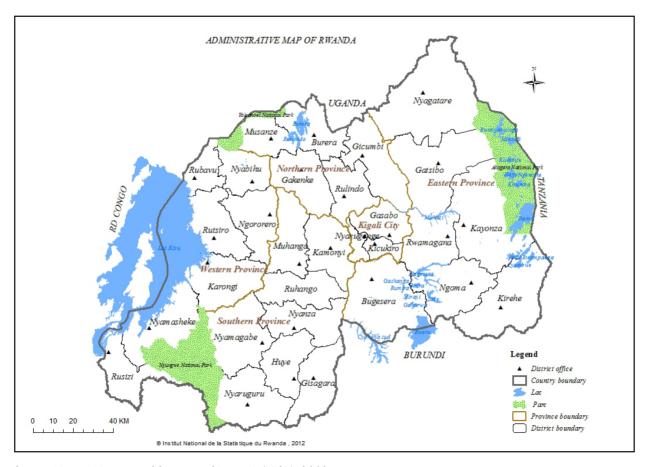
The Republic of Rwanda is a small landlocked country located at the center of the Albertine Rift in East Africa. In addition to being one of the world's biodiversity hotspots, the country possesses a diverse terrain that includes forests, marshland, and steep slopes as well as abundant water resources (USAID Country Profile: Rwanda - Property Rights and Resource Governance). The country is the most densely populated on the African continent with 415 people per square kilometer (Westat, 2014). Overall, the population is approximately 12.66 million people with the Hutu (Bantu tribe) comprising 84%, Tutsi (Hamitic tribe) 15%, and Twa (Pygmy) 1%. The 2012 census revealed 44% of the population identifies as Catholic, 38% as Protestants, 12% as Adventists, 2.5% as having no religious affiliation, 2% as Muslim, 1% as Jehovah's Witnesses, and less than 1% as having traditionalist/animist beliefs (NISR; MINECOFIN, 2014). Life expectancy is 59.67 years and the median age is 18.8 years with the highest proportion of citizens (41.83%) in the 0-14 age group (Central Intelligence Agency, 2016).

Though considered a low-income country, Rwanda is making major strides in economic development and bettering citizens' lives by leveraging available resources and opportunities. Due to strong political leadership and a clear commitment to mutual goals, development partners have in the past been willing to contribute up to as much as 50% of the country's development budget. As a result, Rwanda made impressive gains toward the Millennium Development Goals including attaining near universal primary school enrollment, halving the proportion of people suffering from hunger, decreasing infant and under-five mortality by two-thirds, and increasing forest cover previously lost to deforestation and encroachment (Millennium Development Goals - Rwanda: Final Progress Report 2013, 2014; The World Bank, 2015).

In addition to strong collaboration with development partners, GOR is also partnering with private parties and foreign investors to promote the growth and stability of a number of sectors. In 2007-2008, Rwanda privatized the mining sector and, in 2008-2009, followed up with the adoption of a new mining law and policy. Though small, the mineral sector accounts for 30-40% of export earnings which have been increasing in recent years due to favorable commodity prices. The sector also has enormous potential for growth in that, as of 2014, the sector was performing at only 20% of its full capacity with the reasonable possibility that proper management and increased operations could bring that to 100% (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011; Unleashing the Potential of the Mining Sector as a Contributor to Rwanda's National Development, 2014). The government is supporting artisanal and small-scale miners during this growth period by supporting their integration into the formal market (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011).

Rwanda is one of the five leading countries in Sub-Saharan Africa that are benefiting from foreign capital (Strauss, 2014). Foreign investment can help close the gap for the 83% of households that do not have access to the current electrical grid (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). Micro-hydropower has considerable potential given the combination of hills and streams in the country. The government has selected approximately 69 potential sites for development with the intent to develop the plants before renting them to the private sector for operations. This plan is expected to boost private sector investment by minimizing risks while generating income for the development of new plants (Nyamvumba & Gakuba, 2014). The Ministry of ICT is taking a similar approach with the development of a comprehensive ICT infrastructure that the private sector will eventually run with government oversight. After significant investment to move from slow, expensive satellite-based data services, the country is now transitioning to an impressive fiber optic network that spans 2,600 km and connects all 30 of the country's districts (Swanson, Mutimba, Remington, Adedze, & Hixson, 2011). These long-term developments are particularly impressive considering the challenges Rwanda faces and the fact that they are being carried out

alongside much needed efforts to rebuild social and civil society following the 1994 genocide that not only forced millions to flee but also claimed the lives of between 500,000 and one million people¹ (Rwanda: Justice After Genocide—20 Years On, 2014; Millennium Development Goals - Rwanda: Final Progress Report 2013, 2014).



Source: National Institute of Statistics of Rwanda (NISR), 2012

With a GDP of 7.89 billion in 2014, Rwanda is categorized as a low-income country (The World Bank Group, 2016). Rwanda's long-term development goals are outlined in the strategy document, Vision 2020, that sets the goal of transitioning from an agriculture-based economy, to a knowledge-based economy with middle-income status by the year 2020 (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). It should be noted that, while Rwanda manages aid well and has shown sustained economic growth, the country is

¹ The estimated number of individuals killed varies tremendously by source and methodology. For more information on how these estimates were derived, visit: https://www.hrw.org/reports/1999/rwanda/Geno1-3-04.htm

dependent on aid for 30%-40% of the budget and is currently deemed incapable of sustaining economic growth without it (The World Bank, 2015).

Though there have been improvements in poverty and inequality rates, 56% of the population currently lives below the poverty line (USAID Country Profile: Rwanda - Property Rights and Resource Governance). Poverty is largely concentrated in rural areas with 66% of the rural population living below the national poverty line. Land ownership plays an influential role on household incomes as evidenced by the 74% of households who own less than 0.3 ha who live below the poverty line; this is compared to 54% who own more than I ha (Bizimana, Usengumukiza, Kalisa, & Rwirahira, 2012). Land is in such short supply that with a rapidly growing population, almost all of the land in the country, outside of conserved areas and national parks, is being cultivated (Sagashya & English, 2010).

Gender Issues

After the genocide in 1994, women were seen as instrumental to stabilizing the country and laying the groundwork for nation-building and economic development. Women and girls gained protections through policy and legal reforms that centered on equality in property and land ownership, equal rights under the constitution, and legal protection from gender-based violence (African Development Bank, 2008). Rwanda's constitution also includes an affirmative action policy requiring the inclusion of women in Parliament leading the way for the country to boast the world's highest proportion of women in parliament, 64%, in 2014 (African Development Bank, 2008; Topping, 2014). Gender sensitive programs and strategies are an integral part of Rwanda's development strategies and are guided by the combined efforts of the Ministry of Gender and Family Promotion, the Ministry of Finance and Economic Planning, and the Gender Monitoring Office (USAID|RWANDA Country Development Cooperation Strategy 2015-2019).

The proportion of women who completed or received some primary education is equal to that of men at 68%, however the percentage of women who have received no education is 16%, compared at 10% for men. This last fact however, is more prevalent in rural areas but is becoming less common with each generation. Nationwide, 77% of women are literate (compared to 82% of men) with higher rates of illiteracy among women in rural areas (25%), and women in the poorest quintile (38%) (National Institute of Statistics of Rwanda, Ministry of Health [Rwanda], ICF International, 2012). Thirty percent of households in the country are female-headed, the majority of them are living in poverty conditions (Swanson, Mutimba, Remington, Adedze, & Hixson, 2011).

Despite Rwanda receiving considerable attention and acclaim for reforms that have prioritized women's empowerment there are troubling indicators that women have a long way to go before they have the same control over their lives as men. At the time of the 2010 Demographic Health Survey, 73% of women, compared to 91% of men, reported working in the 12 months prior, however it is far more likely for men to be wage-earners (African

Development Bank, 2008). Of those married women who earn income, only 18% have the autonomy to decide how it will be spent, and 15% reported that it is their husbands that decide with 66% reporting that such decisions are made jointly (National Institute of Statistics of Rwanda, Ministry of Health [Rwanda], ICF International, 2012). Men's power over women is further evidenced by self-reported attitudes toward domestic violence. In Rwanda, 56% of women reported feeling it was justified under particular conditions (provided by the researchers) for a husband to beat his wife; this is far more prevalent in rural areas where 59% of women, compared to 40% of urban women, reported this belief. The 2010 Demographic and Health Survey found 41% of women reported being the victim of violence since turning 15 and, of those, 95% of the aggressors were the women's husbands (National Institute of Statistics of Rwanda, Ministry of Health [Rwanda], ICF International, 2012). At least two in five girls younger than 15 years of age experience violence. Research conducted in 2011 by Rwanda's Gender Desk found that women represent up to 93% of the victims of physical and psychological abuse in the country (A partnership to end Gender-Based Violence, 2014).

Health and Nutrition

In the last two decades, reforms have led to measurable improvements in a number of health-related areas including immunization coverage, infant and child mortality, maternal mortality, family planning, malaria outcomes, and HIV prevalence. Health services are provided through a nationalized, yet decentralized, program that incorporates community health insurance, performance-based financing, and community-based services.

As of 2009, 60% of the population lived within 5 kilometers of a health center (Rodriguez Pose & Samuels, 2011). The GOR has implemented incentives to health care workers willing to work in rural areas though there is still a nation-wide shortage of health workers (Rodriguez Pose & Samuels, 2011). Health services for a district are managed by district health departments that can better respond to the needs of the community while also providing an increased sense of local ownership. Community health insurance (mutuelles) was introduced to remove financial barriers for individuals who are unable to pay for health services. The funding for these mutellas is provided by both the government and development partners. The quality of health services is strengthened by performance-based financial incentives paid to healthcare facilities and healthcare workers as a result of quantitative and qualitative measurements of performance (Rodriguez Pose & Samuels, 2011).

HIV/AIDs spread, in part, as a result of conditions (rape, mass migration, prostitution, prison and refugee camps) brought about by the genocide with an estimated 5.1% of individuals between 15 and 49 years of age testing positive (Brown & Uvuza, 2006). Malaria prevalence has decreased by half since 2007 due to targeted efforts that encourage health-seeking behaviors as well as the nationwide distribution of long-lasting insecticide-treated bed nets. In 2010, 82% of households in the country had at least one bed net and 70% of children, and 72% of pregnant women, were utilizing them (National Institute of Statistics of Rwanda, Ministry of Health

[Rwanda], ICF International, 2012). Only half of the population has access to safe water. Poor water treatment, facilities, and infrastructure for water delivery contribute to the prevalence of disease in the country (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011).

In 2010, the Demographic Health Survey examined children's nutritional status and found that, in children under 5, 44% were stunted (17% severely); 3% showed signs of wasting; and 11% were underweight (National Institute of Statistics of Rwanda, Ministry of Health [Rwanda], ICF International, 2012). Research conducted by the USAID-funded Food and Nutrition Technical Assistance II Project found moderate or severe hunger in 43.1% of households in areas Feed the Future is targeting for intervention. In these same areas, 86.5% of respondents reported exclusively breastfeeding their babies until at least 6 months of age. Mild to moderate anemia is present in 38.1% of children under 5 years of age, and in 17.2% of women of reproductive age (Westat, 2014).

Land Rights

While only 2% of the rural population is actually landless, land remains a tense issue in Rwanda (African Development Bank, 2008). This is due to the country having the highest person-to-land ratio in Africa, a condition that is exacerbated by the fact that the majority of the population live in rural areas where agriculture is the main economic activity. Additionally, the return of millions of Rwandans who were displaced by the genocide has led to overlapping land claims between those returning, and those who moved onto the land in their absence (Brown & Uvuza, 2006). Despite provisions in the formal laws that specifically address and support women's rights to land, in practice it is customary law and tradition that determines women's land ownership resulting in the fact that most women are not landowners (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). The Inheritance and Marital Property Law of 1999 attempted to help secure women's property rights but the protections were hinged on marriages being registered which remains an uncommon practice. Ambiguity within the law has been used to limit widows' rights to inheriting the ancestral land of their deceased spouses (Brown & Uvuza, 2006). Instead of outright ownership, most women have use-rights afforded them through their husband or blood family making them dependent on others. These constraints present a severe burden on the 20% of households that are headed by women, especially in terms of income potential (USAID Country Profile: Rwanda -Property Rights and Resource Governance, 2011).

The Organic Land Law of 2005 is an attempt to define land rights by formally recognizing the rights of long-term leaseholders; resolving the overlapping claims to land resulting from the genocide; and encouraging increased productivity, improved stewardship and consolidated use of the land. Under the law, the government maintains ownership of the land but grants secure use and long-term leases that allow individuals to transfer their rights through typical means, provided spouses and adult children consent. The GOR maintains the right to reclaim land if it

is not protected or used productively (Brown & Uvuza , 2006). Other efforts of managing land issues include allocating land in game reserves and parks for returning refugees and instituting programs for land-sharing that required current occupants to give up part of their land to returnees (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). In 2007, the GOR initiated the ongoing Crop Intensification Program that requires that community members consolidate land and, while each maintains their own plot, the farmers use the shared land to cultivate one crop that was chosen based on the environment and its economic potential (Crop Intensification Program, n.d.).

Agriculture & EAS Delivery Framework

Agriculture is an important part of the Rwandan economy as it employs 80% of the population and contributes 36% of the nation's GDP (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). Coffee and tea are leading export commodities, representing more than 90% of export crops value (Climate-Smart Agriculture in Rwanda, 2015). More than 90% of the food produced in Rwanda is consumed by its residents but even so, it is necessary to import rice, maize and beans because internal production does not meet the demand. The main crops produced are beans, bananas, cassava, and maize (Climate-Smart Agriculture in Rwanda, 2015). Subsistence-oriented family farming households cultivate 66% of crops for home consumption with the remaining going to local markets. (Bizimana, Usengumukiza, Kalisa, & Rwirahira, 2012).

Agricultural productivity is low and 90% of those who work in agriculture do so at a subsistence level (Westat, 2014). The percentage of livestock-owning households increased to 71% in 2006 (from 60% in 2001) in part due to the government program One Cow, One Household. The program, also known as Girinke, was instituted to help improve nutritional outcomes and reduce poverty by supplying cows to target households. The initiative was later expanded to also provide poultry and goats (Bizimana, Usengumukiza, Kalisa, & Rwirahira, 2012; Agriculture Gender Strategy, 2010).

Rwanda's high population density means that land is in short supply. The national average for land parcel size is .35 hectares with variations from .17 ha in areas of higher density, to .77 in those areas that are less densely populated (Sagashya & English, 2010). Farmers also struggle with dependency on rain-fed farming (only 1% of cropland is irrigated) and agricultural productivity is low due to geography, soil degradation and erosion, and low use of inputs (USAID Country Profile: Rwanda - Property Rights and Resource Governance, 2011). Furthermore, only 15% of farmers receive extension and advisory services (EAS) and only 3% have access to financial services that might enable them to increase their benefits from agriculture (African Development Bank, 2008).

There is a clear gender division in agricultural labor in Rwanda. Eighty-two percent of women, (compared to 61% of men), work in agriculture and women provide up to 70% of all agricultural labor (African Development Bank, 2008; USAID). Women are more likely than men to be

subsistence farmers, and 90% of female-headed households work in agriculture (USAID|RWANDA Country Development Cooperation Strategy 2015-2019). While food insecurity affects 28% of the entire population, it affects female-headed households at the significantly higher rate of 37% (compared to 25% of male-only-headed households) (African Development Bank, 2008). Crops that are typically cultivated by women tend to be for family consumption and receive less land and resources than those that are seen as men's (more marketable) crops (Agriculture Gender Strategy, 2010). On average, men do 67% of the land clearing, while women take care of 80% of the sowing, 67% of the hoeing, 65% of the food processing, 72% of the labor involved in food transport and storage, and 34% of marketing (African Development Bank, 2008). Including time spent on reproductive activities, this added labor results in women working twice as many hours a day as men (see Table 1: Daily Activities by Gender).

Table I: Daily Activities by Gender (hours)

Activities	Women	Men
Sleeping	7	8
Farming activities	10.5	7
Reproductive activities	5	0
Rest/Pubs	1.5	9

Source: Agriculture Gender Strategy, 2010

The GOR has prioritized agriculture as both an engine of growth to reduce poverty, and a means of improving nutritional outcomes for its citizens. The National Agricultural Policy, adopted in 2004, has four overarching goals to meet those visions:

- I. Transform and modernize agriculture
- 2. Develop value chains
- 3. Promote competitiveness for agricultural products
- 4. Develop entrepreneurship (Bizimana, Usengumukiza, Kalisa, & Rwirahira, 2012)

A strong extension system will be required to deliver on these goals, and methods of improving EAS have been identified. Two decades ago, Rwanda's Ministry of Agriculture and Animal Resources (MINAGRI) was responsible for delivering extension in a top-down manner but after the genocide, national and international NGOs began organizing farmers into cooperatives and associations to better deliver EAS. The fragmented nature of these organizations resulted in missed opportunities in research and extension that led the GOR to restructure MINAGRI and create the Rwanda Agricultural Board (RAB) and the National Agricultural Export Board (NAEB) while tasking the Ministry of Local Government (MINALOC) with extension delivery (World Wide Extension Study: Rwanda, 2011). The decentralization of services has laid the

groundwork for a pluralistic system that includes the public and private sector as well as international development partners, NGOs, and farmer-based groups however at this time there are still coordination issues (see Table 2: Key Players in Rwanda's Pluralistic Extension System). See Figure 1: Agricultural Sector Roles and Institutional Framework for a visual representation of extension organizations, who they collaborate with, their various roles, and who they serve. One attempt to resolve the ongoing coordination problems lays in the practice known as *imihigo* – a multi-party consultative process in which district level mayors direct discussions that attempt to reconcile national needs and priorities, with farmers' needs, and local realities and opportunities. After discussion, a plan is developed and the mayor signs a contract attesting to production volumes and performance outcomes after which time extension resources are directed (Swanson, Mutimba, Remington, Adedze, & Hixson, 2011).

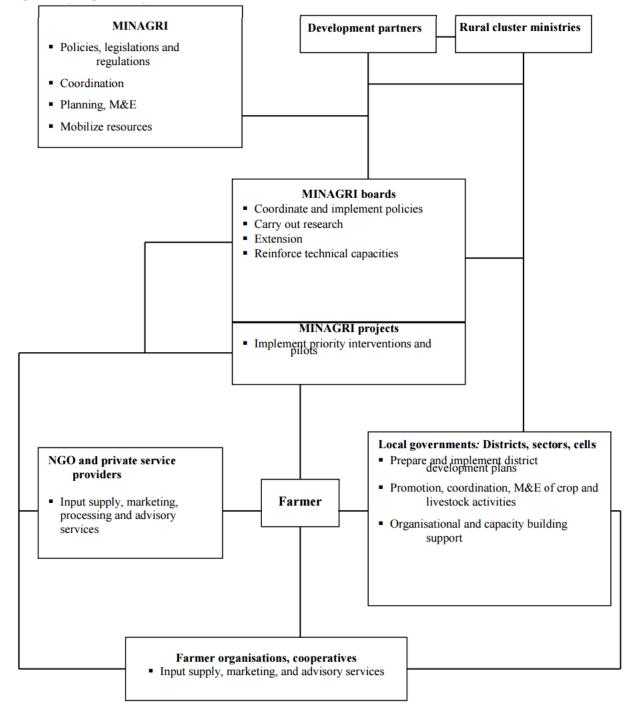


Figure 1: Agricultural Sector Roles and Institutional Framework

Source: Bizimana, Usengumukiza, Kalisa, & Rwirahira, 2012

Table 2: Key Players in Rwanda's Pluralistic Extension System

Public Sector

- Ministry of Local Government (MINALOC)
 - Department of Regional Development, Research and Extension (DRDRE)
- Ministry of Agriculture and Animal Resources (MINAGRI)
 - Rwanda Agricultural Development Authority (RADA)
 - Rwanda Animal Resources Development Authority (RARDA)
 - Rwanda Horticulture Development Authority (RHODA)
 - Rwanda Agricultural Research Institute (ISAR)

Public Research/Education

- National University of Rwanda (NUR)
 - Faculty of Agriculture

Private Sector

- Enterprise Urwibutso
- Sosoma Industries
- MTN Rwanda

NGOs and Donor Organizations

International Donors

- Belgian Development Agency (BTC Rwanda)
- Dairy Development Project (DDP), Land O'Lakes
- United States Agency for International Development (USAID)
- Food and Agricultural Organization (FAO)
- ❖ CATALIST, IFDC
- UNICEF
- United Nations Economic Commission for Africa

International Organizations (CGIAR)

- CIALCA Biodiversity, IITA, CIAT-TSBF
- * ECABREN (Bean Research Network), CIAT
- * PRAPACE (Potato Research Network), CIP

Non-Governmental Organizations

- Africare
- ❖ CARE
- ❖ DUHAMIC ADRI
- HarvestPlus
- Catholic Relief Services (CRS)
- * RWARRI (Rwanda Rural Rehabilitation Initiative)
- UGAM/Centre de Service aux Cooperatives
- World Vision

Cooperatives and Farmer Associations

- KAIGA cooperative (Irish Potatoes growers)
- COAMVU cooperative (Maize growers)

- MURUGO Cooperative (Livestock)
- Nyiramageni cooperative (Rice production)
- Impuhwe Z'Imana Women cooperative
- Koakaka Cooperative
- Abatangan Farmers Group
- Young Women Christian Association (YWCA)

Source: World Wide Extension Study: Rwanda

One method of extending the reach of EAS is through the expanded use of Information and Communication Technology (ICT). As of now, 95% of the country's land mass has mobile coverage, albeit often too slow for effective use by extension workers. To provide information services, the national Agricultural Information and Communication Centre was created as a resource hub as was e-Soko, a service to provide farmers with market information pertaining to all major agricultural commodities (Swanson, Mutimba, Remington, Adedze, & Hixson, 2011).

In the 2010 report, Agriculture Gender Strategy, MINAGRI identified a number of problems in extension, particularly affecting women farmers and poorer households:

- A lack of understanding on the part of extension personnel concerning gender and how to design and plan activities that are accessible and relatable to women and poor male farmers;
- A lack of female extension workers resulting from low numbers of women enrolled in science courses;
- Materials that extension workers utilize often rely on the audience's ability to read and count and many farmers, especially women, lack sufficiency in this regard;
- Technologies advanced by research institutions rarely consider gender or practical needs, such as the size of machinery or access to water
- High workload of extension workers causes some to focus on farmers with more resources, excluding the poor;
- Extension models based on efficiency, such as the lead farmer approach or working through cooperatives, neglect those without the resources to qualify;
- Isolation from services that are located too far away from the farmers in need of them;
- Failure to consider women's schedules and reproductive duties when planning trainings and meetings, such as scheduling them early in the morning when household duties conflict, or not providing child care (Agriculture Gender Strategy, 2010).

Feed the Future Multi-Year Strategy (2011-2015)

Feed the Future's Zone of Influence includes all of rural Rwanda and 27 of the 30 districts in the country, leaving only three districts, in Kigali City, out (Feed the Future, 2011). Within those targeted areas, the prevalence of poverty is 67%, as measured as having less than \$1.25 a day. However, it should be noted the GOR estimates the poverty line at 47.8% due to measuring

the poverty line at \$0.99 a day (Westat, 2014). The three goals were identified for the 2011-2015 period include assisting more than 700,000 women, children, and family members, primarily smallholder farmers, to escape hunger and poverty; reaching almost 190,000 children to improve nutrition and prevent stunting and child mortality; and improving incomes and the nutritional status of rural populations by strategic policy engagement and investing in institutions (Feed the Future, 2015). To reach these objectives, Feed the Future is: making key investments to transform systems to facilitate improvements in agricultural production, markets, infrastructure and nutrition; promoting investment from the private sector; and working to strengthen the government's capacity for policy-making (see Annex 1: Mapping Feed the Future Investments to Program Elements and Strategy IRS) (Feed the Future, 2015).

Feed the Future identified a select number of value chains to focus on, including beans, maize and dairy (Feed the Future, 2011). Beans and maize production are expected to increase significantly by 2050 based on climate change models that position Rwanda favorably over neighboring countries that cannot expect the same change. Another factor that makes this a good investment is the fact that these crops are often rotated and they require similar drying and storage infrastructure (Feed the Future, 2015). Feed the Future also provides limited support for the higher-value coffee and pyrethrum crops that are a commodity for export (Westat, 2014).

Another area of sound investment is in the dairy industry. Currently, 85% of the milk sold is through informal markets that are not subject to regulatory oversight. A study carried out between November 2013 and March 2014 tested 94 milk samples from transporters, milk collection centers, and kiosks and found that bacterial loads were higher than the limits set for safe consumption as well as the standards set by the Common Market for Eastern and Southern Africa that Rwanda must meet in order to compete in regional milk markets (Doyle, et al., 2015). In 2013, Feed the Future contributed to the production of a National Dairy Strategy that supports the government's plan to double milk consumption by 2018 and helps guide the development of the dairy sector (Feed the Future, 2015). Milk production has more than doubled between 2006 and 2009 and its potential to improve nutritional outcomes for children is recognized by the GOR (Feed the Future, 2011). Additional work to improve nutrition has included promoting the cultivation and consumption of nutrient-rich crops, such as ironfortified beans and vegetables, as well as reducing post-harvest loss. Feed the Future has also coordinated with the GOR on communication strategies to induce behavior change while developing community-based programs focused on improving nutrition for young children, and pregnant and lactating women (Feed the Future, 2015).

The program has also strengthened infrastructure by helping to rehabilitate rural feeder roads and developing small-scale irrigation networks and soil and water management practices to assist with hillside agriculture. Feed the Future is promoting the privatization of the fertilizer market while also working to improve farmers' access to finance to ensure they can attain the necessary inputs. The GOR's gender strategy for agriculture informs the ongoing work of Feed

the Future but there are also specific efforts to assist women that are expressed in the country's health strategy. These include linking women with low incomes, or female heads of households, to financial services, income-generating activities, and social welfare programs (Feed the Future, 2011).

USAID's Country Development Cooperation Strategy

USAID's five-year Country Development Cooperation Strategy (CDCS) for Rwanda was drafted to provide guidance in planning, budgeting, and resource allocation. The overarching goal of the strategy is to accelerate the country's progress in reaching middle-income status and improving the quality of life for Rwandans through sustained growth and the reduction of poverty. While there are four Development Objectives outlined in the CDCS, two are specific to agriculture and nutrition:

<u>Development Objective</u>: Increase and sustain economic opportunities by improving productivity and nutritional outcomes from agriculture while enhancing private sector competitiveness for Rwandans;

<u>Development Objective</u>: Improve the health and nutritional status of Rwandans by improving the quality of health services and increasing the utilization of health services and products (USAID|RWANDA Country Development Cooperation Strategy 2015-2019).

The goals of the CDCS are aligned with Rwanda's development strategy for the period of 2013-2017, articulated in the GOR's Economic Development and Poverty Reduction Strategy (EDPRS₂), which focuses on ways to transition from an agrarian economy to a knowledge-based one. Some central objectives during this period include reducing poverty, developing the agricultural sector, improving health, building capacity, and integrating social protections (including those for women) (USAID|RWANDA Country Development Cooperation Strategy 2015-2019).

Conclusions

Farmers in Rwanda face a number of challenges if they are to succeed in facilitating the growth envisioned in the country's development strategy for the sector. With that said, the government of Rwanda has already proved itself willing to make drastic reforms in the name of modernization. By working closely with development partners to align priorities and establish complementary aid, Rwanda is well positioned to meet the challenges ahead.

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