



Review Article

The Roles of Women in Modernizing Nigeria Agriculture

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Abstract

This paper takes a good look at the important contributions made by women in modernizing agriculture in Nigeria. The increasing roles played by women despite the challenges faced and the efforts put in place in overcoming these challenges have somehow contributed in modernizing Nigeria agriculture. The paper emphasized on the benefits of modern agriculture which include increase in productivity, increase in the efficient use of resources, improved quality of agricultural product, increase in economic development, enhance global food security and providing food for the world population, climate flexibility, access to varieties, technology advancement and sustainability of the environment. It also took a good look at the history of modern agriculture in Nigeria, delved into the colonial era and post-independence agricultural policies, the roles of women in modern agriculture and the challenges faced. The paper proffers ways forward in overcoming these challenges in order to encourage and boost the participation of women in their bid to modernize Nigeria's agriculture.

Keywords: modernize, policy, agriculture, food, women, sector

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Introduction

Agriculture may seem like a male-dominated industry from the outside, but it is women who practice agriculture more especially rural women and by a wide margin. Nigeria women make up about 70% of the country's agricultural workforce and also contribute to 70% of the country's food production. The contributions of women to the agricultural sector in Nigeria is largely under-recognized. This level of recognition attached to women practicing agriculture were attributed to male-dominated cultures, which place women in inferior positions; custom, taboos and sex based division of labour, which keeps women subordinate to men; failure of economists to place value as unpaid women's domestic production; uncertainty of women's ability to articulate their problems and needs effectively; and the problem of the land tenure system and the inability of women to meet basic collateral security as bank requirements for loans intended for agricultural production (<https://babbangona.com/critical-role-of-women-in-scaling-the-nigerian-agricultural-sector/>).

The roles played by women in modernizing Nigeria's agricultural sector has started to gain much recognition as a very fundamental instrument needed for sustainable development and economic growth of the country. Hitherto, history have it that Nigerian women are often marginalized and overlooked but are now engaged with crucial roles towards transforming agricultural practices, improving food security and driving rural development. Taking a close look at Nigeria's agricultural workforce, women constitute a significant percentage when accounting for their contributions to both subsistence and commercial farming. According to FAO (2021), women represents close to 60 to 80 percent of the agricultural workforce in Nigeria. World Bank (2020) observed that despite their significant presence in farming activities, women face many challenges such as limited access to land, inability to access credit and financial facilities, technology and agricultural extension services.

Over the years, initiatives introduced by the government aimed at empowering women in agriculture have increased significantly. The policies and interventions initiated by the government coupled with the contribution and support from Non-Governmental Organizations (NGOs) and international agencies have focused on improving women access to agricultural inputs, education and market (IFAD, 2019). All these contributions are not only aimed at improving productivity but also to give women recognition as an important agent of change in the agricultural sector.

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Women in Nigeria are more embracing by adopting the various agricultural practices and technologies gotten through innovative research. Today, women engaging in agriculture are not only adopting climate-smart farming techniques they are also embracing digital solutions for market access and financial inclusion. Women are accelerating agricultural transformation at the grass root level (USAID, 2022). The imbibing of entrepreneurship spirit and resilience by women even when faced with challenges highlight their role as change for sustainable development in the rural areas of Nigeria. Overcoming these problems faced by women is very crucial in giving women the full potential they deserve in modernizing Nigeria's agriculture. This paper takes a good look at the series of contributions made by women in modernizing agriculture in Nigeria, pinpointing their roles in enhancing Nigeria's food basket.

Reasons Why Women's Role in Agriculture Deserves Better Recognition Contribution to the Economy

Women accounts for 70% of the workforce in agriculture which makes them accountable for the country's food produce. Their crucial role played in the agricultural sector has meaningfully contributed to the economy. There was a time in Nigeria that the agricultural sector accounted for 23.78% of the country's GDP, which without the involvement of women this would not have been possible (<https://babbangona.com/critical-role-of-women-in-scaling-the-nigerian-agricultural-sector/>).

Reduction of Poverty in the Society

A key factor in the concept of women empowerment is that gender empowerment relates to the ability of women to manage their lives. Women empowerment involves an improvement in women's ability to manage their own lives obtained through increased access to key resources and activities (Onuwa, 2021). When women are somehow empowered, the poverty level in the society will reduce. This is due to the kind nature women possess as they invest about 90% of their income earned from agriculturally related jobs on their families as men invest 35% of their earnings. Agricultural and educational empowerment programme focused on rural women will significantly improve the lives of women economically and also the well-being of individuals, families and the rural communities (<https://babbangona.com/critical-role-of-women-in-scaling-the-nigerian-agricultural-sector/>).

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Involvement in the Agriculture Value Chain

In Nigeria today, women are actively involved in every part of the agricultural chain. This is easily seen in the distribution of farm produce after they are harvested, transporting of farm produce, processing of agricultural produce at the informal and small-scale level and in the sales of the final product at the retail market where it gets to the final consumer (<https://babbangona.com/critical-role-of-women-in-scaling-thenigerian-agricultural-sector/>).

Increased Agricultural Productivity

In order to attain increase in agricultural productivity, the full participation of women is required in the practice of agriculture. This can be achieved by recognizing women as the subjects of development. Women from research findings have shown that they possess knowledge of adverse conditions that may affect agricultural activities such as flooding. Likewise providing women support through training, financial credit, farm input and harvesting and marketing will help a lot to increase agricultural productivity in Nigeria (<https://babbangona.com/critical-role-of-women-in-scaling-thenigerian-agricultural-sector/>).

Modern Agriculture and its Benefits

What is Modern Agriculture?

Modern agriculture is an ever-changing approach to agricultural innovations and farming practices that help farmers increase efficiency and reduce the amount of natural resources needed to meet the world's food, fuel and fiber demands. Modern farming practices allow farmers to increase productivity while decreasing environmental impact. Modern agriculture is driven by continuous improvement using technology, digital tools and data to do so. Modern agriculture embrace the use of precision agriculture; technology for healthier soils; today's farming practices to protect water quality; digital technology tools; and biotechnology and genetically modified organism (GMOs).

Benefits of Modern Agriculture

The practice of modern agriculture when compared with that of the traditional method offers more benefits which will be discussed under subsections 3.2.1 to 3.2.9.

Increase in productivity

The introduction of modern agricultural techniques such as mechanization, precision farming, genetically modified crops and advanced irrigation systems have significantly increase livestock production and crop yields (FAO, 2021).

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Increase in the efficient use of resources

The adoption of precision agricultural techniques with GPS-guided machinery and sensor technology in modern agricultural practice has led to efficient use of inputs such as water, fertilizers and pesticides thereby reducing waste and environmental impact (Bongiovanni and Lowenberg-DeBoer, 2004).

Improved quality of agricultural products

The introduction of modern techniques such as selective breeding and controlled environment agriculture (CEA) can boost the taste, nutritional content, quality of agricultural products and also enhance the shelf life of crops thereby meeting consumers demand for improved food options (FAO, 2021). It is important to note in this paper that controlled environment agriculture uses technology that enable growers to manipulate a crop's environment to desired conditions. Greenhouses, hydroponics and aquaculture are all examples of CEA.

Sustainability of the environment

Agricultural practices such as conservation tillage, integrated pest management (IPM) and organic farming lessen soil erosion, preserve biodiversity and minimize chemical runoff into water bodies (Pretty et al., 2006).

Increase in economic development

One of the significant benefit of modern agriculture, is that it opens up employment opportunities in rural areas, supports agribusinesses, increase farmer's income thereby leading to national economic growth through increased agricultural output and exports (World Bank, 2017).

Climate flexibility

The embracing of climate-smart agricultural practices by farmers have made it possible to counter adverse climate change that could affect their crops by improving soil health, water management and crop flexibility (Lipper et al., 2014).

Enhance global food security and providing food for the world population

By increasing production efficiency and diversifying crop varieties, modern agriculture has led to increase in productivity thereby helping to meet the ever increasing global demand for food and also ensuring more reliable access to nutrition globally (FAO, 2021). Modern agriculture plays a very important role in sustainably feeding the world's population while striving for economic efficiency and environmental stewardship.

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Access to varieties

The adoption of modern methods of agriculture enable farmers to have access to varieties of crops and livestock breeds suitable for different environment, consumer demands, resistance to pests and diseases thereby enhancing food variety.

Technological advancement

Technological advancement is driven through modern agriculture in areas such as satellite imaging, robotic and data analytics which can be of immense benefit to other sectors.

History of Modern Agriculture in Nigeria

The history of modern agriculture in Nigeria cannot be fully explained without mentioning the role played for her development by colonial legacies, government policies and technological advancement. These colonial legacies, government policies and technological advancement shall be discussed under subsections 4.1 and 4.2.

Colonial Era

During the British colonization era in Nigeria, cash crops such as palm oil, cocoa and groundnut were introduced and this helped in influencing the agricultural landscape from subsistence farming to export mindset of production (Ijere, 1974).

Post-independence Agricultural Policies

After independence in 1960, the Nigeria government pursued agricultural policies that are tailored at achieving self-sufficiency and promoting agricultural development in the rural areas. To drive these policies, agricultural initiatives such as Operation Feed the Nation (OFN) in the 1970s and Green Revolution in the 1980s were introduced (Ajayi, 2017). In the nation's drive to seek for technological advancement in agriculture after independence, successive government in Nigeria embraced and introduced modern agricultural technologies such as mechanization, improved seeds and irrigation systems to improve productivity and sustainability.

Successive government promoted agriculture through the introduction of various agricultural development programmes. During President Goodluck Jonathan administration, agricultural development received a boost. Government encouraged private sector investments, introduced agricultural reform programmes and initiatives such as the Agricultural Transformation Agenda (ATA) from 2011 to 2016 (Adebayo et al., 2019).

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Role of Women in Modern Agriculture

The position of agricultural women in developing countries such as Nigeria is very important for economic development. Women are the major source of labour in Nigeria's agricultural sector and their economic performance influences the performance of the whole economy. Onuwa (2021) observed that the role of women in agricultural production in Nigeria cannot be underestimated; women play prime role in traditional farming from manual farm activities, agro-processing and homemaking. Women constitute more or less half of any country's population in most countries. However, women contribute much less than men towards the value of recorded activities both quantitatively in labour force participation and qualitatively in education achievement and skilled manpower. The under-utilization of female in agriculture has obvious implications for economic welfare and growth. Women are referred as home makers, who oversee and coordinate the affairs and activities at home while the men go out to the farm to work. But at home, women however are engage in the processing of food crops and other produce in addition to their housekeeping duties (Onuwa, 2021).

In traditional communities, like their male counterparts, hold farmlands and assist their husband in their farming activities, as well as actively participating in non-agricultural activities such as craft and dyeing, weaving and spinning, food processing, retail trade among others. Nigerian women worked side by side with men in agriculture with some marked division of labour between them. Men perform the tasks of felling of trees, gathering and burning of bush and the making of ridges while women involve themselves with the planting of seeds particularly food crops, harvesting, transportation, processing and selling of farm products (Onuwa, 2021).

The role of women in modern agriculture is significant and comprehensive, surrounding various contributions across different regions all over the world.

Work Force

Globally, women form a considerable fraction of the agricultural work force. They perform farm duties such as planting, weeding, harvesting and post-harvest processing (FAO, 2011).

Production of Food

Women often play an important role in the production of food for domestic consumption, they engage in subsistence farming for sustenance of their families thereby contributing to food security (Doss, 2001).

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Contributing Knowledge and Innovation

Women have been found to be well innovative through their contributions to agricultural knowhow. They do these, by applying their traditional knowledge of seeds, crops and farming practices. They also engage modern technologies when they have access thereby enhancing farm productivity (IFPRI, 2019).

Agricultural Entrepreneur Acumen

Women setup agricultural ventures and often willing to take financial risk and eventually succeed in the business. Women often shows good agricultural entrepreneurship in areas of value addition, agribusiness ventures and market participation, thereby contributing to economic growth and rural development (Quisumbing et al., 2013).

Challenges Faced By Women in Impacting Modern Agriculture in Nigeria

Nigerian women are faced with several challenges which tend to hinder their full participation and impact in modern agriculture. These challenges are classified into different aspects, each having effect on their ability to contribute efficiently to agricultural development. Presented in subsections 6.1 to 6.7 are some of the challenges faced by women.

Reduced Access to Land

In Nigeria, women are faced with cultural and legal barriers and these restrict their access to land ownership and control, limiting their ability and capability to expand and invest just like their male counterpart in agriculture (FAO, 2011).

Lack of Access to Agricultural Inputs

One of the challenges faced by women in contributing to modern agriculture is that they have limited access to necessary agricultural inputs such as fertilizer, improved seeds and equipment which are very vital for furthering productivity.

Agricultural Extension Services

Agricultural extension services are often not effectively extended to women farmers in Nigeria which makes it difficult for them to have access to important information on modern farming techniques, high yielding seedlings, market access and climate smart practices (Adebayo et al., 2019).

Lack of Access to Credit and Financial Services

Most agricultural credit institutions charged with the responsibility of extending credit facilities are often biased to women. Women do face challenges in accessing credit and financial services which are vital for investing in modern agricultural technologies and upgrading their agricultural activities. (IFPRI, 2019).

Socio Cultural and Gender Norms Constraints

Societal rules and regulations that are imposed on women and socially enforced, often limit women decision making power within family households and communities. These often affect their ability to participate fully in agricultural planning and management (Doss, 2001).

Lack of Time to Engage in Agriculture

Women in Nigeria are often faced with the primary responsibility of household chores and taking care of their children which leaves them with limited time and energy to engage fully in agricultural activities and attend agricultural training programmes.

Limited Market Access

Women are faced with limited access to market and value chains and this prevents women from actualizing the full economic benefits of their agricultural produce thereby resulting in minimal income and profit (Quisumbing et al., 2013).

WAYS FORWARD AND CONCLUSION

Ways Forward

To fully encourage women's participation in modern agriculture in Nigeria, the following ways forward are proffered which are discussed under sub-subsections.

Enforcement of Equity Land Reform Act

The greatest challenge faced by women in Nigeria is the traditional land inheritance practice which tends to favour the male counterpart limiting women access to land ownership and control. The way forward out of this, is to implement and enforce land reforms that will ensure women equal right to own, inherit and control land. Laws that facilitate the joint ownership between spouses should be encouraged because it can also be beneficial.

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Access to financial assistance

Women often do not have collateral thereby making it difficult for them to obtain loans. Government should give women soft loans of low interest rate or develop financial product tailored towards helping women in agriculture. Financial assistance can come in form of cooperative saving schemes and training programmes which will go a long way in empowering women to manage and grow their agriculture business.

Access to modern agricultural machinery

Women have limited access to modern agricultural technology and equipment such as high quality seeds, fertilizers and machinery. Government should promote the dissemination of gender sensitive agricultural technologies and encourage women inclusion in agricultural extension training programmes. Both the government and NGOs can help women by providing subsidies or grants for the purchase of necessary agricultural machinery.

Provision for agricultural education and vocational training

Limited level of formal education and agricultural training programmes among women often reduce the productivity and innovative ideas. Government should increase investment in agricultural education and vocational training programmes tailored towards women development. Engaging experience female farmers on training and mentorship programmes will go a long way in helping women in their agribusinesses.

Increase women participation in agricultural activities

Most often women are excluded from decision making process in agriculture both at the household and community levels. Government should promote women participation in agricultural cooperative and also encourage them to take leadership roles. Government policies on agriculture should encourage and mandate women inclusiveness in agricultural governance and encourage them to take up roles and positions in policy making bodies.

Encouraging participation at the local and international market levels

Inadequate and poor infrastructure and the inability of women to access the market unduly affect them due to less mobility and few resources to transport their goods to the market. Improvement in rural infrastructure such as roads, market facilities, development of market linkages and support networks that will help women accessing broader market both at the local and international market levels will go a long way in encouraging women participation in agriculture.

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Promoting gender equality in agricultural practices

Gender equality is generally used to describe a situation where a society at a given time can be considered more or less gender equal. It is common to distinguish between two dimensions of equality. Equality in outcomes and equality in opportunities. Equality in outcomes means that women and men enjoy the same standard of living, degree of autonomy, status and other socially valued goods. Equality in opportunities means that men and women have equal access to agricultural inputs, education, borrowing, election to legislative assemblies, labour market career among others (Onuwa, 2021). Women are faced with cultural norms and gender bias which tend to limit their participation in agriculture. Conducting awareness campaigns will go a long way in changing discriminatory norms and practices. To encourage women participation men and community leaders should be fully engaged in promoting gender, equality in agriculture.

Access to health facilities

Women due of their deposition are often faced with health issues including maternal health which affect their agricultural productivity. Improved access to health care services, especially for women in rural areas and the implementation of programmes that will attend to the specific health needs of women in agriculture which include maternal health and nutritional support will boost women involvement in agriculture to a great extent.

Conclusion

Women play a crucial role in modernizing agriculture in Nigeria as they contribute significantly to various aspects of farming, including crop production, animal husbandry and food processing. Despite facing numerous challenges such as limited access to land, credit facilities, education and technology, women's involvement is essential for the growth and sustainability of the agricultural sector in Nigeria. Empowering women through education, better access to resources, training and supportive policies can go a long way to enhance agricultural productivity, improve food security, and drive economic development in Nigeria. Acknowledging and addressing the barriers they face is vital for maximizing their potential and fostering a more inclusive and resilient agricultural sector.

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