WOMEN IN AGRICULTURE: AN ASSESSMENT OF THE CURRENT STATE OF AFFAIRS IN AFRICA

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Women in Agriculture: An Assessment of the Current State of Affairs in Africa

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The African Capacity Building Foundation (ACBF) is Africa’s premier institution in Capacity Building. Established in February 1991, ACBF is the outcome of collaboration between African governments and the international donor community. The Foundation’s mission is to build sustainable human and institutional capacity for sustainable growth, poverty reduction and good governance in Africa. The Foundation intervenes in six core competency areas, namely, economic policy analysis and management, financial management and accountability, strengthening and monitoring of national statistics, public administration and management, strengthening of the policy analysis capacity of national parliaments, professionalization of the voices of the private sector and civil society. ACBF also provides a platform for consultation, dialogue, cooperation as well as information and knowledge sharing. The Foundation is present in some 40+ African countries and has committed more than US$450 million to interventions in capacity development since its inception.
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Abstract

Agriculture continues to loom large in the development possibilities in Africa. It is therefore not surprising that global, continental, regional, and national governments have all embarked upon policy and institutional initiatives to address problems in agriculture so as to ensure that the sector makes its relevant contribution to the African development agenda. However, agriculture, like any economic activity, requires relevant resources and rewards for optimum performance. The availability of resources, particularly, human resources, is only a necessary condition to the development of the sector. A sufficient condition is the terms of accessibility to these resources. Women farmers constitute one vital human resource in African agriculture. This study examines the state of women in African agriculture, by focusing on how policy and institutional considerations frame the conditions of access to agricultural resources. The study first shows the missing links in the approaches to African women in agriculture. Second, the study discusses the relationship between access to resources and rewards and the contribution of women farmers to agricultural development, food security and the larger continental development agenda. Through the use of thematic variables, the study shows some of the constraints that affect the access of women farmers to critical variables in agricultural production and marketing. Finally, the study reiterates the importance of political leadership in improving the conditions of women farmers and outlines viable policy recommendations that recognize and address the multiple roles and challenges African women farmers are confronted with in the agricultural sector in particular and national development in general.

Key words: Africa, agriculture, political leadership
1.0 Context and Problem

There is a renewed and an emerging consensus from global and continental institutions, policy makers and society at large that in Africa, as a region, agricultural transformation would be essential in pushing the continental development agenda forward in the 21st century (ACBF, 2012; World Bank, 2012a, 2007; NEPAD, 2003; 2001). The focus is on agriculture because it is a central source of employment and a catalyst in the gross domestic product and wealth creation process in many, if not all, African countries (World Bank, 2012a; Chuhan-Pole and Angwafo, 2011; World Bank, 2007). The future development prospects of several African countries are, therefore, tied to the agricultural sector, hence the World Bank's (2007:30) characterization of the region as agriculture-based.

Thus, at the dawn of the current millennium, several global and continental initiatives have emerged with a specific focus on the agricultural sector. The initial salvo was fired by the Millennium Development Goals (MDGs) (UNDP, 2003). As a global compact, the first MDG is to eradicate extreme poverty and hunger. This goal has significant implications for the agricultural sector, since the sector provides not only the food needs, but also the income to secure food. A second major global initiative is the World Bank's (2007) report on agriculture, a report that can be characterized as “bringing agriculture back in” the development discourse in the global south. Indeed, the G8 (2012), also touts the role of agriculture in addressing issues of food security and nutrition in Africa. Consistent with the global initiatives, the African Union (AU), at the continental level, launched the New Partnership of African Development (2001) as a bold framework to reset the region's development plans. Cognizant of the role of the agricultural sector, the AU also introduced the Comprehensive Africa Agriculture Development Plan (CAADP) as well as the Maputo Declaration in 2003 (African Union, 2003; NEPAD, 2003). It is therefore obvious that African governments and their development partners have both resolved to address problems in agriculture and enact the necessary policy and institutional framework for agricultural development.

Agriculture, like any economic activity, requires relevant resources and rewards for optimum performance. Critical resources which inform the agricultural input-output relationship include tangibles like land, labour, financial credit, water supply, pesticides,
fertilizers, and infrastructural support (communication network, storage facilities) and intangibles ranging from knowledge production, technological innovations to knowledge dissemination. The availability of these resources is only a necessary condition to the development of the sector. A sufficient condition is the terms that frame their accessibility as well as the nature of the interaction between resources and rewards (Puplampu, 1999; Berry, 1993). One important factor in agriculture, as in any economic activity, is human resources. The role of human resources in the development process revolves around institutional and capacity competencies. An influential segment of the human resource package in African agriculture is women.

Women constitute about 43 per cent of the agricultural labour force in the developing world, with 50 per cent in Sub-Saharan Africa and Eastern Asia and 20 percent in Latin America (FAO, 2011:3). As a group, women constitute a sizeable proportion of the total population in several African countries (Table 1). With a gender ratio of 100 or more in several countries, Botswana, Zambia, (Southern Africa), Côte d'Ivoire, Nigeria (West Africa) and Uganda, Tanzania, Kenya (East Africa), women's role, including their labour, in agriculture cannot be ignored. World Bank (2007:78-79) estimates that in Africa, Europe, Central Asia and some East Asian countries, women and men work equally in agricultural self-employment, while in Latin America and South Asia, women work less in agricultural self-employment (see also FAO, 2011). If women farmers constitute a critical human resource in agricultural development, it is essential to shine some light on their role and significance in the sector. A useful point of entry for such an exercise is the social basis of power, since that enables us to examine the gender dimensions of agricultural policy. Gender is the social construction of roles between women and men, as opposed to sex which is the biological constructs of female or male. Gender roles are the product of political and socio-cultural forces with severe implications when it comes to the distribution of responsibilities and resources between women and men (Staudt, 1994; Moser, 1989).

The global and continental institutions mentioned earlier have recently launched or supported policy initiatives and studies with a gender focus (IFAD, 2012; UNDP, 2012; WFP, 2012; FAO, 2011, 2009; World Bank, 2011; IFAD and AfDB, 2010). The World Bank's (2011) annual global development report is instructive in its focus on the theme of gender equality and development. Similarly, FAO (2011) makes a compelling case to refocus on the role of women in agriculture, more so in the African context. While there is no doubt African policy makers have stated their commitment to African agriculture as a pathway to the broader development of the region, the role and place of women in agriculture is yet to be clearly articulated. Perhaps, that is why the African Union's (AU), 2012 Initiative to Empower Women in Agriculture (EWA) in Africa is timely and significant. Liberian President, Sirleaf Johnson, in the context of the AU initiative, said that for Africa to sustain the impressive economic growth which the continent has registered in the last few years, it will need to boost agricultural productivity and women farmers constitute a crucial group in the productivity equation (Emansion, 2012).
<table>
<thead>
<tr>
<th>Country</th>
<th>Population 2009 (est.)</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Gender ratio</th>
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Source: UN Statistics Division, Department of Economic and Social Affairs. "World Population Prospects: The 2008 Revision".

Note: gender ratio = males per 100 females.

The global and continental initiatives are not only indications of the importance of women in agriculture, but also demonstrate that closing the gender gap is one viable strategy to address the development challenges in the region. These initiatives, however, raise several questions. Given that women have always been part of the human resource equation in African agriculture, what is novel or significant about the current desire to empower women in African agriculture? Put differently, what is the extent to which the global initiatives can relate to the experiences of African women farmers and address their specific constraints? For example, will any attention be paid to some of the systemic barriers to access to resources or contribute to sustainable capacity building? These and other specific questions are the heart of this study.
1.1 Research Objectives

This study examines the state of women in African agriculture. Specifically, the study will investigate the policy and institutional framework and discuss their implications for access to resources and rewards and the contribution of women farmers to agricultural development, food security and the larger continental development agenda. The broader point of reference for the study is the state's historical role in setting up the policy and institutional framework for women in agriculture. Nonetheless, the study also acknowledges changes in the role of the contemporary state in agriculture. The contemporary African state, like its counterparts in other parts of the world, has to contend with internal and external forces in the institutional and policy context, due to or in response to globalization. The changing role of the African state in an era of globalization will affect women in African agriculture in particular and development in general (Omoyibo and Ajayi, 2011; Johnston-Anumonwo and Doane, 2011; Dunbar, 2009; Rose and Chepyator-Thomson, 2005; Boko, Baliamoune-Lutz and Kimuna, 2005).

The study has four main objectives. First, examine the significant variables and constraints that affect women in African agriculture. Second, review and analyze the activities of specific global and continental institutions (FAO, IFAD, World Bank, AfDB) with respect to women in African agriculture. Third, on the basis of the review and analysis of the barriers to women in African agriculture and an empirical study of selected African countries, outline viable and specific policy options and guidelines to inform how governments should address the role women in agriculture in Africa. Finally, contextualize the specific role the African Capacity Building Foundation (ACBF) can play in improving the role of women in agriculture in the region. To answer these research questions, the study is divided into two stages.

Stage one, the current study, will focus on the first two research objectives. The findings from the current study will form the basis for a larger multi-nation project that will answer the remaining two research objectives. To address the research questions, the first stage of the research project or the current study is divided into four main sections. Section one will review the activities of selected global and continental institutions, including the FAO, IFAD, World Bank, AfDB with respect to women in African agriculture. The section will also use the review to make a broader case for the AU-sponsored EWA. Section two will present the theoretical foundations of women and agricultural development. Section three will survey the literature on African women in agriculture, focusing on certain significant variables, in a thematic form, at the heart of the status of women in African agriculture. The final section will sketch out some policy recommendations and some concluding remarks.
1.2 Approaches to African Women in Agriculture: Where are the Missing Links?

Gender equality and empowerment are recurring themes in the emerging global and continental initiatives rethinking gender issues in particular and the role of agriculture in development in general (IFAD, 2012; UNDP, 2012; WFP, 2012; FAO, 2011, 2009; World Bank, 2011; IFAD and AfDB, 2010). IFAD (2012) anchors its policy programming in agriculture on gender equality and empowerment of not only women, but also men. The framework for IFAD’s (2012:8) position is that agricultural development “programmes are more relevant and sustainable if both women and men are able to participate in rural institutions and express their own needs and priorities in decision-making” processes. It is obvious to IFAD (2012:14) that strengthening the human and social capital base of farmers and some attention to sustainability should be key aspects of the policy framework. Another important requirement is clarity in policy statements and outcomes. Indeed, if rural women and men in developing countries are empowered, they can achieve higher incomes and improve food security at the household level (IFAD and AfDB, 2010).

UN Women (2012) also reiterates the call to empower poor rural women through economic integration and food security initiatives. Under the “Accelerating Progress Toward the Economic Empowerment of Rural Women,” a five-year initiative of the UN Entity for Gender Equality and the Empowerment of Women (UN Women), several agencies, including the Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), and the World Food Programme (WFP) have launched programs in several countries. It will be implemented initially in Ethiopia, Guatemala, Kyrgyzstan, Liberia, Nepal, Niger and Rwanda. The program has four main goals: improving food and nutrition security; increasing incomes; enhancing leadership and participation in rural institutions; and creating a more responsive policy environment at national and international levels (UN Women, 2012).

The Food and Agricultural Organization (FAO, 2011), in discussing the role of women in agriculture, stressed the need to close the gender gap in agriculture. An essential area that requires the utmost attention is the terms of access to productive resources, for example, land. FAO (2011) places the plight of women in agriculture in terms of political and socio-cultural variables and calls for measures that will close the gender gap in agriculture and rural development. The terms and conditions of access to agricultural resources has been a recurring theme in other studies. UN (2009) is also emphatic in stressing how control over economic resources is a major requirement for women and their contribution to economic development.

By 2006, 51% of all assistance to the International Development Association (IDA), the World Bank's fund for the poorest countries, included gender in project operations (World Bank, 2012b). In 2007 the World Bank launched the Gender Action Plan (GAP) to focus on gender in
the land, labor, agriculture, finance, and infrastructure sectors (World Bank, 2012b). To the World Bank (2011), gender equality can be achieved broadly by educating girls and increasing literacy rates among women, early childhood development interventions and women's labour force participation while strengthening labour policies affecting women; improving women's access to credit, land and other resources; promoting women's political rights and participation; expanding reproductive health programs and family support policies.

Beyond the initiatives by multilateral institutions, Africa-based institutions, sometimes working with other partners, have increased their commitment to raise agricultural productivity on the continent. The African Development Bank (AfDB) adopted the Gender Plan of Action (GPOA). The plan, among other things, seeks to highlight and prioritize gender analysis in social sector projects in health and education and integrate best gender practices in about one-third of all Bank projects (African Development Fund, 2007). That means the adoption of tools to integrate gender equality in Bank-funded interventions, especially in priority areas, especially poverty reduction programmes, lines of credit and infrastructure projects. AfDB’s agricultural sector strategy will ensure that gender equality issues are considered when designing and implementing projects. Of the 75 planned projects, 50 to 60 is to fully mainstream gender and at least 50% of the beneficiaries are to be women using gender sensitive indicators, in such a way that both female and male stakeholders will participate in project design (AfDB, 2010). The design of Bank projects will consider the gender differentiated needs of farmers and promote equal access to improved agricultural infrastructure and markets. With a greater emphasis on gender reform as a prerequisite for loans and grants in certain organisations like the Millennium Challenge Corporation, a growing number of African countries, including Senegal, Benin and Burkina Faso, have integrated gender concerns into their national development plans and poverty-reduction strategies (African Progress Report, 2011).

The African Union (AU) sponsored Comprehensive African Agriculture Development Programme (CAADP) now has 25 signatory countries (seven more than last year) committed to spending at least 10 per cent of their national budgets on agriculture, to accelerate growth in the sector of at least 6 per cent a year. Nineteen countries have finalized Agricultural Investment Plans (African Progress Report, 2011). International assistance and innovative partnerships such as the Alliance for a Green Revolution in Africa (AGRA), have been working with governments to intensify production. Their efforts include the introduction of high-yielding varieties of crops and improved techniques such as micro-dosing of fertilizers and drip irrigation; increased accessibility to production enhancing inputs, credit and other financial services such as weather-indexed crop insurance and other risk-sharing instruments to mitigate the risk of lending by commercial banks and other financial institutions to smallholder farmers (African Progress Report, 2011).

The foregoing demonstrate the fact that gender related issues are assuming a higher profile in the African development discourse. The question though is why did previous attempts on
addressing the needs of women in agriculture not attain the desired goals? In essence, what has been the missing link that has to be restored in order for African women to assume their rightful place and better contribute to the region's agricultural development agenda? First, there is a gap between what international organizations said they will do, what they think should be done, and what they actually do. This is because no international or multilateral organization or institution can directly effect changes at the national level. They can and certainly do encourage national governments to put certain things in place in order to ensure gender equality at all levels, and empower women in agriculture to increase their productivity, livelihood and contribution to national development. For example, to attain gender equality, the FAO's committee on World Food Security said states should ensure that women and girls have equal tenure rights and access to land, adopt measures that would enable legal and policy frameworks to afford better or adequate protection for women as well as laws that would ensure recognize women's tenure rights are implemented and enforced (FAO, 2012c). They further stated that states should remove and prohibit all forms of discrimination related to tenure rights, ensuring equal tenure rights for women and men, including the right to inherit and bequeath, as well as striving to provide legal services and other assistance to enable women to defend their tenure interests. A perennial problem is that governments and development partners continue to assume that men are the only full time farmers and that information and services need to be directed towards male heads of household (IFAD and AfDB, 2010). Consequently, women farmers receive less attention from extension and other services. Obviously, the EWA initiative will bring about an attitudinal shift, by focusing on women farmers as well.

Second, multilateral institutions can only work within the parameters of the national development agenda. As such, in cases where the national development agenda is incoherent and priorities not clearly articulated, the work of multilateral institutions, even though valuable, will not necessarily advance the needs of women in agriculture. Indeed, when the priorities of both national and international institutions dovetail, a lot more can be attained. One of FAO's strategic objectives for 2010-2019 is to promote the equal access of women and men to resources, services, and decision-making and employment opportunities in rural areas (FAO, 2012b). FAO has made gender mainstreaming central to its development policies and programmes, and its work extends beyond “women's issues”, into areas once considered “gender-neutral” (FAO, 2009b). Some recent successes of the activities of FAO and other agencies in Lesotho, Ghana and Gabon were largely due to the agenda-setting conditions in those countries (FAO, 2009b).

Third, there is a dearth of political leadership and capacity building in several African countries when it comes to the gender dimensions of agricultural development (ACBF, 2012). Interventions of the FAO, World Bank, AfDB, IFAD and other international organizations are in the area of research support, and support for projects. They develop
tools for gender analysis and research on gender and development. They also raise awareness, advocate, support training and offer research support on major gender issues. Through these initiatives, they are able to get national governments and policy makers thinking. These initiatives can only come to fruition with the required political leadership and institutional capacity in the national context. Until the recent ascension to power of women presidents in Liberia (Sirleaf Johnson) and Malawi (Joyce Banda), African countries were largely governed by men. If the experiences of leaders inform their vision for national development, then one can point to the paucity of women leaders as part of the lack of the required political leadership in addressing the needs of women farmers in the region. It is therefore not surprising that Sirleaf Johnson, for example, has been providing bold leadership in pushing the current agenda to better understand and improve the condition of women farmers in Africa. It is also worth restating that women leaders need their men counterparts to effect meaningful change. Thus, it is gratifying to note the supportive role of the AU leadership (mostly men) in the EWA.

Finally, there is the question of capacity building, specifically institutions that can initiate gender relevant policies for agricultural development (ACBF, 2012). At the height of the structural adjustment programme in the 1980s, the restructuring of agricultural institutions made it possible to establish units specifically geared to women in agricultural development in ministries of agriculture in several African countries (World Bank, 1989, 1981). However, in a context of scarce resources and the lack of leadership, most of these institutions have not lived up to expectation. The activities of multilateral and continental institutions have to be anchored in a national context. That assumes a national development planning and agenda-setting framework. While the specific needs of each African country is important, the argument is not the particularistic issues in each African country, but a better understanding of the national context. AU’s emerging leadership in continental issues and the implications for national development seems to be opening up the space to better focus on and advance the interests of African women in agriculture. For a region in which women constitute a sizeable group in agriculture, such a strategy is not only timely but an imperative if the policy objective is to harness available human resources for national development.

The relevance of the national environment, in order to better identify commonalities and differences is borne out by the significant variations in respective African countries in terms of the agricultural share of all economically active women and women’s share of economically active in agriculture (table 2). It is gratifying to note that development partners have accepted and continue to use terms like gender roles, gender equality, gender empowerment and gender mainstreaming in declarations and policy initiatives (UNDP, 2012; FAO, 2012, 2009). The common consensus can be the result of the third MDG of promoting gender equality and empowerment of women. Empowering women is required to improve food security situation, nutrition security, child education, increased production levels.
Women's empowerment must remain a central policy priority because equality and non-discrimination are of intrinsic value (UNDP, 2012). Empowerment considers access to and control over resources as a social justice problem which must be tackled without delay. The question, however, is whether or not development partners have a common approach when it comes to the practical implications of the development concepts.

The share of economically active women in several African countries has seen a steady increase in several countries by 2010. Botswana, for example, has seen an increase from 46.6 to 52.4 and 56.9 in 1980, 1995 and 2010 respectively. Similar changes have also occurred in Malawi, Senegal and Mozambique. Beyond Table 2, the estimates of women's participation in the agricultural sector range from as high as 60 percent in Lesotho, Mozambique and Sierra Leone to 36 per cent in Cote d'Ivoire and Niger (FAO, 2011:8). Equally valuable is the role of women in specific areas of the agricultural sector. Ghana and Nigeria have female-headed households heavily involved in the market orientation than producing merely for subsistence, while Malawi has the reverse situation (World Bank, 2007:78). A heavier involvement in market activities would suggest a movement to non-agricultural areas to supplement the income from agricultural sources (World Bank, 2007:204). The ensuring diversification of income will bode well especially for single-headed households to weather any drastic price changes in agricultural commodity markets.

Table 2: Women in Selected African Countries (Economy and the Agricultural Sector)

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<td>77.2</td>
<td>44.9</td>
<td>45.5</td>
<td>47.4</td>
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</table>

The differences in the concentration and role of women in African agriculture, notwithstanding, there are commonalities in the fate of women in agriculture in Africa. Throughout the region, the basic problem women in agriculture are confronted with is the conditions of access to agricultural resources. They live under harsh conditions, suffer from cultural and policy biases that tend to undervalue their work and carry out their role as head of households with little support (Jazairy, Alamgir, and Panuccio, 1992; Beneria, 1982; Rogers, 1980). The current interest on women in African agriculture has to focus on addressing the common and peculiar problems of women farmers. This focus calls for not only an analysis of previous difficulties, but also a bold resolution to adopt novel and creative ways to confront these problems. While some of these creative ways will be presented in another section, the next section outlines the theoretical framework that has informed gender, policy and the development debate in general and agriculture in particular.

1.3 Gender, Policy Analysis and the Development Debate: An Overview

The gender and development debate is closely aligned with the emergence of the postcolonial African state and its role in national development. Three theoretical assumptions have informed this debate: the modernization perspective; the dependency and world systems framework and finally contemporary theories of globalization (Schuurman, 2001; Hoogvelt, 2001; Kiely, 1995; Larrain, 1989). Briefly stated, modernization posits a world of modern (developed) and traditional (developing) societies, with the latter learning or imitating from the former what it takes to be modern. The dependency and world systems framework also addresses the relationship between the core (developed) and the periphery (developing) and demonstrates how the relationship is unequal. Contemporary theories of globalization examine how the dramatic breakthroughs in information and communication technologies and the consequent compression of time and space have affected political, economic, and cultural relations worldwide. These perspectives converge and diverge in terms of the conditions of access to agricultural resources and reward. A general critique is their failure to adequately theorize the gender aspects of agricultural development. This failure is also a reflection of the power basis of policy analysis. Social forces and dramatic changes in society oblige agricultural policy documents to mention or tout the role of women in agriculture, while the same social forces shape and influence agricultural policy in a way that undermine women's access to agricultural resources and contribution to the sector and national development in general.

Two major issues are at stake in the gender dimension of the failure of agricultural policy. The first is the analytical framework in policy analysis and the second is the disjuncture between policy documents in agriculture and the actual implementation of the policy. Two lines of policy analysis can be identified. In one approach, policy makers cite "obstacles to implementation" (Schaffer, 1984:181) as reasons for poor performance, and do not account
for their lack of understanding on why policies do not achieve stated objectives. We are told that the agricultural policy, for example, does not contribute to agricultural development because women farmers are in the subsistence sector of the agricultural economy. The nature of that sector, its relationship to the wider agricultural sector and society are not addressed. However, these are issues to be addressed for women farmers to make any significant contribution to agricultural development. Policy analysis from this approach or what Clay and Schaffer (1984:3) call the “mainstream” approach does not raise these questions, and is of limited value in explaining policy performance.

The other analytical framework realises that policy makers usually do not state their intended objectives, and what may seem as poor policy performance may be achieving unstated objectives. The key issue in this framework is the analysis of the social basis of power. Keen's (1994) analysis of the famine in Sudan between 1985 and 1989 is revealing of the value of this approach. The political regime, Keen (1994) argues, was unable to transcend the long-running conflict between north and south Sudan. The government used famine in the south-western corner as state policy to contain these disagreements. Consequently, the famine benefited some groups at the expense of others. Thus, "[e]ven as policymakers "fail" to achieve stated goals, it is quite possible that they are achieving other, unstated goals" (Keen, 1994:9). The question, therefore, is "not why public policy 'fails.' It does not always necessarily or completely do so.... Public policy is, after all, what government does [and does not do]" (Schaffer, 1984:189).

Against the backdrop of the analytical framework for policy analysis, the second issue is the gender and development debate. Like the broader development debate, it has various strands. Martinez (2012), in a survey of the field, identifies six variants in the debate: social assistance; women in development; women and development; gender and development; effectiveness approach; and mainstreaming gender equality. All the six strands are closely aligned with and draw on the three theoretical perspectives (modernization, dependency and world-systems; and contemporary theories of globalization) mentioned earlier. The social assistance argument is closely associated with the early beginnings of the postcolonial state in the global south. Situated in the aftermath of the independence moment, it is aligned with the modernization thesis. For women, the emphasis was on family planning and the population question (Boserup, 1965). Drawing on classical Malthusian perspectives on the population question, the argument was that the large family structure in the global south was an impediment to national development. Community development initiatives under the social assistance perspective called for population control initiatives, hence issues of female reproduction, maternal health and child care. Clearly missing from the perspective is any interest in the conditions that influence the reproductive choices of women.
The issue of choice underpins the women in development (WID) perspective, which attained some attention in the 1970s, partly because the United Nations Decade for Women was from 1975 to 1985. The Women in Development (WID) approach helped to recognize women's contribution to development and to make women's work more visible (FAO, 2003). Inherently a liberal framework, Rogers' (1980) *The Domestication of Women* and Boresup's (1970) *Women's Role in Economic Development* work helped to isolate the structural impediments that affect women's economic activities. Two related structural impediments are patriarchy and the invisibility of women in development planning. These impediments influence the policy implications for the distribution of relevant resources and the conditions that frame women's accessibility to these resources. Drawing on its modernization theory heritage, women in development addressed the oppression of women from the vantage point of transforming 'traditional' economic and social relations in society. The principal means used were education and skills acquisition, training for women and improving their access to credit and advanced agricultural techniques. The purpose of these interventions was to integrate women into the workforce and increase their productivity in order to improve their lives (Martinez, 2012:94).

However, this approach tended to focus more on women as a separate, homogeneous entity and ignored the basic structure of unequal relations. Consequently, the nature of the integration and the outcomes were always not equal and led to the women and development (WAD) perspective in the late 1970s.

While women in development (WID) aligned with the assumptions of modernization theory, women and development (WAD) as well as gender and development (GAD) stem from dependency and world systems theories as well as radical and socialist feminism (Martinez, 2012; Mohanty, Russo and Torres, 1991; Sen and Grown, 1987). WAD points to the role of both capitalism and patriarchy in the problems affecting women in the development process in the global south. The perspective makes explicit references to the international division of labour and how it allocates and rewards the economic activities for women. GAD's significance for the current discussion is that it is a perspective that emerged from the lived experiences of women in the global south, precisely the activities of the Development Alternatives with Women for New Era (DAWN). DAWN was established in New Delhi, India and comprised academic activists, researchers and other development practitioners. Gender and Development (GAD) focused on analyzing unequal power relations, the roles and responsibilities that are socially assigned to women and men as well as the opportunities. GAD thus offers a framework and an obligation to re-examine all social, political and economic structures and development policies, leading to the concept of gender mainstreaming as a common strategy to promote gender equality. As such, they
have helped to define the terms and the evolution of these terms to properly convey the intended meaning. Its central significance is to place the circumstances of women in the global south in the wider context of north-south relations. In the 1980s, this relationship also exposed the indebtedness of the south and the impact of structural adjustment policies on women, including those involved in agriculture (FAO, 2003; Sparr, 1994; Gladwin, 1991; Mehra, 1991; Bernstein, 1990).

The 1980s also saw the emergence of the effectiveness approach. It is important to note that the 1980s also coincided with the IFI-sponsored structural adjustment programs in the global south that included several African countries (World Bank, 1989, 1981; Husain and Faruqee, 1994). The basic premise of the approach is an acknowledgement of the existing inequality between women and men with respect to access to productive resources. The end result was that women were handicapped in productive activities. Thus, the key issue in the approach is to find ways to increase the efficiency, at least in a technical sense, and competitiveness of women through specific programs. With the changing role of the state in the economy as part of the adjustment programs, non-governmental organizations of various stripes (big, small, national and international) and motivations (non-profit and for-profit) assumed a major role in income generating activities and programs for women. Specific programs include improving access to micro-credit, appropriate technology and employment opportunities (Martinez, 2012:98).

The last strand in the gender and development literature is mainstreaming gender equality (MGE), which emerged in the latter part of the 1990s and is consistent with the initiatives that international and regional institutions enacted in preparation for the current millennium. MGE, like the other perspectives, is tied to the Fourth UN Conference for Women held in Beijing in 1995. This strand has to be situated within both the World Bank-sponsored structural adjustment programme and the broader forces of contemporary neoliberal globalization that African countries had to contend with since the 1990s. Common to structural adjustment and globalization is minimizing the role of the state in the economic and social spheres and differential outcomes for women and men farmers. Hence, the perspective reiterates the need for equality in the relations between women and men in their access to and role in productive resources and activities, maintaining that such a condition was “the only way to build a society that is sustainable, fair and developed” (cited in Martinez, 2012:98). Sustainability requires the relationship with resources address the present and future needs of society and humanity for that matter, while fairness is a social justice concern.

Martinez (2012:102-103) identifies three lessons from the variants in the gender and development literature. First is the fact that the perspectives, policy and specific development practices are not neutral in terms of power relations and impact on women and men. Thus, it is imperative to keep in mind the power dimensions of development in
general and how it structures the relationship and outcomes for women and men in the development process. Second, gender, as a social construct, intersects with other social determinants of inequality (class, ethnicity, nationality and the dominant economic system). The intersection has manifest and latent effects on women. Therefore, the policies alone are “insufficient to realize women's emancipation. It is necessary for women to be able to determine their own destiny – to make choices that enable them to exert this power” (Martinez, 2012:103). Finally, gender and development clearly illustrate the intricate relationship between theory and practice and underscore the need to consider the relationship in totality and not isolation. Any attempt to separate them will give rise to practices that are not in the best interests of women in particular and society in general.

1.4 Women and African Agriculture: A Survey

A previous section established the fact that agriculture, like any economic activity requires necessary and sufficient resources for optimal performance. The debate on gender and development also presented several perspectives and the general argument that women have not fared well in agriculture because of the complex interaction of political, economic and social factors and considerations from the national to the global levels. Agriculture, as an activity, has an organizational framework, from production to marketing and ultimately consumption. Consequently, it will be helpful to focus the survey on each organization's framework. That is not to suggest that the production, marketing and consumption of agricultural products and services are independent entities. Rather, the success of each part of agricultural organization depends on the other and the interest is to delineate an analytical framework. However, given the importance of production, the subsequent section will examine production related issues in relative detail. This is followed by another section that combines both agricultural marketing and consumption. The survey will focus on the conditions of access to the required resources mainly in production, and an overview in marketing and consumption.

1.4.1 Agricultural Production

While agricultural production revolves around several important factors, this section will focus on two specific issues: the gender dimensions of farming systems as well as the terms of access to land, labour, capital, in particular agricultural credit, and technology adoption in the context of agricultural research and extension services. ACBF (2012:23-24) makes a useful distinction between small-scale and large-scale farmers. The major features of the former, also called the subsistence sector, include the production of both domestic food crops and export crops; dependent on the state to secure access to some key agricultural resources like research and extension services. The latter category, known as commercial farmers, is made up of farmers who are the major producers of non-traditional export crops like flowers and pineapples; also depend on the state for resources. However, because this group tends to consist of erstwhile or serving political and economic elites, they have better
chances in securing agricultural resources. Finally, it is assumed subsistence farmers are female and commercial farmers are male (Koopman, 1993; Randolph, 1988). It is known that in “many places in Africa, there has been a division of labour by gender in agriculture based on crop, task or both. [However], [t]hese divisions are not static and may change in response to new economic opportunities” (Doss, 2001:2077). Studies from Ghana and Malawi, for example, have shown that men and women farmers straddle the divide flawlessly (Carr, 2008; Doss, 2001; Smale and Heisey, 1994).

In terms of the factors of production, land and labour are important in agricultural production. The land question in African agriculture is about access to land, particularly tenure, and the implications of tenure security for productivity. Two issues are at stake, first, the pressure on land in the face of high rates of population growth, urbanization and the intensification of commercial agriculture and, second, the purported inability of traditional or customary land tenure systems to manage these developments (Cotula, Toulmin and Hesse, 2004; Toulmin and Quan, 2000; Platteau, 1996). These issues raise two important questions: can tenure uncertainty account for the lack of stable and heavy investments in agriculture? Has uncertainty of land tenure anything to do with agricultural productivity? A major African study in mid-1990 on the issue of titling, as a means to tenure security, and hence its relationship with agricultural development did not find any clear evidence (Bruce and Migot-Adholla, 1994). While the study did not focus on gender or reveal any relationship between tenure security and productivity, the gender dimensions of this finding cannot be underestimated.

The literature has consistently documented that the distribution of land ownership is heavily skewed toward men in Sub-Saharan Africa (World Bank, 2011; FAO, 2011; Doss, 2005). Agricultural production and preservation of land resources in Africa is primarily the responsibility of women and children, yet gender discrimination in access to land resources is a serious problem, particularly, in rural Africa (AU, 2009b). Goldstein and Udry’s (2008) study in Ghana found a gender differential in farm productivity, which they identified to be the result of lower exogenous quality of women’s farm plots than that of their husbands, for instance a lower investment in improving soil quality. Land has been the basis for intense socio-economic, institutional and political struggles in some parts of Africa, especially South Africa, Zimbabwe and Kenya. According to Kongolo (2012), land is an important resource for the survival of rural women and to give women land is to empower them to fight food insecurity and poverty. However, African women farmers operate within a cultural context with regards to access to land as a resource. Amanor (2012) asserted that customary claims to land are often constructed on the basis of social differentiation and inequality. Ravazi (2007) noted that land tenure systems reduce agricultural production and produce patterns of poverty and exclusion especially for women.
Women are often disadvantaged in both statutory and customary land tenure systems resulting in weak property and contractual rights to land, water, and other natural resources (Kevane, 2004; Lastarria-Cornhiel, 1997; Agarwal, 2011). Even where existing legislation protects women's property rights, lack of legal knowledge and weak implementation may limit women's ability to exercise these rights (Quisumbing and Pandolfelli, 2010). Women frequently feel threatened by the registration of customary rights of household heads, which undermines their own user rights, making them prefer statutory land titling or appeal to state institutions to recognize their land rights (Amanor, 2012). In a recent report, the Uganda Rural Development and Training Program (URDT) (2011) showed that colonialism and customary practices that favour men and boys over women and girls in land matters have rendered many women in Uganda landless, and their access to land has been dependent on the goodwill of men. Land reforms in the country's constitution, land decrees and land act did not help women in addressing their agricultural problems.

In Ethiopia, a system of decentralised land registration and certification has been implemented in the Amhara, Tigray, and Oromia regions. These use simple techniques and community institutions to map out land rights of various households, including women who have recognised rights, with the direct involvement of farmers in the process committees (Amanor, 2012). In addition, women also face some other challenges, that is they have limited decision-making power and depend on men for use rights-which are easily lost if they are widowed or divorced (Pallas, 2010). For example, in Kenya, land and labour resources that were traditionally used by women to cultivate vegetables for home consumption and sale in local markets have been appropriated by men for export vegetable production under contract farming (FAO, 2011).

Access to land and security of land tenure affects women's access to other critical resources such as credit, technology and extension services. The World Bank (2009) argues that strengthening women's land rights can significantly increase income and families' welfare, but certifying women's title to land is not enough in many countries because complementary services need to be in place. When women farmers lack security of land tenure, as they do in many African countries, the result is lower access to credit and inputs and inefficient land use, reducing yields (World Bank, 2011; Cossa, 1997). Female farmers are often excluded from modern contract-farming arrangements because they lack secure control over land, which is needed to guarantee the delivery of reliable flow of produce (FAO, 2011). It is therefore not surprising that fewer women participate in contract farming schemes in Kenya's fresh fruit and vegetable export sector (Dolan, 2001). In Senegal, only about 0.02% of farmers contracted to produce French beans were women (Maertens and Swinnen, 2009). According to the FAO (2011), the situation is not very different in India and China. Unresolved land issues for women reduces investments due to uncertainty about reaping the fruits of such investment and hampers agricultural credit due to lack of collateral (Zimmermann et. al., 2009).
Beyond the gender division of labour stated earlier, labour requirements or constraints to production are affected by access to hired labour, the age and status of the individuals and technology (Doss, 2001; Warner, Al-Hassan and Kydd, 1997; Suda, 1996; Saito, 1994). Put differently, gender does influence labour allocation, but is by no means the only factor. This is largely because gender division of labour is not static and is contingent on available and emerging opportunities. As Warner, Al-Hassan and Kydd (1997) demonstrate in the case of the Dagomba in Northern Ghana, age and status affect the role of women (retired cooking wives, active cooking wives, junior wives, unmarried women, and divorced women).

Guyer (1980) found different levels of intensity for men's labour requirements at the peak of the farming season in Cameroon, a situation that also affected women in terms of their income generating activities. The key in addressing the role of labour and farming systems as Doss (2001:2007) correctly argues is “to ensure ways for women to maintain control over their activities once they become profitable”. One important ingredient in the profitability matrix is capital, particularly credit and technology adoption, and how that relates to the variations in labour requirements on the farm.

In agriculture, credit is a useful bridge because production is seasonal and a considerable lag occurs between the outlay of major expenditure and the resultant flows of income (Berger, 1989). Donor agencies and NGOs have for some time now sought to assist women by providing them with credit using either the minimalist approach (simply offering credit) or credit plus approach (offering credit as package with training and technical assistance) (Berger, 1989). Credit comes in kind and in cash. In kind credit can be in the form of training, supply of equipment, and even goat credit in Ethiopia (Tefera, 2007; Berger, 1989). In the goat credit system, women were given goats to rear as a credit-in-kind approach to the empowerment of women farmers (Tefera, 2007). This project helped women to acquire credit. It is not clear if the other approach factors gender representation in the process. Collateral requirements, high transaction cost, limited education and mobility, social and cultural barriers, intermittency of employment, and the nature of women's businesses limit their ability to obtain credit (Quisumbing and Pandolfelli, 2010; Zimmerman, et. al., 2009; Dejene and Martin, 2002). In addition, households and settlements in many rural communities are dispersed, coupled with poor infrastructure and the high risk associated with agricultural production handicap opportunities for providing adequate and timely credit to rural households (OECD, 2006). Together, these factors place restrictions on access to input and output market information and have a negative impact on women's productivity.

In sub-Saharan Africa, women receive less than 10 per cent of all loans provided to small farmers and only 1 per cent of total agriculture credit (World Bank and IFAD, 2009; Dejene and Martin, 2002; Gelb, 2001). The situation is further aggravated with the challenge that women are less likely than men to use credit, also use less credit and often do not control the credit they obtain (Abedi, Allahyari and Khodamoradi, 2011; Dejene and Martin, 2002). These
disadvantages have detrimental impacts not only on women themselves, but also on families and communities (UN Women, 2012). Governments, cognizant of the importance of credit to finance agricultural technology, have established organized credit institutions. In Nigeria, the Ministry of Women and Social Department gave out N100 million in micro-credit to 3,850 women in the 20 Local Government Areas of the state (All Africa, 2012). These credit schemes are made available under the existing societal modes of distribution (Manig, 1990). The broader question is how to account for the conditions of access to credit by women farmers under such schemes. The basic problem in many parts of the global south is that access to credit is premised on ownership of fixed assets like land. However, in view of the gender aspects of the land tenure system, women do not fare well in using land titles as collateral for credit. The implicit sexism in the credit market also makes it more difficult for female-headed firms to be as productive and profitable as male-headed ones (World Bank, 2011). Over the years, credit from formal financial institutions have reached very few women, though direct credit programmes designed to reach the informal sector have included high numbers of women among their borrowers even when women are not specifically targeted (Berger, 1989).

Given the gender gap that generally results in women having less access to productive resources, the World Food Programme (WFP) (2012) has developed a strategy that outlines how a specific program, purchase for progress (P4P), can contribute to facilitating opportunities for women to access agricultural markets in a socially and economically sustainable way (WFP, 2012). P4P works with partners to implement activities that increase women's productivity, improve the quality of their produce, access credit, and gain a voice in their households and organizations in Ethiopia, Guatemala, Liberia and Rwanda. Linking women to financial institutions, building their capacities, and purchasing women-controlled crops allow them to participate in the agricultural value chain, develop income generating activities, and improve livelihoods through diversification (WFP, 2012b).

A specific example of P4P is support for marketing in Ethiopia. Women sell their cereal harvests to a cooperative called Jalela (established by a young woman), which in turn sells to a local cooperative union called Mira. Mira then sells the bulk commodities to buyers such as World Food Programme (WFP). This is an ongoing programme that enables the farmers to increase their sales. WFP provides training, quality analysis and donated post-harvest equipment to the cooperative (WFP, 2012). P4P programme, ultimately focuses on linking local markets, strengthening partnerships with other UN and government agencies, promoting improved seed varieties, increasing female participation, and improving farmers' access to financial services (WFP, 2012).

Policy can play a major role in the operations of agricultural credit (Zimmermann, et. al., 2009). According to the OECD (2006), for the past two decades, most donors have provided very little funding for rural finance, yet deepening rural financial markets is a high priority in
an improved incentive framework that enables the agricultural sector to serve as a key driver for pro-poor growth. While private banks may still service the needs of large commercial enterprises, small producers and firms who want to finance the purchase of productivity-enhancing technologies or access new markets often have to rely on self-financing or household financing, sell livestock and other assets, borrow from local money lenders or use remittances from household members.

Labour-saving technology will be of great advantage for women. It will to free their time and enable them to acquire additional skills to generate income outside of farm activities. The ability of women to improve their skills and capacity, leading them to engage in higher levels of decision making and leadership positions, will depend on the introduction and adoption of labour-saving equipment. Labour-saving equipment revolves around not only the significance of technology in agricultural production systems, but also the research and extension services. In today's world of changing climatic conditions, instances of high post-harvest losses and crop failure, output levels are unacceptably low without new climate resistant varieties, irrigation, post-harvest and processing technology. If technology is not directed specifically to women engaged in agriculture, their livelihood and status cannot be improved and the third MDG, for example, will be hard achieve. The Millennium Development Goal on gender equality (MDG 3) and poverty and food security (MDG 1) are mutually reinforcing. Indeed, agriculture's contribution to national development is undermined when the gender dimensions are not essential features of agricultural policy.

Access to new technology is crucial in maintaining and improving agricultural productivity (FAO, 2011; Doss, 2001). The ability to afford seed and fertilizer is a central component of technology adoption. However, women are underrepresented in scientific and technical research institutions which may result in technical innovations that do not take account of women's distinct perspective and farming needs (Wakhungu, 2010). The type of technology that is relevant to women cannot be vaguely determined. The agriculture sector is becoming more technologically sophisticated, commercially oriented and globally integrated (FAO, 2011). New inputs and farming techniques can liberate farmers from cycles of low productivity and poverty, but women are not likely to afford agricultural technologies (UNDP, 2012; Wakhungu, 2010). Technology, as we know, is not neutral in its impact on society. Rather, it can dispossess or marginalize smallholder farmers when misapplied and science that is compartmentalized and conducted far from where its results are used can lead to designs that are poorly suited to smallholder farms.

Women, who are asset poor and subsistence oriented, stand to benefit significantly from technologies that improve soil fertility and increase land productivity and overall crop yields (Peterman, Behrman and Quisumbing, 2010). Studies have indicated that if women farmers have the same access as men to fertilizer and other agricultural inputs maize, yields would increase by 16 percent in Malawi and by 17 percent in Ghana (World Bank, 2011). Policies that
improve the capacity of agricultural technology transfer to women farmers are springboards to increasing agricultural productivity. The World Bank (2009) noted that women are not often targeted as it is assumed that their husbands or fathers will share the knowledge with them. In Zambia, early dissemination of hybrid maize failed to recognize that women mill the crop for home consumption and the hybrid that was introduced required hammer mills but only traditional mills were available to them (World Bank, 2009). This was coupled with poor storage facilities, making women return to growing traditional maize varieties.

One of the most important factors for increasing agricultural productivity and production in order to maintain growing populations in developing countries is the utilization of modern technology. Women farmers must be active participants in determining the type of technology and the process of technology development. Reliance on natural science alone is not enough. Social science should serve as a bridge between natural science and the women in agriculture and essential in technology development and dissemination (Biggs and Farrington, 1991). The role of social science knowledge in technology development and dissemination requires some remarks on the gender dimensions of the agricultural research systems in Africa.

There is a growing literature on agricultural research and development in the global south and Africa in particular (Beintema and Stads, 2011; Pardey, Alston and Piggott, 2006). Three main issues are worth stating. First, while there has been significant restructuring of the state's role in agricultural research institutions, “the government sector still dominates agricultural research in the region, but its relative share has declined over time. In 1991, government agencies employed 82 per cent of full-time equivalent public R&D staff in SSA [Sub-Saharan Africa] on average, but this share had fallen to 73 percent in 2008” (cited in Beintema and Stads, 2011:2). Second, even though women's participation in agricultural research institutions has increased in many parts of the world, participation remains low in many countries of the global south (Beintema and Stads, 2011:21). Specifically, the size of “female scientists in East and southern Africa are generally higher than those in West Africa. More than 30 percent of the agricultural researchers in Botswana, Eritrea, Mauritius, South Africa, and Sudan in 2008 were female” (cited in Beitema and Stads, 2011:21).

Third, research is beginning for focus on issues in the gender research in particular and the value-chain in general in several African countries. The African Development Bank has provided production support in the form of training and organization into groups and the process is beginning to include women farmers. An example is the New Rice for Africa (NERICA) dissemination project carried in Benin, Mali, Guinea, Ghana, Gambia, Nigeria, Sierra Leone (AfDB, 2012). The success of the NERICA project and its implications for food security has been widely acknowledged (Anderson and Jackson, 2005). The Centre and its director (Monty Jones) won the Consultative Group on International Agricultural
Research's (CGIAR) King Baudouin Award in 2000 and the 2004 World Food Prize. The critical feature of the NERICA project conducive to gender is the participatory varietal selection (PVS) methodology (Diagne et al, 2011: 260). PVS provides an opportunity for farmers, in this case women farmers, to choose from available crop varieties, play a vital role in the development and dissemination of crop varieties, and takes account of site-specificity in terms of agronomic and selection variables (Diagne et al., 2011:255; International Rice Research Institute, 2006). NERICA's methodology is consistent with FAO's (2009) interest in participatory research, which seeks to forge links between extension and small farmers' groups, as well as between formal and local seed systems in order to identify and meet their needs.

In terms of the value-chain studies, a $100 million programme in Ghana, prepared by the Investment Centre and funded by IFAD and the African Development Bank, is helping 32,000 farming households in the country's northern regions to develop commodity chains to southern markets (FAO, 2009b). The eight-year programme, which targets women, young people and vulnerable groups, will strengthen producer organizations, improve rural infrastructure and facilitate access to financial services. An FAO-IFAD project in Gabon is aimed at improving the access of 28 000 smallholders to value chains (for banana, cassava and peanuts) with high market potential and strengthening service providers to rural communities. Gender was an important consideration in the project design: it targets 160 villages and 240 producer groups, and half of the beneficiaries are women farmers. The gender focus has attained some significant results in terms of training practices in Kenya and Tanzania (FAO, 2009b). In Kenya, FAO used farmers' field schools to train men and women farmers in conservation agriculture, a production system that reduces crop vulnerability to drought and farmers' dependence on fertilizers. The FAO in Tanzania helped to organize community seeds fairs where 14000 farmers exchanged, local seed varieties suited to local conditions. Owing to constraints on women's mobility, more men participated from the surrounding villages, but more women than men from the host village attended.

Beyond the above specific production-enhancing inputs, FAO (2012b) continues to provide critical assistance by researching, collecting and analyzing information and data on gender issues in agriculture and food security. It provides support for the generation of sex-disaggregated data to combat the persistent invisibility of women's contribution to agricultural, economic and social development. FAO has worked in several countries in developing gender-sensitive agricultural statistics and assisted also in incorporating sex-disaggregated data in agricultural censuses (FAO, 2012b). In Ghana, for example, the FAO works with the Ministry of Food and Agriculture in the collection and collation of agricultural data in certain districts. An expanded program to cover all districts in the country will bring about the most benefit in terms of planning and integrating gender into agricultural development.
The above state of affairs has several implications for gender in agricultural production. First, the specific or unique circumstances and pressing challenges of women farmers are not likely to be making it into the agricultural development agenda, for example the priorities of the research establishment. Consequently, the crops most likely cultivated by small-scale farmers, most of which are critical in the national food basket, will not be at the centre of any sustained research activity. Second, the broader impact of technology on gender will go unexplored. The World Bank and IFAD continue to remind organizations to ensure that policies regarding climate change, energy-saving technology and techniques, and energy usage need to be re-evaluated and their impacts on rural women better considered (World Bank and IFAD, 2009). The need for re-evaluation is simply the argument that the impact of technology on society is not neutral and technological change in African agriculture often displaces women farmers (Gladwin and McMillan, 1989).

1.4.2 Agricultural Marketing and Consumption
The agricultural crisis in Africa in the 1980s revealed several issues in the agricultural marketing and consumption trends in the region. For example, the crisis reinforced the importance of marketing and how the state of infrastructure is critical to move agricultural produce to consumption sites, specifically the transportation system, storage, markets and prices. All these factors ultimately affect the availability of agricultural products or commodities for consumption. Successful marketing also require institutions and an understanding of their underlying or operational assumptions, for example, public versus private organizations. The overall policy position has been to advocate a minimal role of the state and thus “free” agricultural markets. The assumption was that the removal of the state from the market will improve the incentive structure for agriculture, particularly export agriculture, in essence, “getting the prices right”. The subsequent restructuring of agricultural markets in Africa, on the basis of getting the prices right, has generated a huge literature (Kaminsk, 2011; Sangho, Labaste and Ravry, 2011; Bourdreaux, 2011; Kolavalli and Vigneri, 2011). An underlying message in the huge literature is the need to pay attention to the national context, human resource and the capacity of institutions. This is because the national context accounts for the extent to which African states implement policy reforms and the related political factors that influence the nature of policy outcomes for all farmers in general and women farmers in particular.

Though there has been significant decline in public sector support for agriculture over the past twenty years, the sector continues to provide the sole linkage to market for poor rural producers (OECD, 2006). There are two key issues in the literature; first getting the price right, while important it is not an end in itself. Secondly, getting institutions right is equally essential in improving marketing. What has been missing from the literature is a specific focus on the marketing needs or requirements of women farmers, for instance, in the case of domestic food production (Lucas, 2007). This is because agricultural marketing reforms
tend to be geared towards export agriculture. However, women farmers, who are involved in export agriculture, as the case of coffee in Rwanda, are confronted with several problems in accessing the required resources for their marketing initiatives because of issues in the land tenure system (Bordreaux, 2011:196).

While marketing reforms have been incomplete and their gender dimensions are not at the focus of attention, it is also clear that the unequal bargaining power between producers and traders, exploitative behaviour by companies, and uncertainties over the quality standards of agricultural exports have complicated marketing activities (UN Millennium Project, 2005). Specifically, many small producers now compete in markets that are much more demanding in quality and food safety and distorted by agricultural subsidy programs in the global north (OECD, 2006). The quality aspects of agricultural marketing and the implications for production are becoming noticeable with the emergence of major supermarket chains like Shoprite, Pick ‘n Pay, Metro Cash in Africa in particular and other regions of the global south (Reardon and Timmer, 2007; Weatherspoon and Reardon, 2003; Reardon et al., 2003).

Supermarkets procure their commodities, sometimes, on the basis of 'just in time' conditions and have stringent quality control systems in the transportation and delivery, and sometimes the production of agricultural commodities for the market. It is not clear whether or not the emerging supply chains are sensitive to the needs of women farmers. What is clear is that small-scale women farmers will now have to compete with large-scale producers from all over the world in agricultural marketing activities. Barham and Chitemi (2009) noted that women's responsibility for their households' production and reproduction activities do not allow them to have time to spend searching out new market opportunities. Their situation is compounded by the fact that they do not have the same socio-political networks as men, hindering their market opportunities. African women farmers who often sell their produce at the local level and at very low prices are not likely to fare well in the emerging changes in agricultural markets. They are therefore often at the mercy of 'middleman', market traders and market queens who use oversized scales to buy from them and resell in urban markets at higher prices (Clark, 1994; Horn, 1994). A properly enforced system of grades and standards is especially important in overcoming the challenges with marketing agricultural produce and accessing high value markets (UN Millennium Project, 2005). The OECD (2006) suggests that governments provide the needed financial support for producer enterprise groups or associations to negotiate with market intermediaries. At the local levels, educational institutions and their school feeding programmes can buy directly from local women farmers to feed students and thus create a market for them.

An innovative action research approach was applied in Malawi and Uganda known as the Enabling Rural Innovations (ERI) to foster community-based capacity for including rural
women and the poor in analysing and accessing market opportunities and to help them "produce what they can market rather than trying to market what they produce". The study also found that the increase in women's incomes from their new market opportunities led to an increase in household decisions being made jointly by men and women in both Uganda and Malawi (Kaaria et al., 2008). No matter how much farmers grow, without connection to the market, the extra yield is worth very little. Farmers have to cart their produce using ineffective means of transportation or sell their crops to intermediaries, thereby adversely affecting farmer income level (Nourishing the Planet, 2012). Farmers often travel several kilometers to access the nearest market in order to sell their produce. Sometimes, the types of transport and roads are of very poor quality due to lack of maintenance. The quality of the vehicle transporting the produce has a direct effect on the product quality. Transport owners take advantage of the state of the roads and charge very high prices to transport farm produce. The distance, the quality of the vehicle as well the nature of handling lead to the significant losses, especially for perishable products. Poor access to the market affects not only farmers, but also input suppliers and output marketing companies who do business with farmers. Surveys of rural travel and transport patterns in villages in Burkina Faso, Uganda, and Zambia have found that African women move, on average, usually via headloading, 26 metric ton-kilometers a year (especially water and fuel wood), compared with less than 7 metric ton-kilometers for men. This, combined with women's contribution to agriculture, has led to estimates that women contribute about 2/3 of the total rural transport effort (Barham and Chitemi, 2009; Gelb, 2001). In Zambia, the Food Reserve Agency offers farmers the potential benefits of selling their maize at a guaranteed price. However, this programme only benefits those farmers with reasonable quantities of surplus maize to sell (Kent and MacRae, 2010).

Female farmers face many other gender-specific barriers to accessing markets. They are unable to pay the high permit costs to sell their produce in the market, time burden that constrains them from seeking best prices, and competing with male farmers over crops that women have successfully cultivated (Quisumbing and Pandolfelli, 2010). Market-oriented interventions for women in agriculture will be more effective if they also address gender norms. In Tanzania, women had difficulty accessing markets as companies assumed that men are the primary producers in the household and are more prone to approach men (cited in Quisumbing and Pandolfelli, 2010).

Women are usually responsible for growing and preparing most of the food consumed in the home and raise small livestock which provides protein. Where there is no livestock, they sell small quantities in the market to purchase protein to ensure good nutrition for the household. Women carry out most of the home food processing to ensure diversity of diet and to minimize losses and to sell in the market (FAO, 2009). It is known that women are more likely to spend their incomes on food and children's needs and research shows child
mortality reduces significantly when the mother controls the household budget (FAO, 2009). This is because they spend that income mainly on meeting the family's nutritional, health and educational needs. Traditionally West African dishes contain a lot of leafy vegetables. Women are responsible to obtain the vegetables by growing or collecting them for the meals. In Lomé, Conakry and Bamako, for example, women farmers grow local vegetables like *Solanum macrocarpum* (gboma), amaranth leaves (fontété), sweat potato leaves, *Corchorus olitorius* (Jute's mallow, adêmè), spring onions for leaf consumption, bean leaves, peppermint, *Hibiscus sabderiffa* (osseille de Guinée, bissap, da), hot peppers, and local tomatoes (Kessler, Streiffeler, and Obuobie, 2012). Women farmers by growing leafy vegetables are able to secure regular income several times in a growing season which they can use to secure other goods and services and at the same time provide nutritious meal for their families.

Furthermore, maternal health is crucial for child survival and an undernourished mother is more likely to deliver an infant with low birth weight, which increases the risk of mortality. In sub-Saharan African and South Asia, nutritional deficiencies—in energy, vitamins, and minerals—are widespread, particularly among pregnant women and young children (Meinzen-Dick et al., 2011). The different roles men and women occupy in various farming systems—whether it is planting, weeding, harvesting, postharvest processing, marketing, or food preparation for household consumption—vary depending on context and culture (Meinzen-Dick et al., 2011). Agricultural output markets in developing countries have changed fundamentally and rapidly since 1950 in the organization, institutions, policies, and technologies conditioning and embodied in these markets (Reardon and Timmer, 2007). The changes in marketing over the years, not unexpectedly, affect systems for both agricultural production and consumption.

Women farmers, like the men counterparts, occupy multiple and sometimes conflicting roles in agriculture. Thus, although the discussion above revolved around issues in production, marketing and consumption, it also indicated the linkages among the various spheres of agricultural organization. Women are primarily responsible for food processing, crop transportation, and weeding and hoeing, while men do most of the land clearing (World Bank, 2006). This division of labour, as stated earlier, is not static. However, the literature continues to document differential activities and subsequently time between women and men farmers (Carr, 2008; Leplaideur, 1978). That reality suggests we cannot simply lump agricultural producers together, ignoring their gender, but then hope to glean valuable information on their behaviour, land uses and crop choices. Because women and men cultivate different crops, engage in different farming systems, have different motivations for participation in a given farming system, they therefore experience different vulnerabilities to market situations, climate change and other situations. According to the FAO (2011), the contribution of women to agricultural work varies even more widely
depending on the specific crop and activity. Women work in agriculture as farmers on their own account, as unpaid workers on family farms and as paid or unpaid labourers on other farms and agricultural enterprises.

Generally, time-use studies permit a rich analysis of what men and women do in agriculture and how their roles may differ by crop, location, management structure, age and ethnic group (FAO, 2011; SOFA Team and Doss, 2011). The studies consider the gender roles within their specific geographic and cultural context. These studies are thus able to provide practical guidance for policy-makers and practitioners involved in technology investments, extension services, post-harvest activities and marketing interventions with properly targeted policy interventions. However, in view of the wide variation in the roles women play in agriculture, complicated by variations also in geographic and socio-cultural formations, generalizations about time use are not appropriate. Indeed, time-use surveys reveal considerable variation across countries, and sometimes within countries, not only in Africa, but in other regions of the world. Time-use in agriculture varies widely depending on the crop and the phase of the production cycle, the age and ethnic group of the women in question, the type of activity and other factors (FAO, 2011; SOFA Team and Doss, 2011). Nonetheless, one common finding is that women usually allocate time to food preparation, child care and other household responsibilities in addition to the time they spend in agriculture (FAO, 2011). The important point is to take cognizant of the variations in time use by women farmers and the fact that gendered patterns of cropping may change over time (Doss, 2002).

1.5 Agricultural Resources and African Women Farmers: Recommendations and Conclusion

The foregoing both reveals and obscures an understanding of African women farmers in terms of conditions of access to agricultural resources and their contradictory location in agricultural development. For decades the policies of national governments and international institutions have identified the importance of the agricultural sector to the region's development, while at the same time neglected sub-Saharan Africa's rural and agricultural development in favour of the urban sector (UNDP, 2012). The neglect of Sub-Saharan Africa's smallholder farmers, in particular, has been through biased policies, inadequate market information and other relevant institutional arrangements, making it difficult for them to compete against the world's most formidable agricultural systems. Women farmers, in particular, are invisible and not fully supported in their competing roles and hence are not at the centre of policy interventions (Kent, 2009). Generally, although agricultural policy explicitly references the importance of gender, agricultural support is directed more towards commercial farmers – therefore missing out women farmers and their specific agricultural needs (Kent, 2009). The result is the persistence of gender inequalities as women had few benefits or say in farming activities yet play a major role in the
agricultural activities as studies in Kenya, Zambia, Mozambique, Ethiopia have clearly demonstrated (Farnworth, 2010; Farnworth and Obuya, 2010; Farnworth and Munachonga, 2010).

Discussions on African women farmers and agricultural development used to take place in small groups at local and regional conferences. Today, however, governments and international organisations have been making commitments and efforts to improve the status of women in agriculture. According to IFAD (2012), despite increasing evidence that women’s improved capabilities and welfare are strongly linked to poverty reduction improvements – such as lower infant mortality and child malnutrition – gender inequalities continue to be inordinately large in the developing world. As a group in the agricultural sector, women are underutilized and their role in policy documents remain ambiguous at best with a significant gap when it comes to the terms of their access to required agricultural resources and rewards, gaps which have a lot to do with the policy framework.

Promoting gender equality in agriculture will in the long run help address the gender-specific constraints that reduce their productivity and limit their contributions to agricultural production, economic growth and the well-being of their families. It will also reduce hunger and extreme poverty. This is because, when and if women farmers have equal access to the agricultural resources and rewards, they will be better able to participate in and contribute to agricultural development. Closing the gender gap in agriculture would put more resources in the hands of women and strengthen their voice within the household – improving the food security, nutrition, education and health of the children (FAO, 2011).

Several African governments have undertaken and continue to pursue different initiatives to support women farmers. Land tenure systems will have to integrate gender issues into policy reforms. The significance of land is how it, in turn, frames access to other critical agricultural inputs. The enduring problem is that agricultural policies are initiated in a manner that make it difficult to measure any gender impacts, as policy reforms in Senegal have shown (Koopman, 2009). Studies in Kenya on women in agriculture in the 1990s show huge gender inequalities with women having few benefits and say in farming activities though they perform a high percentage of the work (Farnworth, 2010).

The EWA initiative will contribute to the implementation and coordination process of NEPAD’s Comprehensive Africa Agriculture Development program (CAADP), focusing on and monitoring actions that will benefit women in agriculture (EWA, 2012). NEPAD has therefore given its support to the Gender Is My Agenda Campaign (GIMAC) which is seeking to place women at the heart of solutions for mitigating the 3F (Food-Fuel-Finance) crises and challenges of long term sustainable development in Africa, recommending an emphasis on empowering women in agriculture. The initiative includes a direct support to women in value-adding activities in the agricultural supply chain and in the rural non-farm economy. The NEPAD Spanish Fund for African Women Empowerment aims at poverty reduction and
women empowerment, by providing financial and technical support for projects that support women and gender equality (NEPAD, 2012). The fund is financing a pilot project, a Business Incubator for African Women Entrepreneurs (BIAWE) programme in East and Southern Africa (Common Market for Eastern and Southern Africa - COMESA) and West Africa (Economic Community of West African States - ECOWAS). Thousands of women and women groups are receiving agricultural inputs, micro-credit schemes are being established, and research studies are also being carried out through the NEPAD programme.

African governments and their development partners, both public and private, are the major actors in addressing the barriers of women farmers in agriculture. Thus, any practical recommendations will have to bear in mind the different motivations of each actor. First, although there is the widespread acceptance of the significance of gender, the question is whether or not these actors are only being gender sensitive or whether they truly mainstream gender in their development planning and implementation process. This is because being aware of gender issues does not necessarily mean one is also taking gender issues seriously in planning and implementation. For example, steps have to be taken to increase and extend data collection and dissemination systems. Data should be presented in a format that is more readily available and accessible to all stakeholders, having the different technological and varying contexts in mind. The breakthroughs in communication technologies have enhanced the use of mobile payment systems in Kenya (M-PESA) (Mas and Radcliffe, 2011). These breakthroughs can also apply to women farmers and their needs in other African countries, given the proliferation of mobile technology systems on the continent. Again, a very simple, but meaningful step is how the provision of small-scale storage and dedicated sales stalls can improve the welfare and status of women in agriculture. It will assist in marketing of fish products and increase the shelf life of fish with the women fishmongers.

What institutions claim they do is quite different from what they actually do. The development paradigm in several African countries is based on foreign donors and project driven. One consequence is the never ending mantra from African governments about their lack of funds and the reliance on development assistance. With project-driven initiatives, several organizations in development do not have enough time to consult and incorporate the views of women in project design and implementation and some projects are rushed to meet end of year budget deadlines for the disbursement of funds. Projects thus end premature and governments do not follow-up to ensure the project is meaningfully executed. The suggestion is the need for viable and relatively well funded national development strategy. That implies African leaders have to rise up their role in the national development effort. Many African countries are currently experiencing an economic boom, thanks to the revenue boom from natural resources (World Bank, 2012). The extra resources provide countries a golden opportunity for institutional planning and implementation strategies.
Second, it is an opportune time to revisit the role of farmers' organizations with a gender orientation. Cooperatives, a veritable feature of the agricultural landscape in Africa for several years, have survived neo-liberal agriculture in Africa and are offering a new platform for their membership in forging relations with both state and non-state agricultural organizations and institutions (Francesconi and Heerink, 2011; Bernard and Spielman, 2009; Barham and Chitemi, 2009; Wanyama, Develtere and Pollet, 2009). The key requirement is to focus on the needs of women farmers within the context of emerging cooperative associations, with clear guidelines on how to coordinate the needs of farmers across gender lines, nature of farming systems and types of crops.

Third, while partnerships are always required in development, the emphasis should be on the nature of such partnerships. Partnership can only flourish in an atmosphere of mutual respect and a relative consensus on means and ends. The international donor organisations can have ambassadors for improving the status of women in agriculture in Africa. These ambassadors will be the direct link at national and local levels and responsible for giving timely and location specific feedback to the multilateral organisations. This means, there is a need for stronger partnership with national governments and local NGOs, especially as the international organisations cannot directly formulate policies that result in changes at the local level. They only suggest and encourage. A reconfiguration of external assistance can lead to a more direct support for women in agriculture at the national level. The implications of the existing global north and south divide has the potential to undermine any framework for mutual respect and consensus building when it comes to the difficult and necessary task of negotiating a global compact on development. However, if the African Union continues to assume its leadership role in continental affairs, it can also use the emerging importance of resources on the African continent to strategically reposition the importance of the region in global development initiatives.

Finally, multilateral development institutions can raise awareness of the issues of gender inequality among national governments in sub-Saharan Africa. However, national policy makers and practitioners have to move beyond the issue of awareness and actually acknowledge the multiple roles that women and marginal farmers play in addressing hunger and malnutrition and to help with relevant interventions to meet their needs more effectively (Kent and MacRae, 2010). That requires a bold resolve at systematic collaboration or cooperation among sectors in order to arrive at policy successes. Doss (2001) indicates that very good baseline surveys are needed and the results studied and well interpreted to understand the implications of, for example, technology transfer on women as opposed to comparing adopting and non-adopting households. Agricultural policies also need to shift from an exclusive focus on production to other aspects of agricultural organization. Otherwise, interventions will remain piecemeal, and fail to recognise the multiple roles and challenges that women farmers perform as producers, distributors and caregivers.
References


Kent, R. and MacRae, M. (2010)."Agricultural livelihoods and nutrition –exploring the links with women in Zambia." *Gender and Development*, 18, 3, 387-409


_____.(2003) *Comprehensive Africa Agriculture Development Programme*. Midrand: NEPAD.

_____.(2012). *Gender Development*. Midrand: NEPAD.


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