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The U.S. Government's Global Hunger & Food Security Initiative

Integrating Gender and Nutrition within Agricultural Extension Services

KENYA

Landscape Analysis

Working document

March 2016



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INGENAES
Integrating Gender and Nutrition
within Agricultural Extension Services



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Acronyms

ASDS	Agricultural Sector Development Strategy
CDCS	Country Development Cooperation Strategy
EAS	Extension and Advisory Services
INGENAES	Integrating Gender and Nutrition within Agricultural Extension Services
NALEP	National Agriculture and Livestock Extension Program
USAID	United States Agency for International Development

Introduction

The INGENAES (Integrating Gender and Nutrition within Agricultural Extension Services) project is funded through the Bureau for Food Security of the United States Agency for International Development (USAID) to support the Presidential Feed the Future initiative, which strives to increase agricultural productivity and the incomes of both men and women in rural areas who rely on agriculture for their livelihoods.¹

This landscape analysis is an overview of key issues related to the INGENAES mission in Kenya. It contributes to the knowledge base of Feed the Future countries for both the INGENAES team and country extension and development practitioners. It will also serve as a public reference tool for any parties interested the topics contained within.

This analysis begins with an overview of Kenyan geography, culture, and poverty status. It then provides a description of the Kenyan agricultural sector, the national agriculture strategy, and women's involvement in agriculture; food security and nutrition issues in the country; and the national nutrition strategy. In addition, the landscape analysis provides details on the Feed the Future approach in Kenya and how USAID's country strategy supports Feed the Future and potentially INGENAES. The final section of the report includes descriptions of various projects that are relevant to INGENAES.

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 non-governmental organization (NGO) practitioners, and donors.

INGENAES efforts will strengthen the capacity of key stakeholders and provide 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 the 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 will 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;

¹ The USAID cooperative agreement (Award No. AID-OAA-LA-14-0008) has been awarded to the prime implementer, the University of Illinois at Urbana-Champaign, the lead organization of the consortium. The consortium also includes the University of California-Davis, the University of Florida, and Cultural Practice, LLC. The project is currently working in select Feed the Future countries.

- 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, 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

This section provides a brief overview of many aspects of Kenya that are relevant to INGENAES: geography, culture, poverty, agriculture, gender, food security, and nutrition.

Geography, Culture, and Poverty Status

Kenya is located in East Africa between Somalia and Tanzania, bordering the Indian Ocean (see Figure 1; see [Appendix A](#) for more-detailed maps). It is slightly larger than twice the size of the U.S. state of Nevada, with a relatively large population of around 45 million people. English and Kiswahili are the country’s two official languages, with Kiswahili slightly more widespread, especially in rural areas. Each of the country’s 42 ethnic groups also has its own language, and many of these languages have several dialects (see Table 1, next page). Around 83 percent of the Kenyan population identifies as Christian, while 11 percent identifies as Muslim, and less than 2 percent identifies as “traditionalists” or “other” (CIA, 2015).



Figure 1: Map of Kenya

Source: www.commonswikimedia.org

Table 1: Major ethnic groups and languages

Ethnic group	Language (or language group)	Percent of population
Kikuyu	Kikuyu	22%
Luhya	Luhya	14%
Luo	Dholuo	13%
Kalenjin	(many languages)	12%
Kamba	Kikamba	11%
Kisii	Kisii	6%
Mery	Kimiiru	6%

Source: CIA Factbook

As seen in Table 2, Kenya has slightly lower poverty levels compared to other developing countries in sub-Saharan Africa. Nevertheless, nearly a third of the population lives on under \$3.10 a day, which poses clear challenges to many development goals, including agricultural development. Additionally, because of the country's relatively high level of income inequality (reflected in its Gini coefficient), per capita income is actually lower than in many other sub-Saharan countries. For information regarding regional distribution of poverty in Kenya, see [Appendix A](#).

Table 2: Key poverty-related indicators*

	People living on under \$1.90/day (2005) (percent of population)	People living on under \$3.10/day (2005) (percent of population)	GNI per capita In 2005	GNI per capita in 2014	Gini coefficient (2005)
Kenya	34%	59%	\$2,267	\$2,804	.49
Sub-Saharan Africa (developing countries only)	51%	74%	\$2,544	\$3,205	.44

Source: The World Bank (2015)

*The first four figures in are measured in 2011 constant US dollars, adjusted for purchasing power parity (PPP). PPP adjusts the exchange rate so that an identical good has the same price when purchased in different countries. GNI (gross national income) consists of gross domestic product (GDP) plus income earned by foreign residents, minus income earned in the domestic economy by nonresidents. The Gini coefficient shows the level of income inequality. It is measured on a scale between 0 and 1, where 0 indicates perfect equality and 1 indicates perfect inequality; coefficients between .40 and .49 indicate moderate income inequality.

Gender Overview

Farnworth, et al. (2012) note that women in Kenya are often restricted from making decisions regarding the use of productive resources at the household and community levels, that women's educational opportunities are often limited, and that gender norms often make women more vulnerable to HIV infection. Additionally, Farnworth et al. note that "gender norms that equate masculinity with toughness reduce male health-seeking behaviors, force men to view themselves as breadwinners at a time when structural changes in the economy encourage higher rates of female participation, and engender cultural dynamics that make young men particularly vulnerable to appeals to engage in inter-ethnic violence" (p. 7). Therefore, gender programming in Kenya should not only address women, but men as well. However, it is important to keep in mind that, again according to Farnworth et al., there is a great amount of variability across the country in terms of gender norms.

As seen in Figure 2 (next page), women make up only 20 percent of Kenya's national parliament. While this is low compared to the rest of the East African region, it is actually similar to the global average of women's representation in national parliaments (23%). Nonetheless, women are clearly underrepresented on the national political level; Farnworth et al. confirm that women are also underrepresented in district- and local-level political structures as well. However, these authors note that many Kenyan women have gained power through alternative structures such non-governmental and grassroots organizations.

A 2003 gender assessment by the World Bank notes that “Kenya’s sociocultural, institutional, and legal framework is patriarchal,” and that “most of [Kenya’s] indigenous African cultures are patrilineal, patrifocal, and patriarchal” (p. 5). The exception seems to be the Kikuyu people of Central Kenya (see map in Annex A) who, while not currently matriarchal, maintain some of their historical matriarchal traditions by encouraging girls and women to take leadership roles (Nafukho, Amutabi, & Otunga, 2005). The World Bank assessment explains that while land in Kenya is usually communally owned, the right to use land is passed on exclusively to men. Rombo (2009) confirms that Kenya’s patriarchal society has limited women’s access to land, and also women’s access to health care, education, and economic decisions. In addition, the World Bank assessment states that common cultural practices such as polygamy, widow inheritance, early marriage, and female genital mutilation “are also factors in ensuring women’s and girl’s subjugation” (p. 5).

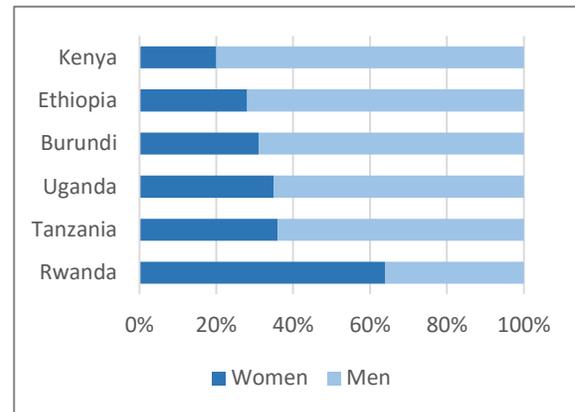


Figure 2: Gender parity in national parliaments. Data from World Bank (2015), graph by author.

Agriculture Overview

The agricultural sector is largely considered to be the backbone of Kenya’s economy and it accounts for the majority of the country’s labor force. According to Kenya’s country profile on the Feed the Future website, more than 75 percent of Kenyans make at least some part of their living from several sub-sectors of agriculture-related activities: crops, livestock, fisheries, land, water, cooperatives, environment, regional development, and forestry. The agricultural sector directly accounts for about 26 percent of Kenya’s GDP each year (and another 25 percent indirectly); it also accounts for 65 percent of total exports, and provides more than 70 percent of informal employment in rural areas (Government of Kenya, 2010). The sector is unequivocally driven by women, who are responsible for 80 percent of paid and unpaid labor in food production (Feed the Future, 2011).²

As seen in Figure 3, maize and beans are by far the most widely planted crops in Kenya. However, in terms of production value, milk products are the most valuable agricultural products, followed by maize. Beans, although widely planted, are less economically important. For more information regarding important additional crops (in terms of area harvested and production value) see [Appendix B](#).

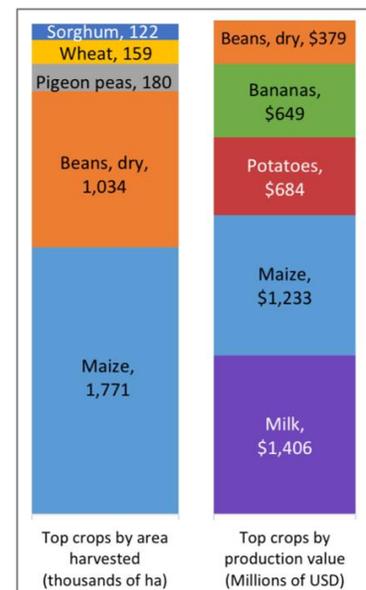


Figure 3: Important agricultural products in Kenya. Data from FAOSTAT database (2015), graph by author.

² Note that data from FAOSTAT indicates that women only contribute 48% of the agricultural labor force in Kenya. The discrepancy between this and Feed the Future’s data may be due to different ways of measuring the informal labor force (FAOSTAT might not take the informal sector into account). In any case, it is clear that women contribute significantly to agricultural production.

Major agricultural activities, including planting and harvesting seasons, vary by region. As seen in Figure 4, the Western and Rift Valley regions experience one long rainy season, which produces one long harvest season; the Eastern region and northern Kenya have two shorter rainy seasons and harvest seasons. These latter regions are much more likely to have a “lean season,” in which households are more likely to experience food shortages and nutritional deficiencies.

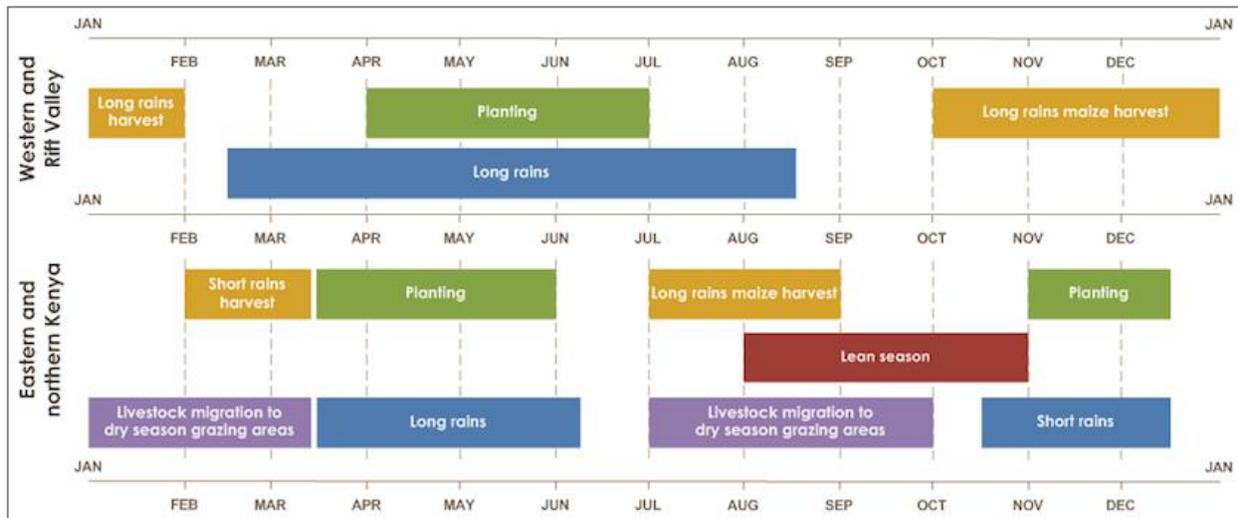


Figure 4: Agricultural calendar. Source: www.fews.net

Kenya’s National Agricultural Strategy

The Kenyan government (2010) has identified four main challenges facing the country’s agricultural sector:

1. **Productivity.** Production levels for many crops, fish, and livestock products are below potential, and some are declining. Forest cover and tree productivity have also been declining.
2. **Land use.** Land in many regions remains under-exploited for agricultural production; many smallholders use only around 60 percent of their land for agricultural production.
3. **Markets.** There is a lack of storage capacity, post-harvest services, and access to input markets.
4. **Value addition.** Value addition, which often determines the competitiveness of a country’s produce on world markets, has been underutilized. Currently, 91 percent of agriculture-related exports are semi-processed, low-value produce. Limited capacity to add value to agricultural produce plus high production costs currently inhibit value addition.

In addition, access to water resources in Kenya is constrained, (except in the highlands); this is exacerbated by frequent droughts. Irrigation is relatively rare: most farmers practice rain-fed agriculture on small plots with degraded soils. (Irrigation is somewhat common, however, for large-scale crops such as rice and coffee, and for some export crops such as coffee and horticulture.) A high population growth rate hampers the country’s capacity to produce enough food to feed its population—between two and four million Kenyans currently receive food aid (Feed the Future, 2015). Lastly, only about 16 percent of Kenya’s landmass has “high to medium” agricultural potential, with adequate and reliable rainfall (Government of Kenya, 2010).

Nonetheless, many opportunities exist for revitalizing the agricultural sector. As identified by Feed the Future (2011), Kenya has the largest dairy herd in East Africa, and local and regional demand for dairy products has not yet been met. Additionally, Feed the Future states that Kenya is one of the largest African exporters of fresh produce to Europe, and the horticulture industry has potential to expand domestically, regionally, and internationally. The Kenyan Government (2010) identifies several more actions that would improve the agricultural sector: increased use of unused farming areas, expansion of fisheries, increased value addition, implementation of market reforms that address standards and quality, encouraged growth of agribusiness, increased irrigation, improved roads, increased agricultural inputs, improved extension services, and promotion of access to markets. Kenya’s 2008 long-term development blueprint (“Vision 2030”) and the 2010 Agricultural Sector Development Strategy (ASDS) both contain details on how to capitalize on these and other opportunity areas over the next 10 years. Details on the interventions outlined in these documents can be found in [Appendix C](#).

Women in Agriculture

Farnworth & Obuya (2010) posit that “almost all smallholding farming systems in Kenya demonstrate sex-disaggregated labor by crop and livestock type” (p. 10). Feed the Future’s Multi-Year Strategy (2011) outlines several ways women are involved in Kenya’s agricultural sector: non-cereal crops, including pulses and horticulture (especially African leafy vegetables, sweet potatoes, cassava, and butternut squash), are regarded as “women’s crops.” These are commonly grown in home gardens or as intercropped with cereals, and they are often the only food available during the lean seasons or when the main harvest fails (Feed the Future, 2011). Women are largely in charge of marketing these crops, and they have greater control over income generated by their sale. Additionally, women dominate the informal milk trade, and they are involved in the production of staple crops (Feed the Future, 2011).

Unfortunately, several barriers inhibit women’s agricultural productivity and the benefits that they are able to derive from their labor:

- In many cases, women have limited access to the income from their labor, and thus limited incentives for increasing their productivity. (Feed the Future, 2011)
- Because of discriminatory beliefs, women have a limited ability to upgrade their skills and move into higher technical and supervisory positions in value chains. (Feed the Future, 2011)
- Women are sometimes excluded from farmer groups and cooperatives because they aren’t considered to be “economically active” farmers. (Kingiri and Nderitu, 2014)
- Many women—and some men—have low literacy skills (see Table 3), low management ability, inferior negotiating capacity, and inadequate financial skills; this inhibits adoption of high-value enterprises. (Kingiri and Nderitu, 2014)
- Women generally have much less access to and control over productive resources such as land, machinery, and money. (Kingiri and Nderitu, 2014; see Table 3)

Although HIV has devastating effects on both men and women in Kenya, HIV prevalence is nearly twice as high among Kenyan women as compared to men, serving as a potential additional barrier to women’s agricultural productivity. In 2009, around eight percent of Kenyan women were living with HIV, compared to about four percent of men (The World Bank, 2015). This rate varies greatly by province; see [Appendix A](#) for a

Table 3: Data relating to barriers to women’s success in agriculture

	Men	Women
Literacy rates (2007) ^a	78%	67%
GNI per capita (2014) ^b	\$3,270	\$2,255
^a Source: The World Bank (2015)		
^b Source: UNDP (2015)		

map of HIV prevalence by region. Research by Doskoch (2010) suggests that the high HIV rate, because of its associations with increased childhood mortality, may contribute to the country's high fertility rate of around five children per woman. This high fertility rate likely hampers women's productivity; Reher (1995) provides evidence from several countries (not Kenya) where this is the case.

The Society for International Development (2010) critiques the Vision 2030 (briefly described in Appendix C) for failing to fully address gender; they specifically suggest that the Kenyan government should strive to increase women's access to and control over productive assets (land, capital, and inputs) and extension services, and should increase women's participation in producer organizations. Similarly, the ASDS does not provide details on how Kenya's agricultural policy specifically addresses women. However, it does mention that the Kenyan government plans to develop a gender policy for the agricultural sector, in which gender will be integrated into all of the ASDS's proposed interventions (listed in [Appendix C](#)) through participatory approaches. Documents related to this gender policy do not appear to be publicly available at the time of writing this report, although Kenya's national gender and development policy identifies several ways women can be "integrated" into agricultural policy (in the box below).

Integrating Women into the Agricultural Sector:

A Snapshot of the Logical Framework in Kenya's National Policy on Gender and Development

Output 5: Gender-sensitive technologies in agriculture, food production, storage, processing, and preparation enhanced

Activity 1.5.1: Conduct a study on existing agricultural technologies to establish their appropriateness and responsiveness to the various gender needs.

Activity 1.5.2: Monitoring the impacts and appropriateness of various technologies used in agricultural production.

Output 6: Gender-responsive agricultural research and dissemination of findings promoted

Activity 1.6.1: Conduct research on strategic and practical gender needs in agriculture for the resource poor.

Activity 1.6.2: Conduct workshops and forums to disseminate research findings at the district level.

Source: Government of Kenya (2008), p. 48

Food Security & Nutrition Overview

Kenya has faced severe food insecurity problems since 2008, largely due to frequent droughts, high costs of domestic food production, displacement of farmers during election violence in 2007, high global food prices, and high poverty rates (USAID, 2015). A relatively high population growth rate also strains the country's ability to feed its population (Feed the Future, 2011). The North Eastern Province, which is characterized by frequent droughts, experiences especially high poverty and food insecurity rates (see [Appendix A](#) for more details on regional distribution of food insecurity and undernutrition; both vary greatly across Kenya).

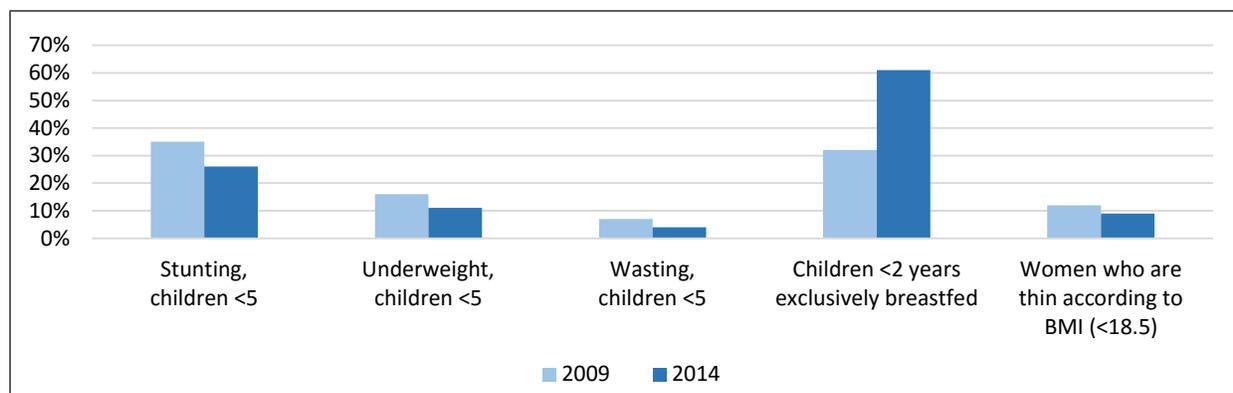


Figure 5: Key nutrition-related indicators. Data from DHS surveys, as depicted on statcompiler.com. Graph by author.

As seen in Figure 5, rates of stunting are higher than rates of underweight and wasting among children; however, all three rates are lower than in other developing countries in sub-Saharan Africa, and all three rates have decreased in recent years. Stunting is more prevalent rural areas (37%) compared to urban areas (26%) (USAID, 2015). Micronutrient deficiencies are relatively common in Kenya, partially due to low consumption of vitamin A- and iron-rich foods (USAID, 2015). For regional distribution of selected nutrition indicators in Kenya, see [Appendix A](#).

IFPRI's 2015 Global Nutrition Report indicates that diminished nutritional status in Kenya is linked to decreased productivity and reduced ability of individuals to adjust their agricultural activities to adapt to climate change. In addition, Family Health International (2010) states that severely undernourished people living with HIV are four times more likely to die than those who are not severely undernourished.

Kenya's National Nutrition Strategy

Kenya's government has outlined several action plans to combat malnutrition. Its National Nutrition Action Plan (2013) outlines numerous "High-Impact Nutrition Interventions," including timely complementary feeding; iron folate, vitamin A, and zinc supplementation; hand-washing; deworming; food fortification; and management of moderate and severe acute malnutrition. In addition, community-based Nutrition Assessment Counseling and Support systems will be strengthened, which will help improve the linkages between clinics and communities, and will allow malnutrition to be detected and managed earlier (Feed the Future, 2011). As part of Kenya's ongoing process of decentralization, each of the country's 47 counties has also developed a nutrition implementation plan (USAID, 2015).

Because of Kenya's participation in the global Scaling Up Nutrition (SUN) Movement, Kenya has established a multi-stakeholder platform known as the Nutrition Interagency Coordinating Committee. This committee, which is still in its formative stages, will bring together representatives from at least five government ministries, the UN, civil society, and academic institutions to collectively work to reduce malnutrition (SUN, 2015).

Overview of Extension and Advisory Services (EAS)

Kingiri and Nderitu (2014) explain that, historically, Kenya’s Ministry of Agriculture (MoA) was the primary administrator of EAS in Kenya, with a focus on crop-based and livestock extension services. Currently, the MoA’s National Agriculture and Livestock Extension Program (NALEP), established in 2000, is complemented by efforts from a variety of other agencies:

- Commodity-based organizations targeting specific crops like tea, sugar, coffee, etc.
- Church or religious-based organizations
- Non-governmental organizations (NGOs)
- Community-based organizations (CBOs)
- Cooperative societies

Around 2001, NALEP made a deliberate shift toward participatory and demand-driven approaches. These approaches include field days, demonstrations, farmer visits, focal area approach (participatory community planning), common interest groups, farmer field schools, information communication technologies (ICTs), farmer-to-farmer extension, trainings, value chains, and community groups (Kingiri & Nderitu, 2014). Of the various EAS approaches, women are most commonly reached through common

NALEP staff in numbers:

5,470 total staff members

- 3,086 subject-matter specialists
 - 565 home economics officers
 - Nutrition specialists
- 1,464 field staff (32% women)

Source: Fanzo et al., 2013

interest groups, targeted courses, farmer field schools, and focal area approaches. Kingiri & Nderitu found that in general, Kenyan women tend to benefit from approaches that advocate social mobilization and group identity, and empower women to be able to make decisions. However, since advocacy is issue-based and often not country-wide, this approach may not be applicable for all extension activities.

The coordination of governmental EAS has been strongly impacted by Kenya’s 2010 constitution, which called for the devolution of functions and powers in the agricultural sector (as well as many other sectors) to the county level, rather than the national level (USAID/Kenya, 2014). Lopokoiyet et al. (2013) explain that this has created additional responsibilities for extension workers, who now not only need technical agricultural knowledge, but also a broader understanding of the social and economic context within which they operate. These authors specifically call for “holistic training in non-technical areas and social competencies,” indicating that it could be an ideal time to introduce gender- and nutrition-related programming and training in Kenya’s agricultural extension system.

Unfortunately, Muriu and Biwott (2013) posit that this recent devolution of governmental agricultural services has led to some confusion—especially because the constitution does not align with the ASDS in several instances—and so several functions are not assigned to a specific institution and therefore may not be carried out effectively (see table on pp. 2-3 of their report). Poulton and Kanyinga (2013) support his assertion, stating that governmental agricultural services in Kenya “tend to perform unevenly over time and space and, even when they perform well, the main beneficiaries are often better-resourced farmers, rather than poor smallholders” (p.2). They also state that in recent years, “outreach to farmers [has been] hampered by systemic inefficiencies in budgeting and resourcing,” and that—even more discouragingly—“the majority of Kenyan farmers have yet to experience any benefit from efforts to improve delivery of extension services since 2002” (pp. 7-8).

Gender Integration into EAS

NALEP has identified a number of approaches and methods that target rural women; these are largely administered through the Gender Section in the Extension Services Division of the Ministry of Agriculture and Livestock (Kingiri & Nderitu, 2014). For example, gender analyses have been conducted to gather household-level information on who has access to and control over resources, and who benefits from agricultural production. According to Cuellar et al (2006) NALEP staff receive several gender-related trainings, including gender awareness, communication

Percent of members in key NALEP structures who are women:

- 33% of Program Coordinating Unit
- 20% of farmer coordinators
- 30% of Focal Area Development Committee members and community leaders
- 40% of staff who participated in training and study tours organized by NALEP

Source: Cuellar et al, 2006

methods to overcome stereotyped views of women and men farmers, how to overcome restrictions on interactions between men and women, and how to provide appropriate extension advice and technologies to women farmers. Additionally, according to Farnworth & Obuya (2010), NALEP has a quota system to ensure a minimum of 25 percent of focal area development committee members are women (these committees are responsible for implementing NALEP programming).³ Lastly, NALEP has developed a guide for mainstreaming gender in the agricultural sector in Kenya, which aims to assist policy-makers, technical teams, and local organizations to recognize and address gender concerns in their operations. A link to this guide is provided in the References section of this report.

Nevertheless, Kingiri & Nderitu (2014) identify a multitude of constraints that limit women's access to and ability to benefit from EAS in Kenya. In general, they found that women benefit least from extension approaches, which lack focus on the poorest farmers, exclude women with no land or who are of lower social status, provide inadequate institutional support for women, do not address the illiterate sector (especially in the use of ICTs), are expensive to access (such as internet-based services), lack recognition of women as agricultural producers, and/or are delivered by male extension agents who have a bias against women farmers. Additionally, as seen in Figure 6, women's comparatively limited access to communication channels may also constrain their access to information disseminated by EAS. Despite this, Manfre et al (2013) posit that radio and mobile phone programs have demonstrated great successes in allowing both men and women in Kenya to access information from EAS. Kenyan scholars Sanya and Lutomia (2015) have called for the creation of various archives that capture women's experiences in agriculture and other domains, and establishing creative ways of collective sharing using ICTs.

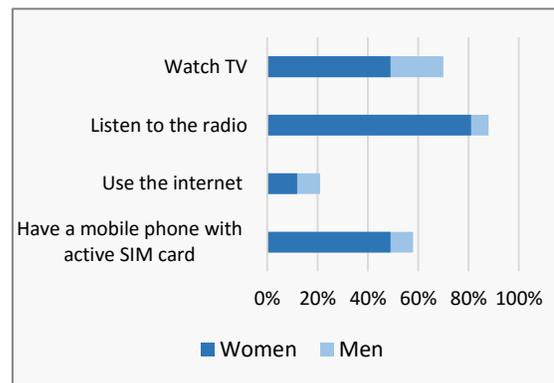


Figure 6: Access to and use of communication channels in Kenya (people aged 16+). Data from Gillwald, Milek, & Stork (2010), graph by author.

³ Cuellar et al (2006, p.31) alternatively state that "NALEP has a gender equity clause that at least 30% must be women in all the programme activities."

On pages 3 and 4 of their report, Kingiri and Nderitu list several additional constraints limiting women's access to EAS:

- Gender inequalities in land ownership reduces women's access to credit and extension services.
- Women's limited membership in farmer groups and cooperatives makes it difficult for them to access or demand public extension services.
- Extension services are mostly designed for commercial farmers who grow cash crops, but most women farmers are smallholders who grow subsistence food crops.
- Extension service providers usually expect women to find them in the extension spaces/venues, but social, cultural, or religious constraints may prevent women from accessing these spaces.
- Women's multiple roles constrain their time and mobility, and consequently their availability to participate in different extension activities.
- Higher proportions of women than men are illiterate, engage in subsistence agriculture, and are not up to date with current technologies.

Additional constraints discussed by Kingiri and Nderitu can be found in [Appendix D](#).

Nutrition Integration into EAS

It is evident that Kenya is striving to integrate nutrition throughout its extension system, perhaps thanks to the inclusion of nutrition as a cross-cutting issue in the National Agricultural Sector Extension Policy. A 2013 report by Fanzo et al. states that in Kenya, home economics officers (who are 565 of a total of 5,470 extension agents in the country) are trained using a curriculum that focuses 60 percent on agriculture and 40 percent on nutrition. This curriculum covers traditional nutrition education, as well as home gardening, raising small livestock, and diversifying crop production. Some agricultural extension agents are nutrition specialists and thus have more specialized and in-depth knowledge of nutrition issues. The Fanzo et al. report does not state how many nutrition specialists are employed in the extension system, though they seem to be fewer in number than the home economics officers. These nutrition specialists are positioned at the district-level, where they can design tailored interventions depending on the specific context of their district. They are also responsible for conducting trainings with frontline extension agents, who are expected to be generalists rather than experts, to provide them with a basic level of knowledge about nutrition that they can communicate to communities (Fanzo, et al., 2013). In addition to government efforts, a study by Franzel, Sinja, and Simpson (2014) found that nine out of the 30 farmer-to-farmer extension services examined in their study (most services were non-governmental) specifically focused on food security, livelihoods, and nutrition.

National nutrition efforts are primarily coordinated by the Nutrition Division of Kenya's Ministry of Public Health and Sanitation, though Fanzo et al. note a shortage of nutrition personnel in this division. In addition, existing staff have inadequate knowledge of nutrition, and community outreach is "extremely limited" (Fanzo et al., p. 60).

Feed the Future Multi-Year Strategy 2011-2015

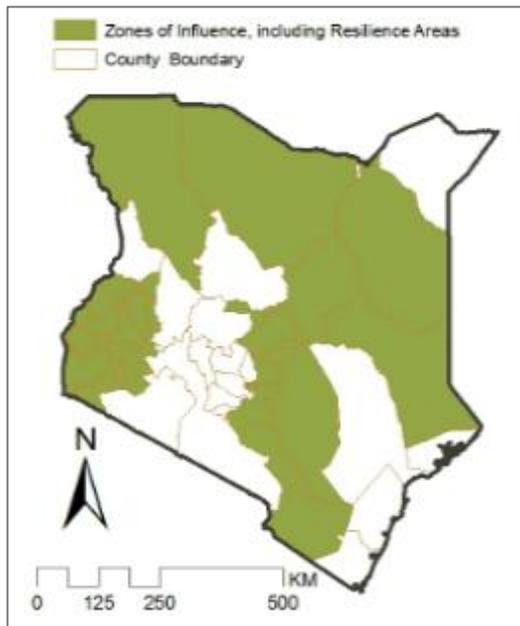


Figure 7: Feed the Future target regions.
Source: Feed the Future (2011).

The selection of the Feed the Future geographic focus areas, as depicted in Figure 7, demonstrates Feed the Future’s focus on populations suffering from extreme poverty and hunger: regions with the highest number of poor households and severely malnourished children were prioritized in the selection of target regions (Feed the Future, 2011).

As with other Feed the Future programs around the world, Kenya’s Feed the Future Multi-Year Strategy targets two overarching objectives: inclusive agricultural growth, and improved nutritional status of women and children. These objectives will be accomplished in Kenya primarily through the promotion of value chain growth, diversification opportunities, increased incomes of smallholder farmers, and improved nutrition of and expanded opportunities for women, youth, and other vulnerable populations (Feed the Future, 2011). For more details on the “intermediate results” that will help achieve these objectives, see Figure 8 (next page).

As seen in the results framework, Feed the Future’s Multi-Year Strategy emphasizes engagement with the private sector, aiming to “help the people of Kenya to transform farming into a business” (Feed the Future 2011, p. 6). Additionally, the strategy document states that “interventions will leverage private sector partners in concert with public sector extension services...[to] disseminate and commercialize improved technologies through ‘smart’ extension methods, e.g., ICT” (p. 28).

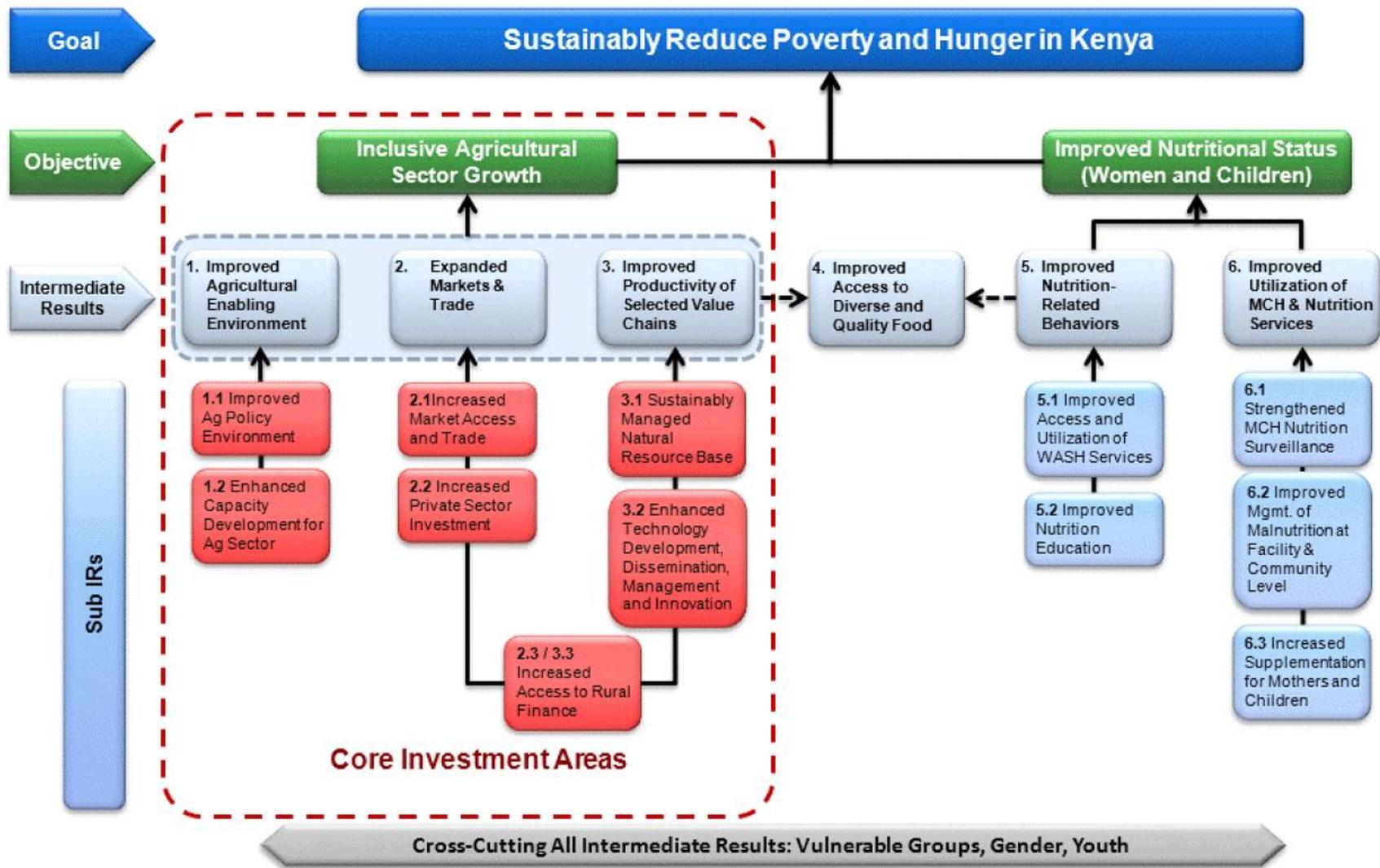


Figure 8: Feed the Future Results Framework. Source: Feed the Future (2011)

Feed the Future’s Multi-Year Strategy addresses gender in several instances. It continually emphasizes that the participants of Feed the Future’s agricultural programming “will include women and youth,” and it provides some details on what this inclusion will look like. First, Feed the Future projects will promote horticulture crops, which are largely produced and marketed by women. These crops have the dual benefit of being nutrient-dense, and of having a high income potential due to high potential revenue per acre (Feed the Future, 2011). However, research by Dolan (2001) in Kenya’s Meru district indicates that promotion (and especially, commercialization) of horticulture should be undertaken with caution, as this has previously resulted in the appropriation of certain vegetable crops by men, and the erosion of women’s rights. Farnworth & Obuyu (2010) reinforce this finding, stating that “men [in Kenya] often take over production and marketing – even of traditional ‘women’s crops’ – when it becomes financially lucrative to do so” (p. 35).

Other non-cereal crops—especially pulses, which are also regarded as women’s crops—may also be promoted in Feed the Future projects, though this is somewhat unclear (see p. 12). Feed the Future states that women will benefit more than men from the “bulking” of quality agricultural products, and from “effective use of market intelligence” as promoted by Feed the Future projects (see p. 21). Finally, the strategy document states that Feed the Future projects will “catalyze social innovation approaches that reduce gender inequalities in agricultural production and benefits from production, such as innovations in agricultural labor-saving technologies and practices to reduce women’s labor burden, linking women to extension and markets, and promoting farming as a family business” (p. 40).

For more details on the Feed the Future program in Kenya, see this video:

<http://www.feedthefuture.gov/video/empowering-farmers-food-security>.

USAID Country Development Cooperation Strategy (CDCS)

As seen in the CDCS results framework (next page), USAID/Kenya’s CDCS has a three-pronged approach to promoting effective governance and economic growth in Kenya. Of special note in the CDCS is its emphasis on devolution of governmental power to the regional and local levels, and the increased involvement of the private sector in achieving development objectives.

While the CDCS does not provide extensive details on how USAID’s goals include agriculture, gender, and nutrition, a few items may be of interest to the INGENAES team. On p. 29, USAID/Kenya commits to “supporting effective county-level delivery of EAS through its first Development Objective” (effectively implementing the devolution of government structures). Later, on page 75, USAID explains that the CDCS “builds upon the USAID/Kenya Feed the Future strategy recognizing the key role of women in agriculture and emphasizing increased incomes to improve household food security and nutritional status of women and children.” Page 76 includes more details on involvement with Feed the Future, emphasizing that “activities will focus on smallholder-dominated and female-inclusive value chains.” The Women’s Empowerment in Agriculture Index will be used to monitor USAID’s programming effects on women, and undernutrition in children under five will also be monitored (USAID/Kenya, 2014).

CDCS Results Framework

Goal: Kenya's governance and economy transformed

DO 1: Devolution effectively implemented

IR 1.1: Accountable county governments effectively functioning in targeted counties

IR 1.2: Enabling environment for devolution strengthened

IR 1.3: Informed and empowered citizens participate in county affairs

DO 2: Health and human capacity strengthened

IR 2.1: Increased Kenyan ownership of health, education and social systems

IR 2.2: Increased use of quality health and education services

IR 2.3: Youth empowered to promote their own social and economic development

DO 3: Inclusive, market-driven, environmentally sustainable economic growth

IR 3.1*: Increased household food security and resilience—primarily for rural poor

Sub-IR 3.1.1: Improved competitiveness of selected value chains

Sub-IR 3.1.2: Expanded and diversified markets, trade, and livelihood

Sub-IR 3.1.3: Improved enabling environment for agricultural and rural enterprises

Sub-IR 3.1.4: Increased availability of market-driven social safety net services

Sub-IR 3.1.5: Improved nutritional status of women and children

IR 3.2: More resilient people and ecosystems to climate change in a green growth economy

IR 3.3: Increased public and private capital flows

IR 3.4: Improved enabling environment for private sector investment

IR 3.5: Private sector engagement in infrastructure development facilitated

DO = Development Objective

IR = Intermediate Result

*All IRs have sub-IRs, but they are only shown here for IR 3.1 since it is most relevant to INGENAES.

Source: USAID/Kenya (2014)

Active USAID-Funded Feed the Future Projects—Overview

Several USAID projects support the Feed the Future Initiative in Kenya. This list displays only projects that are currently ongoing. For more-detailed information, see [Appendix E](#).

Project Name	Primary Implementing Organization	Links	Goal
Kenya Agricultural Value Chains Enterprises (KAVES)	Fintrac, Inc.	<ul style="list-style-type: none"> http://map.usaid.gov/PublicProjectDetail?id=a0cd00000011qAXAAY&cid=Kenya http://www.fintrac.com/projects 	Promote value chain growth and diversification; increase the productivity and incomes of smallholder farmers and other actors along the value chain working in the dairy, maize and other staples and horticulture sectors.
Kenya Feed the Future Innovation Engine	Land O'Lakes International Development	http://map.usaid.gov/PublicProjectDetail?id=a0cd0000000am1EAAQ&cid=Kenya http://www.kfie.net/	Identify, foster and bring to scale innovative, market-driven solutions to food insecurity, undernutrition and poverty.
Resilience and Economic Growth in Arid Lands – Accelerated Growth (REGAL-AG)	ACDI/VOCA	http://map.usaid.gov/PublicProjectDetail?id=a0cd0000001261HAAQ&cid=Kenya	Increase economic resilience among pastoral communities in Kenya's arid counties by strengthening the livestock value chain.
Resilience and Economic Growth in Arid Lands – Improving Resilience (REGAL-IR)	African Development Solutions	https://www.usaid.gov/sites/default/files/documents/1860/REGAL%20IR%20fact%20sheet%20August%202014.pdf	Reduce hunger and poverty, increase resilience and social stability, and build a foundation for economic growth among pastoral communities in Kenya's arid and semi-arid lands.
AIDS, Population and Health Integrated Assistance (APHIA) Plus	Amref Health Africa, and others	https://www.usaid.gov/kenya/fact-sheets/aphiaplus-aids-population-and-health-integrated-assistance-imarisha	(May not be officially integrated with Feed the Future.) Sustainably improve the health of under-served populations in the Northern Arid Lands (NAL) of Kenya by combining health services in the areas of: HIV/AIDS, malaria, family planning, TB, MNCH, water and sanitation, and nutrition.
Taking an Innovative Cooperative Approach to Food Security and Trade (CDP III)	NCBA CLUSA	http://www.ngoaidmap.org/projects/5347	Address food security, nutrition of mothers and children under five years, formation and strengthening of farmers' groups and cooperatives, and good governance.
Health and Nutrition	Concern Worldwide	http://www.ngoaidmap.org/projects/17394	(May not be officially integrated with Feed the Future.) Improve the health and nutritional status of pregnant and lactating women and children under five in the poorest communities in ASAL and urban areas.
Improving Nutrition through Indigenous Vegetables	Feed the Future Innovation Lab for Collaborative Research on Horticulture	http://horticulture.ucdavis.edu/main/projects/nutrition_african_veg.html	This project's research will support and strengthen African indigenous vegetable industries using a market-first, science-driven approach that connects stakeholders along the value chain.

Active Non-USAID-Funded Projects Relevant to INGENAES— Overview

For more-detailed information, see [Appendix F](#).

Project Name	Primary Implementing Organization	Link(s)	Goal(s)/Objective(s)
Nationally Appropriate Mitigation Actions in Kenya’s Dairy Sector	World Agroforestry Center (ICRAF)	https://ccafs.cgiar.org/nationally-appropriate-mitigation-actions-kenya’s-dairy-sector#.VqQpccfw_BI	Support the development of activities in the dairy sector that achieve a win-win by delivering high productivity while reducing emissions.
Gender and Social Inclusion	World Agroforestry Center (ICRAF)	https://ccafs.cgiar.org/participatory-tools-gender-and-social-inclusion-research-under-climate-change#.VqQgu8fw_BI	Develop a set of tools to support gender-sensitive and socially inclusive research in the context of climate change and agriculture.
Scaling Up Climate-Smart Village Models in East Africa	International Livestock Research Institute (ILRI)	https://ccafs.cgiar.org/scaling-climate-smart-village-models-east-africa#.VqQg9Mfw_BI	In collaboration with local communities, research organizations, NGOs, and government extension agents, the team will use Participatory Action Research to identify and test a portfolio of Climate-Smart Agriculture innovations.
East Africa Dairy Development (EADD) – Phase II	Heifer International	<ul style="list-style-type: none"> http://www.heifer.org/eadd/index.html file:///C:/Users/pouls_000/Downloads/mcupload_55918a5e3fbbc.pdf 	Boost the milk yields and incomes of small-scale farmers in Africa to help lift their communities out of hunger and poverty; improve dairy production and access to markets.
Child-Focused Community Development in Kenya	Feed the Children	http://ngoaidmap.org/projects/13941	Feed the Children’s four-pillar approach to community development does more than provide food—it teaches and empowers children, parents, care providers, and their communities to reverse undernutrition and defeat hunger.
Njaa Marufuku “Alleviate Food Insecurity”	Lutheran World Relief	<ul style="list-style-type: none"> http://ngoaidmap.org/projects/12597?force_site_id=2 http://programs.lwr.org/africa/kenya/marufuku 	Increase the resilience of farmers in Makueni County to the effects of changing weather and environmental conditions. Support members of a community-based organization to produce adequate food and cash crops to sustain themselves and their families throughout the year.
Nehemiah	World Concern	http://ngoaidmap.org/projects/1983	Improve the overall standard of living of Maasai pastoralists in Mara/Osupuko division
	One Acre Fund	https://www.oneacrefund.org/our-approach/program-model	Improve agricultural productivity.

Conclusion

Three-quarters of Kenya's population is involved in agricultural activities, and women provide 80 percent of paid and unpaid labor in the agricultural sector. This sector currently faces many challenges, which has prompted a variety of policy responses from the Kenyan government. While documentation on these policies does not provide many details on gender and inclusiveness, Kenya has developed a national gender and development policy that does briefly address gender integration in the agricultural sector. In addition, the national extension agency has developed a guide to help policy-makers, technical teams, and local organizations recognize and address gender concerns in their operations. However, many feel that the Kenyan government has not yet adequately addressed the barriers faced by women in the agricultural sector.

Food insecurity and malnutrition are common in Kenya, though childhood malnutrition has decreased in recent years. Kenya has developed a National Nutrition Action Plan, and it also has recently joined the global Scaling Up Nutrition movement; in addition, nutrition specialists are placed throughout the agricultural extension system, and all "frontline" extension agents receive nutrition training. However, some feel that this is not sufficient to tackle the country's nutrition issues.

The Feed the Future initiative in Kenya promotes agricultural growth and improved nutritional status of women and children. It emphasizes engagement with the private sector, specifically aiming to create public-private links with the national extension system. Women are explicitly addressed in the Feed the Future multi-year strategy, with several specific interventions aimed at promoting gender inclusiveness:

- Promotion of horticulture crops (and also possibly pulses), which are largely produced and marketed by women
- Promotion of "bulking" agricultural products and of effectively using market intelligence, which will benefit women more than men
- Innovations in agricultural labor-saving technologies and practices to reduce women's labor burden
- Linking women to EAS and markets

The INGENAES initiative will build on these efforts by seeking synergistic relationships with Feed the Future programming and other related initiatives. As in other INGENAES countries, INGENAES will aim to strengthen institutions by identifying their needs and strengthening their capacity to integrate gender- and nutrition-sensitive activities into EAS. In particular, they will identify and scale proven mechanisms for improving EAS service for women farmers, and will disseminate technologies that improve women's agricultural productivity and improve household nutrition. In addition, INGENAES has noted that men in many countries are disadvantaged in terms of nutrition interventions, and so in Kenya, INGENAES will strengthen nutrition in EAS for men so that they can promote nutrition for their families. They will also be instrumental in setting new policies, employing new management practices, and modifying organizational structures.

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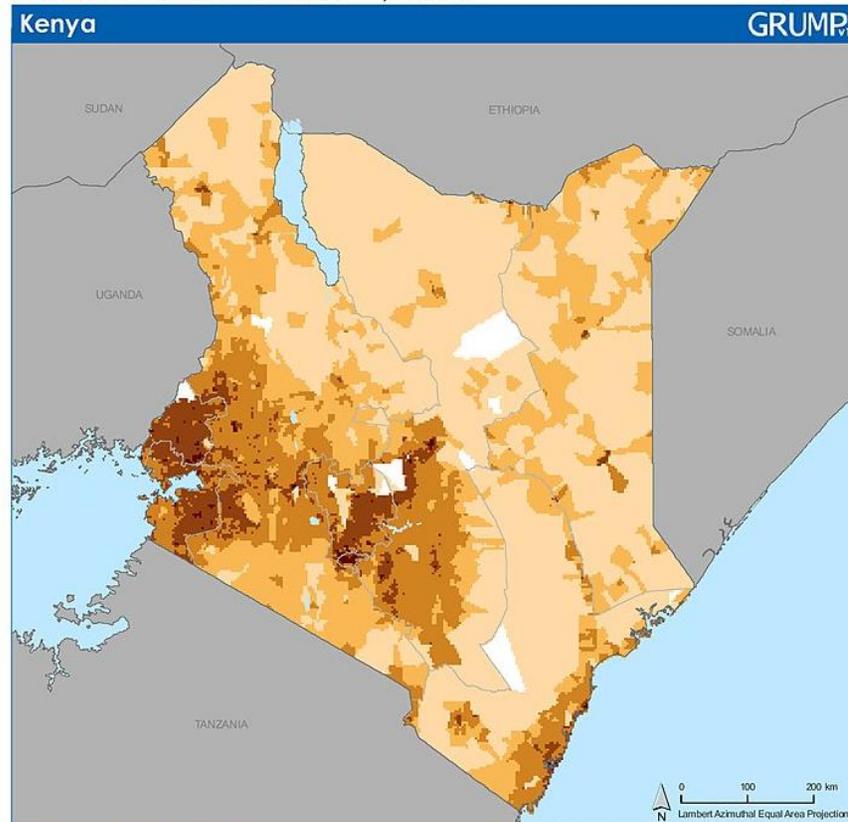
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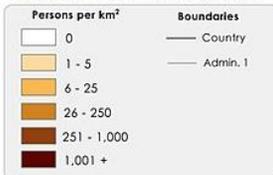
Appendix A: Maps



POPULATION DENSITY, 2000



Global Rural-Urban Mapping Project



Population density measures the number of persons per square kilometer of land area. The data are gridded at a resolution of 30 arc-seconds.

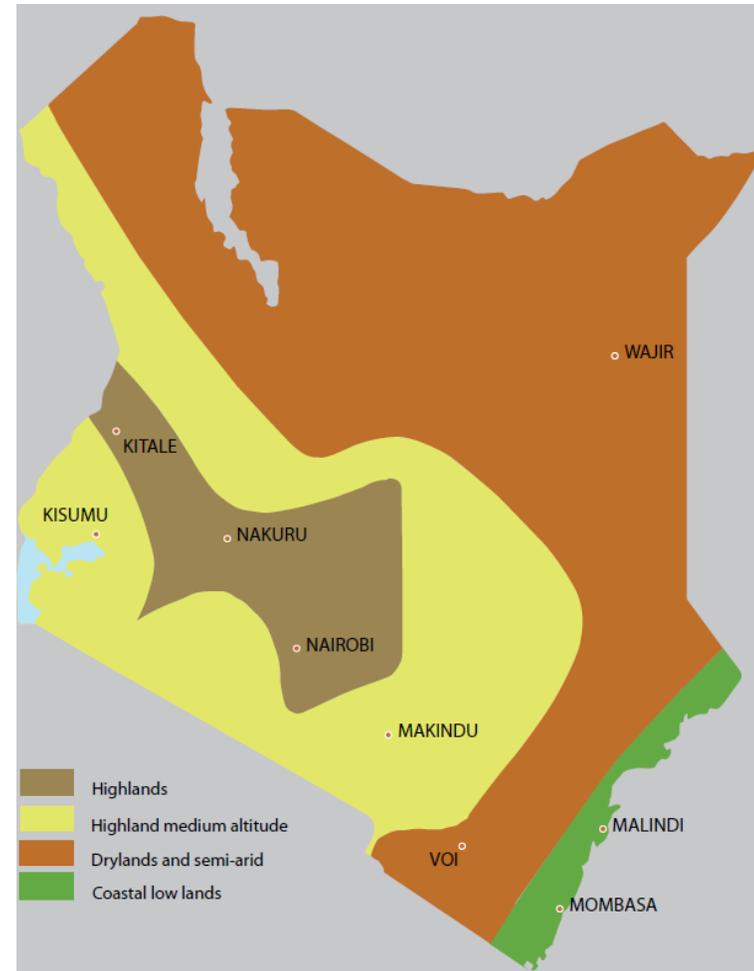
Note: National boundaries are derived from the population grids and thus may appear coarse.



Copyright 2009, The Trustees of Columbia University in the City of New York, Center for International Earth Science Information Network (CIESIN), Columbia University, International Food Policy Research Institute (IFPRI), the World Bank, and Centro Internacional de Agricultura Tropical (CIAT). Global Rural-Urban Mapping Project (GRUMP), Population Density, Palisades, NY: CIESIN, Columbia University. Available at: <http://sedac.ciesin.columbia.edu/gpw/>

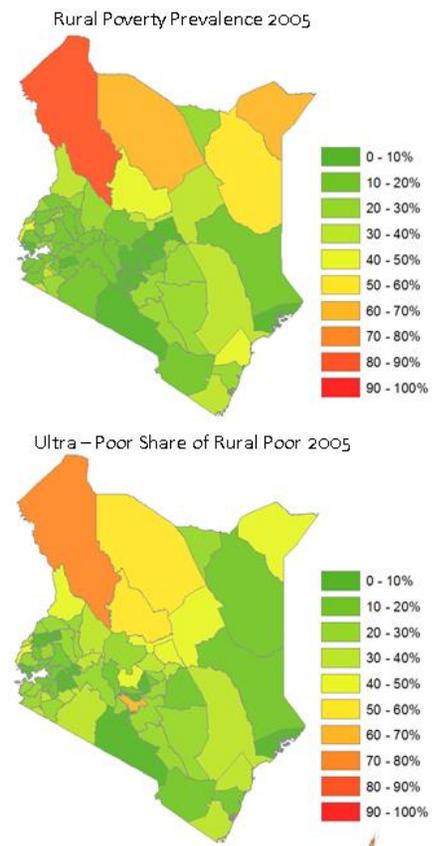
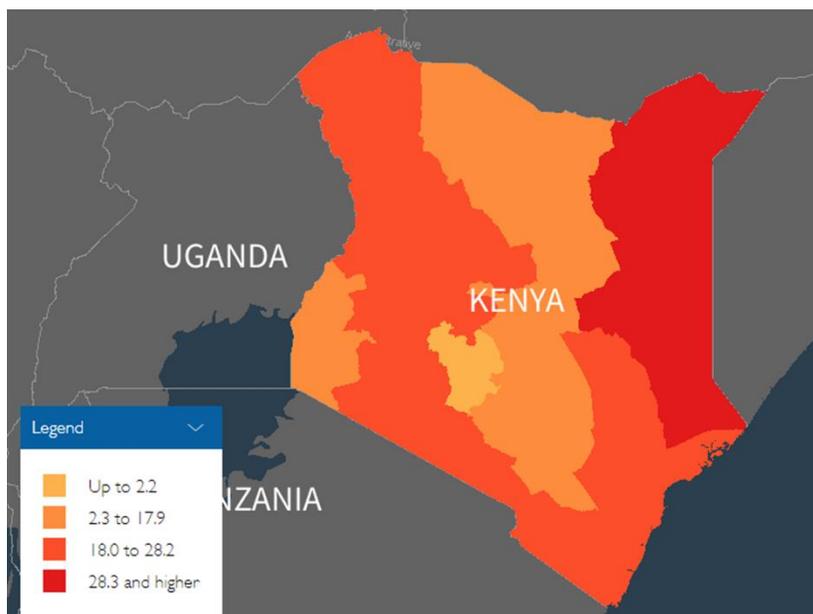


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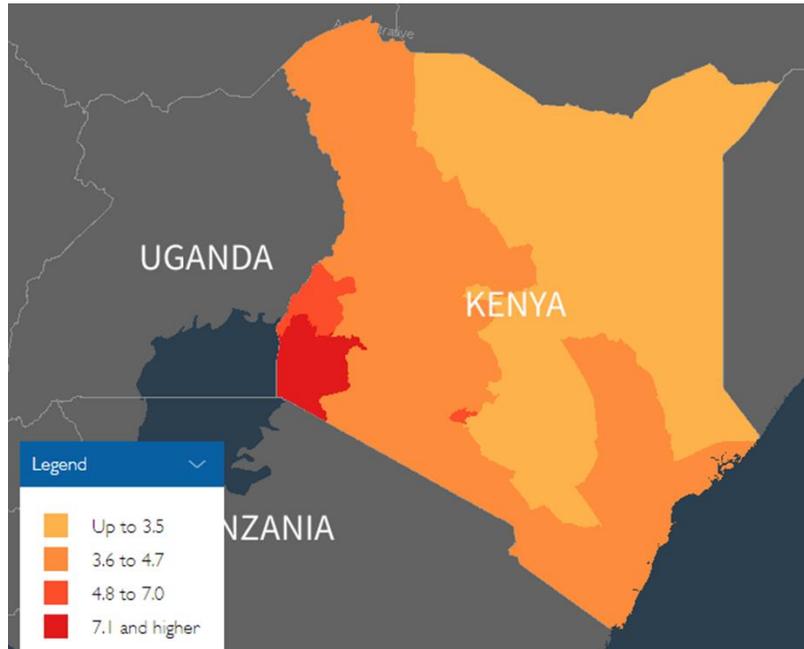
Agroecological zones (Source: www.theorganicfarmer.com)

Percent of population in the lowest wealth quintile, by province
 (Map created on statcompiler.com, original data from 2009 DHS survey)



Poverty line set at \$1.25 / person / day Ultra-Poor is < \$0.75 / person / day (2005 PPP Dollars).
 Calculated from Kenya Integrated Household Budget Survey 2004 and World Bank Povcalnet (HarvestChoice 2010)

Percent of population living with HIV, by province
 (Map created on statcompiler.com, original data from 2009 DHS survey)



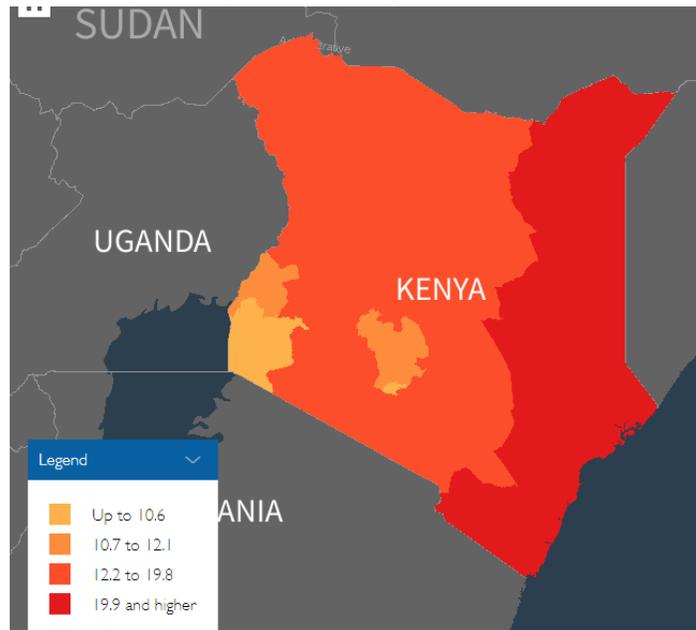
Food Insecurity (ipcinfor.org)

Note that location and severity of food insecure areas is variable, but areas near Lake Victoria are generally food secure, while northern and north-eastern areas tend to experience frequent food insecurity (as evidenced by a Google search of food security maps like this one).

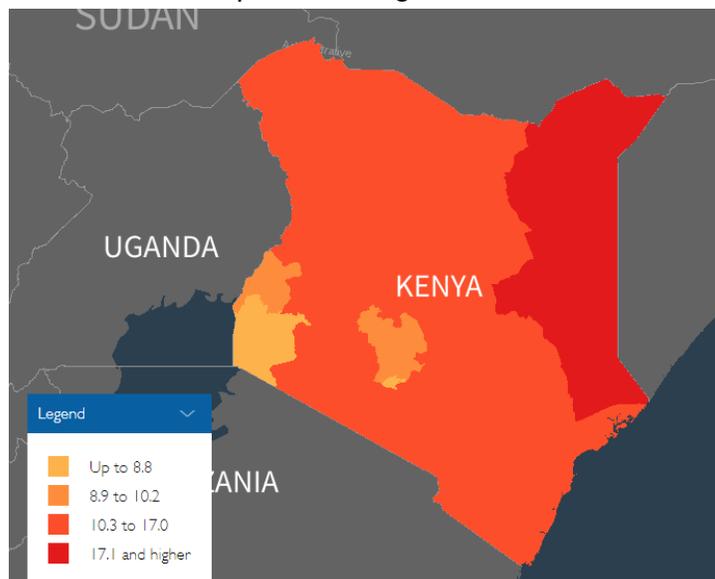


Percent of children underweight, by province

(Map created on statcompiler.com, original data from 2009 DHS survey)

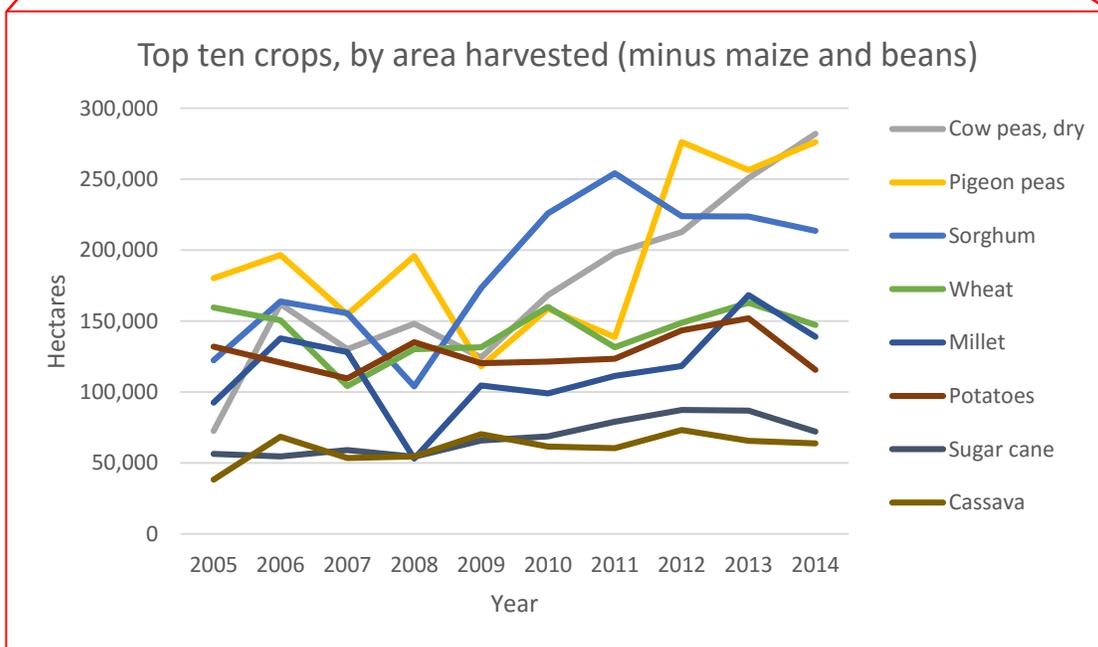
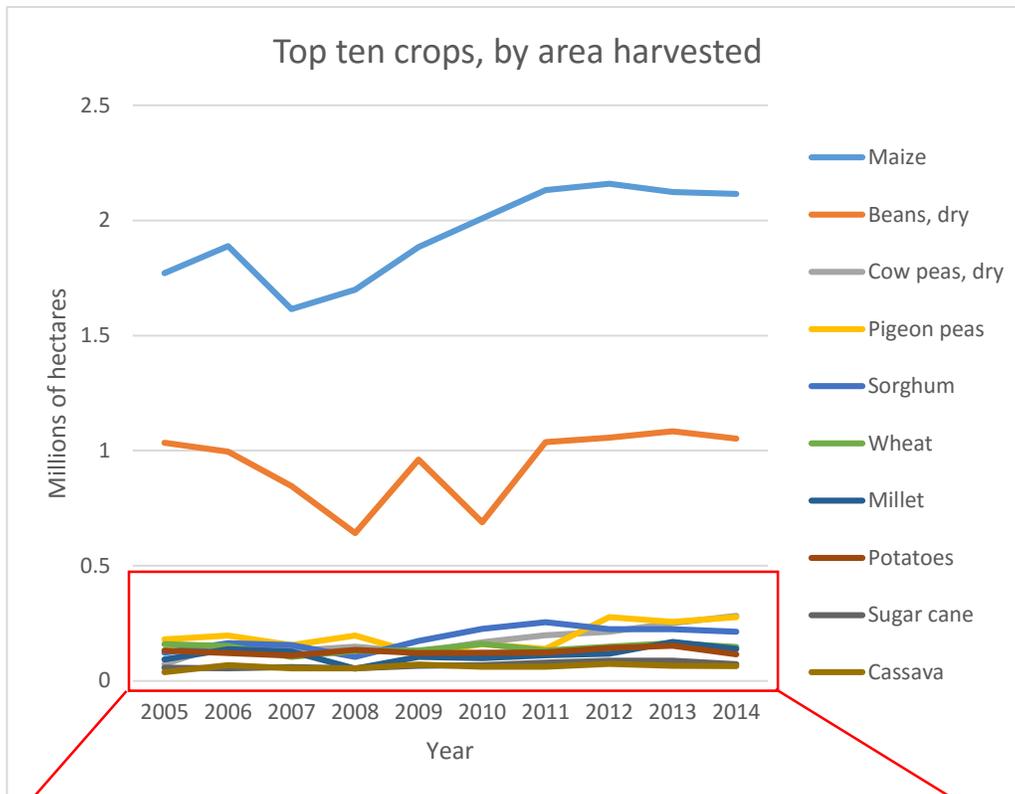
**Percent of women who are thin according to BMI (<18.5), by province**

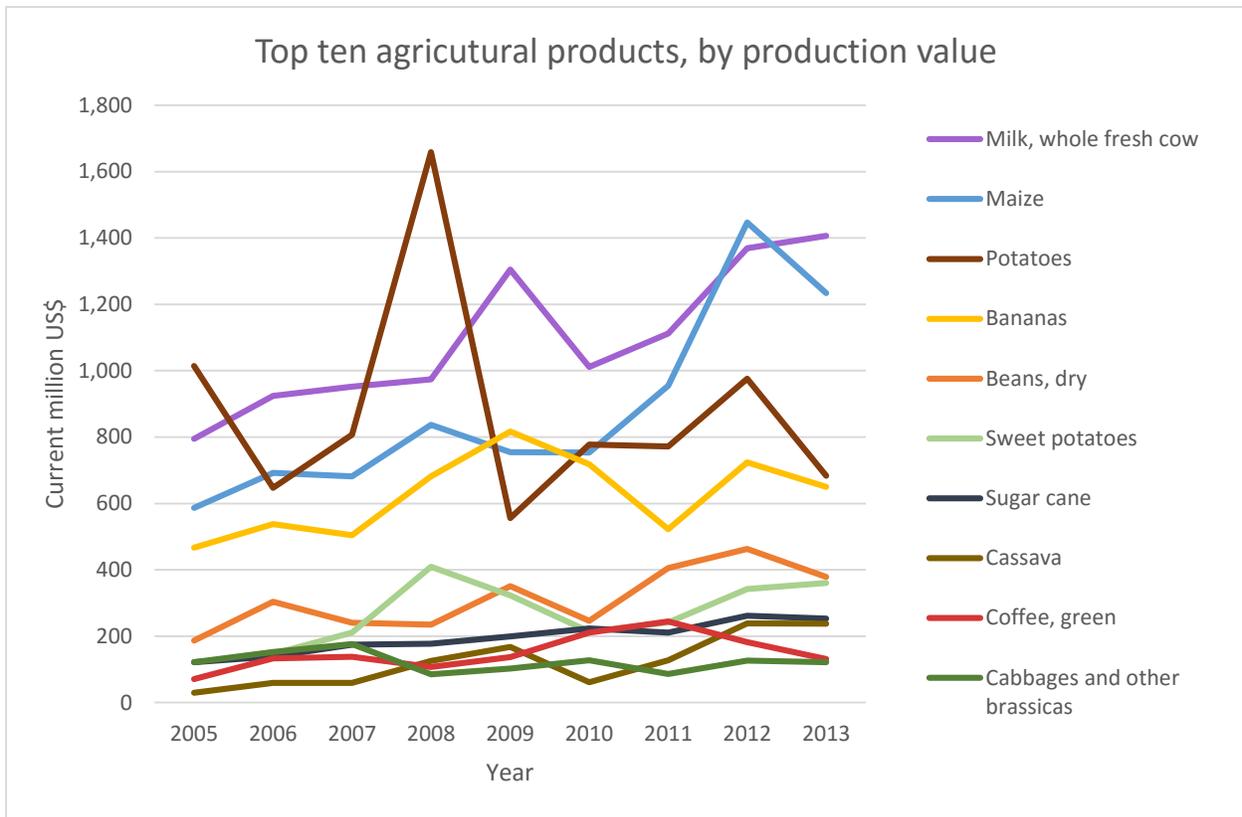
(Map created on statcompiler.com, original data from 2009 DHS survey)



Appendix B: Agricultural Production

All graphs produced with data from the online FAOSTAT database





Appendix C: Agriculture Policy Responses by the Government of Kenya

Vision 2030 – Flagship projects in agriculture:

As summarized by Ndung'u, Thugge, & Otieno (2009)

- 1) Agricultural policy reforms
- 2) Three-tiered fertilizer cost reduction
- 3) Branding Kenya farm produce
- 4) Establishment of livestock disease-free zones and processing facilities
- 5) Creation of publicly accessible land registries
- 6) Development of agricultural land use master plan (e.g. crop specialization plan)
- 7) Development of irrigation scheme in the Tana River Basin.

Agricultural Sector Development Strategy (ASDS) – Planned interventions, by subsector:

- 1) Crops and Land Development
 - a. Formulating and implementing appropriate policy and legal frameworks
 - b. Improving agribusiness and market access
 - c. Strengthening research, extension and training
 - d. Improving land use and crop development
 - e. Enhancing farmer access to affordable inputs and credit
 - f. Enhancing institutional efficiency and effectiveness in implementation and service delivery
- 2) Livestock
 - a. Reviewing policy, legal and institutional frameworks
 - b. Improving livestock productivity
 - c. Integrating development and management of rangeland
 - d. Improving animal health and quality assurance services
 - e. Improving access to markets
 - f. Establishing a centrally coordinated livestock database
 - g. Implementing the flagship disease-free zones project
- 3) Fisheries
 - a. Developing marine capture fisheries
 - b. Developing inland capture fisheries
 - c. Developing aquaculture
 - d. Promoting fish safety, quality assurance, value addition, and marketing
- 4) Cooperatives
 - a. Reviewing cooperative development policy and legal framework
 - b. Improving capacity for marketing agricultural inputs and produce
 - c. Enhancing access to agricultural credit
 - d. Promoting value addition
 - e. Promoting internal and external trade
 - f. Improving governance and management

5) Private Sector Participation

- a. Facilitating organization of smallholder producers at all levels
- b. Developing and implementing a framework and instruments for strengthening institutional capacity of producer organizations
- c. Fast-tracking legal and regulatory reforms to promote private sector engagement
- d. Promoting private sector participation in agro-processing
- e. Developing a mechanism for recognizing and supporting integrated innovation in agricultural value chains

Appendix D: Constraints to Women's Access to and Use of EAS

Kingiri & Nderitu (2010) pp. 3-4:

- Gender inequalities in ownership of resources like land, which reduce women's access to extension services, credit, information, etc.
- In some cases, women are not regarded as "economically active" farmers; hence they tend to be excluded from membership of farmer groups and cooperatives. This makes it very difficult to access or demand public extension services.
- Extension services are mostly designed for commercial farmers who grow cash crops, but most women farmers are smallholders who grow subsistence food crops.
- Extension service providers usually expect women to find them in the extension spaces/venues, but there may be social, cultural, or religious constraints. Moreover, limiting factors like educational opportunities, cultural and discriminatory practices, and lack of capacity constrain women's equal participation in extension-related endeavors.
- Women's multiple roles constrain their time and mobility, and consequently their availability to participate in different extension activities.
- Higher proportions of women are illiterate, engage in subsistence agriculture, and are not up to date with current technologies.

Kingiri & Nderitu (2010) p. 12:

- Cultural definition of roles and responsibilities tend to place women as taking care of household chores while men are supervisors of production-related activities. This affects the overall perception and attitude of women as weaker gender, leading to a gender bias in articulation of extension-related services and activities.
- Traditional beliefs that promote certain retrogressive cultural practices, i.e., witchcraft, women's crops/versus men's crops, etc.
- Decision making and control of assets. Most important agricultural decisions are made by males as heads of households. They also have greater rights and opportunities to adopt most promising extension messages, which may be attributed to their control over land and relatively better purchasing power in terms of accessing farm inputs and valuable information.
- Technical constraints (confounded by cultural factors) exist that relate to few extension workers compared to the number of women farmers. The few times they are available, women happen to be busy undertaking other activities.
- Perpetual use and introduction of low-level technologies that do not take into cognizance the factors that impact their usage (context). They are therefore not gender-friendly and are also not advancing with unprecedented technological developments.
- Lack of gender responsive indicators to guide in monitoring and evaluation and also measure impact.
- Failure by the general extension services to embrace gender. For instance, the gender extension officers are given 1-2 hours slots to articulate gender issues in CIGs meetings or other agricultural extension gatherings, like field days or barazas.

Appendix E: Active USAID-funded Feed the Future Projects in Kenya— Detailed Information

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<p>USAID Contact Brittany Brown 1300 Pennsylvania Avenue NW Washington, DC 20523 USA</p>	<p>Phone 202-712-0402 Email brbrown@usaid.gov</p>

Projects listed here were found on USAID’s interactive map: <http://map.usaid.gov/?l=local&w=KE> and on InterAction’s NGO aid map: www.ngoaidmap.org

Project Title: Kenya Agricultural Value Chains Enterprises (KAVES)

Links:

- <http://map.usaid.gov/PublicProjectDetail?id=a0cd0000001lqAXAAY&cid=Kenya>
- <http://www.fintrac.com/projects>

Primary implementing partner: Fintrac, Inc.

Project Timeline: 1/2013 - 1/2018

Goals: “The Kenya Agricultural Value Chains Enterprises Project is the flagship Feed the Future Initiative project in Kenya. The project will promote value chain growth and diversification, increase the productivity and incomes of smallholder farmers and other actors along the value chain working in the dairy, maize and other staples and horticulture sectors.”

Location: “The project targets 500,000 smallholder farmers in 22 counties in high-rainfall and arid and semi-arid areas, however, all of the actors along the value chains across Kenya will benefit. Target production counties include Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho, Bungoma, Busia, Kakamega, Vihiga, Siaya, Homa Bay, Kisumu, Nyamira, Kisii and Migori in the western region, and Meru, Tharaka, Machakos, Makueni, Kitui and Taita-Taveta in eastern regions of Kenya.”

Activities/Interventions: “The project develops smallholder enterprises that combine maize, high value horticultural crops, and dairy farming to generate wealth, thereby enhancing food security, improving nutrition, and increasing economic opportunities for women, youth and other vulnerable populations. Engages with the private sector in a meaningful, comprehensive way will ensure the sustainability of the project’s work.”

“The Kenya Agricultural Value Chain Enterprises Project works with smallholder farmers, businesses and government partners to address constraints up and down the value chain (such as agro-processors, input suppliers, transporters, exporters, retailers, financing) and develop fully functioning, competitive value chains. The project is expanding the number of micro and small and medium enterprises that can

compete in selected markets, increasing the gross value of products and services overall, and expanding market share in local and export markets.

The project fosters innovation and promotes technologies and techniques to increase consumption of more nutritious foods in rural households in order to sustainably reduce chronic under-nutrition.

Kenya Agricultural Value Chains Enterprises Project is also working to build the capacity of local organizations to undertake value chain work so that the project's gains and achievements can be sustained."

Total number of participants: "Helping more than 332,000 smallholder farmers increase incomes while improving their households' nutrition, sanitation, and hygiene practices.

Collaborating with 533 youth associations and 1,252 women's groups to implement time-saving technologies, improve access to assets and inputs, and promote leadership."

Contact:

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Project Title: Kenya Feed the Future Innovation Engine

Links:

- <http://map.usaid.gov/PublicProjectDetail?id=a0cd000000amI EAAQ&cid=Kenya>
- <http://www.kfie.net/>
- <http://www.idd.landolakes.com/Where-We-Work/Africa/Kenya/Kenya-Feed-the-Future-Innovation-Engine>
- <http://www.feedthefuture.gov/video/kenya-feed-future-innovation-engine> (video)

Implementing partners: Land O'Lakes International Development, Dalberg Global Development Advisors, IDEO.org

Project Timeline: 5/2012 - 5/2017

Goal: Identify, foster and bring to scale innovative, market-driven solutions to food insecurity, under-nutrition and poverty.

Location: "The Kenya Feed the Future Innovation Engine works across Kenya, but is focusing on supporting interventions that will have a significant impact on the 27 priority Feed the Future counties: Bomet, Bungoma, Busia, Elgeyo, Garissa, Homa Bay, Isiolo, Kakamega, Kericho, Kisii, Kisumu, Kitui, Machakos, Marakwet, Makueni, Marsabit, Meru, Migori, Nandi, Nithi, Nyamira, Siaya, Tharaka, Taita Taveta, Trans Nzoia, Turkana, Uasin Gishu, Vihiga and Wajir."

Activities/Interventions: "[The program] gives Kenyan entrepreneurs, innovators and risk-takers an opportunity to test and scale up problem-solving agricultural innovations. Similar to a venture capital fund, the activity supports experimentation and rewards success, supporting projects that represent cutting-edge methodologies and approaches that will benefit a large number of Kenyan households.

The activity identifies innovative technologies, coaches and mentors selected innovators, and facilitates wide-scale adoption of high-impact solutions to the problems facing the agriculture sector. Following a widely publicized Innovation Solicitation, selected innovators receive grants and technical assistance to

rigorously assess and refine their agricultural innovations. Each design will be tested for desirability, viability and feasibility.

Successful innovators will progress through a rigorous four-stage process. Only when they achieve pre-established targets – such as organizational and financial independence, wide market adoption of the innovation, and reliable supply chains and distribution networks – will the most successful agricultural innovations advance to Stage 4 and “graduate.”

The Kenya Feed the Future Innovation Engine helps innovators establish strategic private sector linkages and support to achieve sustainability. The activity works closely with local government institutions, women’s organizations, universities, and business owners to ensure widespread awareness and adoption of the knowledge and technologies developed under the program.”

Progress to date: As of July 2015, Feed the Future Kenya Innovation Engine has invested over \$1.2 million in the form of grants to support the growth of 17 innovations. The innovators consist of 13 private sector firms, three departments in two academic institutions, and one research institution working in the horticulture, livestock and staple food crop value chains. Their innovations have already benefited over 17,000 smallholder farmer households in 13 Feed the Future counties in Kenya. In addition, the program has leveraged over \$676,000 in new private sector investment and facilitated 12 public-private partnerships.

Target participants: “By design, women and youth are among the prime targets of the innovations, helping to ensure the benefits will reach all sectors of society.”

Contact:

Kenya Feed the Future Innovation Engine Activity Manager
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Project Title: Resilience and Economic Growth in Arid Lands – Accelerated Growth (REGAL-AG)

Links:

- <http://map.usaid.gov/PublicProjectDetail?id=a0cd0000001261HAAQ&cid=Kenya>
- <http://acdivoca.org/our-programs/project-profiles/kenya-resilience-and-economic-growth-arid-lands-accelerated-growth>

Primary implementing partner: ACDI/VOCA

Project Timeline: 7/2012 - 8/2017

Location: Isiolo and Marsabit counties

Goal: Increase economic resilience among pastoral communities in Kenya’s arid counties by strengthening the livestock value chain.

Objectives:

- Improve the enabling environment for livestock value chain development
- Improve market linkages and livestock productivity
- Expand existing and develop new livestock service and input markets
- Expand livestock-related economic opportunities that engage and benefit men and women

Activities and Approaches:

- Use a facilitative approach that forges effective, sustainable relationships among actors to create a more vibrant livestock value chain and stimulates market improvement without becoming a direct part of the market system
- Encourage growth by improving market access through the community contracting fund (CCF), which entails livestock market construction and the provision of grants to businesses looking to start or expand provision of products or services related to the livestock value chain
- Employ gender-equitable solutions to improve competitiveness, productivity, and livestock-related enterprise development
- Provide a policy, legal, and regulatory environment that creates incentives for investment by all value chain actors, with clear benefits flowing to male and female pastoralists alike
- Increase the availability and affordability of inputs and services needed to benefit from market participation and working with livestock keepers to reduce their vulnerability
- Support effective, sustainable management of grazing land, water, and other natural resources and increase resilience to climate change stresses

Anticipated/Achieved Results

- Build four large markets and eight small markets in Marsabit and Isiolo counties
- Award 25 business development grants of \$30,000–150,000 for 12–18 months to provide infrastructure/construction and equipment support

Contact: Brett Aronson at baronson@acdivoca.org

Project Title: Resilience and Economic Growth in Arid Lands – Improving Resilience (REGAL-IR)

Links:

- <http://map.usaid.gov/PublicProjectDetail?id=a0cd000000133LtAAI&cid=Kenya>
- <https://www.usaid.gov/sites/default/files/documents/1860/REGAL%20IR%20%20fact%20sheet%20August%202014.pdf>
- <http://adesoafrika.org/improving-resilience-and-economic-growth-in-kenyas-arid-lands/>

Primary implementing partner: African Development Solutions

Project Timeline: 8/2012 - 8/2017

Goal: Reduce hunger and poverty, increase resilience and social stability, and build a foundation for economic growth among pastoral communities in Kenya’s arid and semi-arid lands.

Objectives:

- Improve capacity of individuals and community-based enterprises to become more competitive in business and non-pastoral activities
- Support community structures to better manage natural resources and relieve pressure on the environment
- Support community and entrepreneur access to market information and produce markets
- Strengthen capacity to manage conflict
- Improve consumption of nutritious foods

Location: Garissa, Isiolo, Marsabit, Turkana and Wajir counties

Activities/Interventions: “The activity has conducted Focused Ethnographic Surveys and Optifood research to identify gaps and opportunities for nutrient dense diets for pastoralist families, and will

endeavor to transform diets based on this evidence through behavior change communication. The activity incubates self-help group savings with a Community Resilience Empowerment Fund, a KSh 45 million revolving fund to jumpstart small business ventures that enhance resilience through alternative livelihoods. The activity implements transformational resilience through carefully screened local NGOs. These NGOs receive capacity-building as they expand the reach of resilience efforts across the north.”

Progress to date:

- Established Sidai Super Service Centers in Isiolo and Marsabit Counties to provide animal health products and services across the region – more than Ksh 3.5 million veterinary drugs sold through the centers
- 51,461 households reached with participatory learning, planning and action
- 62 Community Development Action Plans formed
- 3,517 households reached through livelihoods interventions
- 27,240 households reached through natural resource management activities

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Project Title: AIDS, Population and Health Integrated Assistance (APHIA) Plus

Links:

- <http://www.ngoaidmap.org/projects/4967>
- <https://www.usaid.gov/kenya/fact-sheets/aphiplus-aids-population-and-health-integrated-assistance-imarisha>
- <https://www.usaid.gov/kenya/fact-sheets/aphia-plus-aids-population-and-health-integrated-assistance-western>
- <https://www.usaid.gov/kenya/fact-sheets/aphiplus-aids-population-and-health-integrated-assistance-nuru-ya>
- <https://www.usaid.gov/kenya/fact-sheets/aphiplus-aids-population-and-health-integrated-assistance-kamili>

Primary implementing partner: Amref Health Africa, and others

Project Timeline: 3/2012 - 3/2017

Goal: Sustainably improve the health of under-served populations in the Northern Arid Lands (NAL) of Kenya by combining health services in the areas of: HIV/AIDS, malaria, family planning, TB, MNCH, water and sanitation, and nutrition.

Location: Garissa, Tana River, Mandera, Marsabit, Wajir, Samburu, Isiolo, and Turkana

Activities/Interventions:

1. Improve the well-being and health of marginalized and under-served populations including youth, people living with HIV/AIDS, orphans and children affected by AIDS, expectant and new mothers, and infants
2. Improve the capacity of community-based health systems to deliver high quality health services through training and capacity building

3. Improve uptake of maternal, newborn and child health interventions such as skilled deliveries, immunization, and family planning
4. Improve uptake of HIV/AIDS prevention, treatment and care services including voluntary testing and counseling
5. Enhance access to income generating and economic strengthening activities
6. Improve nutrition, food security and access to safe water and sanitation
7. Strengthen Government of Kenya systems and engage local communities to adopt healthy behaviors and the dismantling of retrogressive cultural practices

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Project Title: Taking an Innovative Cooperative Approach to Food Security and Trade (CDP III)

Links:

- <http://www.ngoaidmap.org/projects/5347>
- <http://www.ncba.coop/kenya-cdp?highlight=WYjrZW55YSJd>

Primary implementing partner: NCBA CLUSA

Project Timeline: 9/2010 - 9/2018

Goal: Address food security, nutrition of mothers and children under five years, formation and strengthening of farmers' groups and cooperatives, and good governance.

Location: Narok and Mbeere counties in the Rift valley, and Eastern provinces

Activities/Interventions: “[The program] helps farmers to form farmer groups or pre-cooperatives in increasing economies of scale, profitability and access to inputs. The project is working to increase the productivity of five agricultural crops of maize, beans, peas (dried), sorghum and millet, and intends to increase the market value for these products, improve food sufficiency of targeted locations by two months per year, facilitate the creation of food security plans, improve maternal and child health nutrition and increase awareness and participation of local government in food security.”

The program builds the capacity of farmers groups and subsequently farmers' cooperatives to increase productivity and improve livelihoods, working with NCBA CLUSA's proven Lead Farmer method to engage community-based leaders in building capacity from the ground up. Through cooperative development and strengthening organizational capacity, the program will enhance food production. These increased yields will enable more families in rural Kenya to become food secure through better linkages to local markets to increase their livelihoods. The CDP program will also train over 200,000 individuals on nutrition and HIV/AIDS awareness in the most at-risk communities throughout the

program period. The delivery of health and nutrition trainings will enable the program to implement a holistic approach to cooperative development. The program will also target food security through policy and local governance. By the end of the program, CDP Kenya will have engaged over 150 civil society organizations to promote political participation among their key stakeholders to advocate for issues related to food security.”

Contact: Emily Varga, Senior Program Manager – evarga@ncba.coop

Project Title: Health and Nutrition

Link: <http://www.ngoaidmap.org/projects/17394>

Primary implementing partner: Concern Worldwide

Project Timeline: 1/2012 – 12/2016

Goal: Improve the health and nutrition status of pregnant and lactating women and children under 5 in the poorest communities in ASAL and urban areas.

Location: Marsabit, Kisumu, and Nairobi counties

Contact: Leni Martinez del Campo, Food and Nutrition Security Officer - 212 557 8000.0
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Project Title: Food, Income, and Markets

Link: <http://ngoaidmap.org/projects/17396>

Primary implementing partner: Concern Worldwide

Project Timeline: 1/2012 – 12/2016

Goal: Help the extreme poor in ASAL areas of Marsabit County and urban informal settlements of Nairobi, Mombas and Kisumu Counties become resilient to shocks in a rapidly changing environment. The programme will continue its focus on four result areas in 2015: return on assets, adaptability to changes in the environment, participation and interaction with markets, and advocacy.

Location: Marsabit and Nairobi counties

Contact: Leni Martinez del Campo, Food and Nutrition Security Officer - 212 557 8002.0
leni.martinez@concern.net

Project Title: Improving Nutrition Through Indigenous Vegetables

Link: http://horticulture.ucdavis.edu/main/projects/nutrition_african_veg.html

Primary implementing partner: Feed the Future Innovation Lab for Collaborative Research on Horticulture

Location: Kenya, Zambia, Tanzania

Project description: This project's research will support and strengthen African indigenous vegetable industries using a market-first, science-driven approach that connects stakeholders along the value chain. Vegetables will vary within countries based upon market demand and nutritional benefits, potentially including amaranth, moringa, African eggplant, Ethiopian mustard, African nightshade, and spiderplant.

Focus areas include greater access to quality seed and markets, improved production, postharvest handling, value addition and increased knowledge of vegetable health benefits. Value chain interventions will improve production and streamline movement of produce from farm to table while addressing food, nutrition, income insecurity, and gender inequality. Activities will characterize nutrient levels from improved germplasm, production, harvesting and postharvest handling of fresh and prepared indigenous vegetables focusing on vitamin and mineral composition, bioactive phytochemicals and anti-nutritive factors.

Surveys will track household consumption examining whether diets containing African indigenous vegetables improve nutrition and health of targeted malnourished populations. Strategies will target smallholder farmers, wholesalers, distributors, supermarkets, hotels, lodges and urban consumers/buyers of African indigenous vegetables. Our approach will bridge information gaps through cooperation with farmer groups, consumers, government, researchers, NGOs, produce distributors, supermarkets and the processing industry while introducing creative new technologies addressing issues of food, health, nutrition and income insecurity, gender inequality as the AIV value chain is strengthened and new product commercialized.

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Appendix F: Active Non-USAID-Funded Projects Relevant to INGENAES—Detailed Information

Projects found on InterAction’s aid map: www.ngoaidmap.org. I prioritized larger projects for inclusion on this list (with details); smaller projects are listed at the end, with links to the project summary page.

Project Title: Nationally Appropriate Mitigation Actions in Kenya’s Dairy Sector

Link: https://ccafs.cgiar.org/nationally-appropriate-mitigation-actions-kenya’s-dairy-sector#.VqQpccfw_BI

Primary Implementing Agency: The World Agroforestry Center (supported by ILRI and FAO)

Goal and Activities: This research will support national and local stakeholders drawn from both the private and public sectors to develop and pilot activities that promote dairy development. In particular, this research will support the development of activities that achieve a win-win by delivering high productivity while reducing emissions. The project will develop an institutional framework and financing mechanism, identify best practices at farm level and in extension services, and deploy the best available science to develop monitoring, reporting and verification (MRV) approaches that are accurate, reliable, feasible and comply with public and climate finance requirements.

Expected Outputs:

- Climate finance investment propositions in Kenya’s dairy value chain on-farm benefits, business models for delivery and value propositions.
- Policy brief incorporating economic, production and mitigation analyses of the livestock sector in Kenya.
- Refined NAMA proposal for engagement with investors, including a precise monitoring, reporting and verification framework.
- Best practices guidelines for low-emission dairy production.
- Kenya Dairy NAMA monitoring, reporting and verification system and guidelines for users.

Gender Focal Points: Assessments of on-farm practices and business models for promoting adoption will examine gender equity in access to support, uptake and outcomes. Sex-disaggregated data will be collected. Results will be analyzed to ensure that recommendations for promoting gender equity in dairy NAMA activities are made. Having relatively equal numbers of men and women participate in the process of developing institutional arrangements for the NAMA will increase the likelihood that the issues and needs of diverse groups are addressed and that all social groups are actively involved in subsequent implementation. Efforts will also be made to include women and men in different age and social groupings.

Contact: Henry Neufeldt (Project Leader, ICRAF) h.neufeldt@cgiar.org

Project Title: Gender and Social Inclusion

Link: https://ccafs.cgiar.org/participatory-tools-gender-and-social-inclusion-research-under-climate-change#.VqQgu8fw_BI

Primary Implementing Agency: The World Agroforestry Center (supported by CARE International, Emory University, and FAO)

Goal: Develop a set of tools to support gender-sensitive and social inclusive research in the context of climate change and agriculture.

Additional Details: The research tools were designed, tested and further improved with partners from the World Agroforestry Centre (ICRAF) and CARE International and later published in the Gender and Social Inclusion Toolbox in 2014.

The participatory toolbox builds on the previously released Gender and Climate Change Research in Agriculture and Food Security for Rural Development training guide produced by the Food and Agriculture Organization of the United Nations (FAO) and CCAFS in 2012, which was later updated and translated into Spanish and French. The new toolbox doesn't replace it, but instead contributes with additional participatory tools and methods and a focus on social learning approaches.

The manual is a resource and toolbox for development practitioners and programme designers interested in diagnostic and action research for gender sensitive and socially inclusive climate change programmes in the rural development context. It is meant to be an easy to use manual, increasing the research capacity, skills and knowledge of its users.

Contact: Sophia Huyer (CCAFS Gender Coordinator) s.huyer@cgiar.org

Project Title: Scaling Up Climate-Smart Village Models in East Africa

Link: https://ccafs.cgiar.org/scaling-climate-smart-village-models-east-africa#.VqQg9Mfw_BI

Primary Implementing Agency: International Livestock Research Institute (ILRI)

Goal and Activities: This project builds on previous initiatives in CCAFS Climate-Smart Villages (CSVs) in East Africa. In collaboration with local communities, research organizations, Non-Governmental Organisations (NGOs), and government extension agents, the team will use Participatory Action Research to identify and test a portfolio of Climate-Smart Agriculture (CSA) innovations. The project will also explore innovations, institutions and business models for building the network of Climate-Smart Villages in East Africa and supporting local adaptation planning. The activities include:

- Enhancing climate services through decision support tools, agro-advisories and climate services
- Participatory evaluation of multiple stress tolerant (drought, diseases, pests) crop varieties
- Targeting small ruminant resilient breeds for climate change adaptation and improved feeds
- On-farm studies on quantification of GHG emissions to inform mitigation interventions in East African agricultural systems

Outcomes: National Agricultural Research Institutions (KARI, NARO, ARI, and EIAR), IARCs, and Ministries of Agriculture are developing and packaging appropriate CSA technologies and practices to

increase agricultural productivity, enhance food security, incomes and mitigation, and build resilience. Secondly, subnational and national governments are adopting CSV models and scaling up CSA practices to other farming communities in line with Local Adaptation Plans (LAPs), providing feedback to researchers and agro-advisory agencies and creating opportunities for investments through local investment partnerships for productivity and enhanced resilience.

Contact: James Kinyangi (Project Leader, CCAFS East Africa) j.kinyangi@cgiar.org

Project Title: Getting Participatory Agriculture Climate Services out to Farmers

Link: https://ccafs.cgiar.org/getting-participatory-agriculture-climate-services-out-farmers#.VqQhAcfw_BI

Description: A team from the University of Reading, as part of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) research work is scaling out a novel approach to support smallholder farmers in several countries.

Participatory Integrated Climate Services for Agriculture (PICSA) involves agriculture extension staff working with groups of farmers ahead of the agricultural season to firstly analyse historical climate information and use participatory tools to develop and choose crop, livestock and livelihood options best suited to individual farmers' circumstances. Then soon before and during the season extension staff and farmers consider the practical implications of seasonal and short-term forecasts on the plans farmers have made.

The project works directly with National Meteorology Agencies, government extension agents and non-governmental organisations.

The project was first piloted in Zimbabwe and then in Tanzania and Kenya. It is now being scaled out in Ghana, as part of the CCAFS supported CASCAID project, Tanzania and Malawi via the Global Framework for Climate Services (GFCS) project and Lesotho via International Fund for Agricultural Development (IFAD).

Gender Focus: Both women and men farmers will be better equipped to explore a variety of crop and livelihood management options that relate to their individual circumstances and location. The use of PICSA will contribute to improved capacity to plan and cope with climate variability for both genders.

Project Title: East Africa Dairy Development (EADD) – Phase II

Links:

- <http://www.heifer.org/eadd/index.html>
- file:///C:/Users/pouls_000/Downloads/mcupload_55918a5e3fbbc.pdf (Annual Report)
- file:///C:/Users/pouls_000/Downloads/mcupload_52026815d8e46.pdf (“Celebrating our women dairy farmers”)

Primary implementing partner: Heifer International

Project Timeline: 11/2013 – 12/2018

Goal: Boost the milk yields and incomes of small-scale farmers in Africa so they can lift their communities out of hunger and poverty; improve dairy production and access to markets.

Location: Uganda, Kenya, and Tanzania

Objectives/Activities:

- 1) Through training and new technologies, EADD Phase II will help farmers double their income by increasing milk production per household to a minimum of six liters per day.
- 2) Small-scale dairy farmers buy shares in a milk chilling hub through a regional business association. Through that hub they sell a dependable, quality supply of milk to dairy processors and receive income in return. They also gain access to banks and credit as well as private goods and services they need to sustain and grow their dairy businesses.
- 3) Women will be empowered through leadership and financial services that help improve their access to and control over productive assets. As a result, women farmers will contribute to their families' well-being as vital milk suppliers, gaining access to new business opportunities and increasing their savings.
- 4) Each country participating in EADD will work toward replicating the sustainable hub model with at least one other organization by the end of the program.

Progress to date: In its first five years, EADD provided extensive training on dairy husbandry, business practices and operation, and marketing of dairy products to the 179,000 farming families in the program. Heifer and its partners also developed 27 milk collection hubs, strengthened 10 existing hubs, and formed 68 farmer business associations to manage the plants. (More info available in Annual Report)

Total number of participants: More than 200,000 farmers

Contact:

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Project Title: Nehemiah

Link: <http://ngoaidmap.org/projects/1983>

Primary implementing partner: World Concern

Project Timeline: 3/2003 – 6/2016

Location: Mara/Osupuko division

Goal: The Nehemiah project is an integrated community development project aimed at improving the overall standard of living of Maasai pastoralists in Mara/Osupuko division. The project seeks to address the poor quality of life led by the pastoralists, which is mainly exacerbated by persistent drought, poor health and their lack of competitiveness in the commodity and labour market.

Activities: The project will be implemented through specific interventions, such as training on pasture management and animal health, water hygiene and sanitation, food security, environmental conservation activities, disaster preparedness and mitigation, integrated conflict resolution, gender empowerment, and development of community groups. It aims to empower communities to manage their resources. The three main project objectives include: (a) Improve the quality/standards of education; (b) Improved livelihoods and/alternative livelihoods; and (c) Improve accessibility to clean and safe water and hygiene.

Some of the key project activities are: 1) Training leaders on the right of children to education 2) Carry out health and hygiene education in communities 3) Install rainwater harvesting systems in the communities 4) Establish active accumulated savings and credit associations to provide loans for business capital 5) Conduct business/entrepreneurship trainings among women to expand their knowledge in business 6) Commercialize agricultural ventures that would yield traditional food crops 7) Facilitate the management and supervision by rural communities of their own transformative community

Target participants: Maasai pastoralists

Contact: Nick Archer, Senior Director Program Development; nicka@worldconcern.org

One Acre Fund

Link: <https://www.oneacrefund.org/our-approach/program-model>

Program Model: “We provide a complete set of services within walking distance of the farmers we serve. Our service bundle includes:

- 1 Financing for farm inputs
- 2 Distribution of seed and fertilizer
- 3 Training on agricultural techniques
- 4 Market facilitation to maximize profits from harvest sales

Farming is the dominant economic activity of the world’s poor. One Acre Fund makes that activity significantly more productive. We are growing as fast as possible to capture an incredible opportunity.”

Location: Headquarters are in Bugoma, Kenya, near Ugandan border. By 2020, they hope to serve more than 400,000 smallholder farmers in the Western and Nyanza provinces.

Additional Active Projects

Projects implemented by Heifer International, as listed here: <http://www.heifer.org/ending-hunger/our-work/countries/africa/kenya.html> (These may be larger projects but I couldn’t find many details on them; some details are available on www.ngoaidmap.org):

- PASFIK: Providing Analytical Services for informed Farming in Kenya
- WESTERN KENYA: Wealth Creation Project in Western Kenya
- EKILUP: Eastern Kenya Integrated Livestock Umbrella Project
- PILP: Pastoralist Integrated Livestock Project
- IKDIBP: India Kenya Dairy Innovation Bridge Project

Smaller projects:

- Kimira Oluch Irrigation Scheme Food Security Project (Lutheran World Relief) <http://ngoaidmap.org/projects/8732>
- Agricultural Market Access and Linkages for Smallholders in Makueni (Lutheran World Relief) http://ngoaidmap.org/projects/12601?force_site_id=2
- Kinda! Smallholder farmers in western Kenya achieving sustainable livelihoods (Lutheran World Relief) <http://ngoaidmap.org/projects/8733>
- Lamu East Community Rehabilitation Project (LECR) (World Concern) http://ngoaidmap.org/projects/17634?force_site_id=2
- Trees for the Future (GlobalGiving) <http://ngoaidmap.org/projects/16203>
- Mango Value Chain Development Project (GlobalGiving) http://ngoaidmap.org/projects/14543?force_site_id=2
- Forestry Training and Finance (GlobalGiving) <http://ngoaidmap.org/projects/9920>
- Help 5000 Women Access Food Security in Kibera (GlobalGiving) <http://ngoaidmap.org/projects/9944>
- Long-Term Food Security for 4000 Samburus in Kenya (GlobalGiving) <http://ngoaidmap.org/projects/16190>
- Improve Livelihoods of 225 HIV-affected families (GlobalGiving) <http://ngoaidmap.org/projects/9634>
- Cassava growing for food security in Kenya (GlobalGiving) <http://ngoaidmap.org/projects/9880>
- Combat Malnutrition with the Moringa Tree (GlobalGiving) <http://ngoaidmap.org/projects/9905>

From page 79 of ICT in Agriculture (The World Bank, 2011): “Kenya is a country of 5 million farmers, ranging from the smallest subsistence growers to large industrial agriculturalists. It is also increasingly a hotbed of technological innovations such as M-Farm, a mobile service that aims to improve Kenya’s agricultural sector by connecting farmers with one another, because peer-to-peer collaboration can improve market information and enhance learning opportunities.

Based around farmers’ traditional needs, such as the need for market price and weather information, M-Farm is a relatively new subscription service that also works with larger institutions, such as NGOs and the government, to connect them with farmers. The idea was generated at IPO48, a weekend-long “boot camp” where technologists and entrepreneurs bring businesses from idea to initial product in only 48 hours. M-Farm, created by AkiraChix (an all-female team of developers who are now pursuing the project full time) won the 2010 IPO48 competition’s first-place prize of more than US\$ 10,000. AkiraChix is also the recipient of an infoDev/World Bank grant to facilitate monthly networking events for mobile entrepreneurs and developers in Nairobi.

Both networking and incentives such as IPO48 have proven essential to facilitate the rapid creation of sustainable businesses based on mobile devices and the empowerment of women. Though IPO48 and M-Farm are new and their impacts still limited, they are expected to generate widespread improvements in agricultural marketing, particularly for women.