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**OPTIMIZING ON THE POTENTIAL FOR AGRICULTURAL ENTERPRISE AMONG
RURAL WOMEN FARMERS IN 3 KENYAN COUNTIES**

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OPTIMIZING ON THE POTENTIAL FOR AGRICULTURAL ENTERPRISE AMONG SELECTED RURAL WOMEN FARMERS IN 3 KENYAN COUNTIES

Prologue

This paper shares the Kenya findings and experiences of the regional research study “Supporting Business Opportunities for Women in East and Southern Africa: the Case of Zimbabwe, Uganda and Kenya”. The 2 year (2016-2018) longitudinal study was implemented by; Advocates Coalition for Development and Environment (ACODE) - Uganda, The Institute of Environmental Studies (IES), University of Zimbabwe and Collaborative Centre for Gender and Development (Kenya) as the research partners in respective countries. The research is supported by International Development Research Centre (IDRC) - Canada.

The main research question was: How can rural African women be supported to overcome structural barriers to become more innovative and take advantage of the opportunities available to increase income and create decent employment?

The project sought to use action research to improve the existing capacity to design, develop and implement policies that attract more women in rural areas to go up the value chain and engage in agri-business and well as off-farm business activities. The case studies were to provide useful comparisons between the three countries as well as new knowledge that can inform best practices and innovative interventions for other countries in East and Southern Africa. Currently, there is not sufficient empirical information to initiate targeted programmes for women’s economic empowerment in agriculture and services.

Background to the Kenyan Agricultural Sector

Agriculture, is the mainstay of Kenya’s economy. It accounts for 26 per cent of the GDP and another 25 per cent indirect contribution to the economy. Further, the sector provides more than 18 per cent of formal employment and more than 70 per cent of informal employment in the rural areas¹. There are six sub-sectors in the agriculture sector- industrial crops, food crops, horticulture, livestock, fisheries and forestry. The sub-sectors are under exploited and therefore a lot need to be done to reap the full potential of the listed sub-sectors.

Kenyan agriculture is characterized by limited productive land which constraints agricultural production. Only 16 per cent of the 587,000 km² Kenya’s land coverage is arable- cropland occupies 31 per cent, grazing land 30 per cent, and forests 22 per cent². About 84 per cent of the country is arid or semi-arid and is not suitable for rain-fed farming due to low and erratic rainfall which only allows for limited cultivation of some crops. Kenya is divided into three main production zones when rainfall is used as the basis for measure.

¹ Agricultural sector development strategy 2010-2020

²ibid

The high-rainfall zones receive more than 1000 mm of rainfall annually, occupies less than 20 per cent of the productive agricultural land. Most of the foods and cash crops as well as livestock are produced in this zone under semi-intensive and intensive systems. The medium-rainfall zone receives between 750 mm and 1000 mm of rainfall annually and occupies between 30 and 35 per cent of the country's land area. Farmers keep cattle and small stock and grow drought tolerant crops. Lastly, the low rainfall zones receive on average 300-500 mm of rainfall annually and the soils are shallow and generally infertile, but variable.

Land tenure constitutes another characteristic of Kenyan agriculture. It is classified into communal land³, Government trust land⁴, and privately owned land. In the latter, the titles can be used as collateral to access credit. The privately-owned land is largely in the domain of men and the women are disadvantaged partly due to the patriarchal cultural systems in place which bar them from accessing and controlling land.

Rural Women and Agriculture in Kenya

75 per cent of Kenyans live in the rural areas with women constituting 50.5 percent of the rural population; 60 percent of who live in absolute poverty⁵. Generally, in their agricultural production roles, women constitute the majority of rural poor in Kenya. In Kenyan rural areas, agriculture represents the predominant land use making up the basic fabric of rural life and contributing significantly to the overall state of rural regions in terms of employment and business opportunities. Most rural women play a critical role in agricultural production that constitutes the main source of income and food security. Agriculture accounts for 70 per cent of the labour force, with women comprising 75 per cent of that work force.⁶ The traditional (largely unpaid) multiple roles of the rural Kenyan woman; be a mother, take care of household duties, and to be involved in agricultural activities that require year-round attention such as weeding, harvesting, cooking, and storing persists⁷.

Overall, women make essential contributions to the agriculture and rural economies in Kenya. Their roles vary considerably between and within communities/counties and are changing rapidly in tandem with economic and social forces transforming the agricultural sector. Gender inequalities including limited access to essential resources (agricultural technologies, extension services and marketing facilities) and institutionalized barriers to credit and land ownership, still undermine women's productivity.

Kenya's agriculture is increasingly producing horticultural products on small and medium farms as well as commercial plantations- that take the form of agri-business enterprises. Such tend to employ many women in particular because their labour costs are low and

³The communal land ownership system is based on traditional customary rights, and all individuals born in that community have a right to use but not sell it. The communal land system is mainly found among the pastoralist communities in Baringo, Kajiado, Wajir etc.

⁴Government trust land is held by ministries, state corporations or other public institutions for public use such as buildings, forests, research and national parks and privately owned lands are registered; the owners hold the title under a freehold or leasehold system.

⁵Ravallion, M., (2005). Evaluating Anti-Poverty Programs. World Bank Policy Research, Development Research Group. Working Paper 3625

⁶Mwangi, 2008, Prospect, Journal of International Affairs *Marginalization of rural women in Kenya* October 3, 2013.

⁷Sofa team and Cheryl Doss (2011), The role of women in agriculture. ESA Working Paper No. 11-02

the work tasks require patience, dexterity, and attention to detail that women excel at.⁸ The combination of increasing global food demand and the largely untapped resource of women's labour in agri-business suggests that the presence of women in the industry will continue to grow. However, hope for Kenya women's smallholder's empowerment through increasing opportunities for global trade are hampered by their traditional gendered subordination to men that is most pronounced in rural agricultural settings.

Problems associated with the subordination of women typically include limited/restricted access to land and to credit, and access and control of profits reaped from their labour. If not addressed such issues may compromise any advances in technology to improve production, value addition and marketing of women's agricultural produce. Women smallholder farmers like their male counterparts also need protection from exploitation by middlemen who link them to the available market systems.

Kenya's rural poverty is also linked to environmental concerns such as poor water management, soil erosion, declining soil fertility and land degradation⁹. Climate change is a major challenge facing the Kenyan economy that could undermine the resource base and contribute to declining rural agricultural yields further entrenching feminized poverty. Severe droughts, flash floods and general unpredictable weather patterns are increasingly becoming the norm posing serious challenges to weather dependent rural agriculture.

Framing the problem

Despite notable technological and global trading engagement advancements in Kenyan agriculture, it still remains largely a nation of mostly poor small holder farmers who face a myriad of challenges emanating from minimal investment in public services to limited preparedness for the global market. These challenges have hit rural communities and women in particular very hard. Although women constitute the majority of agricultural labour force, they are often trapped in either subsistence farming or in providing cheap agricultural labour for large commercial farms, plantations and estates, which keeps them in poverty and vulnerable to economic shocks. Further, the potential for current government policies and programs/projects (that have mostly not been implemented) do not show evidence of positive indicators they are likely to make for women farmers and entrepreneurs. The viability of existing policy framework to offer protection mechanisms for women smallholder farmers is mostly untested and unproven. The utility of agriculture by majority of women farmers in the rural areas remains for the traditional role of meeting basic family needs.

The aforementioned are unlikely to change, anytime soon and therefore the future of poor rural communities depend largely on developing their capacities from within to meet the developmental challenges. The potential agriculture presents, gives room for transformation in the way agriculture is carried out by women into a business model that can enable women farmers to reap maximally from the agricultural initiatives.

⁸ Office of Women in Development, U.S. Agency for International Development A Publication of the Information Bulletin Number 7 December 1999 Sowing the Seeds of Opportunity: Women in Agri-business.

⁹ IFAD 2013 *Enabling poor rural people to overcome poverty in Kenya*

Mainstream Government Structural Interventions

Notable policy and legal reforms with impact on agriculture include: the Land Act, which mandates the National Land Commission to recommend policies on land, regulate land use in the public interest and allocate land for investment. The Agriculture, Livestock, Fisheries and Food Authority Act, establishes an authority to oversee the operation of the agricultural sector – including licensing, law enforcement and registration of farmers – and to promote and regulate the production, processing, marketing and transportation of agricultural products, advise the government on agricultural policy, and build the capacity of County Governments in relation to agriculture. The Crops Act, formulates policies for the development of scheduled crops, facilitates marketing and distribution of crops, conducts training for farmers, and establishes and enforces crop standards.

The 2010 constitution enables women to own and inherit land equitably with men but the pre-constitution inheritance Act subjects' women to customary law in 12 out of 47 counties and contains clauses that disinherit widows in case they decide to re-marry. Generally local customs still curtail women from owning property. The main government policy document, Vision 2030 positions the agricultural sector as a key sector for delivering the envisaged 10 percent annual economic growth rate¹⁰. A key thrust of the current development strategy is to increase productivity, commercialization and competitiveness of agricultural commodities and enterprises. Vision 2030 specifically targets for gender equity to be achieved through gender mainstreaming and women's empowerment and facilitated by affirmative action and special programs for women such as Women Enterprise Fund¹¹. It lays emphasis on monitoring and evaluation using gender disaggregated data and also targets harmful traditional practices and discriminative socio-cultural customs, behaviours and practices for change. The status of current policies and programs/projects that have been implemented and the desired changes they are likely to make for women farmers and entrepreneurs is not known because government monitoring and evaluation framework is weak. Generally implementation of the legal policy framework is behind schedule and is plagued by structural and resource gaps.

The African context of supporting women in Agriculture

Africa is currently witnessing an increased emphasis by both public and private institutions on women empowerment in the agricultural sector. The African Union's (AU) Malabo Declaration, commits to reduce poverty in Africa by 50% by the year 2025, through among other measures, supporting and facilitating the preferential entry and participation of women and youth in gainful and attractive agri-business opportunities.¹² At its 24th Ordinary Session¹³ the AU also chose the theme of "Women Empowerment and Development towards Africa Agenda 2063" as the theme of the year 2015. Unfortunately

¹⁰ Vision 2030 (Kenya)

¹¹ A semi-autonomous government agency established in 2007 to provide accessible and affordable credit to support women start and/or expand businesses for wealth and employment creation.

¹² June 2014 Malabo Declaration on "Accelerated Agricultural Growth and Transformation"
ke.boell.org/sites/default/files/uploads/2015/06/wom...

¹³ in January 2015

African agriculture is not modernizing at a pace that would support women continue to coexist gainfully within it.

A number of analysts have given reasons why African agriculture has not modernized to the level of operating as a viable business enterprise to offer sustainable employment. Emmanuel Tumusiime-Mutebile says the record of agricultural performance in the region over the last two decades is very weak, an indication that the agricultural policies pursued hitherto have been deficient- he sees the solution in emphasis on “getting the policies right” as opposed to simply increasing public resources invested in agriculture¹⁴. Agricultural policies should be focused on helping smallholder farmers to begin the process of transforming from subsistence production to commercial farming¹⁵. Olomola supports policies and practices that purposively target smallholders to embrace farming as a business¹⁶. He says it is desirable to imbibe business orientation in the small farm sector taking into consideration the legendary constraints with which African agriculture has been identified. Olomola says actions at the individual enterprise level, national level, and regional level and at the level of international aid agencies must be geared towards enhancing its viability and competitiveness as well as enhancing its sustainability economically and environmentally¹⁷.

Gender inequalities inherent in agricultural production and marketing with regard to land, extension services, technology, finance, mobility and education and training among others are also identified as greatly contributing to slow modernization of agriculture in Africa. Rural households and marketing institutions work within a wider framework of patriarchal systems that are tilted in favour of men’s control of major household resources. Women and girls may not excel in such an environment that still persists in many African rural areas in spite of policy and legal reforms. A policy design may not run away from addressing how to transform the norms of gender inequality and how to allocate legal protection to women regarding land and agricultural capital entitlements without which inequalities will persist and rural agriculture will continue to be marginalized against the dominant and powerful (Gray & Kevane, 1999)¹⁸.

¹⁴ Emmanuel Tumusiime-Mutebile: The challenge of modernising smallholder agriculture in East Africa Keynote address by Mr Emmanuel Tumusiime- Mutebile, Governor of the Bank of Uganda, at the International Symposium on Agricultural Developments in the EAC Partner States, Kampala, 5 November 2013

www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/WORKING_23.05.2016

¹⁵ **Ibid Page 3**

¹⁶ Aderibigbe S. Olomola Nigerian Institute of Social and Economic Research (NISER), Ibadan Aderibigbe S. Olomola Nigerian Institute of Social and Economic Research (NISER), Ibadan, Invited Paper Presented at the AfDB Economic Conference on Accelerating Africa’s Development

www.afdb.org/fileadmin/uploads/afdb/Documents/Knowledge/09484311

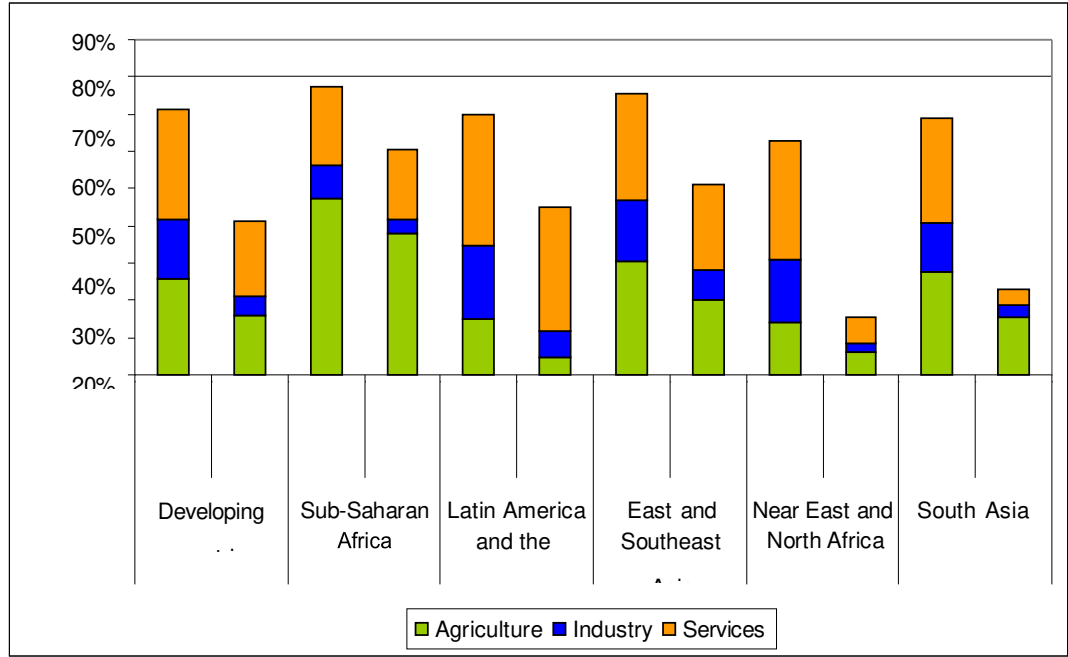
¹⁷ **Olomola Ibid 17**

¹⁸ Gray, Leslie, and Michael Kervane. “Diminished Access, Diverted Exclusion: Women and Land Tenure in Sub-Saharan Africa.” *African Studies Review* 42.2 (1999): 15-39. JSTOR. Web. 15 Apr. 2012. .

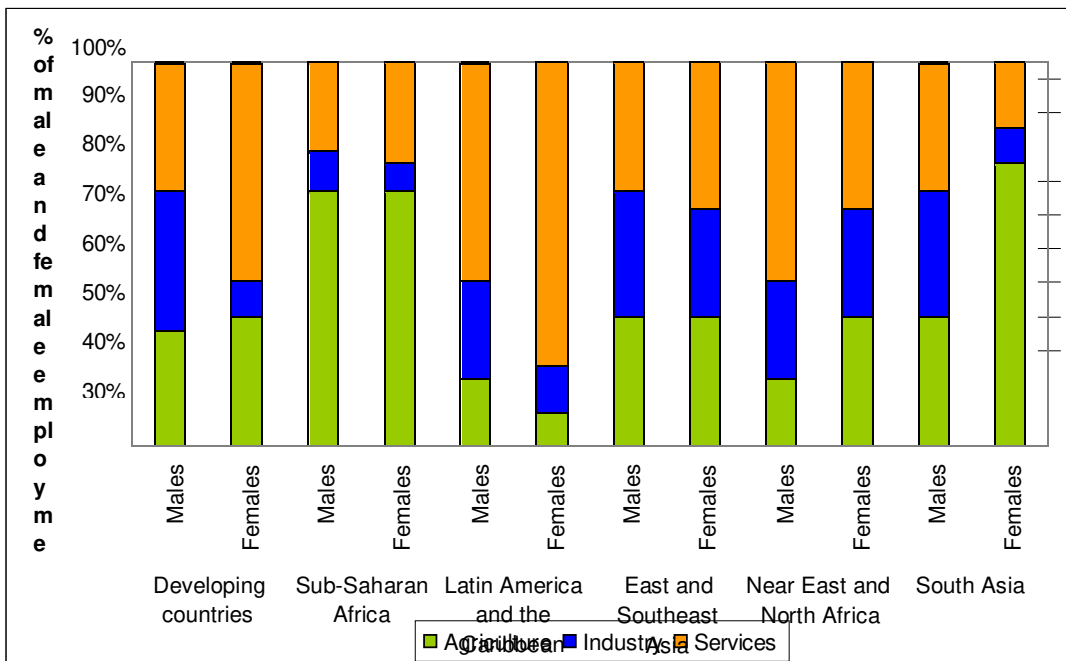
Sub-Saharan African economies are affected disproportionately by these inequalities in agriculture because agriculture constitutes a bigger part of their economies compared to other regions as the comparative table below shows:

Figure 2a

Employment by sector and region (Source: ILO, Key Indicators of the Labour Market (KILM, 6th Edition).



2b Distribution of Male and Female Employment, by Sector



Since agriculture constitutes over 60% of employment it means that inherent gender inequalities affect a bigger part of the population of “employed” women than men (who have better opportunities in non-agricultural sectors of the economy). Contribution of the other employment sectors largely dominated by men is more limited in Africa as the table below depicting employment by sector, region and gender shows (Source: ILO, Key Indicators of the Labour Market (KILM, 6th Edition):

The figures show an almost equitable distribution of employment in agriculture; considering that most data shows the large majority of women engaged in agriculture, it shows that women are better strategically positioned to benefit from reforms towards modernizing agriculture. This is illustrated better in the table below that shows the positive results of agricultural modernization to the employment of women in selected African Countries:

Table 5 Employment in selected high-value agro-industries

Country	Commodity	Year of survey	Number of employees in the agro-	Share of Female Employees
Cameroon	Banana	2003	10,000	..
Côte d'Ivoire	Banana	2002	35,000	..
Kenya	and Flowers	2002	40,000 – 70,000	75%
Senegal	French beans	2005	12,000	90%
Uganda	Cherry Flowers	2006 1998	3,000 3,300	60% 75%
Zambia	Vegetables	2002/3	7,500	65%
South Africa	Flowers Deciduous fruit	2002/3 1994	2,500 283,000	35% 53%
Mexico	Vegetables	1990s	950,000	90%
Colombia	Flowers	mid-90s	75,000	60- ~70%
Chile	Fruits	1990s	300,000	ca 46%
Dominica n Republic	Fruits, vegetables, flowers.	1989-90	16,955	ca 41%

Source. For Africa: Maertens and Swinnen (2009: Table 1), based on several sources. For South America: Deere (2005: Appendix II), based on several sources.

The table (above) shows that women dominate employment in many of the high-value agricultural commodity chains in sub-Saharan Africa even while they continue to face occupational segregation and discrimination in rural labour markets. It is apparent that some new forms of organization in supply chains for export-oriented crops and agro-processing have created better-paying employment opportunities for women in many countries than existed before.¹⁹ New jobs in export-oriented agro-industries often provide better opportunities for women than exist within the confines of traditional agriculture and can also be instruments of change with significant implications for women and rural development (Maertens and Swinnen).²⁰

Clearly sub-Saharan Africa is experiencing economic development and rising incomes leading to greater demand for high-value commodities, processed products, and pre-prepared foods which re-positions agriculture to modernize towards processing and packaging. In turn, food supply chains are becoming increasingly vertically integrated, linking input suppliers, producers, processors, distributors and retailers. Even though prevailing trends tend to expand and modernize related employment opportunities; women are still over represented in unpaid, seasonal and part-time work, and the available evidence suggests that women are often paid less than men, for the same work²¹. This notwithstanding women's employment in agribusiness is increasing in part because most rural women in African countries already have experience working in agriculture and the trend where low labor costs by women attracts business. The main challenge lies in expanding women's involvement in the more skilled and better paying job opportunities in the emerging sector of processing, packaging and distribution. It is important that migration from subsistence and market gardening by women in the agricultural value chains evolve systematically to fit into the emerging food and other agricultural product supply chains in tandem with market trends and forces.

Gender specific challenges determining African women's status in agriculture and related enterprises

There are significant gender disparities in the way key resources essential for success in agriculture such as: access to factors of production (key being land), inputs, farming technology and assets, markets, information and knowledge, time, decision-making authority and utilization of income accrued are distributed mostly to the disadvantage of women in the sector.

¹⁹ Paper No. 11-02 March 2011 Agricultural Development Economics Division The Food and Agriculture Organization of the United Nations
Prepared by the SOFA Team 2 and Cheryl Doss
www.fao.org/economic/esa

²⁰ Maertens, M. and J.F.M. Swinnen. 2009. **Are Modern Supply Chains Bearers of Gender Inequality? Paper presented at the workshop "Gender Dimension of Rural Employment", ILO-FAO, March 30-April 3, 2009, Rome.**

²¹ ESA Working Paper No. 11-02 March 2011 Agricultural Development Economics Division The Food and Agriculture Organization of the United Nations Prepared by the SOFA Team 2 and Cheryl Doss www.fao.org/economic/esa Page 35

Studies by the UN's Food and Agriculture Organisation, Farming First, and other organizations consistently show that women farmers control less than 5% of land in Saharan Africa, to over 30% in Botswana. However, in sub-Saharan Africa average only 15% of landholders are women and they receive less than 10% of available credit and 7% of extension services.²² . Majority of Africa's rural populations and in particular women with limited education has little or no access to financial services and is effectively unbanked. This segment of the population has had neither the opportunity for interaction with financial institutions nor exposure necessary to develop skills for accessing formal credit. Generally, this also entails that such small and medium enterprises (SMEs) have weak capacity to prepare financial documents and the knowledge gaps often lead to failure to assess and understand available financial products.²³

Women are generally less experienced with formal financing/borrowing from institutions; without assistance and support they find it difficult to access much needed funding. Women receive seven percent (7%) of the agricultural extension services and less than ten percent (10%) of the credit offered to small-scale farmers.²⁴ Studies have shown that access to microfinance can increase women's investment in technologies such as cell phones, computers, solar panels to generate electricity, as well as agricultural technologies that can enhance the profitability of their businesses.²⁵

Technology challenges for women include making far less use of improved technologies and inputs such as fertilizer and being less likely to receive extension services- the main source of information on new technologies. Women are thus less resourced, and operate largely in the informal economy.²⁶ They lack access to training in new sets of skills that can be applied to farming and other rural production to enable them adapt to and deal with climate change and facilitate the diversification of livelihoods to manage risks associated with rural areas.²⁷ Most farming technology advances are often inadvertently aimed at a male specific audience, with improvements aimed to accommodate their requirements leaving women farmers lacking the know-how and the confidence to use improved technology technologies.²⁸

²² *Siyanda Sishuba* (September 12, 2016). "The crucial role of women in African agriculture". <http://www.farmersweekly.co.za/opinion/by-invitation/the-crucial-role-of-women-in-african-agriculture/>

²³ Moïsé, E. et al. (2013), "Estimating the Constraints to Agricultural Trade of Developing Countries", OECD Trade Policy Papers, No. 142, OECD Publishing.

²⁴ Standard Bank. (31 August 2014). "Challenges facing women in farming". <https://bizconnect.standardbank.co.za/sector-news/agriculturearticles/6-challenges-facing-women-in-farming.aspx>

²⁵ United Nations (2009). *World Survey on Women in Development: Women's Control over Economic Resources and Access to Financial Resources, including Microfinance*. New York.

²⁶ Standard Bank. (31 August 2014). "Challenges facing women in farming". <https://bizconnect.standardbank.co.za/sector-news/agriculturearticles/6-challenges-facing-women-in-farming.aspx>

²⁷ City & Guilds Centre for Skills Development - TRAINING FOR RURAL DEVELOPMENT Agricultural and enterprise skills for women smallholders

²⁸ Standard Bank. (31 August 2014). "Challenges facing women in farming". <https://bizconnect.standardbank.co.za/sector-news/agriculturearticles/6-challenges-facing-women-in-farming.aspx>

FAO studies show that limited technology penetration is compounded by inadequate agricultural infrastructure in most countries in Sub-Saharan Africa (SSA).²⁹ This leads to insufficient local service provision in rural areas and further limit women's ability to fully participate in the labour market and increase their already unequal share of unpaid care work.³⁰ Spending long hours on water and fuel collection as well as food preparation means that rural women have less time for paid employment and other income-generating activities.³¹ Efficient transport and logistics service foster economic and social opportunities as well as gains with multiplier effects such as increased regional and international market access. Global economy economic opportunities are increasingly linked to the mobility of goods, people, information, services, and investment; which advantages those with better access to adequate, quality and efficient soft and hard infrastructure.³²

Inadequate access to modern information infrastructure compromises women's access to markets and confines them to narrower and less profitable forms of trade and businesses, limiting their income potential.³³ The gender gap in education, continues to affect women farmers today. Women often are not considered as farmers, therefore women farmers tend to have less access to agricultural information and particularly information attuned to their needs. Women farmers tend to receive second-hand information from husbands and other male relatives if they are not the heads of their households. Furthermore, they may not attend training activities due to household responsibilities or mobility constraints. Women are less likely than men to speak the national language, in which extension information is generally delivered. When information is provided through groups, women's lower representation in these groups also limits their access to information.³⁴ Cultural norms that perpetuate the perception that knowledge has to be transmitted to men first statutory and socio-cultural inequality on access to land and ownership further limit information to women.³⁵

The Kenyan County Governments Context of Supporting Agribusiness Entrepreneurship

²⁹ Food and Agriculture Organisation (FAO) (2012), Investing in market-oriented agricultural infrastructure in Africa

³⁰ 'Care' refers to activities that serve people and their well-being, and include both personal care and care-related activities, such as cooking, cleaning, fetching water and firewood. 'Work' means that the activity entails expenditures of time and energy. See UNDP (2009) for details.

³¹ UNDP (2009). Policy Brief on "Unpaid care work", UNDP Gender Equality and Poverty Reduction Series, No. 1, 26 Oct. 2009, UNDP: New York, available at: http://content.undp.org/go/cms-service/stream/asset/?asset_id=3231016

³² UN-OHRLS (2013) "The Development Economics of Land lockedness: Understanding the development costs of being landlocked."

³³ United Nations (2009). World Survey on Women in Development: Women's Control over Economic Resources and Access to Financial Resources, including Microfinance. New York.

³⁴ Njobe, B. (2015). "Women and Agriculture The Untapped Opportunity in the Wave of Transformation". [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Women and Agriculture The Untapped Opportunity in the Wave of Transformation.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Women_and_Agriculture_The_Untapped_Opportunity_in_the_Wave_of_Transformation.pdf)

³⁵ United Nations (2010). The World's Women 2010. New York

For many rural women in Kenya, entrepreneurship is part of a broader livelihood strategy, often undertaken on a part-time basis, and that is difficult to separate production and reproduction tasks, as well as market and non-market work.³⁶ With few employment choices, women often start micro-size businesses in highly saturated sectors, in the informal economy and in low-productivity and low return activities, where they benefit from little or no social protection.³⁷

Livestock are important component of the smallholder farmers who practice mixed crop-livestock farming system in Kenya.³⁸ In the semi-arid area where crop production is marginal, livestock plays additional functions of providing investment, employment, and risk reduction opportunities. Livestock also represent a “saving account”, providing an economic security against frequent crop failure.³⁹ Livestock play an important role in supporting women and in improving their financial situation and women are heavily engaged in the sector. An estimated two-thirds of poor livestock keepers, totalling approximately 400 million people, are women.⁴⁰ They share responsibility with men and children for the care of animals, and particular types of activity are more associated with women than men. For example, women often have a prominent role in managing poultry⁴¹ and dairy animals (Okali and Mims 1998; Tangka, Jabbar and Shapiro, 2000)⁴² and in caring for other animals that are housed and fed within the homestead. The influence of women is strong in the use of eggs, milk and poultry meat for home consumption and they often have control over marketing and the income from these products. Perhaps for this reason poultry and small-scale dairy projects have been popular investments for development projects aiming to improve the lot of rural women. In some countries, small-

³⁶ ILO, 2001. Mayoux L. “Jobs, gender and small enterprises: getting the policy environment right”. SEED Working Paper No. 15. Geneva.

³⁷ FAO. 2010. Rural women’s entrepreneurship is “good business”!. <http://www.fao.org/docrep/013/i2008e/i2008e03.pdf>.

³⁸ Njarui D M G, Gatheru M, Wambua J M, Nguluu S N, Mwangi D M and Keya G A 2009 Dairy Cattle Value Chain Assessment: Characterization of Milk Production in Semi-Arid Kenya. Kenya Arid and Semi-Arid Land Programme (KASAL). pp 60. <http://www.lrrd.org/lrrd28/4/njar28066.html>

³⁹ Njarui D M G, Gatheru M, Wambua J M, Nguluu S N, Mwangi D M and Keya G A 2009 Dairy Cattle Value Chain Assessment: Characterization of Milk Production in Semi-Arid Kenya. Kenya Arid and Semi-Arid Land Programme (KASAL). pp 60. <http://www.lrrd.org/lrrd28/4/njar28066.html>

⁴⁰ Thornton P.K., Kruska R.L., Henninger N., Kristjanson P.M., Reid R.S., Atieno F., Odero A.N. and Ndegwa T. 2002. *Mapping poverty and livestock in the developing world*. ILRI (International Livestock Research Institute), Nairobi, Kenya. 124 pp.

⁴¹ FAO. 1998. Village Chicken Production Systems in Rural Africa. Household Food Security and Gender Issues, by A.J. Kitalyi. The Food and Agriculture Organization, Rome. See also Guèye, E.F.2000. The Role of Family Poultry in Poverty Alleviation, Food Security and the Promotion of Gender Equality in Rural Africa. Outlook on Agriculture, Vol. 29(2): 129-136. See also Tung, D.X. 2005. “Smallholder Poultry Production in Vietnam: Marketing Characteristics and Strategies.” Paper presented at the workshop Does Poultry Reduce Poverty? A Need for Rethinking the Approaches, 30-31 August. Copenhagen, Network for Smallholder Poultry Development.

⁴² Okali, C. and J. Mims. 1998. ‘Gender and Smallholder Dairy Production in Tanzania.’ Report to the Livestock Production Programme of the Department for International Development (DFID): Appendix 1 and 2 pp. 37-38. See also Tangka F.K., Jabbar M.A. and Shapiro B.I. 2000. Gender roles and child nutrition in livestock production systems in developing countries: A critical review. Socio-economic and Policy Research Working Paper 27. ILRI (International Livestock Research Institute), Nairobi, Kenya.

scale pig production is also dominated by women. Female-headed households are as successful as male-headed households in generating income from their animals, although they tend to own smaller numbers of animals. Ownership of livestock is particularly attractive to women in societies where access to land is restricted to men.⁴³

Baringo County

In the semi-arid areas of Baringo County in Kenya, bee keeping is among the most important income generating activities, where it creates employment for people of all productive ages. It ranks second after livestock keeping. This shows that bee keeping is a viable option for diversification of economic activities in marginal areas. It is a means for generating much needed cash, especially for pastoral communities occupying lowland areas. When in season, hive products generate income that significantly boosts rural livelihoods. Honey in Baringo County is sold by the main roads, in the local producing areas, *supermarkets* and to traditional beer brewers.⁴⁴

A group of 17 women from Kipsogon, Baringo County are breaking barriers and setting the trend by demystifying beekeeping as a man's role. The women aged between 24 and 70 years have embarked on beekeeping as their commercial activity that will enable them improve their incomes and be able to provide for their families. The women all under the Weseyo women group are beneficiaries and members of Hand in Hand Eastern Africa (an NGO, whose vision is to alleviate poverty through enterprise and job creation) beekeeping initiative that aims at encouraging members to take it up as a commercial activity as well as tapping the honey potential in Baringo County.

Before starting the beekeeping business, the women attended advanced training forums on capital requirements, how to construct hives how to use machinery for higher production, honey harvesting, packaging and marketing. The honey initiative for Baringo complements the organization's goal of encouraging self-reliance for the poorest people in the rural areas. Each of the members has bought a Lang- troth beehive that is known for higher production of honey as well as being easy to manage compared to the traditional beehives.⁴⁵

The Baringo County government has embarked on an ambitious programme to revive the honey sector and exploit its big potential in honey production. Currently, the county has

⁴³ Bravo-Baumann, H. 2000. Gender and Livestock. Capitalisation of Experiences on Livestock Projects and Gender. Working document. Swiss Development Cooperation, Bern.

⁴⁴ Risper M. Berem(2015). "Economic Analysis of Honey Production and Marketing in Baringo County, Kenya: An Application of the Institutional Analysis and Development Framework". www.iiste.org/Journals/index.php/JNSR/article/download/22591/23209

⁴⁵ Hand in Hand Eastern Africa. (07 Dec 2016). "Promoting bee keeping for sustainable development." <http://handinhand-ea.org/cause/baringo-honey-value-chain/>

more than 135,000 beehives which produce only 579 tonnes annually earning the county KES144 million. Baringo North Sub-County is leading in honey production⁴⁶

Kwale County

In Kwale alone, 96% of the households keep indigenous poultry.⁴⁷ Kwale County received KES.10million from National government to be used in the promotion of three value chains of farming namely poultry farming, vegetable growing and passion fruit farming. Seminars will be conducted for the potential farming groups involved in the three farming sectors in order to sensitize them on how to access credit so that they undertake poultry, vegetable or passion farming⁴⁸. The three value chains will engage women, youth and men who have shown interest and are practicing farming as their income generating source.

The program is aimed at fighting food shortage and poverty levels in the County. Kwale and in particular Kinango Sub County- a semi-arid zone, has been experiencing food deficit year in year out.⁴⁹ Of the 433,827-indigenous poultry recorded in the 2009 census, the great majority (61-80%)⁵⁰ are raised by small-scale subsistence farmers. In almost every household, indigenous chickens freely roam around homesteads and scavenge for food with very little supplementary feeding and minimal additional inputs.

⁴⁶ According to the County Executive in charge of Agriculture Lukah Rotich, **Wycliff Kipsang**. (Wednesday May 14 2014). "Baringo County to revive honey industry". <http://www.nation.co.ke/counties/baringo/Baringo-revive-honey-industry/3444812-2314368-mldoc5/index.html>

⁴⁷ Fowler B., April 2004. Analysis of the Indigenous Poultry Sub-sector in Kwale and Kilifi Districts of Kenya; Preliminary Findings. Coastal Rural Support Programme – Kenya, Mariakani. See also, Njenga S.K., January 2005. Productivity and Socio-Cultural Aspects of Local Poultry Phenotypes in Coastal Kenya. Unpublished MSc. Thesis. The Royal Veterinary and Agricultural University (KVL)- Danish Institute of Agricultural Sciences.

⁴⁸ According to Beja Mwang'ombe ,The County Arid and Semi – Arid Development Program Coordinator (ASDP) -interview

⁴⁹ *Simon Guruba*, (November 10, 2014). "Kwale receives shs.10m to promote farming" <http://kenyanewsagency.go.ke/en/kwale-receives-shs-10m-to-promote-farming/>

⁵⁰ According to workshop participants¹⁶ The income from the major field crops in 2012 for the county was Ksh 2.99 billion.

Kenya Agricultural & Livestock Research Organization (KARLO) is involved in the supply of parent/breeding stock in the County, as well as in Mtwapa, Likoni, Kinondo, Samburu and Naivasha. Banks are expected to offer farmers loans, table banking and revolving funds (common especially among women and youth) to sustain this value chains.⁵¹ The poultry supply chain is coordinated by cooperatives such as the Kwale Local Poultry Cooperative (KLPC), tasked with linking buyers to sellers, marketing and market assurance. Other supply chain actors involved in processing and distribution include the private poultry slaughter slab, and Kenya Bixa Limited. Livestock department provides farmer trainings on local poultry management in Tsimba, Ramisi, Vanga and McKinnon Road wards.⁵²

Bungoma County

According to Ouma *et al.*, (2007), it is estimated that Kenya has up to 6.7 million dairy cattle and about 1.8 million households who rely on dairying.⁵³ Dairy farming in the mixed small-scale farming systems of Western Kenya ranks second to maize and beans in contribution to household incomes and food security (2007)⁵⁴.

Bungoma County government has spent Sh33 million in buying high breed dairy animals to improve residents' livelihood. Bungoma County government purchased 400 dairy animals which have been distributed to eight sub counties. Webuye East and West, Sirisia, Kimilili, Tongaren, Bumula, Kanduyi and Kabuchai have received their share. The animals are distributed to women and youth groups to uplift their living standards. The county government also donated dairy goats to 45 groups in the 45 wards of the county. The county government aimed to provide a cow to each of the group members apart from the one given to the group. Through the project, the county government intends to reduce poverty through the dairy value chain. It is projected that the cows can produce between 20 and 30 litres of milk each per day. Currently, at least three coolers have been revived in Naitiri, Kitinda and Kaptama dairies.⁵⁵

Action Research Project Intervention

The situation above can be transformed in part by developing business models which support women to increase productivity and increase their participation in value addition and agro-processing, as well as looking for business opportunities beyond the farm, that

⁵¹ MoALF. 2016. Climate Risk Profile for Kwale County. Kenya County Climate Risk Profile Series. The Ministry of Agriculture, Livestock and Fisheries (MoALF), Nairobi, Kenya.

⁵² NDMA. 2016. Bulletin: Committed to Ending Drought Emergencies. National Drought Management Authority (NDMA). Available at: <http://www.ndma.go.ke/index.php/early-warning-bulletins/category/20-kwale>, accessed August 30, 2016.

⁵³ Ouma, R., Njoroge, L., Romney, D., Ochungo, P., Staal, S., and Baltenweck I., (2007). Targeting dairy interventions in Kenya: A guide for development planners, researchers and Extension worker. SDP/KDDP, Nairobi, Kenya.

⁵⁴ Ouma, R., Njoroge, L., Romney, D., Ochungo, P., Staal, S., and Baltenweck I., (2007). Targeting dairy interventions in Kenya: A guide for development planners, researchers and Extension worker. SDP/KDDP, Nairobi, Kenya.

⁵⁵ Pauline Ikanda (2016). "County government issues dairy animals to groups". <http://kenyanewsagency.go.ke/en/county-government-issues-dairy-animals-to-groups/>

may enhance their livelihoods and increase income. This would empower women economically create more jobs, increase productivity and contribute to equitable economic growth.

The action research initiative “Supporting Business Opportunities for Rural Women in East and Southern Africa: The Case of Kenya” has engaged women groups in rural agriculture from 3 counties in Kenya from diverse areas ranging from the high rainfall zone (in Bungoma county) and mostly medium to low rainfall zone (Kwale County) and low rainfall zone (Baringo county) in Kenya. It focuses on 3 different agricultural production systems, small scale dairy farming (Bungoma), chicken farming (Kwale) and Beekeeping (Baringo). The overall aim of the initiative is to support the economic empowerment of rural women in agriculture, through identification and promotion of business enterprises and the creation of decent sustainable jobs.

Specific objectives

1. Examine the structural barriers that constrain women from becoming more innovative and limit their ability to take advantage of the opportunities available for business development;
2. Identify and explore the opportunities that exist off - farm for rural women, including activities that tend to be male dominated and of higher value;
3. Contribute to evidence based policy advocacy on designing innovative interventions to empower rural women in business enterprises;
4. Build and enhance the entrepreneurial capacity of the women owned/managed businesses in rural areas;
5. Document and disseminate best practices that empower rural women to participate in business enterprises.

The project aimed to avail empirical data and contribute to improving the existing capacity to design, develop and implement policies that attract more women in rural areas to go up the value chain and engage in agri-business as well as off-farm business activities. Such policies would spur job creation especially for women and youth.

The study implementation was in 2 main phases: phase 1 of secondary data collection and field data collection in a baseline survey of the targeted areas of selected counties and phase 2 of capacity building, targeted material support and continuous data collection of women group enterprises as well sampled initiatives by individual women.

Phase 1- Baseline

The baseline study investigated issues around women's farming, Agro-processing, other livelihood activities, and explored opportunities to support business models that would increase incomes of women, narrow the gender gaps in gainful employment, quality labour, and boost production. It also explored opportunities that exist off-farm, including those that are usually of higher value and characteristically dominated by men

. While women are more involved in primary production, men are usually more involved in value addition and processing as well as marketing. The study identified primary products that drive business enterprises and the status of value addition. It sought to identify gaps and opportunities for capacity building, training, skills development, and access to finance, market development and public and private partnerships.

As feasibility of different models of developing entrepreneurship was identified, the study facilitated partnerships with implementing agencies, such as international and local Non-Governmental organizations, that have a track record of working with women's empowerment issues. In addition, relevant government agencies involved, such as the ministries responsible for agriculture; small and medium enterprises; women's' affairs; labour and employment and youth. Partnerships with the private sector were also encouraged and promoted, especially around marketing, value addition and quality control.

Study Population and Sampling Procedure

The study population for both phases consists of women farmer groups. The unit of analysis is individual women in the groups involved in dairy and poultry farming and bee keeping.⁵⁶ The study involved a survey of sampled households in the study areas engaged in agricultural enterprises as well as farmer groups and individuals. This is because the survey method allowed the researcher to gather information not available from other sources and also the same information was collected from all the respondents⁵⁷. Sample frames were drawn from the eleven groups using simple random sampling methodology. The sample size for the study was 142 equitably distributed across the three counties. The study also used a cross-sectional survey method to collect case study data. This method involved data collection at a point in time from a sample selected to represent a larger population. The Case study was done in Baringo with the Sinyati women group who keep bees and have honey, bathing/bar soap, body jelly, bees wax and animal feeds as the products obtained from the farming initiative through value addition.

Data Collection

Data collection was planned in two phases: phase 1 for baseline information and phase 2 end line. The study is utilised longitudinal action research methodology spanning a period of two years. It involved a mix of quantitative and qualitative methods with a holistic approach to problem-solving, as opposed to a single cross-sectional method for collecting and analysing data. Thus, it allows for tools that include: keeping a research journal, document collection and

⁵⁶ A unit of analysis is defined as an object about which the researcher wants to produce knowledge à la Verschuren (2003)

⁵⁷ Owens, L. 2002. Introduction to Survey Research Design (accessed on 15th November 2010) <http://www.srl.uic.edu/seminars/Intro/introsrm.pdf>

analysis, questionnaire surveys, structured and unstructured interviews, case studies of successful business models, and participant observation recordings. It also involves training, monitoring and appraisal of the sample group's activities.

Baseline primary data was collected mainly from the members of the selected women farmer groups involved in identified projects that currently promote agricultural enterprises. A group of women farmers in Mt. Elgon [Cheptais]-New Leaf Women Group who practice dairy farming but are not supported by any group was also included/ interviewed for control purposes. Structured and semi structured questionnaires were administered to the survey group, and to key informants and focus group discussants respectively. Interviews were conducted on a face to face basis. A total of one hundred and fifty [150] respondents were interviewed using the survey questionnaire, eight [8] key informants were also interviewed; three [3] from Bungoma, two [2] from Baringo and two [2] from Kwale. Key informant interviews targeted people with expert and technical knowledge on various agricultural enterprises (especially for high-value products and services which tend to be dominated by men) within local development experiences in respective areas to provide in depth knowledge on what options would work or are working covering the study objectives and locations.

Researcher observation while visiting the research sites was also used. Participant observation and in-depth interviews was used to gain localised insight into how agricultural enterprises were performing and how individuals and families were affected. By meeting women in familiar settings, like their homes, farms business premises and discussing their experiences with them on site the study gained in-depth knowledge into what was happening. The study also gained first-hand accounts of the wider socio-economic factors affecting agricultural enterprises development from such on-location observation and conversations.

Data Analysis

Statistical Packages for Social Sciences (SPSS) was used for analysis of quantitative data. Frequency tables, charts and graphs were used for presentation of data. Data was disaggregated by age, gender and county to increase utilisation of the findings and also inform implementation of evidence based programmes. Quantitative data analysis was presented as descriptive statistics on key characteristics of women farmers in business and their enterprises in a research report and working paper.

The qualitative data was analysed according to various thematic issues. The information in the transcripts of interviews from key informants, focus group discussants and case studies was coded into major themes guided by the research objectives and questions. The components of each theme were then analysed individually for particular meaning and collectively to understand the collective information. The various themes that arose from the analysis was stated under different sub headings and an interpretation of the same made.

Highlights of Baseline study findings informing the second Phase

Five interrelated findings about in particular women involvement in agriculture in the three counties of Baringo, Kwale and Bungoma, informed the design and (ongoing execution of the second phase of the study:

1. Subsistence farming mentality occasioned by low investments in agriculture and failure to take-up agriculture as a business –including not actively seeking for credit and other resources, defines the current situation
2. Most farmers do not keep records or if they make an attempt it is not systematic and therefore unreliable- besides they show little evidence of using records to improve their enterprises.
3. Low production marks most of the enterprises both in volumes of quantities produced but also possible expected production per unit of investment
4. Poor knowledge of markets and low market accessibility
5. Discriminative social cultural beliefs and practises against women that have negatively affected their capacity to earn an income and led to low self- esteem that affects their confidence to make decisions and seek knowledge and skills as well as to take on new enterprises.

Women farmers reported the following constraints they experience in the nature of agricultural activities they undertake:

Table 3.5: Respondents by Agricultural Constraints

Constraints	No.	%
Lack of funds/finances	56	27.6
Drastic change of weather (unfavourable weather conditions; drought)	52	25.6
Lack of markets	26	12.9
Insecurity in the area	15	7.4
Diseases/pests	14	6.9
Lack of skills and knowledge	14	6.9
Inadequate land	5	2.5
Disagreements among farming group members	4	2
Lack of shades for beehives	2	1
Poor yields	6	3
Difficulty in accessing seeds	2	1
Charcoal burning	6	3
Total	202	100

Source: Field data 2017

Findings on the main productive resource –land were that ownership is still in the domain of the men as ethnic customary law and cultural practices still bar women from owning land. Further, majority (74.7 percent) women respondents reported that the land they have farming access to (the use/utilization of land as a productive resources) is not adequate for their “mixed farming” needs. In the worst of circumstances, land issues culminate in violence⁵⁸.

⁵⁸ At the time of the study violence broke out in Baringo where raiders from West Pokot killed men, women and children from Ilchamus and Tugen communities in Makutani area.

Table 2.2: Respondents by Land/Farm Sizes by County

Land size	No.	%
Less than a quarter acre	5	3.5
A quarter an acre	4	2.8
Half an acre	7	4.9
Between one and two acres	41	28.9
Two acres	22	15.5
Above two acres	46	32.4
Leased land	17	12
Total	142	100

Women's access to most of the agricultural activities was through labour. Such access was through permission from their husbands or male heads of households/extended families across the three communities under study. Marital status of women largely determines decision on farm issues/activities; where and how to carry out farming activities, what to sell and at what price. Most decision making on farming activities at the household level is designated as a male household head domain. Women only take on such powers in the absence of men when they are themselves household heads- mostly single, divorced or widowed. Certain farming activities such as weeding, harvesting, cattle grazing, milking and small scale trading have a feminized practice that absolves even married women from seeking permission from men.

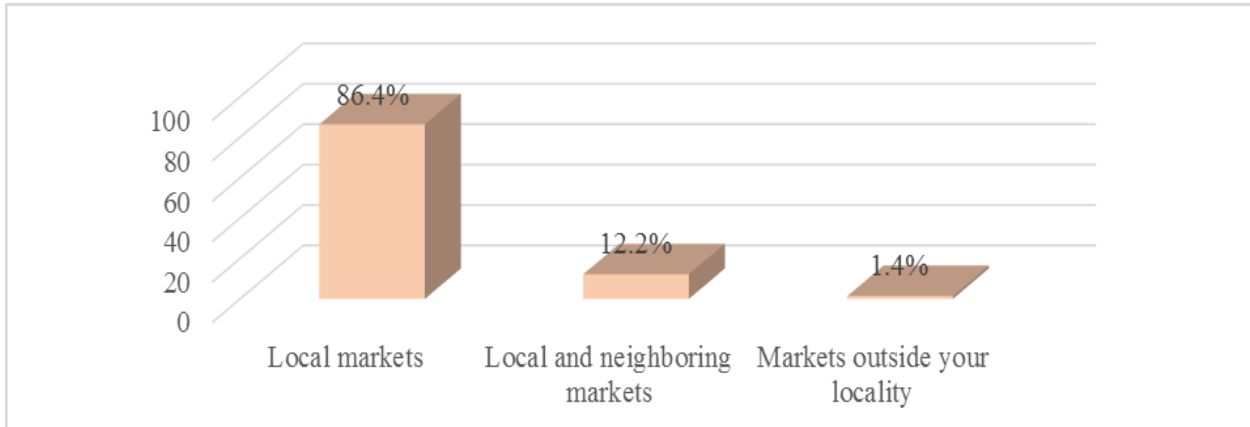
Women reported inadequate finances to buy seeds, fertilizer and other inputs to improve farming activities as a major constraint. Women face challenges with accessing finances both from financial institutions and private sources such as family and friends. Men are largely in control of the finances and in some cases men are polygamous and the money does not benefit the women who work for it. Others reported that the money at their disposal is inadequate to meet their basic and other needs. Most rural women are unbanked (in formal banking institutions) and therefore cannot access loans from banks. Alternative women friendly micro banking systems such as table banking which provides a platform for saving money and also accessing loans for starting and/or boosting their businesses has very low penetration partly because it is not well understood.

Knowledge, skills & technical support in all sectors of modern agriculture was cited as a big impediment to women's engagement which negatively affects yields. Related to this is lack of equipment. Compounding the issue is are information challenges mainly manifested through inadequate and inefficient extension services and poor coordination of supportive government support programs. Farm inputs such as seeds, fertilizers, pesticides and herbicides are inadequate. Farmers lack the skills and knowledge to deal with the pests and diseases and sometimes the money to buy the required pesticides, herbicides and medicines for animal treatment. The criteria used to issue seed from

the Ministry of Agriculture is not known to the farmers⁵⁹. Other officers who were in contact with the farmers reported lack of coordination among stakeholders. Unpredictable weather conditions attributed to climate change have amplified the need for timely information, extension support and improved skills to adopt.

Markets and marketing is generally underdeveloped. Most of the farm produce from the women is sold in the local markets with a small proportion getting access to other markets. This partly attributable to low productivity.

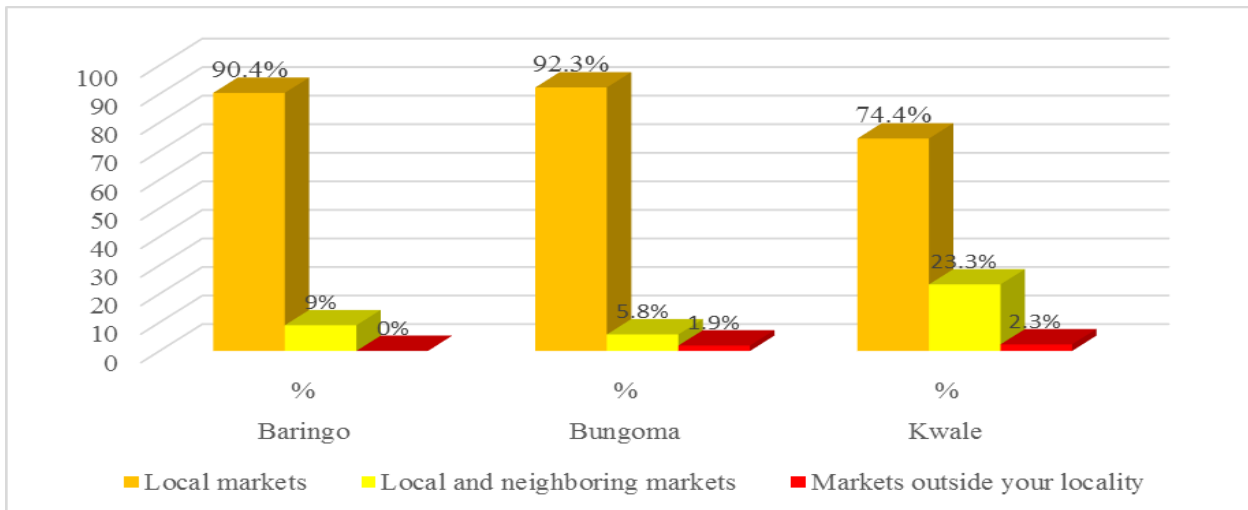
Chart 1.7: Respondents by Markets by County



Source: Field data 2017

Table 1.9: Respondents by Markets Per County

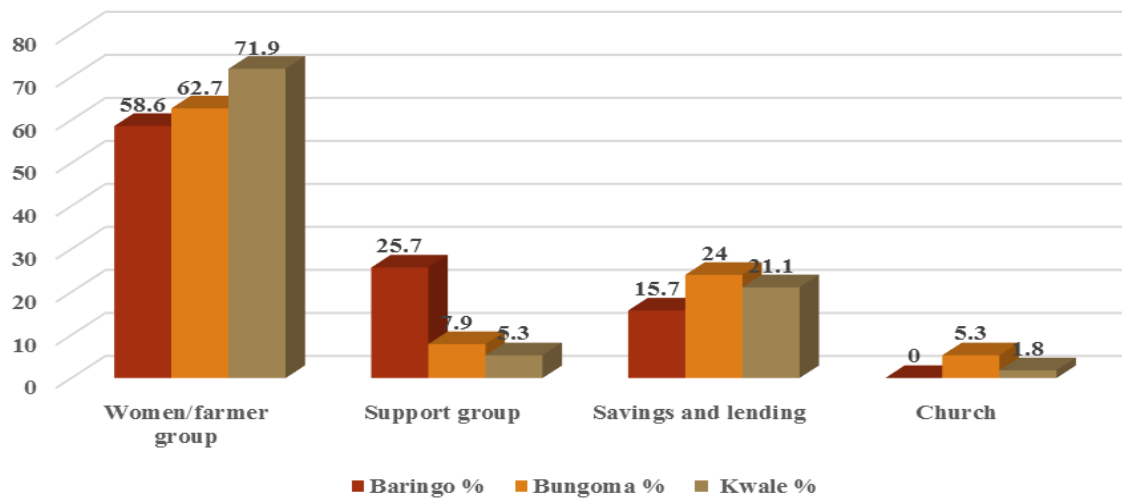
⁵⁹ One key informant from Kwale reported that her group applied for *kuroilers* and goats' seeds in 2014 and up to the time of the interview they had not received.



Source: Field data 2017

Poor infrastructure, lack of quality assurance (KEBS stickers), stiff competition, and lack of information on markets were identified as some of the key marketing challenges. In addition, lack of knowledge on the cost of commodities in other markets and localization of their markets. The markets are localized because the produce doesn't meet the threshold to sell in other markets. Related to this is bigger markets preference for trading with registered businesses or companies through established procedures such as call for tenders and bidding before one can be awarded. The farmers in Kwale and Specifically Kinango reported that it is difficult for them to engage these traders because selling at the beaches requires one to have secured a tender through their companies or other registered enterprises and the cost of doing this is beyond the rural farmers hence many a time they end up selling their produce to the middlemen at throw away prices. Demand and supply of produce also poses a challenge. When the supply is high, the demand is low hence the prices. Transportation of the produce to the markets was also a challenge which confines them to local markets.

Women belonging to groups tended to open up farmers to opportunities such as comes with organization and having a recognizable lobby. They also served to facilitate formal group capacity/skills building often through a group project. All the women farmers interviewed in Baringo, Bungoma and Kwale counties belonged to an association of some sort. It also emerged that women feel stronger and work better in groups. The discussants reported that women working in groups, are united and are "strengthened" through solidarity to access and control their respective group enterprises as well as support individual women faced with similar issues at home. Below are the diversity of groups:

Table 2.5: Respondents by Groups/Association Membership*Chart 1.5: Respondents by Groups/Association Membership by County*

Source: Field data 2017

Structured Farming Models

The study identified three rural farming models that open up to systemizing women entrepreneurship;

- County Government model-referring to projects planned, largely funded and implemented by the county governments
- The Value Chain Model- projects factoring in the nature and operation of agricultural value chains as they affect the target farmers; such are mostly externally initiated Model and
- Women Own Initiative Model that refers to enterprises started by women groups using their own resources with little or no external support.

The services under these models include Capacity Building and Value Addition; Funding and Exchange Programs, Provision of Seed and Provision of Information. These formed the axis of the CCGD research initiative that sort to work with them through additional interventions using action research methodology in the second phase.

Phase 2 aims to enhance dimensional efficiency by leveraging the incentives and resources within the farmers reach ; ensure the inclusion of groups that are often excluded (and in some cases exploited); and stimulating change and innovation that continues to grow beyond the life of the project

Phase 2: Action research methodology was deemed appropriate for this kind of study because it operates in real as opposed to contrived or experimental situations. The primary focus is on understanding situations and solving real problems. In this regard women farmers already involved in dairy, poultry farming and bee keeping from Bungoma, Kwale and Baringo counties respectively became subjects of the study as actors whose

work forms the main content. Additional capacity building for women, advocacy and linking them to institutions that support them in business including government agencies and the private sector is the project contribution to their activities from which data is generated.

The action research process adhered to six key principles⁶⁰

1. *Reflexive critique*: ensuring people reflect on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgments are made.
2. *Dialectical critique*: social reality is conceptualized and shared through conversations or dialogue that may involve juxtaposing opposing or different realities.
3. *Collaborative resource*: under which participants in an action research are co-researchers- each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants.
4. *Risk*: the change process potentially threatens all previously established ways of doing things, thus creating psychic fears among the practitioners.
5. *Plural structure*: The nature of the research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations. There will be many accounts made explicit, and a range of options for action presented. A report, therefore, acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.
6. *Theory, practice, transformation*: theory informs practice, practice refines theory, in a continuous transformation. In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. It is up to the researchers to make explicit the theoretical justifications for the actions, and to question the bases of those justifications.

Further, that action research involves a paradigm of praxis – the art of acting upon the conditions one faces in order to change them. Knowledge is derived from practice, and practice informed by knowledge, in an ongoing process. Action researchers also reject the notion of researcher neutrality, understanding that the most active researcher is often one who has most at stake in resolving a problematic situation.

Conceptual and Theoretical framework

This study draws on International Council of Women (ICW)'s framework for understanding and measuring women's empowerment. In the framework, economic empowerment of women can be through the enhancement of resources available to women or a redefinition of norms and institutions. Women's power and agency can also impact on economic empowerment of women. The framework recognizes that women's empowerment can take place at various levels including individual, household or organizational and

⁶⁰ Richard Winter, *Learning from Experience: Principles and Practice in Action-Research* (Philadelphia: The Falmer Press, 1989) 43-67.

community or social networks. This study will primarily focus on aspects and indicators of economic empowerment under the framework as shown in Box 1.

Box 1: Framework for understanding aspects and indicators of women's economic empowerment

	Individual/Household Level	Community/Institutions Level
Productivity and Skills	Individual educational attainment	Education available to and attained by girls and women
	Business and work skills	Adult learning opportunities available
	Access to productive tools and technologies	Free entry to markets for buyers and sellers
	Access to markets (as buyers and sellers)	Access to new technologies
	Access to jobs	
Business Practices	Keeps records	Employment practices
	Separates personal and business expenses	Barriers to entry to key jobs and markets
	Diversity of product line	Workplace policies
	Marketing – takes advantage of market opportunities is not dependent on one or irregular or suppliers	Earnings/growth at a firm or sector level
	Invests in business	Women as share of certain jobs
Income	Levels of incomes and revenue	Community resources and what per cent are spent on women
	Earnings profits	
	Has individual and household savings	
	Has a safe place to save	
Consumption smoothing /risk	Has savings, insurance, or liquid assets	Community has safe places to save
	Does not experience seasonal hunger	Formal or informal social safety nets
	Did not sell productive assets	
Work Environment	Work site is safely accessible for women	
	Work site has separate toilet facility for women	Labour laws exist and are enforced
	Work hours, conditions and remuneration meet international labour standards	Wage inequality
Prosperity	Individual and family wealth	Economic status of women in community
	Housing property assets	Women's share of assets, business ownership
	Better health and nutrition	Health and nutrition indices

(Adapted from the ICW's framework)

The second phase of the study provided a unique opportunity for researchers⁶¹, women farmers and technical support personnel from the respective county governments to engage in an action research that shall generate data on progress of ongoing activities in beekeeping, poultry and dairy farming. This is after women had been provided and trained on using simple data entry tools to record accurately all their activities on a daily, weekly or monthly basis as appropriate. The farmers were guided and supported by field based assistants as well as periodic visits by researchers reviewed the entries and also discussed immediate implications to the farmer's enterprises. There was also continuous skills development on specific capacity gaps identified for each of the participating women groups. Part of the capacity building was to enable the women to share their own locally generated knowledge such as on honey harvesting developed by a women group in Baringo that is more appropriate for women farmers as it enables them to overcome cultural impediments of existing methods. There was also training to enhance women's functional financial literacy as well as linking them up to the market- formal micro and macro banking sector players leveraged by more poor women friendly models such as table banking.

To deal with the identified and still prevalent gender based discrimination of women, the groups were sensitized on gender using an agricultural model that facilitated by local groups of men and women who were also available to do follow up in case of problems affecting specific women.

INTERVENTION FINDINGS

Capacity Building

Capacity building was largely facilitated by technical officers at the county and sub county levels in Bungoma, Baringo and Kwale County governments. The facilitators were selected after a vetting procedure that ensured they had relevant skills and aptitude to undertake the envisaged responsibilities. The utility of the county technical officers was based on their expertise, experience and the close proximity to the women. This eased access, reduced costs and time it took before help reached the women farmers. It was envisaged that capacity building in the arrangement of participatory research methodology

⁶¹ from CCGD

which involves learning and implementation would improve on the already available women skills and subsequently make their farming initiatives more profitable.

Other trainers were CCGD staff, a trainer of trainers (ToT) field mobiliser, staff from mainstream banking institutions, specifically Kenya Commercial Bank (KCB) and Women Enterprise Fund (WEF) who trained on table banking, gender and women friendly bank products respectively.

Capacity building, mentorship and continued follow up of the women farmers by the respective county and sub county technical officers under CCGD's facilitation were identified as the key strategies in addressing the pre-identified barriers. The barriers were a hurdle to rural women's attainment of maximum benefits from agriculture where a lot of their labour goes but the proceeds barely meet their needs and that of their families. In this regard, a two-day training was organised in each of the counties and 150 women farmers from the ten target groups trained. Technical extension officers with various expertise trained the women farmers on agribusiness, feeds, production, value addition, record keeping and marketing. Demonstrations were conducted and samples were displayed to the farmers.

Training on table banking was done by a CCGD representative while the ToT⁶² facilitated gender training specifically on access and control of resources and the benefits thereof. The gender trainings were carried out periodically throughout the project period and both women and men were invited to attend. There was a felt need for exchange programs between and among the groups and beyond. Exchange programs/visits were organised and women learnt demonstrations that were conducted. The dairy farmers for instance visited Bumula Co-operative and Naitiri to learn more on value addition. The women were linked to GIZ for more trainings and demonstrations. Peer learning provided room for perfecting women farmers' initiatives.

The training was succeeded by a continuous mentorship program where the technical officers followed up/monitored the women farmers to ensure that the skills acquired were appropriately applied. The women farmers were also informed that service provision by the technical officers was demand driven therefore the onus was on them to create the demand and benefit from the services rendered by the county government. To ease this,

⁶² It is vital to note that CCGD trained the ToT who is in turn training women and men in Bungoma rural areas on the same.

the technical officers shared their contacts which enabled the farmers to call them when needed. Further, the women farmers were given record books to make entries on production⁶³ and pass books⁶⁴ to make entries on savings and loans otherwise known as table banking initiatives⁶⁵. The books were provided to enable them accurately and consistently keep records on their initiatives as they are key to any business initiative.

Addressing gender issues

Most Kenyan communities are patriarchal a situation that makes men own and control resources hence subjecting women to their control of the same. The male control constricts the woman limiting her benefits from of labour. Women have suffered over the years and many a time awaited their spouses' nod and/or command to act. This calls for sensitization of women on dealing with the prevailing retrogressive cultures and enhancement of their negotiating skills specifically with their spouses and male relatives. A male gender champion is required to spearhead this, as he has an easy entry into the male spaces and is able to discuss issues gender comfortably with them and even persuade them to change and support the women's' initiative within and without the household. The training on gender was an eye opener to the women. They got to understand that their predicaments were to some extent were self -made as they did not voice what they needed in a convincing way.

The impact of the training was observed within the first ten months post training regarding the male support system that was in place in the women agricultural initiatives. Women dairy farmers in Bungoma had started enjoying what seemed a mirage in the near past. This impact can be attributed to the field officer, a male champion, who doubled as a ToT on gender and was attached to the women dairy farmers. This was the contrary in Kwale and Baringo that had women as field mobilisers hence did not have the clout as far as influencing men was concerned as a result the change in gender relations was not felt as much.

In Bungoma, the male spouses started to appreciate what the women did and with it came the support and goodwill that was much needed. Specifically, the women openly and confidently talked about ownership of cows including the proceeds that came from it. Cows 'are culturally a man's property and the role of the woman was to care for it and not make

⁶³ Used for filling in quantities of production and consumption, income and expenditure

⁶⁴ Used for filing in the savings, loans taken, repayments and balances

⁶⁵ Table banking is an informal way through which people belonging to a group save and borrow loans from the at an interest rate of 10% .At the end of year the money is shared out and the process is started afresh.

decisions on what to do with the money that the cow generated. This narrative has since changed and the women are more motivated to care for the cow as they enjoy the proceeds. One dairy farmer said:

“I am happy with my “Mrembo Chachacha⁶⁶”. She is giving me milk and money. Sometimes I give my husband money to take a drink or two. I am happy he no longer controls how I use the milk and the money I get from my cow. He also tells me that he feels happy because I no longer ask him for money and when he comes home he finds good food cooked for him and not bought by him”

Another dairy farmer did not have a cow shed. The cow had no shelter and risked being stolen from the open space. Her husband constructed a shade for her upon being talked to by the ToT, the male gender champion on the importance of spousal support to a woman’s initiative. The benefits have far reaching effects.

There was a dairy farmer (Margaret Sifuna) who negotiated for a one-acre piece of land with a brother –in-law who lives away from home. The in -law obliged and gave her the piece of land to use for her own purposes. She planted *Boma Rhodes grass* – a special drought resistant grass for livestock given to her by the Bungoma county livestock department. There were multiple benefits to the farmer in that her dairy animals fed on it and she also sold to other dairy farmers both male and female in the community. She also saved the feeds for a rainy day thus she harvested, dried and stored the grass as hay. Overall, this turned out to be an income generating activity for her. The family needs were met by the income from sale of fresh Boma Rhodes and hay. See the Appendices 4 of Margaret Sifuna on the farm she negotiated for from the brother- in- law.

Increasing production/Multiplication

The bottom line for business is profit which cannot be attained without higher productions and access. It is in this regard that the farmers were trained on management of dairy, poultry and bees and appropriate feeds that increase production both in quantity and quality.

Distribution of Production in Bungoma

Table 1: Women Farmer Monthly Dairy Production

Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April
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⁶⁶ Name of cow

Production in (litres)	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
0-30	49	56	62	66	76	0	0	0
31-60	9	5	4	3	12	5	6	13
61-90	14	7	7	16	0	0	0	16
91-120	11	9	14	2	12	85	77	66
121-150	8	7	2	5	0	0	1	11
151-180	9	9	7	2	0	10	0	4
>181	0	6	4	6	0	0	6	1

Source: Field data 2018

Table 1 shows that majority of the dairy farmers recorded low milk productions of between 0-30 litres in the first five months' post training period. The quantities of milk produced during the first eight months' post training was somewhat low considering that production analysis was done on a monthly basis. The low production was attributed to the long dry spell at the time that resulted in insufficient feeds for the dairy animals. The pre-training period was characterised by lack of knowledge on feeds preservation hence the farmers did not stock for their animals and the dry season presented a difficult time for them with regard to providing feeds. In response to this, the county government supplied the farmers with Boma Rhode seeds- a grass type that is drought resistant and with proper management and when used with other stocked feeds such as maize stocks, Boma Rhodes, coriander to ensure sufficient feeds throughout the year etc. The other reason for low production was the in calf state of some of the dairy animals. There is need for a strategy that would improve production and sustain it to enable the government actualise her plan of investing in coolers.

Few farmers recorded production in the 31-90 litres categories. Production peaked in the months of February going forward with over three fourths recording between 91-120 litres. The categories above 121 litres and above registered was recorded by a small fraction of the sample, However, it is worth noting that the increase did not occur to the farmers seamlessly but it was being registered incrementally. The increase may be attributed in part to observed adoption and implementation of the skills acquired by the women dairy farmers during the training which included proper feeding of the animals with the recommended nutritious feeds such as Lucerne, coriander, Boma Rhode grass, maize stocks and minerals sprinkled on the feeds.

The small proportion of dairy farmers who recorded above 181 litres per month for the eight months' period reported that they had harvested, dried and stored feeds. This was a buffer to the dairy farmers as the dry season adversely affects milk production. They

had also received the drought resistant *Boma Rhodes* grass from county government and planted for their dairy animals. Other dairy farmers bought feeds from the farmers who had stocked. This supplemented what they had to feed their cows and was also an income generating activity to the sellers of feeds

Production/Multiplication in Baringo

Three groups from Baringo County namely Sinyati, Teachers' Lobby and Nacham Nkare were involved in the study. They had an average of 9 hives and harvested 22.7kg of honey after every three months. The production levels were low for a business case. The low production was partly attributed to the big ratio of the group members to the few bee hives at their disposal. Further, the proceeds from the sale of honey was minimal and did not provide a sustainable business case. Equally, the amounts shared among the women was not commensurate to the effort they put in the management of the hives, routine checks on the hives, control of pests especially rats, harvesting, sieving and packing of the honey.

Other factors that led to low production and interfered with bee keeping causing losses to the women were insecurity and effects of climate change. Regarding the former, **Baringo** County has for a long time been troubled with insecurity issues emanating from banditry between the pastoralist communities leading to wanton effects to the communities in general and women bee keepers in particular. During the project period, there were attacks in the *Mkutani* area in May 2017 which left hundreds of women and children dead, scores injured, many displaced and bee hives destroyed among other losses. Specifically, Sinyati women group lost 11 of the 15 colonized bee hives that they had hanged in the bushes. This was a major setback for the group as their once vibrant, profitable apiary had been destroyed and this called for an almost fresh start up.

Individualised production and group marketing was proposed as a strategy that would turn around the situation. This would be actualised by encouraging the women to invest in their own bee hives through the money borrowed from the table banking and the county government supporting them by identifying a women friendly bee hive and a supplier of the same whose terms and conditions would be negotiated by CCGD who in turn would facilitate the payments. Lang troth bee hives through the support of Baringo county government extension officer's⁶⁷ advice were provided. Each of the three women bee keeping groups' (namely Sinyati, Nacham Nkare and Teachers' Lobby) were supplied with

⁶⁷Having signed an MOU, an addendum was drafted for additional roles for the county regarding identification of bee hive suppliers and eventual supplies of the same and the activities thereof.

5 langstroth hives. Further, 3 women who had initiated individual bee keeping through loans borrowed from table banking⁶⁸ groups where the women are members - each received 2 bee hives as motivation and also to challenge to the others who had not taken up the initiative.

Poultry Production/Multiplication in Kwale

Before the research project intervention, target women groups were engaged in group poultry⁶⁹ farming which neither met subsistence or market demands at the time. The stock of poultry they had against the number of farmers did not make a business case as the sale proceeds were minimal to the extent that what was shared was not commensurate to the women's effort. It is against this backdrop that the research organisation developed a strategy to individualize poultry farming specifically chicken through supplying the women with the aforementioned and encouraging them to sell after six months then restock using the proceeds while keeping the profits. The expectation was that after six months of keeping the chicken the farmers will have added value through proper feeding, vaccination and medication to make them fetch more in the market.

This strategy was however, changed upon advice from the county technical officers whose focus was on the project's sustainability/ longevity hence focused on multiplication of the chicken and increase of flock in the immediate term and sale of the chicken once a threshold of 50 breeding stock -selected with support of the technical officers- had been reached and the rest matured and sold. The former would be achieved by hatching the eggs laid by the first batch of chicken and rearing the same to reach the set target.

Individualisation was preceded by the farmers putting up poultry enclosures in their homesteads and at their cost and the same inspected (See inspection form in Appendix 5) and approved by the technical county officers before they could benefit from pullets and cockerels start up seed for individualized farming. The inspection aimed at assessing the suitability of the enclosures by meeting the bare minimum requirements/specifications of a good poultry structure that would ensure higher survival rates of the chicken supplied to the individual women farmers. The approval rate was low and the farmers were advised on the improvements they needed to make which included foot baths and fixing wire mesh.

⁶⁸ It is vital to note that the table banking initiative was introduced as a strategy to deal with the financial challenges the women had faced for a long time.

⁶⁹ They kept chicken, turkeys, ducks and guinea fowls

The farmers nearing completion of the enclosures were given two weeks within which the exercise was to be completed. This was to enhance uniformity. Below are some pictures of the enclosures.

Value Addition

Case for business in agriculture lies in agro processing. This was an area of focus during the training largely facilitated by the respective county government technical officers. Bungoma had ghee, fermented milk and manure while Baringo produced milk serve, body jelly, wax, cough syrup as the value added products. Table 3 shows the proportions that produced ghee, fermented milk locally referred to as *mala* and manure. The proportions fluctuated throughout the post training period. In summary, ghee was recorded by an average 17 percent, fermented milk by 33.4 percent and manure by 39.6 percent.

Table 3: Distribution of Bungoma Value Added Products

Month	Ghee	Fermented milk	Manure
September	20	59	21
October	14	27	59
November	20	25	55
December	16	31	53
January	18	50	32
February	29	37	34
March	21	50	29
April	14	33	53
May	18	22	60

Source: Field data 2017/2018

Income from the value added products was also captured. It is worth noting that manure was recorded by most of the farmers however, none of them sold the product. Fermented milk's (*mala*) and ghee's income was highest in the month of September at KES. 4,807 and 1,603 respectively. The two products registered the lowest in the month of April and May 2018 respectively See Table 4. This implies that value addition is slowly picking up and the farmers have not perfected it yet. Availability of value added products depends on the amount of fresh milk one is willing to spare.

Table 4: Distribution of Monthly Income from Value Added Products

Month	0-2,500		2,501-5,000		5,001-7,500		>7,501	
	Mala	Ghee	Mala	Ghee	Mala	Ghee	Mala	Ghee
September	43	52	18	37	25	6	14	5
October	45	55	25	41	17	4	13	0
November	40		21		27		12	
December	39	57	20	24	33	17	8	2

January	53	48	27	12	19	38	25	15
February	23	59	40	20	25	15	12	6
March	20	62	46	32	25	2	9	4
April	57	77	10	13	30	8	3	2
May	42	45	21	37	25	14	12	4

Source: Field data 2017/2018

In Baringo, the value added products included milk serve, body jelly, wax, bar soap⁷⁰ and cough syrup⁷¹. It is however, worth noting that members of one group namely Sinyati had catapulted to the stage of agro processing. They further, did this at individual and produced varying quantities. One member of the group, Christine Lewatachum spearheaded this attracting the attention of CUTS International Kenyan chapter and CUTS International regional forum in Kampala Uganda. See Lewatachum's success story in the Appendices.

No aspect of value addition had been done in Kwale save for the healthy eggs that the hens were laying at the time of this report.

Financing/Resource Mobilization/Table Banking

Access to finances and loans was a key challenge to the women. The intervention for this was capacity building on table banking whose immediate impact was assurance that women dairy farmers are banked in the informal way and are able to make savings and access loans. Representatives from mainstream banks took the opportunity to sensitize women farmers on their products and specified the products that a fit for an informal trader like them. This strategy helped demystify and eliminate the bank phobia that the women had had for a long time as they associated banks with men and the rich.

5.5.1: Table Banking in Bungoma County

Analysis of the pass book records for table banking showed that the women saved and accessed loans from the groups on a monthly basis. They operated in trust as there were no guarantors in the event of default and relied on individual savings. The records also showed consistent repayment of the loans advanced to the dairy farmers as shown in Table 5.

⁷⁰ All made from wax together with other added ingredients

⁷¹ Made from honey

Table 5: Table Banking Savings and Loans

	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
Balance brought forward	0	11,100	16,055	19,595	31,769	32,019	100,716	81,883
Total amount deposited	23,550	15,100	10,200	12,150	11,150	50,255	16,600	18,610
Total interest accrued		1,205	2340	3,224	3,520	4,962	54,740	16,600
Total loans paid		12,050	23,400	32,000	35,200	49,620	1,807	5,000
Total Amount Borrowed	12,450	23,400	32,240	35,200	49,620	18,070	17,500	50,000
Total at Hand		16,055	19,595	31,769	32,019	100,716	81,883	138,893

Source: Field data 2017/2018

Table 5 shows the total deposits, loans and loan repayment and interest accrued on the loans. February had the highest deposits amounting to KES. 50,255 and May the lowest totalling to KES 3,690. Regarding borrowing, April 2018 registered the highest amounting to KES. 50,000 while September registered the lowest of KES 12,570.

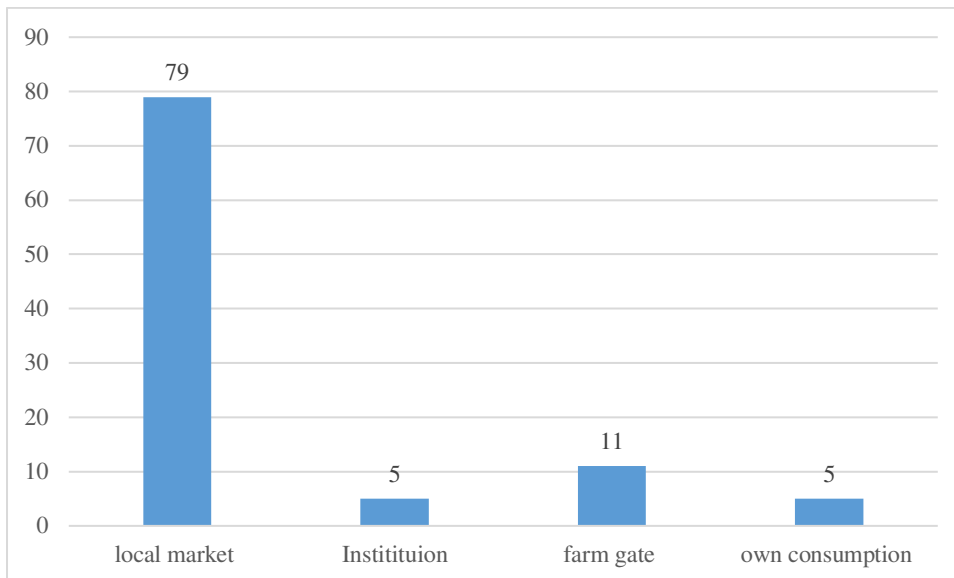
The farmers obtained loans to meet their needs which included paying fees, buying animal feeds, treating the dairy animals among others. The gap identified in the record books was failure by some farmers to indicate the reasons for obtaining the loans. This strategy was set to enable the farmers monitor each other on their progress in line with the secured loans. It would in turn ensure that women invest in progressively instead of taking loans to meet basic needs.

Financial women empowerment was evidenced in a widow dairy farmer who overcame the phobia of mainstream banking which had for a long time been associated with formal employment and specifically men. This lady approached Sidian formerly K-rep Bank for a loan to buy a machine for crushing animal feeds. She was granted a loan of KES 60,000 and used it to acquire the machine. She uses it to crush feeds for her dairy animals as well as others for a fee of KES 200 per sack (read the farmers bring their own feeds for crushing). She also leases it out at a cost of KES 500 per day. This has become an additional source of income for her as she had cleared the loan. She is able to comfortably meet the demands of her family.

Marketing in Bungoma County

Figure 1 shows that 79 percent of the dairy women farmers largely sold in the local markets. Eleven percent sold at their farm gates and 5 percent to institutions such as schools. Another 5 percent of the farmers produced for subsistence.

Figure 1: Distribution of Respondents by Markets Accessed



Source: Field data 2017/18

In Baringo and Kwale, the narrative was the same. However, the Sinyati women group who are involved in agro processing were linked with Bungoma women dairy farmers and they managed to supply milk -serve (used for milking) worth KES. 9,000 in the post training period. It is expected that this new found market will be maintained. Overall in all the eight months' period local market comprised the main source of market for dairy farmers.

The categories of markets within the locality and income was tested using the one-way ANOVA to check whether there was a significant mean difference in income from monthly production of milk based and category of accessed market. The test showed that overall there was no significant difference income and market accessed.

Income in Bungoma

In the month of September, 33 percent had an income of between KES 5001-7500 and 7 percent registered incomes of between 7501-10,000. In the months of October, November, December, April and May earned between KES 0-2500. In February and March, 60 percent and 56 percent of the respondents respectively earned KES 2501-5000. Income categories of above KES 7501 was registered by small proportion of respondents

save for March and April that registered 26 percent and 20 percent respectively. The findings therefore show that there was an overall increase in monthly income from dairy farming.

Table 8: Milk Monthly Income

Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Milk income	%	%	%	%	%	%	%	%	%
0-2500	42	56	63	65	93	0	10	57	48
2501-5000	18	0	4	14	7	60	56	0	5
5001-7500	33	9	26	14	0	39	4	23	33
7501-10000	7	28	7	7	0	1	26	20	11
10000-12500	0	7	0	0	0	0	4	0	3
	100	100	100	100	100	100	100	100	100

Source: Field data 2017-2018

Policy Brief

The findings of the study enabled development of a policy brief that was domiciled for the different initiatives in the three counties. Briefly, the policy brief emphasised that the Department in charge of Agriculture in close collaboration with Department in charge of gender will:

- Undertake a comprehensive gender analyses of all policies in the agriculture department to conform to the principles of this “Supporting Women in Agricultural Enterprises Policy Brief” policy,
- Develop and implement a plan of action to enhance women’s participation through ongoing initiatives
- Work with the county gender department and partners to build staff capacity to mainstream gender in all business -oriented project initiatives including those targeting women in agricultural enterprises to enhance delivery of gender responsive policies and programs internally & externally
- Address structural and sociocultural issues impeding gender equality at access, participation and decision making and in particular women’s equal participation and appropriation of benefits accruing from their input.
- Resource and facilitate extension services to build women’s capacity at leaning, adopting and practicing modern market-oriented farming practices.
- Support women’s access to financial resources from government, none state actors and private sector
- Support Gender Responsive Budgeting measures to increase county budget allocated to supporting women in agricultural enterprises

- Work with male champions to reach out to fellow men and mobilize them to support women's participation in agricultural enterprises

The brief is a departure from the usual business/agricultural enterprise development policy briefs that usually target elaboration of technical and capital (resource) measures to be taken to increase productivity. The brief derived for the research findings puts women's experiences, position in society at the centre of business development policy and gives equal emphasis on social aspects of their capacity and skills needs to realize business oriented objectives and optimize on the same to ensure their autonomy and empowerment. It takes into cognizance the typical family units in rural areas where the project was implemented to place men (in particular spouses and relatives of women entrepreneurs) strategically as an important factor in women's learning and application of skills in implementation of business ideas. The socio-gender power relations still consign most of the resources available (in particular land) to the control of men meaning women have to at the very least collaborate with them if and when they utilize them.

The same rural communities' also place a lot of value on harmonious male headed family units even in cases where women are the de-facto heads. This calls particularly in the short term for measures that purposively endeavour to get men's buy-in and support to women's enterprises in order that they act as a solution and not an impediment as has been the case in many instances. Keeping men informed in a gender responsive manner through training and facilitation of male champions who reach out to fellow men to educate them as well as mediate in particular familial conflict situations becomes an important aspect of the approach used. It bore significant fruits in the course of the project implementation in as far as it enabled women to have better access to land and other family resources including securing collateral for loan and seed money from their spouses and ale relatives (as some of the case studies below show).

