



## Constraints to Increasing Agricultural Production and Productivity among Women Farmers in Sub-Saharan Africa: Implications for Agricultural Transformation Agenda

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### Abstract

#### Keywords:

Women farmers, Constraints, Productivity, Agricultural transformation agenda

Agriculture is an important engine of growth and poverty reduction in much of Africa, Nigeria inclusive. But the sector is underperforming in part because women, who are often crucial resource in agriculture and rural economy, face constraints that reduce their productivity. An understanding of these constraints is a prerequisite to devising policies to improve agricultural production and productivity in the region. The study was based on a desk review of available literature. Information was accessed mainly through web search and journals. Findings revealed that women farmers are responsible for 80% of food staple production in Africa and contribute about 80% of the farm labour. In Nigeria, about 60% of the food produced comes from the rural women who constitute 60-80% of the agricultural labour force. Women play key roles in production, processing and marketing of agricultural products in addition to their reproductive functions. However, women farmers face enormous challenges such as limited access to land, capital, credits, education, appropriate technologies, training and extension, membership of rural organizations, marketing services, labour saving devices and farm inputs. Furthermore, women are overburdened by lack of access to portable water for domestic use. The implications of these findings for Nigeria Agricultural Transformation Agenda include involving women farmers in the design, implementation, monitoring and evaluation of ATA programmes, provision of productive resources and labour saving technologies, as well as ensuring women's access to ready markets for sale of products.

### 1. Introduction

Agriculture has long been the dominant sector in much of sub-Saharan Africa (SSA) in terms of output, employment and export earnings. It contributes over 60% of regional employment and accounts for over 25% of the continent's GDP (United Nations Development Program (UNDP), 2013). More than half of rural employment in SSA consists of self-employed farmers, many of whom are women (Adeniyi, 2010). Women are responsible for 80 percent of food staple production in Africa (Food and Agriculture Organization, 2011) and contribute about 80% of the farm labour (Bill and Melinda Gates Foundation, 2012). Estimates of women's contribution to the production of food crops range from 30% in Sudan to 80% in Congo, while their

proportion of the economically active labour force in agriculture ranges from 48% in Burkina Faso to 73% in Congo and 80% in the traditional sector in Sudan is varied (FAO, 1995).

Women are also important in other agricultural activities, including food processing and marketing, cash cropping and animal husbandry. Women's involvement is significant not only in terms of their labour input, but also in terms of their decision-making authority. In fact, as more men migrate to cities and other countries for work, increasing numbers of women are becoming heads of households, managing farms on a day-to-day basis while performing up to 90% of all domestic chores (Saito, 1994). Estimates of the time contribution of women in Africa to agricultural activities ranges from

about 30% in Gambia to 60-80% in different parts of Cameroon but varies widely depending on the crop and the phase of the production cycle, the age and ethnic group in question, the type of activity and other factors (SOFA and Doss, 2011).

Agriculture is an important sector of Nigeria economy and has high potentials for employment generation, food security and poverty reduction. Unfortunately, these potentials have remained largely untapped notwithstanding the numerous programs/policies of the past governments (Federal Government of Nigeria (FGN), 2008). The incumbent government has embarked on Agricultural Transformation Agenda (ATA) as part of the Federal Government effort to revamp the agriculture sector to ensure food security, job creation, diversify the economy and enhance foreign exchange earnings. The need to focus on women farmers' production and productivity, which can be an effective engine for social change, has become increasingly clear in Nigeria. Women have a significant role in farming and post-harvest activities in the country. They produce 60-80% of food (Ogunbameru and Pandey, 1992; Buckland and Haleegoah, 1996; Ironkwe and Ekwe, 1998) and contribute about 70% to farm labour (Mijindadi, 1993). Nevertheless, a complex set of rights and obligations reflecting social and religious norms prevail within rural communities; these dictate the division of labour between men and women and act as constraints to women farmers. An understanding of women farmers' roles, its importance and these constraints is a prerequisite to devising policies to improve agricultural production and productivity in Nigeria.

The pertinent questions therefore are: (1) What roles do women farmers play in agriculture in Nigeria? (2) What are the major constraints affecting women farmers' ability to carry out these roles? (3) What are the implications of these roles and constraints to achieving ATA's goals? The paper therefore aims to:

1. Ascertain the roles of women farmers in agriculture in sub-Saharan Africa;
2. Identify constraints to women's involvement in agricultural production and productivity in sub-Saharan Africa; and
3. Determine the implications of women farmers' roles and constraints in agriculture for Nigeria Agricultural Transformation Agenda.

## 2. Materials and Methods

The paper was designed based on a desk review of available literature. Information was accessed mainly through web search and journals.

## 3. Results and discussion

### 3.1 Roles of women in agriculture in sub-Saharan Africa

In sub-Saharan Africa, the agriculture sector employs 65 percent of the labour force and generates 32 percent of GDP growth (Friis Bach and Pinstrup-Andersen, 2008). Rural women farmers play a vital role in food production and food security. They account for 70% of agricultural workers, 80% of food producers, and 100% of those who process basic foodstuffs and they undertake from 60% to 90% of the marketing (Fresco, 1998). Similarly, the report of FAO-ILO-IUF (2005) revealed that women in sub-Saharan Africa produce as much as 80% of the basic foodstuffs for household consumption. Women take part actively in farming activities and in processing farm products, in addition to their domestic and reproductive responsibilities. A recent study done by World Bank, for instance, estimated that women in sub-Saharan Africa produce up to 80% of all staple foods but own less than 10% of the land. In another study, it was further estimated that women in this region contribute up to 30% of labor in ploughing, 50% of labour in planting, 60% of labor in weeding, 85% of labor in processing and preserving food, while performing up to 95% of all domestic chores (Saito, 1994). The role women play in agriculture and the rural society is fundamental to agricultural and rural development in sub-Saharan Africa.

Although women constitute the majority of the smallholder farmers, producing a large percentage of food crops for consumption, providing most of the labour and managing farms on a daily basis, their roles on the farm vary by region, economic conditions, cultural beliefs, norms and personal circumstances, and these roles could change over time. Mehra and Etim (1998) observed that the pattern of production in the region is such that women are primarily responsible for food or subsistence crops, while men grow cash crops with a share of the labour provided by women.

It is important to note that in many countries in Africa, there is a rigid division of labour by gender in agriculture. This division may be based on types of activities performed on the farm or type of crops grown by men and women (Doss, 1999). The division of labour is based on patriarchal norms that typically require women to care for the needs of the members of the households while men are involved in bringing cash income to the household. Women are also expected to help fathers, husbands in their fields, which increase women's workload. Sometimes men will help women in clearing their plots to prepare the land (Mehra and Rojas, 2008). Women's role is not limited to food production, they are also required to process and prepare the food they

grow, perform care work in the household and also help men in their cash crop production.

### **3.2 Constraints to women's involvement in agricultural production and productivity in sub-Saharan Africa**

Agriculture remains the engine of economic growth and provides the basis for most livelihoods in developing countries, Nigeria inclusive (FAO, 2011). It dominates female employment in many countries of Africa. Women's possibilities in agriculture are, however, hindered by formal and informal rules restricting their opportunities for more productive employment and income (Lastarria-Cornhiel, 1997). Some of these obstacles are discussed below:

**Agricultural Development Policies and Research:** Development policy makers and planners are becoming increasingly aware of the crucial contributions of women farmers to agricultural production. Nevertheless, agricultural policies on the whole still do not address the needs of women farmers adequately. Where the roles and needs of women farmers are recognized in policy, these tend not to be adequately translated into practice in agricultural development programmes and planning. Agricultural research too gives inadequate attention to women farmers and their needs. For instance, women and men farmers are often responsible for different agricultural tasks and crops. Research is generally focused on the improvement of production and technologies for men's crops and tasks, while those of women are neglected. National agricultural policies focus on export-oriented crops which are important for foreign exchange, and to give scant attention to food crops for domestic consumption, although the latter are essential for household food security (Karl, 1995).

A recent study conducted by Franklin (2007) in nine countries of Africa found that while women are present in greater degrees in agricultural/rural organizations, they tend to comprise a low proportion of the membership and are often not represented in the higher levels of leadership. While women's membership is most often limited by their lack of formal land ownership, many rural organizations do not sufficiently concern themselves with the needs of rural women. Women's participation as office holders in these organizations tend to be even more limited. The most striking example is in Zimbabwe, where despite the fact that women constitute 75% of the members in the Zimbabwe Farmers' Unions, only 5% of the officials are women. The largest numbers of women decision makers are found in the Sudan, where 14% of the office holders in agricultural cooperatives are graduate women.

**Land:** The land tenure systems in Africa vary across the continent. Both women's access to land and security of women's land tenure affect overall productivity. Traditionally, land may be allocated through lineage or village heads which is a model which still persists despite increasing private or state ownership of land. In patrilineal lineages women have access to land through male relatives. For example, in Nigeria women's land rights are fragile and transient, being dependent upon age and marital status (including type of marriage and the success of that marriage), whether they had children (including the number and gender of those children) (Doss, 1999). When allocations are made by village heads, a lot depends on their perception of different individuals' need for land to the extent that women are perceived to be less capable of farming their allocations which are smaller (Doss, 1999).

Overall, women's access to land in African societies is quite restricted, even in cases where the law protects women's rights to land, traditional customs inhibit their access and control over land. An example from Mozambique points out that customary law protects single-women and widowed women in access to land. However, there are customs that constrain women's access to land. Single women can gain access to land through their fathers, brothers or uncles. But, upon marriage in patriarchal communities women's access to land held by these relatives is lost, as they are expected to have access to land through their husbands (Gawaya, 2008). Generally, women tend to have smaller land holdings and less fertile plots.

Without secure title to land, women are often denied membership in cooperatives and other rural organizations and thus to the benefits of this membership. They also lack collateral which is generally indispensable for access to credit. In some places, lack of land title restricts the type of crops that may be grown. For instance, in Ghana only landowners are allowed to cultivate tree crops, such as cocoa, which can be important sources of cash income.

Control over land is an important factor which explains the large differences in investments on land made by men and women. A woman who may have obtained land through her husband may be hesitant to invest in technology if she perceives her marriage to be unstable (Doss, 1999). In Zambia, if a marriage is dissolved the land reverts to the lineage and woman has only a limited claim on the land (Milimo, 1991). Among the Haya of Tanzania, women farm grassland plots but do not have permanent rights to the land (Koopman, 1983).

**Rural Organizations:** Membership in rural organizations such as cooperatives, agricultural

producers' organizations and farmers' associations is important for access to productive resources, credit, information, training and other support services. These organizations also represent the interests of their members in relation to governments, project management, and development policy makers and planners at different levels. When women farmers' access to membership and leadership positions in these organizations is restricted by law or custom, their access to resources and their ability to make their views known to policy makers and planners is also restricted. The obvious result is the inability of women farmers to carry out their roles in agriculture to optimum potential. FAO (1994) reported that even where women do have access to membership in cooperatives and other rural organizations, they make up a small minority of the leadership. In Zimbabwe, for instance, women constitute 75% of the officers. In Benin, women make up 25% of the cooperative members, but cover 12 to 14% of the leadership positions.

**Finance and Credit:** Another factor that reduces a woman's efficiency and productivity on her plot is lack of access to credit. Credit is important for securing fertilizer, improved varieties of seeds and other technologies on farms. Most women farmers are not able to obtain credit without a male guarantor or without husband's assistance. The perception that women produce crops for subsistence and not for the market, women's less secure land tenure and provision of credit through organizations geared towards men affect provision of credit to women farmers. A study on Kenya, Zimbabwe, Malawi, Zambia and Sierra Leone found that women received only 10% of the credit for smallholder farmers and 1% of total credit to agriculture (Mehra and Rojas 2008). World Bank (2008) observed that women have less access to formal financial services because of high transaction costs, limited education and mobility, social and cultural barriers, the nature of their businesses, and collateral requirements, such as land title, they can't meet.

In Nigeria, Ajani (2008) noted that access to formal credit services is often an insurmountable barrier for women as lending is directed by male-dominated large enterprises that make the minimum loan larger than what is needed by women. Therefore, women's inability to provide acceptable assets as collateral drastically reduces the possibility of obtaining credit facilities for their farming activities. This is a serious obstacle to improving women's agricultural productivity, as without credit women farmers are unable to buy inputs such as seeds, fertilizers, and improved technologies, or to hire labour.

**Agricultural Inputs and Technology:** With the decreasing availability of arable land, increasing population pressure and growing environmental degradation, it becomes more and more important to increase productivity in sustainable ways. This requires access to appropriate agricultural inputs and technologies. The access of women farmers to agricultural inputs and technologies is constrained by their lack of access to credit and membership in rural organizations, but also by gender blind development programs and lack of attention to the needs of women farmers in research and technology development programs.

It has been noted, however, that women sometimes lose their land use rights when the value of the land is increased through the introduction of new technologies, such as advanced irrigation techniques. Alternative technologies which are also effective and easier to manage can help ensure that women, whose agricultural production is essential to food security, retain their rights and ability to farm the land. In addition, Galdwin and McMillan (1989) noted that increased capital intensification like increased use of tractors and ox implements increases acreage and that implies women have to do more weeding and harvesting and increased work of caring for domestic animals, thus, more labour demands from women. Besides tools, fertilizers and pesticides may be quite useful in increasing productivity. Fertilizer use depends on availability and farmer's resources to purchase. As women farmers generally have less access to cash and credit, they are less likely to purchase and use fertilizers (Doss, 1999). Research in Burkina Faso on men and women who grew same crop on individual plots showed that most of the inputs such as hired labour, fertilizers, and tools went to men's plots (Mehra and Rojas, 2008). Studies from Cameroon and Malawi show that the structural adjustment programs that removed fertilizer subsidy affect female farmers more than male farmers as they reduced fertilizer application on maize, which is a female crop (Galdwin, 1992).

**Training and Extension:** Agricultural extension service has a significant impact on productivity and output. However, there is evidence that woman farmers are not reached by extension services (Saito and Weidemann, 1990). A study in Malawi found that women had no contact with extension agents and their participation was very limited (Hirschmann and Vaughan, 1984). Besides the deficiency of extension program to target women farmers, women's participation is constrained by practices like the expectation that a woman needs husband's approval for any legal transaction (Doss, 1999). Lack of education and higher levels of illiteracy among women is another constraint to

women receiving extension services. Other reasons advanced for lack of women's access to training and extension are gender neutral or gender blind agricultural research which gives inadequate attention to women farmers' needs in terms of crops and technology; and lack of awareness of different gender roles and needs in the curricula and training of extensionists who could relate to women farmers, thereby excluding women from training and the benefits of extension services. Furthermore, women extensionists are still often trained only in home economics and do not have the skills to provide the services and information needed for agricultural production.

**Marketing Services:** Structural adjustment programs and the trend towards liberalization of trade have led to the dismantling of many of the marketing services that were previously available to farmers. As those often primarily responsible for marketing, women farmers have been most severely hit by this loss. Moreover, the importance of local markets for agricultural development is also often overlooked (Karl, 1995). This is evidenced in the decline in investment in rural infrastructure, such as feeder roads that link rural areas to markets, also affects women's access to markets. In addition, women lack access to membership in marketing cooperatives which limits their ability to market their produce. These constraints act as a disincentive to women farmers to produce surplus food, since the difficulties of marketing it are too great if not insurmountable.

### **3.3 Implications for Nigeria Agricultural Transformation Agenda**

Agricultural Transformation Agenda (ATA) is an innovative framework adopted by Nigeria for transforming the agriculture sector. The vision of the Transformation Agenda of the Federal Ministry of Agriculture and Rural Development (FMARD) is "to achieve a hunger-free Nigeria through an agriculture sector that drives income growth, accelerates achievement of food and nutritional security, generates employment and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers". Key to the programme is treating agriculture not as a development project, but as business. As such there is much synergy with other ministries, including the Ministry of Trade and the Ministry of Finance, as well as with the Central Bank (UNDP, 2013).

The basic components of ATA is the development of value chain in selected larger commodities including rice, cassava, sorghum, cocoa and cotton, but also horticulture, livestock (including dairy) and aquaculture. ATA is expected to address reduction in post-harvest losses, improve linkages

with industries as well as improve access to financial services and markets. The market opportunity lies in substituting imports with locally produced crops, for instance substituting wheat that is used for bread with locally produced cassava. ATA hopes to improve rural institutions and infrastructure (irrigation, mechanization, processing, storage, roads) for the achievement of its goals.

The primary actors in the realization of ATA goals are smallholder rural farmers. Rural women farmers constitute about 60% of the rural farmers in Nigeria (Mijindadi, 1993). Despite being the major source of agricultural output in Nigeria, smallholder women farmers face many challenges to get included in higher value markets. A number of obstacles to women's participation in agricultural activities in SSA, including Nigeria have been identified. The implications of such barriers to the achievement of ATA are hereby discussed.

**Security of Tenure:** Security of tenure is often the key to having control over major decisions such as what crop to grow, what techniques to use and the decision as to what to consume and what to sell. Given women's tendency to grow food as opposed to cash crops and spend income on family food, security of tenure for women must be viewed as a key link in the chain from household food production to national food security (FAO, 1995). Furthermore, shortage of good quality agricultural land for smallholder women farmers is a problem to agricultural production and productivity. Access to land through ownership or secure tenure is the sine qua non to improving agricultural productivity. Without secure land rights, farmers have little or no access to credit or the benefits of membership in rural organizations which are often conduits of agricultural inputs and services. Therefore, ATA should support women's access to land, in both quality and quantity. Women farmers should be given entitlements to agricultural land, and they should be able to access irrigation water and pasture land for food production.

**Appropriate Labour-Saving Technologies:** Women farmers everywhere are engaged in a wide range of laborious tasks related to agriculture. There is a need for the development and introduction of appropriate labour-saving technologies in food production, food processing and storage and in related areas such as water, sanitation, fuel and food preparation in order to lighten their time burden and enable them have time for productive activities.

**Extension and Inputs:** Extension personnel should train women farmers on the use of improved technologies. However, governments should ensure that advisory guidance are accompanied with agricultural inputs such as seeds, fertilizer and pesticides in order to achieve good results and

increase food production. Advisory services need to take into account financial and intellectual capacity, as well as time burden of women and focus on their specific demands and tasks.

**Membership of Rural Organizations:** Membership of rural organizations such as cooperatives, agricultural producers' organizations and farmers' associations, is important for access to productive resources, credit, information, training and other support services. These organizations also represent the interests of their members in relation to governments, project management, and development policy makers and planners at different levels. ATA should facilitate the establishment of women's groups and the representation of women at community level. Women's groups serve as dialogue platforms for their development priorities. These groups could be advised on the need to pull their resources together for greater productivity.

**Credit:** Both men and women farmers often have different responsibilities in agricultural production, and both need credit according to their needs. It is thus important for women to have not only access to credit but also control over the use of the credit so that it is not diverted to male-dominated production systems, at the expense of women's productive activities. Thus, an agriculture development policy intended to create an all-round development in rural Nigeria needs to be sensitive to needs of women in these subsistence societies. ATA should facilitate access to capital by women farmers by linking them to credit facilities and financial advisory services.

**Marketing:** As those often primarily responsible for marketing, women farmers have to be adequately assisted especially in terms of investment in rural infrastructure, such as feeder roads that link rural areas to markets. In addition, lack of access to membership in marketing cooperatives must be addressed as this also limits women's ability to market their produce. These constraints act as a disincentive to women farmers to produce surplus food, since the difficulties of marketing it are too great if not insurmountable.

#### 4. Conclusion and recommendations

There is no gainsaying that the role women play in agriculture and the rural society is fundamental to agricultural and rural development in Nigeria. However, women face enormous challenges including limited access to land, irrigation water, time, capital, financial services, inputs, information, technology and lack of education as well as cultural and religious barriers.

To improve women farmers' participation in Nigeria Agricultural Transformation Agenda, therefore, much change is required. Less discriminatory laws and policies must replace legislation and customs that constrain women's access to factors of production. The interventions must be situation-specific. Actions must be technically relevant and be suited to the sociocultural and religious precepts of the farming community and the resources they command. There is also a need for governments at all levels to increase women farmers' awareness of the gender-related inequities they face and the resulting inefficiencies and to give greater empowerment to women in their public choices to enable them contribute more effectively to agricultural growth and economic development for enhanced living standard.

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