Strategies for Enhancing Women's Full Participation in Sustainable Agricultural Development and Environmental Preservation in Sub-Saharan Africa

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Abstract
The paper reviews the impact of selected barriers on women farmers’ full participation in sustainable agricultural development and environmental preservation in sub-Saharan Africa. It is recommended that a holistic and integrated approach be taken, including promoting gender equality in access to educational opportunities and training programs for women and girls; women be a part of a policy and decision-making process at all levels in the national and rural agricultural sectors; and that they be given access to other programs and other facilities that focus on the needs of women in agriculture and their other multiple roles, to enhance sustainable agricultural production and environmental preservation in sub-Saharan Africa.
Introduction

Women farmers continue to play decisive roles in rural development and sustainable agricultural production in sub-Saharan African countries. However, women farmers are increasingly facing challenges in the light of the prevailing global and sub-regional trends: globalization in agricultural trade, (2) population dynamics (HIV/AIDS, and rural-urban migration) (3) increasing pressure on natural resources and competition for their use, (4) agricultural policies, (5) development of biotechnology (hybrids and genetically modified organisms), (6) the need for the production of food crops to feed the growing population, (7) environmental degradation, and (8) the rapid developments in agricultural information and communication technologies (LEISA Editorial, 2000; FAO, 1996)

In addition, agricultural education and training have failed to adapt and to respond to the challenges women face in producing food and preserving the environment. Curricula, teaching methods, and tools that have been developed are not gender sensitive. As a result, women agriculture graduates are finding it increasingly difficult to become employed because their education in agriculture has not been oriented to the needs of an increasingly sophisticated commercial agricultural sector. Above all, most women in the sub-region are increasingly finding it difficult to produce sufficient food to feed their family members (FAO, 1997).

The annual agricultural production rate of 1.7 percent lagged behind an annual average population growth rate of 2.8 percent in the sub-region between 1965 and 1990 (FAO, 1994). At the same time, the percentage of people in the sub-region lacking sufficient food increased from 38 percent to 48 percent. Some 41 states in the sub-region were experiencing food deficits, with under-nutrition ranging from a low of 13 percent in Swaziland to a high of 72 percent in Somalia. Between 1980 and 1990, annual imports of cereals increased from 8.5 million tons to 18.2 million tons in the sub-region (Sparks, 1999). Inappropriate agricultural policies pursued by the national governments; slow technological change; environmental degradation; institutional weaknesses; civil wars; and lack of infrastructure have been identified as the major causes of food deficiencies in the sub-region (Obasanjo and Obasango, 1992).

In-spite of the problems, agriculture still remains the dominant sector in terms of output, employment, and export earnings and accounts for approximately 21 percent of the GDP of the sub-region. In addition, there is growing recognition worldwide that gender bias and blindness constitute significant constraints that contribute to food insecurity and environmental degradation in the sub-region.

According to FAO (1998), reducing gender disparities in agricultural education and training, and enhancing women’s independent access to land and credit facilities, will promote agricultural growth, greater income for women, and better food and nutrition for all. It will also enhance environmental preservation and national development. Women in the sub-region are tremendous forces for change in their families, villages, cities, and countries. Their role in agricultural production and development has become even more prominent in terms of undertaking most of the agricultural activities, including decision-making. They can and do make a difference when they get the opportunity (FAO, 1996; Meena, 1992; and Carr, 1991).

Methodology

Data collection

Relevant literature materials related to women in agriculture in sub-Saharan Africa were collected from a variety of university and specialised library data bases and were used as sources of information to write this paper.
Purpose and objectives

The paper was written in response to the recognition of the growing need to close the gap between the problems women farmers face and their pivotal roles in agricultural development and environmental preservation in sub-Saharan African countries. The specific objectives were: (1) to identify the barriers to women’s participation in agricultural development and environmental preservation in the sub-region and (2) to recommend strategies for providing agricultural education and training for women farmers.

Barriers To Women’s Participation In Sustainable Agricultural Development And Environmental Preservation

Land and other property ownership rights: Most women, especially married women, do not enjoy equal and independent rights and control over the use of land and access to credit. Women also generally have less capital and extra farm labour to invest in agricultural enterprises. National governments in the sub-region have been slow or completely ignored enacting laws and policies that will ensure women’s independent access to land and credit facilities in spite of the critical role women play in food production (FAO (1996), FAO (1998), Baudi and deBruijne (1993) and, FAO, (1997).

Rural to urban migration of the male: Approximately one third of all sub-Saharan African rural households are now headed by women who are older and less educated than their male counterparts. The major causes of this phenomenon is the migration of able-bodied men from rural areas to towns and cities or abroad in search of paid employment and the HIV/AIDS epidemic which has, and continues to take the lives of many young men and women.

Inappropriate recognition and reward for women’s labor inputs in agriculture: Women’s labor input into food production activities, which is often neither recognised nor appropriately rewarded far surpasses that of men. Yet still men hand over the responsibility for meeting the basic family needs to the women. In addition, women are increasingly undertaking farm jobs and making farm decisions that were traditionally done by men since the traditional gender division of household and farm occupations are gradually, but steadily declining as shown in Tables1, and 2 (Dignard and Havet, 1995; Henn, 1987, FAO, 1994; and Mhina, E., 1996.
Table 1: Role of Women in Agriculture in Selected African Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Women’s Role in Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>70% of the female population live in rural areas, perform 60 to 80% of farm work, and furnish up to 44% of the work necessary for household subsistence.</td>
</tr>
<tr>
<td>Congo (DRC)</td>
<td>Women constitute 48 percent of the laborers in the agricultural sector.</td>
</tr>
<tr>
<td>Mauritania</td>
<td>Women account for 73% of the economically active agriculture labour and produce more than 80% of the crops.</td>
</tr>
<tr>
<td>Morocco</td>
<td>Approximately 57% of the female population participate in agricultural activities, with greater involvement in animal (68%) as compared to vegetable production (48%). Studies show that the proportion of agricultural work carried out by men, women and children is 42, 45 and 14 percent, respectively.</td>
</tr>
<tr>
<td>Namibia</td>
<td>Women account for 59% of those engaged in skilled and subsistence agriculture work and, women continue to shoulder the primary responsibility for food</td>
</tr>
</tbody>
</table>

Source: FAO, 1994

Table 2: Men and Women’s Role in Decision-Making within the Household

<table>
<thead>
<tr>
<th>Type of Decision</th>
<th>Men (%)</th>
<th>Women (%)</th>
<th>Both (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of crop to grow</td>
<td>48</td>
<td>36</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>Where to plant</td>
<td>56</td>
<td>22</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>What agricultural techniques to use</td>
<td>60</td>
<td>20</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Sale of surplus crop</td>
<td>46</td>
<td>33</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Sale of surplus livestock</td>
<td>73</td>
<td>18</td>
<td>09</td>
<td>100</td>
</tr>
<tr>
<td>Distribution of agricultural income</td>
<td>38</td>
<td>43</td>
<td>19</td>
<td>100</td>
</tr>
<tr>
<td>Distribution from crop sale income</td>
<td>41</td>
<td>27</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>Distribution of livestock sale income</td>
<td>40</td>
<td>30</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>30</td>
<td>27</td>
<td>100</td>
</tr>
</tbody>
</table>


Limited educational opportunities for women and girls: All available literature examined in this study revealed that generally, more men than women enrol in educational programs (FAO, 1992; Forum for African Women, 1998; UNESCO, 1995; The World Bank 2000, and USAID, 1990). In 1995, 47% females as compared to 66% males had access to basic education programs in sub-Saharan Africa. In the age group 6-11 years, the net enrolment for males was 55% compared to 44% for females; at the age group 12-17, the ratio was 46% male compared to 35% female; and at age group 18-23, the ratio was 10% male and 5% female (UNESCO, 1995).

The effects of HIV/AIDS: Two-thirds of the world’s HIV/Aids positive population live in Sub-Saharan Africa and an estimated 11,000 people contract HIV every day in the sub-region. Studies have shown that within the 15-19 years’ age group, the ratio of male to female infection is 1:6. Girls are therefore six times more likely to be infected with HIV/AIDS than are boys their own age (Forum for African women, 2000). HIV/AIDS epidemic affects both the quantity and quality of labour supply in the economies as well as output and Gross national
Product (GNP) of sub-Saharan African countries. In practise, this means that there are fewer women teachers, skilled artisans, and farmers. The loss of labour, the loss of household members to care for the very young and the elderly, increasing numbers of orphaned and consequently dependent children, and restriction of the range of crops grown, continue the downward spiral in living standards in the sub-region (FAO, 1995).

The irreversible technological changes in agriculture: Most of the technological innovations in agriculture in sub-Saharan African countries have only eased men’s labor requirements. Besides, the technologies are unsustainable and environmentally damaging. Additionally, agricultural information is not effectively reaching and benefiting women, who are key contributors to food security (FAO, 1996 and Wijeratne, 1994). Walt and Walt, 1992).

**Strategies For Enhancing Women’s Participation In Agricultural Development And Environmental Preservation**

Provide literacy programs, agricultural education and training for women farmers: Literacy is a precondition for women’s access to knowledge and skills, both through informal sources such as extension training and advanced formal education, which improves their overall socio-economic status and especially their contribution to agricultural and rural development (Crowder, 1996). In addition, the need to improve both agricultural education and extension training for rural women in sub-Saharan African countries is regarded not only as a matter of good sense, it is a necessary and a fundamental human right. Cost benefit analyses of educating women by the World Bank (2000), FAO (1996), FAO (1977) and FAO (1998) showed that investment in women’s education has the highest rate of return than any other possible type of investment in the sub-region. Educated women are more likely to use capital more efficiently and more productively. Women are more likely to devise new and better forms of agricultural production; and spread the benefits of education to others to make them more productive (UNDP, 1996). Education for women therefore, is viewed as the most important and powerful tool to promote women’s production efficiency and to break their economic and psycho-social dependence on men (Marope, 1994; and Crowder, 1996).

Conduct indigenous agricultural knowledge systems research: Sustainable agricultural development and production will be attained if greater attention is given to research into local agricultural knowledge systems and technologies that are environmentally friendly, have more socio-economic adaptations and those that can empower traditional farmers through training to develop new technologies (Walt and Walt, 1992). There is need for an indigenous agricultural knowledge systems research agenda that should be problem oriented; meaning that it has to seek, analyze and identify agricultural development priority problems and opportunities that may have a positive impact on the women farmers, rural societies, and the environment in the sub-region. The agenda also should be context based; meaning that the research agenda should adopt a systems approach in examining the agricultural production problems and issues in their broader context (Mattrick, 1993).

Training women agricultural extension and AIDS/HIV agents: Training women agricultural extension agents will improve their capacity to reach out to women farmers and to school girls with improved agricultural technologies and in the process, serve as role models. Women could also be trained as HIV/AIDS information dissemination extension agents in rural communities (Obine, 1992; Rodgers and Burge, 1972; and Lionberger, 1968).

Make women students recruitment methods and procedures more flexible
Currently, entrance requirements for admission into most agricultural education and training programs in the sub-region are based on pass grades in mathematics and other science subjects. As most women were disadvantaged in the past to study science subjects in the majority of the secondary schools, they normally do not meet these entrance requirements. Affirmative action in students’ recruitment in favour of women candidates (Crowder, 1996) and establishing agricultural programs that enable women to cope with domestic responsibilities and their study requirements (Carl, 1998), are some approaches that have been successfully used in some countries.

**Enact agricultural education training and employment policies:** National governments in the sub-region should enact policies that will cater for the educational and employment concerns and welfare of women and girls in agriculture. This will enable the women to get appropriate training and employment in the formal agricultural industry and to play their full roles in the social and economic development of their countries.

**Make credit, land and other resources accessible to the women farmers:** Women farmers produce most of the food consumed in sub-Saharan Africa. National governments and non-governmental organizations in the sub-region should therefore enhance women’s full participation in agricultural development and environmental preservation by providing them with the appropriate information, credit, land, and other resources to empower them to invest in agriculture.

**Conclusion**

In spite of the many barriers, women continue to play pivotal roles in food production and in preserving the environment, in addition to their unchanging reproductive role in the sub-region. A holistic and integrated approach, including promoting gender equality in: (1) access to educational opportunities and training programs for women and girls, (2) policy, and decision making process at all levels in the national and rural agricultural sectors, (3) access to control over and management of natural resources, including land, credit, farm inputs and agricultural support services, (4) access to HIV/AIDS prevention and control information (5) access to on- and off-farm employment opportunities in rural areas, and (6) to other programs that focus on the needs of women in agriculture and their other multiple roles in sustainable agricultural production and environmental preservation in sub-Saharan Africa.

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