

Annex B



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Research Report

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Annex B: Research Report

Empowerment of Women in Pastoralism and Agriculture in Nigeria's Sahel Region

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Executive Summary

Executive Summary

Introduction

This is the research report, as of April 2023, based on the key findings of the research component of the project. The report has been presented to respondents covered by the surveys as specified in the ethical stipulations including local stakeholders for their input. The outcomes of these feedback meetings have been integrated into this report. The report and the key recommendations relating to policies and needed interventions will be later presented to the members of the Project Steering Committees as well as the Project Management Committees in Bauchi and Gombe States. The outcomes of the presentations to policy makers and other stakeholders will be integrated into the final report. Similarly, the comments by SPARC will also be reflected in the final research report. However, there is an ongoing additional analytical analysis and disaggregation of the data collected which are available in the CPED database. Team members are working on the various aspects of the collected data which hopefully will, in the first instance, guide the implementation of the pilot intervention programme during the remaining period of the project and secondly lead to publications of various aspects of the key findings of the research component in peer reviewed journals.

Background

Pastoralists are known to make use of scarce vegetation and water resources available in hostile and marginal arid and semi-arid lands, to produce meat, milk and other animal products. Within pastoralist and crop farming systems, livestock play an important role in supporting women and in improving their financial situation. Women in the Sahel region are major contributors to farming and livestock production in the pastoral economy. Women's additional responsibilities in the pastoral economy such as maintenance of kitchen gardens, homebuilding, cooking, cleaning, and washing require natural resources like timber and water. As such, dependence on availability of natural resources is especially evident in women's daily livelihood and household responsibilities. When climate variability makes these scarce, it can affect the assets (such as time, security, and money) required for women to perform these tasks. A key central natural resource that pastoral women rely upon for their livelihoods is land. Agricultural production, feeding livestock and building homes depend essentially upon land, fodder and timber availability. While women are dependent upon these natural resources for survival, they often do not have equitable ownership rights. Policies directed at pastoral development often emphasize technical and security issues but overlook crucial socio-economic measures which could empower women to manage their resources better for their own benefit.

Given that gender inequalities characterise pastoral and farming systems in the Sahel region, actions are required to eliminate barriers to women's access to resources; engage men/boys to change gender relations and cultural norms that perpetuate gender inequalities. Research is needed to understand the enabling environment and interventions that are required to support women into secure, decent livelihoods. Research is also needed to identify barriers and find effective women empowerment strategies that focus on changing the prevailing norms that promotes perpetual gender inequality in pastoral communities. It is in this context that the present research focused on the improvement of the status of women in pastoral communities in Nigeria's Sahel region entailing knowledge generation, proposing and testing innovative women empowerment approaches, and promoting knowledge mobilisation and scaling up of tested interventions. This research report focuses on the knowledge generation component of the project.

Objectives

The overall objective of the project is to contribute to socially equitable agro-pastoral/pastoral development and gender equality in Nigeria's Sahel region while the four specific objectives are as follows.

1. To generate robust policy-relevant evidence on women and girls' lives in the context of economic, political and environmental changes in Nigeria's Sahel region and their impact on women's inequality status, the root causes of the inequality and the needed women empowerment strategies.
2. To improve the status of women/girls in agro-pastoral and pastoral activities in Nigeria's Sahel region through the empowerment of women and other marginalised groups so that they can become agents of change with respect to promoting gender equality using the results of the project.
3. To promote the integration of context-specific innovative strategies on agro-pastoral/pastoral women's empowerment and gender equality into public policies and programs through proactive engagement and knowledge mobilisation with policymakers and other key stakeholders
4. To communicate and disseminate the project results to key stakeholders and the general public within Nigeria and in other countries in West Africa's Sahel in order to facilitate the understanding and enhanced capacity for promoting gender equality in agro-pastoral/pastoral activities.

As stated above, this research report focuses mainly on the first objective, which is on knowledge generation and the associated policy and intervention issues.

Conceptual Framework

Three concepts underline the project's implementation with two focusing on the research component and one on the interventions. The first concept is that of intersectionality. Intersectionality is a concept first introduced by Kimberle Crenshaw as a means of explaining the unique experiences of discrimination faced by black women. Crenshaw explained that if a black woman is harmed because she is in the intersection, her injury could result from sex discrimination or race discrimination. The present study addresses gender disparities in rural farming/pastoral communities and women empowerment challenges, which are products of intersecting social determinants including social norms, access to economic and social resources, encounters with gender-based discrimination, and issues of equity and inclusion. Thus, intersectionality is a useful framework for the analysis of the nature of gender inequality in rural farming/pastoral communities in the Sahel region of Nigeria.

The second concept is that of empowerment with respect to women in agriculture and livestock production. The Women's Empowerment in Agriculture Index (WEAI) is the first comprehensive measure of women's empowerment and inclusion in the agricultural sector. WEAI is an innovative tool composed of two sub-indices. The first assesses the degree to which respondents are empowered in five domains of empowerment (5DE) in agriculture. It reflects the percentage of women and men who are empowered and, among those who are not, the percentage of domains in which they enjoy adequate achievements. These domains are: **(i)** Decisions about agricultural production; **(ii)** Access to and decision-making power about productive resources; **(iii)** Control of use of income; **(iv)** Leadership in the community; and **(v)** Time allocation. Using the WEAI as a starting point, a new index to assess the empowerment of women in the livestock sector known as the Women's Empowerment in Livestock Index (WELI) was developed. WELI dimensions of empowerment includes: (1) decisions about agricultural production; (2) decisions related to nutrition; (3) access to and

control over resources; (4) control and use of income; (5) access to and control of opportunities; and (6) workload and control over own time. The two models guided the knowledge generation component of the project as diagnostic tools to identify women in need of support. The project's *Theory of Change* is guiding the interventions which will constitute a separate report when interventions are completed.

The Study Area

There is no internationally accepted definition of the 'Sahel' or the 'Sahel-Saharan' region. Each organizational actor defines the region differently according to its own needs, interests and perceptions. Broadly the Sahel region is understood, both in specialised literature and in practice as meaning the area comprising the great desert plains of the Sahara to the Atlantic Ocean and the Red Sea. The Sahel region lies at the southern edge of the Sahara Desert and is located between the dry desert land to the north and the forest areas to the south. Nigeria's Sahel region which is the main focus of this study covers the extreme northern parts of the northwest and northeast parts of the country. Most parts of Sokoto, Katsina, Kano, Jigawa and Zamfara states in the northwest are in the Sahel region while most parts of Yobe, Borno, Adamawa, Bauchi and Gombe in the northeast are also in the Sahel region. Although secondary data are collected across the Sahel region, Bauchi and Gombe States were selected for field surveys and interventions largely because the insecurity characterised by Bandits in the northwest and Boko Haram in the extreme northeast are not rampant in them.

Methodology

The study design is based on the transformative paradigm which is rooted in the recognition of the fact that injustice and inequality are pervasive and the belief that research is an important tool for addressing these societal ills. The mixed methods approach associated with the transformative paradigm combines qualitative and quantitative research methodologies to ensure that the perspectives of those who are disadvantaged and marginalised are considered. The voices of women and men in study areas are heard in the research methodology through their participation in the various qualitative surveys. Data were collected from the field entailing the administration of: (a) household questionnaires (quantitative data collection) and (b) the collection of qualitative data. Questionnaires were developed and administered for sample male and female respondents as well as for qualitative data collection. The ethical clearance approval was obtained from the University of Benin College of Medicine Research Ethics Committee before the administration of the developed survey instruments.

The administration of the quantitative and qualitative instruments resulted in the following: (i) A total of 3,041 males and females responded to the questionnaires in the two target states (Gombe and Bauchi states) with females constituting about 75 percent of the respondents which is in line with objectives of the survey in which more females are expected to respond to the questions as their voices must be heard. (ii) A total of 37 key informants, comprising 57 percent females and 43 percent males were interviewed. (iii) A total of 12 focus group discussions (FGDs) were conducted comprising female only groups and male only groups in each target LGA. (iv) A total of 24 Life History Interviews were conducted. The existing literature on pastoralism and agriculture in Nigeria's Sahel region with particular reference to the policies and programmes implemented by international agencies and national/subnational governments was synthesized.

Data were collected using KoboToolbox (Kobocollect). After the collected quantitative data were downloaded from server and cleaned, they were exported to Statistical Package for the Social Sciences (SPSS) for analysis. The data generated so far has largely been analysed in terms of frequencies, percentages, and central tendencies, as well as grouping the data into

class intervals. This first approach to the data analysis is more relevant to policymakers, beneficiaries and other users of the results of the research. As far as the qualitative data analysis is concerned, the first step in the analysis was the transcription of the interviews and focus group discussions which formed the foundation on which the process of data analysis was built. The second step entailed coding during which codes were assigned to the chunks of qualitative data. The final step in the analysis relates to the process of linking the different categories so as to develop a logical explanation for the understanding of the patterns.

Perspectives on Pastoralism and Development in Nigeria's Sahel Region

Over the last several decades, international organizations and donors, national and sub-national governments, private sector organisations and NGOs have initiated and implemented policies and programmes to improve lives and livelihoods in the Sahel region. The synthesis of some of such policies and programmes is as outlined in the sections below.

(i) *International and Regional Policies on Pastoralism in the Sahel Region:* Over the years policies designed to improve pastoralism have been formulated by international and national governments in the Sahel region. The AU Strategy for the Sahel region is the first continent-wide policy initiative which aims to secure, protect, and improve the lives, livelihoods, and rights of African pastoralists. It is a platform for mobilizing and coordinating political commitment to pastoral development in Africa and emphasizes the need to fully involve pastoralist women and men in national and regional development processes from which they are supposed to benefit. The African Union expects that its Member States which are implementing their pastoral policies will find this policy document a useful guide.

Although the AU effort has been coherent on paper, the level of resources and political commitment is not sufficient to galvanise a process capable of addressing the root causes of regional conflict. It is against this background that West African governments have engaged in various initiatives to develop a regulatory framework for pastoralist transhumance. Most notable among them is the Economic Community of West African States (ECOWAS) Protocol on Transhumance (1998). The recognition of the need for economic integration including free flow of persons, goods and services stimulated the enactment of Protocol on free movement of persons, and the right of residence and establishment in 1979. Indeed, ECOWAS is the only regional organization in Africa that has passed specific legislation to safeguard regional livestock mobility. The experience of implementing the ECOWAS Transhumance Protocol has been mixed. After two decades, one of its major achievements can be described as the recognition of pastoralism as a legitimate economic activity by both Sahel and Coastal States of the West African region. Beyond that many provisions of the Transhumance Protocol have been difficult to put into practice. There is certainly a need for stronger and more inclusive institutions at local, national, and regional level to facilitate pastoralist transhumance and help avoid conflicts in West African Sahel.

(ii) *Policies on Pastoralism in Nigeria:* Nigeria has a long history of articulating policies and legislations on pastoralism at the national and sub-national levels. Basically, Nigeria's legislations focusing on pastoralism, over the years, reflect a long-standing effort to sedentarize transhumant pastoralists and transform their production systems. First attempts at articulating some policy framework on pastoralism in Nigeria began in 1942 during the period of British colonial rule under the "Fulani Settlement Scheme", by which pastoralist households were allocated plots in the middle belt region of the country specifically in what is now known as Plateau State. The policy was designed to encourage pastoralists to practice mixed farming. The scheme proved costly and was abandoned in favour of tin mining operations which were more lucrative in the Jos Plateau area at that time.

A World Bank-supported study on Fulani pastoralism in 1954 took up the British Colonial

concept of grazing reserves and proposed this to provide the Fulani with secure land tenure for grazing. It was also designed to modernize the livestock sector, away from traditional practices of pastoralist transhumance. Emphasis was placed on the settlement of pastoralists with a view to reducing the phenomenon of farmer-herder conflict. The grazing reserves were to be provided with social and pastoral infrastructure (roads, schools, water resources, veterinary services, markets) and improve the living conditions of farmer pastoralists. When Nigeria became independent in 1960 the government continued the promotion of grazing reserves by enacting the Grazing Reserve Act in 1965. Further support for the implementation of the grazing reserves policy during this period was provided by some international development partners mainly the World Bank and USAID that provided financial support for the equipment and operation of selected reserves. However, the grazing reserves policy later ran into difficulties and the expected expansion of the areas covered by grazing reserves failed to materialise. Thus, by 1980, Nigeria had established 2.3 million hectares of grazing reserves, which was just about 10 per cent of the planned size. Many States were dissuaded from establishing reserves due to the high levels of land compensation required by the Federal Land Use Act of 1978. At present, Nigeria has about 415 grazing reserves with only about a third of them in use.

Apart from the establishment of grazing reserves, there have been efforts to modernize livestock production through ranching in different parts of Nigeria. Ranches involve a system of extensive livestock production on large stretches of land that are individually owned and usually fenced. Commercial ranching began in Nigeria during the colonial period but took off with the state-sponsored establishment of several breeding and fattening ranches in the 1960s. Again, most of these initiatives ran into problems due to high production costs, adaptation difficulties of imported cow breeds, marketing challenges and mismanagement. At the sub-national level some state governments are opposed to open grazing which generates conflicts between farmers and herdsmen. For example, in 2017, Benue and Taraba state governments enacted legislations banning open grazing on their territories, to reduce the escalating violence between farmers and transhumant pastoralists. Taraba state also prescribes ranches as the only legal form of animal production. Pastoralist groups are not happy with these new bills and in fact it has been difficult implementing them in the respective states.

(iii) Promoting Security and Development: The articulation of the various international, national, and sub-national policies and legislations, particularly in recent years, has largely been in response to the rising security challenges in the Sahel region. Security measures and anti-terrorism legislation have been introduced across the Sahel region including pastoral communities in Nigeria to counter cross-border threats. The Government's response to farmer-herder conflicts has been largely security-driven in the worst affected states, the Government has deployed security forces to contain the violence. While this has contributed to a short-term reduction in insecurity, the inability to maintain troops for longer periods of time, combined with the spread of violence in many areas beyond the reach of security agencies and personnel, has allowed farmer-herder violence to continue to grow over recent years. The use of government security forces, which are sometimes unruly and themselves guilty of abuse and human rights violations, have been accused of exacerbating the conflict. Abuses committed on both sides reduce the sense of security among communities and individuals, who do not feel protected. To be successful in the long term, responses must prioritize the human dimension of security. This encompasses social, cultural, economic, political, and psychosocial factors, which affect men and women differently. The *Common Fund for Commodities* (CFC) supports the view that security and development opportunities are linked. By taking a commodity focus, CFC works to develop the potential of commodity production, processing, manufacturing, and trade for the benefit of the poor, thereby contributing to sustainable economic development in the Sahel. By investing in commodity development, CFC has contributed to employment generation, increased household incomes, improved food security and greater resilience to shocks. Other concerted efforts to promote security with

development include the EU's Strategy for Development and Security in the Sahel (2011), the UN Integrated Strategy for the Sahel Region (2013), the Nouakchott Process (2013), the AU Strategy for the Sahel Region (2014), and the ECOWAS Strategy for the Sahel (2014).

The lessons that emerged from the various programmes and experiences focusing on linking the promotion of security to development challenges are that to be successful in an unstable environment like the Sahel, development initiatives should be both stabilization oriented (providing better access to physical and livelihood security for populations) and conflict sensitive. State-supported projects that combine development and overcome security measures for the population's benefit, if designed and implemented in a participatory fashion, can improve pastoralists' perception of the state as repressive, especially if these projects truly improve the access to security and justice, among other services, by populations as well as their living conditions and offer sustainable income opportunities that are more secure than trafficking.

(iv) Development Initiatives on women's economic empowerment: Several projects have been implemented to economically empower women in Nigeria. Women Economic Empowerment has been defined as a holistic process, which fosters sustainable, transformative change that promotes inclusive and equitable economic growth for women and girls. It entails enhancing the skills of women, increasing their access to financial resources and opportunities, improving their bargaining power, making them stakeholders in decisions that affect them to partake in economic activities. There is no doubt that promoting women economic empowerment in pastoral communities is essential to eradicating poverty, boosting productivity, increasing economic diversification and income equality, and other positive development outcomes. Some development initiatives have been implemented by governments and international agencies in Nigeria that focus partly on pastoral women economic empowerment in parts of Nigeria's Sahel region. They include the following: The National Fadama Development Programme, Rural Finance Institution Building Programme (RUFIN), Educating Nigerian Girls in New Enterprises, Conditional National Cash Transfer (CCT), Growth & Employment in States 4 (GEMS4) Programme, Government Enterprise and Empowerment Programme (GEEP), Federal government special grant for rural women project, Nigeria's National Financial Inclusion Strategy (NFIS), and Small & Medium Enterprise Development Agency of Nigeria (SMEDAN) – Women In Self-Employment Programme (WISE-P).

(iv) Youth Entrepreneurship and Women's Empowerment in Northern Nigeria (Nigeria WAY): MEDA and Global Affairs Canada (GAC) are working together to support women and youth-run businesses in the processing sector and food industry of Bauchi State. The project works in three main value chains: rice, peanut, and soybean. WAY supports women and youth agro processors. The goal is to improve their business performance, enhance the business environment for women and youth, and strengthen community and family support to decrease the risk of early and forced girl child marriage. With increased access to productive technologies and business services, greater financial inclusion and inclusive community dialogs, Nigeria WAY supports women and youth-led businesses to transform their contributions to their households, communities, and the economy.

The WAY project supports small scale businesses and entrepreneurs by strengthening the capacity of small-scale businesses and other value chain actors so they can engage with other entrepreneurs through networking forums and stakeholder meetings, to create linkages among value chain actors; forging market linkages and providing access to green technologies, and green finance; facilitating community and family dialogue on gender equality, women's economic empowerment, and sharing how empowered women strengthen their family units; supporting women as they strengthen their business capacities and increase their income; and supporting the development of life skill programmes for young girls to teach life skills, business development services, financial literacy and youth savings. From the

project report, about 16,000 entrepreneurs and small-scale businesses will improve their business capacity and business environments and around 25,000 families and community members will become better educated on the consequences surrounding early and forced child marriage.

(v) Women and Youth empowerment through Education: Education is often highly prized by pastoral women, partly because they see it as a means of escape from a harsh and marginalized life for their children. However, girls frequently have less access to education than boys because the investment is not considered worthwhile, or because of economic and cultural reasons. In early marriage, for example, girls soon belong to another family or community, which is a strong disincentive against educating them, as is the lack of employment prospects for pastoral women with formal education. Often the formal education available to pastoralists can be poor in quality and/or difficult to obtain. In many families in Nigeria's Sahel including pastoral communities, the decision to educate girls depends on the economic situation of the family and is subordinate to the educational and occupational choices of boys as well as the pregnancies, child marriages and domestic duties imposed on girls. The tens of millions of nomadic or transhumant pastoralists in the Sahel are particularly affected by inequality of access to basic services (health, education, drinking water, etc.), which are ill-suited to their way of life. The Strategies used to promote education include *Nomadic Education, Home Grown School Feeding Programme (HGSFP) and the Almajiri system of education.*

(vi) Challenges and responses to climate change: The effects of climate change are highly unequal among Sahelian populations, disproportionately affecting small farmers, pastoralist populations, women and poor communities living in precarious conditions (housing, financial resources, etc.). Episodes of drought increase pressure on resources, exacerbating numerous simmering tensions. One of the earliest responses by policymakers to the challenge of climate change in the Sahel region of Nigeria is the formulation of the Great Green Wall Strategic Plan. The Great Green Wall, where Nigeria is part of a multi-country reforestation programme stretching across the width of the Sahara-Sahel region was articulated to combat desertification and its impacts on agriculture and livelihoods.

Although it took a long time for Nigeria to respond the climate change challenges compared with countries in East Africa, in 2012, the country eventually articulated the Nigeria Climate Change Policy Response and Strategy to promote low-carbon emissions and to respond effectively to the impacts of climate change, such as extreme weather events, food insecurity etc. The vision of this policy document is aimed at a climate change-resilient Nigeria, ready for rapid and sustainable socio-economic development. In 2021, the Federal Ministry of Environment, through the Department of Climate Change introduced the National Climate Change Policy (NCCP) for the 2021 to 2030 period.

Despite the commitment of Federal Government to climate change mitigation and adaption, as reflected in the National Climate Change Policy, not many activities are taking place at the sub-national and local levels to ameliorate the impact of climate change on agricultural and pastoral communities. Indeed, Bauchi State has not developed any sub-national plan for climate mitigation and adaptation. Between 1977 and 1992, the Bauchi State government, in conjunction with the World Bank Forestry II Project, embarked on a massive desertification plan in which it established 36 kilometre of forest shelter belts, 1,750 hectares of rural woodlots, and produced and distributed 10 million assorted seedlings. The project also assisted farmers to establish 250 hectares of private orchards in the northern parts of Bauchi State. It also distributed about 5,000 improved wood cooking stoves to individuals. Since then, there has not been any concrete effort to deal with the menace of desertification, deforestation and soil degradation in a consistent manner.

Demographic and Social Characteristics of the Respondents

The key findings from the surveys with regard to respondents' demographic and household characteristics are as follows:

(i) Age and Sex of respondents: With some slight variations across the study areas, population is significantly youthful in character with the over 75 percent of the respondents under 60 years. A greater proportion of the female respondents are in the age group 20 to 39 years. This can be explained by the fact that more males of that age category are able to migrate to other areas in search of work compared with females who may not be able to move to other localities freely, except through marriages.

(ii) Marital Status of respondents: The practices of polygamy and early marriage of young adults are very common phenomena in most communities of the study areas as in other parts of Nigeria. It was found that over 80 percent of the male and female respondents are married with a greater proportion of the female respondents being married.

(iii) Educational level completed by respondents: The findings show that a higher proportion of male respondents benefitted from formal education than females. A higher proportion of the female respondents had no formal education and a small proportion of them benefitted from secondary and tertiary education compared with their male counterparts.

(iv) Occupation of respondents: It was found that, on average, the highest proportions of respondents employed are engaged in farming and livestock production with farming having a higher proportion. A higher proportion of the male respondents are engaged in farming while a higher proportion of the female respondents are involved in livestock production. The Women who normally do not move too far from their homes are largely engaged in carrying out livestock production around their homes rather than going to farmlands far away from home. Generally, other economic activities such as trading, working in the formal public and private sectors where non-agricultural activities are carried out are of less significance in terms of the proportion of male and female respondents engaged in them. The findings with regard to the dominant occupations of the respondents which are largely in farming and livestock production show that they are vulnerable to climate change because changes in the climate variables which is experienced in the study areas will have direct impacts on households' income and livelihoods.

(v) Income level of respondents: The findings show that the income levels of respondents in the study areas are quite low as most of them earn far less than 1 dollar per day. The study also revealed that females in the two states earn extremely lower income compared with their male counterparts. While the bulk of the income comes from those dwelling in the localities where the surveys were carried out, supplementary income is also received from husbands and relations that travelled out of their localities.

(vi) Housing Characteristics of Respondents: The survey shows that the overall quality of houses the respondents are living in is low and the availability of key facilities limited. Over 50 percent of the dwellings are built of mud walls covered with zinc roofs. Less than 10 percent of the dwellings can be said to have good means of sanitary disposal. Water closet facilities are available in a few dwellings because over 60 percent of the dwellings have only pit latrine. Refuse disposal facilities are lacking in most of the dwellings as most of the respondents reported that they dispose of their refuse by burning it. The findings further show that the indiscriminate dumping of refuse in surroundings of their houses account for about 40 percent of the respondents in the study areas. Most surveyed communities are extremely vulnerable to climate change in terms of access to water because whenever rains fail to come at the right

time and the quality of water from the local wells and even some of the bore holes declines, the people become susceptible to diseases due to the poor quality of water which they drink. This explains why a large proportion of the households cover long distances before getting the water they need for drinking and even for bathing and this put considerable pressure on women and girls who are largely responsible for fetching water for household use. Finally, over 90 percent of the respondents' households use firewood for cooking but when that fails, they depend on charcoal. Other sources of fuel for cooking such as kerosene and gas are quite insignificant as only a few households can afford them. This implies that the forests are exploited regularly for cooking fuel, and this further contributes to the reduction of carbon sinks and increases atmospheric warming and climate change in the Sahel region.

Patterns of Agricultural and Livestock Production by the Respondents

The main findings from the surveys with regard to respondents patterns of agricultural and livestock production are as follows:

(i) Access to and Ownership of farmlands: The findings of the survey show that over 90 percent of the respondents reported that they have access to farmland. The findings also indicate that both male and female respondents reported that they have access to farmland for agricultural production activities whenever they want to be involved in farming activities. It was also found that farmland fragmentation is also characteristic of the respondents with over 95 percent of the male and female respondents over 90 percent of them reporting that they have largely small farm sizes of between 1 and 5 different farmlands.

Having access to farmland does not always guarantee the availability of such land. The ownership of farmland is more relevant and can enable farmers to carry out their farming activities without the fear that the real owner can deny them the use of the land at any time. The findings show that while about 70 percent of the male respondents reported that they own their farmland only 12.6 percent of the female respondents reported that they own their farmland. However, a higher proportion of the female respondents reported that they own their farmlands jointly with their spouses.

(ii) Major agricultural crops produced by respondents: The dominant crops produced by the male and female respondents are groundnut, cowpea, rice, sorghum, soyabean and millet. In view of the fact that both male and female respondents are involved in the production of different crops, they were asked to rank the various crops in order of importance. Both male and female respondents ranked maize as most important followed by rice, cowpea, groundnut, millet, guinea corn, sorghum and vegetables in that order. This can be explained by the fact that in most cases males and females do have joint ownerships of farmlands and the crops planted in them.

(iii) The common livestock produced by respondents: The findings show that over 60 percent of the male and female respondents reported that they have livestock of between 1 and 5 animals, but more women are in this category. Most of the large livestock of over 5 animals are owned by the male respondents. It was found that in cases where female respondents are involved in the ownership of large livestock it is when they do so with their spouses. The various types of livestock which male and female respondents keep include goat, sheep, chicken, ducks, cattle and pig and they ranked the rearing of goat, chicken, sheep, cattle and duck in order of importance.

(iv) Climate Change and economic activities of respondents: The majority of the people's livelihoods in the Sahel region of Nigeria depend on agriculture and pastoralism, and these livelihoods are deeply affected by climate change. The findings show that about 90 per cent of the respondents, both males and females, had knowledge of the occurrence of climate change. The majority of the respondents perceived that these changes in climatic variables

affect their agricultural products as well as decline in the availability of forest products. Most of the respondents reported on their understanding of the main causes of climate change. They identified various causes of climate change including burning fossil fuels, cutting down of trees, overgrazing and a combination of various factors. The sources of information on climate change for both the male and female the respondents comprise mainly the radio and family and community meetings. The results show that the changes in climate related hazards over the past 30 years have affected agricultural productivity including livestock raising adversely. Both male and female respondents reported the negative impact of climate change on their livelihoods particularly farming and livestock raising activities.

With respect to the impact of climate change on livestock production, this has led to the movement of animals to other localities where water is available with the conflicts that have emerged in those localities. The specific nature of the losses as reported by both the male and female respondents include losses such as loss of farmlands, farm inputs, crop failures and loss of livestock. Even though both male and female respondents are negatively affected women, who are mostly farmers and livestock raisers, are the most vulnerable. The strategies of the male and female respondents to ameliorate the impact of climate change include livelihood/income diversification, outmigration, sharecropping, obtaining loans to carry out other income generating activities, use of alternative energy, premature harvest and relocation of livestock. Again, most women are disadvantaged in terms of adopting these strategies because of the prevailing gender norms that hinder their ability to take certain actions without the support of their spouses.

(v) Covid-19 and economic activities of respondents: The Covid-19 pandemic had devastating effects in many countries across the world, affecting every aspect of humanity. Most countries in Sub-Saharan Africa including Nigeria met the crises in a rather weak position. How people make a living and access markets is impacted by Covid-19 across the Sahel region of Nigeria. These disruptions were driven primarily by restrictions put in place to curb the spread of the virus. Most of the male and female respondents have knowledge of the existence of Covid-19 pandemic and they got this information from radio/tv, family members and friends, place of worship, community meetings and announcements by government agencies. Knowledge of all the actions taken by the government to contain the spread of Covid-19 by the various categories of respondents was quite high among the respondents. With regards to the impact of Covid-19 on farming activities, especially the cost and access to farm inputs, the vast majority of both male and female respondents reported that the pandemic had considerable negative impact on their access to the required quantity of farm inputs as well as a reduction in the quantity of harvests during the period.

(vi) Migration and its implications for respondents: As income-generating opportunities decline in the agricultural and livestock sectors of the localities in the Sahel region, migration has become the response of many people in the study areas. However, such migrations are largely limited to males as females are rarely allowed to migrate to other areas on their own for improved livelihoods. The survey shows that over 55 percent of the male respondents and over 47 percent of the female respondents in the surveyed localities reported that there are members of their households who are not living with them as at the time of the survey. There is a high level of migration from the surveyed localities in which about half of the members of the surveyed households have moved to other areas. The survey shows that two reasons account for the movement of household members to other localities. The first is marriage which accounts for about 50 percent as reported by male and female respondents while the second is the search for better income generating or employment opportunities which accounts for about 25 percent. These two key reasons for the outward movement of household members to other places explains the fact that the proportion of males and females that migrated from the surveyed families are almost equal. The males are largely in search of work mainly in urban areas while the females are married to husbands in other localities including also urban areas.

Patterns of gender equality and women empowerment in the surveyed areas

The main findings from the surveys with regard to respondents attitudes to gender equality and women empowerment are as follows:

(i) Attitudes about Gender Equality and Gendered Roles: The findings of the qualitative surveys show that the surveyed localities are characterised, as expected, by certain gender norms. These norms are the spoken and unspoken rules of the farming/pastoral societies in the Nigerian Sahel region about the acceptable behaviour of girls and boys, women and men with respect to how they should act, look, and even think or feel. These expectations start early and powerfully shape individuals' attitudes, opportunities, experiences, and behaviour. However, some of the male and female respondents based on her life history pointed out that the norms under which she grew up are gradually changing. Some other respondents appear to insist on the existence of norms influencing gender roles in their community but that some changes are now allowed. It was observed that while men and women in the surveyed farming and pastoral communities reported very similar experiences and attitudes with respect to the gender roles, more women believe that changes in the prevailing norms are taking place compared with some men who continue to emphasise the continuation of gender norms. Even then, some men are also acknowledging the growing changes that are taking place in gender relations in their community which they believe is for the progress of their community.

(ii) Women Participation in decision making in farming activities: Over the years, women in Nigeria including those in the Sahel region have established defined roles in agriculture. Even though women constitute a large portion of the farming population, women's possibilities in agriculture are hindered by formal and traditional constraints. It was found that while about 75 percent of the male respondents reported that they are involved in farming activities during the last 12 months, about 65 percent of the female respondents also indicated that they took part in farming activities during the same period. Often, despite the significant role which women play in farming activities, men have continued to dominate farm decision making, even in areas where women are the largest providers of farm labour. It was reported that a higher proportion of the female respondents in the survey localities of Bauchi and Gombe States reported that they make input into very few decisions compared with the males that indicated that they do make input into decisions regarding food crop farming. In fact, while 58 percent of the male respondents in Bauchi reported that they make input in all decisions the proportion of females in that category is 8 just percent. The dominant role of males in decision making regarding farming activities is further shown with regards to the person who takes decision on types of crops to grow for agricultural production in their household. It was found that while 65 percent of the males in Bauchi reported taking decision by themselves on the types of crops to grow only about 12 percent of the females are that category in which case, they cannot take any decision on their own. Furthermore, males dominate the decision-making process with respect to the marketing of farming products. For example, while about 60 percent of the male respondents in Bauchi reported that they take decisions on the marketing of their farm products themselves only about 12 percent of the female respondents is in that category. The situation in Gombe is essentially similar in that while about 59 percent of the males reported that they take decision on the marketing of their products themselves just about 20 percent of the females are able to take such decisions themselves.

(iii) Women's Access to Agricultural land: Women in the Sahel region of Nigeria generally have limited access or own less agricultural land influenced largely by prevailing gender norms. The lack of land ownership significantly reduces the chances for women's access to financing of agricultural and other economic activities because of the need for collateral.

However, ownership is different from access to land for use at least on a temporary basis. In Bauchi State the survey shows that while about 72 percent of the males reported that they own land for farming, whether in use or not, only about 22 percent of the females reported that they own such land for farming. In Gombe State about 72 percent of the males reported that they own land for farming while only about 30 percent of the females indicated that they own such farming land. It is only when it comes to joint ownership with their spouses that a majority of the females can claim ownership of farmland. These findings show that women are highly disadvantaged in terms of ownership and use of land. They cannot use any farmland the way they want without the approval of their spouses. Even the farmland owned by females cannot be disposed of without the support of their spouses. It was found that in Bauchi State over 82 percent of the male respondents reported that they are solely responsible for taking decision on whether to sell or give away or rent the land they own. On the other hand, only 30 percent of the female respondents indicated that they could sell or give away their land themselves without permission from anybody.

(iv) Women Participation in decision making in livestock raising: Livestock raising plays an important role in supporting women in farming and pastoral communities and improving their financial situation. For example, women often play a prominent role in managing poultry and dairy animals and in caring for other animals that are housed and fed within the homestead. When tasks are divided, men are more likely to be involved in constructing housing and the herding of grazing animals, and in marketing products if women's mobility is constrained by the prevailing tradition and norms. Livestock ownership is particularly attractive to women in societies where access to land is restricted to men as in the case of the Sahel region. The findings show that in both Bauchi and Gombe States an almost equal proportion of males and females (about 70%) are involved in livestock raising. Ownership of livestock is particularly attractive to women in many parts of the Nigerian Sahel region where access to land is largely dominated by males. Women often have a prominent role in managing poultry and dairy animals, and in caring for other animals that are housed and fed within the home environment. As far as the degree of male and female respondents' input into livestock raising is concerned, the findings indicate that even though male respondents still play important roles in decision making with respect to livestock rearing issues, female respondents are also playing significant roles in decision making compared with the degree of their involvement in decision making in farming activities. For example, a high proportion of female respondents reported that they are playing major roles in deciding on the buying and sale of livestock as they make input into most or all decisions relating to the sale of their livestock.

(v) Women's Access to agricultural inputs: Due to poor financing, women in the Sahel region are unable to access agricultural inputs such as improved seedlings and fertilizer. Female respondents indicated that they are unable to use inputs due to their high cost in the open market. The challenges which women farmers face are further complicated by the fact that they may not be able to take the needed decision on accessing inputs for their agricultural activities without the approval of their spouses. The survey shows that the vast proportion of the male respondents in Bauchi and Gombe States take decisions on getting inputs for agricultural production themselves while in a few cases they take decision with their spouses. However, when it comes to female respondents only a small proportion of them can take the necessary decision themselves rather most of them depend on their spouses to take such decisions on their behalf. At best they take decisions jointly with their spouses in which case their male counterparts can still cajole them into taking decisions largely determined by their spouses.

(vi) Women Participation in non-farm economic activities: Rural non-farm activities account for between 25 and 30 percent of rural income in the Sahel region and for the landless and the very poor, sustainable income gains at the household level are associated with additional wages earned from non-farm activities. Households relying only on farming tend to be among the poorest. In the context of the Sahel region of Nigeria, non-farm economic

activities have been used as part of the adaptation strategies to climate change. Indeed, rural non-farm income generating activities is considered as an essential component of livelihood strategies among rural households. The reasons for diversification to non-farm activities include declining farm incomes and desire to insure against agricultural production risk. The survey shows that about 55 percent of the male respondents in Bauchi State reported that they are involved in one form of non-farm income generating activities or another while the proportion of female respondents that are participating in non-farm income generating activities is even higher at about 72 percent. However, the situation is quite different in Gombe State where a lower proportion (less than 50 %) of male and female respondents indicated that they are participating in non-farm income generating activities. In both states a higher proportion of female respondents are participating in non-farm income generating activities such as handicrafts, household as well as non-household small-scale manufacturing, repair, transport, community service, etc. Indeed, more women are involved in non-farm economic activities because they can do so within their home environment. Apparently, because of the fact that a higher proportion of female respondents in Bauchi and Gombe are participating in non-farm income generating activities, they play a more significant role in decision-making on these activities in their households. It was also found that a significant proportion of the female respondents in both Bauchi and Gombe States make input into most or all decisions relating to non-farm economic activities. Thus, they are collaborating with their spouses in most decisions relating to non-farm economic activities unlike other socio-economic activities where their male counterparts tend to dominate the decision-making process.

(vii) Women's Access to credit for economic activities: In the Sahel region of Nigeria, one key factor that constrains efforts to economically empower women is poor access to credit. Women farmers receive less than 10% of the credit offered to small-scale farmers. Women farmers are deterred from applying for formal loans because of the complexity of the administrative process, unsuitable loan sizes and credit rates. It was found from the surveys that generally a small proportion of both male and female respondents in Bauchi and Gombe States reported that they took loans for their economic activities in the last twelve months. In Bauchi 35 percent of the male respondents took loans while 20.4 percent of the female respondents took advantage of any loan. In Gombe 23 percent of the male respondents took loans in the last twelve months while only 10 percent of their female counterparts had benefitted from loan facilities. Women are comparatively disadvantaged with respect to having access to credit for their economic activities. One of the key issues relevant for women empowerment in terms of access to credit is the degree of autonomy with which they can decision on seeking financial support for their economic activities. Interestingly it was found that women do have considerable discretion on seeking for loan to carry out their economic activities. In Bauchi State, the findings show that while about 64 percent of the male respondents reported that they take the decision to obtain loans themselves the proportion of female respondents that indicated that they also take decision on seeking loans without approval of their spouses is 63 percent which shows that a considerable proportion of women in the study areas do have freedom to seek for credit for their economic activities. In Gombe about 82 percent of the male respondents take the decision on obtaining credit themselves while about 67 percent of their female counterparts also take decision themselves. Another issue examined was the degree to which women take responsibility for the credit. It was found that a large proportion of women do in fact take loans in their individual names. In Bauchi State about 84 percent of the male respondents reported that they take loans in their names while a considerably high proportion (about 78%) of female respondents also reported that they take loans in their names. In Gombe State, the findings are similar in that about 88 percent of the male respondents reported that they take loans in their names while about 78 percent of the female respondents also do take loans in their individual names. These findings are quite positive in that it shows that women do not have to depend on their spouses to obtain credit as they are recognised to do so on their own.

This positive development is obviously a reflection of various government policies reviewed in

this report in which efforts are being made by various state and non-state organisations to improve the access of women to credit. The survey also examined the factors which prevented the respondents who did not obtain any credit for their economic activities from doing so. The findings that in Bauchi State about 60 percent of the male respondents reported that credit facility was not accessible to them while 48 percent of the female respondents were in the same category. In Gombe State about 47 percent of the male respondents also indicated that lack of access to credit prevented them from taking loans compared with about 52 percent of the female respondents that gave the same reason. The findings further indicate that a significant proportion of the male and female respondents in Bauchi and Gombe States reported that they do not like taking loans. In most parts of the rural Sahel region, access of the unbanked population to credit is restricted to semi-formal and informal lenders. These lenders have difficulty meeting demand for credit in rural areas because of limited financial, technical and human resources. This can be explained by the fact that most of them are not properly informed about the benefits of accessing credit for their various economic activities, which is a challenge to policymakers and other non-state actors.

(viii) Women's access to and use of income generated in their households: The examination of the degree of women control over income and expenditures within their households is also an indicator of women's role in household decision making. According to the traditional gender norms in the study areas, women must take permission from their spouses before making any expenditure from the income that accrue to them. It was found during the survey that in both Bauchi and Gombe States while males make input in all decisions regarding the use of income from farming activities females make fewer decisions, except in cooperation with their spouses. With respect to livestock rearing, the findings of the survey show that women make a more significant input into how income generated from livestock raising in both Bauchi and Gombe States is spent. A higher proportion of female respondents in the two states reported that they make input into most decisions or all decisions with respect to the use of income generated from livestock raising. As stated earlier, this reflects the recognition given to women in livestock production in the study areas of Bauchi and Gombe States. Similarly, the major role played by women in non-farm economic activities is reflected in their playing a significant role in deciding the use of income from these economic activities. It was found that a majority (over 60%) of the female respondents in Bauchi and Gombe States reported that they make input into most decisions, or all decisions made with respect to the use of income generated from non-farm economic activities. It appears that in cases where women are playing significant roles in generating income, they are allowed to make input into how the income generated should be used largely for their benefits. It can be stated that based on the responses of both females and males in the different qualitative and quantitative surveys with respect to the control of expenditure in households, women are gradually being empowered to take part on the use of income generated in their households. As pointed by most of the respondents the changing situation is due largely to the fact that women are now involved in generating income in their households.

(ix) Women participation in decision on household needs: Women are the backbone of the family welfare, and they play a vital role in their household economic well-being. Intra-household decision making can be well understood as negotiation among family members on how to allocate financial resources within the same household. It has been argued that women's preferences and responsibilities for making decisions within the household do influence economic outcomes. This suggests that the degree of women's autonomy in terms of decision making relating to intra-household needs and expenditure is closely related to women's empowerment. In the Sahel region of Nigeria, there is increasing involvement of women in decisions on key issues affecting the family in recent years. In Bauchi State about 43 percent of the male respondents reported that they take major and minor decisions on household expenditure themselves without the participation of their spouses compared with just about 17 percent of the female respondents that reported that they take such decisions themselves. The findings from Gombe State shows the same trend in that while about 47

percent of the male respondents reported that they solely take such decisions without input from their spouses, only about 21 percent of the female respondents are in that category. Childbearing is a family issue to which both male and female members should normally take decisions when to have a child and how many children should be welcomed to the family. In Bauchi State, 22 percent of the male respondents reported that they take decisions relating to childbearing without any input from their spouses while the proportion of female respondents in that category is 11 percent. However, the majority of male and female respondents in survey areas of Bauchi State indicated that such decisions are jointly made with their spouses. The findings from the survey in Gombe are in many ways similar to that of Bauchi as a higher proportion of the male and female respondents reported that they jointly take decisions on such issues with their spouses. The major trend from the findings of the surveys is that women are gradually jointly taking decisions on key household needs as most of the decisions are taken by both men and women.

(x) Women Participation in paid and unpaid work: Gender and power dynamics profoundly influence relationships between partners and spouses and shape the lives of adults and children alike. Globally, a stark division between work inside and outside the home endures, with men generally expected to be providers, breadwinners, and decision-makers outside the home, and women generally expected to provide care for the home, children, and other dependents. One of the indicators used to examine the overall workload by males and females in the study areas of Bauchi and Gombe States is the time available for rest after a day's work. It was found that males in both Bauchi and Gombe States had more hours of sleep in the previous 24 hours than females. It in this context that the survey examined the number of hours spent working by the male and female respondents. The findings show that females are working longer hours than males. A considerable proportion of the working hours of women is on unpaid household work and care. It was found that even in the primary production sector where most females in the study areas work, they devote less time to their work in the sector because they are engaged in other activities comprising largely unpaid household and care activities that tend to reduce the amount of time, they can devote to primary production activities. Rural women of all ages spend much of their day engaged in domestic chores, including collecting water and firewood, processing and preparing food, travelling and transporting, and caregiving. These tasks are unpaid and restrict a woman's time and mobility. These domestic chores are a major constraint to the ability of smallholder farmers to increase agricultural productivity and achieve food and nutrition security.

Insights from the qualitative surveys indicate that gender stereotypes which see women as solely unpaid care givers is gradually changing and men are contributing to some aspects of unpaid household care. In other words, there is a gradual change in behavioural trends and challenges to existing gender norms by increasing male involvement in home-based care services. There is no doubt that deliberate efforts towards advocacy, sensitization and awareness in these rural communities would help to reduce the stereotyping which sees the care giver as women's responsibility. Furthermore, there should be reduction of time spent by women in unpaid works through provision of time saving investment and infrastructure such as electricity, cooking gas, pipe borne water among others.

(xi) Women participation and access to education: In many parts of the Sahel region of Nigeria, girls frequently have less access to education than boys because the investment is not considered worthwhile, or because of economic and cultural reasons. In early marriage, for example, girls soon belong to another family or community, which is a strong disincentive against educating them. The results of the qualitative surveys brought into focus the challenges facing women/girls with respect to education in the farming and pastoral communities of the study areas. Religion plays a major role in women/girls' access to education in the study areas. While some parents would allow their girl child to finish up to secondary school education before getting married, others allow their girls to be married off early enough even when they are still in school thereby dropping out of school. Some parents

preferred to send the girl child for hawking and other businesses before they are due for marriage rather than sending them to school. Some of the respondents also argued that some parents in the community want their girls and women to go to school, but many of the girls end up getting pregnant and thereby dropping out of school. These occurrences have made many parents stop sending their girl child to school, especially at the secondary and tertiary levels. However, the findings of the qualitative surveys through the voices of both males and females indicate that women are gradually being empowered through the promotion of their participation in education. Most of the male and female respondents agree that the changing situation is due largely to the fact that the benefits of female education are being appreciated by the people.

(xii) Women participation and access to health care: Almost all the respondents in the qualitative surveys in the study areas agreed to the fact that women and girls are allowed to visit health care centres where such services with the appropriate personnel are available. They however lament that very few primary healthcare centres have nurses and healthcare staff. The hospitals and health centres lack personnel to attend to patients visiting them which makes many people not visit the health facilities in the locality. According to the respondents the challenge is not only the non-availability of health facilities rather it is the availability of health centres with the right personnel and adequate facilities. Even then the majority of the respondents agree that there has been considerable improvement in allowing women to visit available health care facilities compared with the situation in the past when women and girls prevented by their husbands and parent from visiting health care centres. Some of the respondents reported that there is an underlying tendency to give preference to males/boys in seeking medical attention compared with females/girls.

(xiii) Women's membership and participation in associations: Freedom of movement, membership of associations and assuming leadership roles are key components of women's empowerment. The study areas are characterised, based on their identification by respondents, by a variety of associations such as farmers association e. g. rice farmers association, association of traders, traders' unions, mechanics group, women group, youth association, men group, drivers' group, and business owners' group. There are women-only and men-only based social association. There are also mixed gender associations too like farmers groups and livestock production groups. One issue explored during the qualitative interactions with respondents relates to men allowing their wives to take part in social organisations and taking leadership in them. About half of the male respondents said they will allow their wives to hold an office in a group in which they are a member. Others who responded otherwise stated that allowing their wives to hold an office in such a group would cause disrespect and the wife may no longer be submissive to them. Furthermore, the majority of the female respondents reported that they would not like to be a member of the same group with their husband. They pointed out that their husband will not allow them to participate fully in the deliberations of the association like their mate. And that it may lead to power tussle between the man and wife in the house. Some other female respondents said they will be in the same group only if the husband permit them to do so. However, the situation is gradually changing in the surveyed communities as reflected in the findings of the quantitative surveys in which it was found that the participation of both male and female respondents is still low. In Bauchi State, just about 25 percent and 28 percent of the male and female respondents respectively reported that they are members of trade and business associations in their communities. In Gombe State, while about 37 percent of male respondents are members of trade and business associations only about 23 percent of the female respondents reported that they are members of the existing trade and business associations. The vast majority of male and female respondents in the study areas of Bauchi and Gombe States reported that lack of interest is the major reason for not being a member of trade and business associations in their communities. It shows the need to carry out advocacy activities to promote their interest in the membership of these associations particularly the women.

Implications for Policy and Interventions

Some of the implications of the findings from the surveys for policy, development programmes and interventions are as follows:

(i) Towards policies on women empowerment: (1) A key policy issue in the Nigerian Sahel region relates to the need to appreciate the fact that farming and pastoralist communities are conservators of their environment. Policies that revoke pastoralist rights to access and use natural resources without free, prior and informed consent and compensation should be reviewed. Going forward, more attention is needed on issues relating to land rights and natural resource management. (2) There is no doubt that socioeconomic grievances are at the core of many of Nigeria's conflict risks and constitute an important link between climate change and violence. Economic and socioeconomic programming, therefore, can play a crucial role in mitigating the impact of climate change on conflict risks. Pastoral development must be an integrated package that focuses on generating employment, increasing productivity, and reducing pastoralists' vulnerability. (3) Policymakers at the federal, state and local levels in Nigeria have much to do in terms of the providing the enabling environment through the implementation of the relevant legislations on protecting girls and women from multiple forms of discrimination and violence, and by expanding their rights in marriage. This effort begins by enforcing current national laws that already prohibit all forms of female genital cutting, that outlaw forced marriages, and prohibit marriage before the age of eighteen years. (4) Policies and programmes are needed on the reduction of time spent by women in unpaid works through the provision of time saving investment and infrastructure such as electricity, pipe borne water among others. It is possible to tackle the inequitable burden of unpaid care work by reducing or redistributing it. Relieving women of some of the burdens of domestic work would allow them to engage more fully in the life of their communities. (5) Women and men pastoralists have great knowledge of livestock and production, particularly in the areas where they have direct contact with the animals, such as milking, or tending young or sick livestock, which are more likely to be kept near the homestead. This knowledge should form the basis for decisions about livestock development, and women should play a central role in decision-making processes.

(ii) Proposals by respondents in Sahel communities for women empowerment: The respondents in the various communities suggested the following actions: (i) Advocacy on need for men/boys to share domestic activities with women/girls (ii) Women should have access to loans for their economic activities. (iii) Advocacy to address longstanding inequalities experienced by women in our communities. (iv) Women in our communities are into farming and pastoralism without any major support from policymakers at the national and local levels. (v) There is critical need to address the inequalities experienced by women in our communities. In addressing this there is need for awareness campaign through traditional and religious leaders. (vi) Traditional rulers should be actively involved in discussions of promoting gender equality and women empowerment in their communities. (vii) The perception and stigmatization to women that engage in some business activities should be wiped out in the community. More awareness and enlightenment should be done. (viii) The media and other means of communications should be used to create awareness on the needs to empower women in our communities. (ix) More women in our communities should be engaged as pastoralists than they are at present in order to enhance their wellbeing and development. Engaging them into farming or as pastoralist will enable them to generate their own income and assist the men in taking care of the family. (x) Social norms shouldn't prevent women from having their rights. Community leaders with the government should work on engaging women in building productive assets like land, finance and infrastructural services that will enhance their empowerment. (xi) There is a need for improved portable water provision, health care facilities, schools, good access roads and electricity. (xii) There is urgent need for the provision of adequate security by government and community leadership so that women can move freely in their communities. (xiii) Female respondents and participants specifically advocated for enlightenment and sensitization campaign for women groups and men groups on harmful

traditional practices and the need to increase women access to farmland and livelihood activities

(iii) Key principles and issues on interventions on women empowerment: The number of NGOs that address development in the Sahel region of Nigeria has increased dramatically in the last decade. These organizations are contributing to the debate on women's role in rural and pastoralist development in the region, which in the past tended to overlook the roles of women within the pastoralist economy. Against the background of the findings of the study a number of issues which must be taken into consideration in the conception and implementation of interventions on women empowerment in the Sahel region are outlined. (1) Women can be empowered through the community-based associations to exercise their rights over key household and community assets. Negative attitudes towards girls' education must be advocated against and the value that an educated girl has needs to be exemplified. (2). The dynamics and function of livestock ownership and access (actual, usufruct and nominal) for various household members need to be fully understood to ensure that women's rights are not undermined or overridden. (3). The processing and marketing of livestock products offer women a suitable vehicle for increasing their economic and social empowerment and are often regarded as culturally acceptable occupations for women. (6). Avoid assumptions about women's roles within pastoral societies, which can vary widely. Invest time and effort in effective strategies for hearing from women themselves, working round their workloads and social constraints. (7). Consider partnering with NGOs, especially ones that are organized by pastoral women. Partnerships can include support in project management or documentation practices. (8). Engage and involve men as much as possible in all stages, as their approval is often essential to project success. Employ culturally acceptable ways of seeking inputs from women, directly or indirectly. (9). Promote women's income generation activities by providing training, appropriate technology, credit and access to networks through locally managed credit schemes, and support for running small businesses, including understanding of value chains and access to markets. Ensure that credit schemes are accessible to women, do not expose them to increased risk, and include management of any inevitable risks. (10) Identify and address issues of unequal access to land and land tenure, as this is fundamental to supporting pastoral women's empowerment. (11). Women specifically need access to modern methods of farming. They also need support in getting farm inputs (e. g. fertilizers herbicides etc.). (12). Traditional rulers should be actively involved in discussions of promoting gender equality and women empowerment in their communities.

(iv) Immediate priorities of interventions on women empowerment: Based on the findings, the policy issues raised, the recommendations of the respondents on changes that they want implemented in their localities and the key principles outlined to guide interventions in the communities of the Sahel region of Nigeria, the following priority interventions are proposed which in consultation with the various stakeholders will guide CPED's selection of interventions to be implemented. (i) Awareness raising on harmful gender norms and practices in the community, (ii) Providing support to grassroots gender and women's organisations, (iii) Support for the establishment of locally accessible adult literacy programmes for women, (iv) Improve rural access to quality primary and secondary education (v) Support to Village Savings and Loan Schemes, (vi) Provide capacity building and extension services to women's groups, (vii) Support for the provision of basic infrastructure - rural roads, water, sanitation and electricity), (viii) Support for the provision of alternative sources of energy and transport (ix) Support for non-agricultural economic activities, (x) Support girls' education by implementing interventions that reduce early marriages and pregnancies amongst girls and providing incentives which will allow them to complete their education (xi) Sensitization of communities and gatekeepers on dangers of early marriages (xii) Support for the enforcement of laws around marriages, trafficking in children, child labour and others.

Main Report

Chapter 1

General Background

Research Problem

The Sahel region of Africa has been identified as particularly vulnerable to both social and ecological impacts of climate change. One of the recent Intergovernmental Panel on Climate Change (IPCC) Reports identified the region as a “climate change hot spot” that is, countries where human security is threatened due to projected climate change impacts (IPCC, 2019: 197; Deffenbaugh and Giorgi, 2012, de Sherbinin, 2014, McOmber, 2020). There is a large volume of literature on the Sahel region relating largely to the environment, food insecurity and conflict challenges following the catastrophic Sahelian drought of 1972/73. Pastoralism and mixed farming production, largely managed by pastoral communities in Nigeria’s Sahel region is an important part of Nigeria’s economy, with about 13 million families owning livestock and farmlands. Pastoralists are known to make use of scarce vegetation and water resources available in hostile and marginal arid and semi-arid lands, to produce meat, milk and other animal products. Within pastoralist and crop farming systems, livestock play an important role in supporting women and in improving their financial situation (African Union 2013, 2014).

Women in the Sahel overwhelmingly rely on the agricultural and food economies, with women contributing to 40% of agricultural production, 80% of agricultural processing, and 70% of agricultural distribution labour regionally (Allen et al., 2018, McOmber, 2020). Additional responsibilities in the pastoral economy such as maintenance of kitchen gardens, homebuilding, cooking, cleaning, and washing require natural resources like timber and water are also often resigned to women. As such, dependence on the availability of natural resources is especially evident in women’s daily livelihood and household responsibilities (Dankelman and Jansen, 2010, McOmber, 2020). When climate variability makes these scarce, it can affect the assets (such as time, security, and money) required for women to perform these tasks. Insufficient water sources can require women and girls to travel farther to collect water. Travelling farther for water puts women and young girls at risk for violence, and the social repercussions resulting from sexual assault (Sorenson et al., 2011, McOmber, 2020). This extra work also requires time that detracts from the time that women would otherwise spend on productive activities, sometimes decreasing agricultural productivity, household food security, and overall household income (Dankelman and Jansen, 2010). This problem is termed ‘time poverty’ and highlights the ways women experience less free time available than men as they are often involved in very time-consuming non-remunerated household work on top of outside work to supplement their household income. To compensate for this time allocation problem with regards to water collection, some households require girl children to take the responsibility of collecting water, requiring them to leave school and instead contribute to household reproductive labour, which only further serves to entrench components of social inequity among the next generation (Dankelman and Jansen, 2010).

A key natural resource that pastoral women rely upon for their livelihoods is land. Agricultural production, feeding livestock and building homes depend essentially upon land, fodder and timber availability. While women are dependent upon these natural resources for survival, they often do not have equitable ownership rights (FAO, 2011; Fletschner and Kenney, 2011). Instead, they depend on male household members as intermediaries in gaining access to these resources. This greatly reduces the likelihood that women will be able to negotiate or even participate in household decisions regarding agriculture and strategies for resilience. Land also serves as a form of financial capital, defined as the financial means, the tools and the inputs that can be put into labour respectively (Meinzen-Dick et al., 2014). Because men overwhelmingly hold ownership of the land and livestock, women are rarely in a position to negotiate on household decisions to adopt new tools and technologies in order to build resilient

livelihoods (McOmber, 2020). Climate variability has meant that agricultural and pastoral households have had to adapt. In some cases, this means changing crops or primary livestock sources and breeds. In other cases, this has meant diversifying livelihood strategies altogether. Male out-migration is a common adaptive strategy that has allowed households to build livelihoods around alternative sources in urban areas. When this male migration occurs, women tend to maintain subsistence agriculture within the household.

With women remaining in the village, many become *de facto* heads of household and are left with the responsibility of ensuring agricultural activities continue (McKune et al., 2015). Thus, while women may be taking on more of the agricultural responsibilities within the household, they may not necessarily connect to the critical resources. Without the resources and networks to make informed decisions about growing crops in a changing climate, women are less equipped than their male counterparts to adequately plan for a climate resilient future. Although women are working in agriculture and pastoralist livelihoods, it is not necessarily true that they are making decisions about how the household allocates resources. Even when women are contributing to household incomes, it does not necessarily mean that they are retaining ownership of that income or control over how that income is used (McOmber, 2020). Policies directed at pastoral development often emphasize technical and security issues but overlook crucial social and political measures which could empower women to manage their resources better for their own benefit. It is against this background that development institutions and policy makers have turned their focus to improving gender equity as a central intervention point towards building climate resilience (Cole et al, 2015). The goal of this approach is to implement policy that does not merely treat the symptoms of gender inequality but instead focuses on challenging those structures that reinforce exclusion at their root.

Studies focusing on pastoralism/agriculture and the position of women are quite limited. First, in most available studies primary data were rarely collected with the result that disaggregated data (broken down by gender, age, ethnic background, or any other variable that is relevant in the social context) which are essential for the articulation of effective interventions. Second, most of the studies were carried out by International Development partners largely for their use with the limited circulation of such research, especially to policy makers and other users. Third, Nigerian researchers have not been able to undertake any large-scale action research on pastoralism and gender in Sahel because of lack of funding as Nigerian governments rarely fund research. Most Nigerian researchers focus on small scale research, the results of which are also not accessible to policymakers. Fourth, less attention has been paid to implementation research entailing the production of evidence on the best ways to support vulnerable groups particularly women in pastoral communities. Finally, the failure to conduct implementation research has led to the lack of participation of key stakeholders in pastoral communities in the research conducted. Indeed, the voices of vulnerable groups particularly women, youth and policy makers are not heard in the research results and recommendations.

Given that gender inequalities characterise pastoral and farming systems in the Sahel region, actions are required to eliminate barriers to women's access to resources; engage men/boys to change gender relations and cultural norms that perpetuate gender inequalities. Action-oriented research is needed to understand the enabling environment and interventions that are required to support women into secure, decent livelihoods. Action research is also needed to identify barriers and find effective women empowerment strategies that focus on changing the prevailing norms that promotes perpetual gender inequality in pastoral communities. The use of research in framing effective policy strategies requires close involvement of the policymakers and women at every stage of the process. It is in this context that the present study focused on the improvement of the status of women in pastoral communities in Nigeria's Sahel region entailing knowledge generation, proposing and testing innovative women empowerment approaches, and promoting knowledge mobilisation and scaling up of tested interventions.

The Research Questions

Three groups of research questions that guided the project are:

(1) What is the context specific patterns and challenges which impact on women and girls' lives and inequality with men/boys in the Sahel region of Nigeria? This overarching question gives rise to the following sub-questions: What are the economic and socio-cultural barriers challenging women and girls in pastoral societies? What are the shocks associated with conflict, climate change and the covid-19 pandemic that are currently affecting women/girls' livelihoods in agro-pastoral communities? How has migration as a livelihood strategy affected women/girls compared with men/boys? What are the patterns of women/girls' access to basic services such as education and health in pastoral communities? What is the intersectional nature of gender inequality and its root causes (drivers)? What are the priorities and aspirations of women/girls in the pastoral communities? What has been the response of state (Federal, state and local governments), non-state actors (households, communities, NGOs, private sector, etc.) and donors to ameliorating the situation?

(2) How can pastoral women/girls and other marginalised groups in agro-pastoral/pastoral communities be engaged and empowered to become key agents of change with respect to contributing to knowledge generation (participatory research) on characteristics and root causes of gender inequality, identifying potential strategies for promoting gender equality and interacting with policymakers and non-state actors on implementing their identified priority needs? Which women empowerment initiatives including increased crop/livestock diversity, adoption of improved production practices, alternative livelihood skills and use of social services such as education and health can be implemented to further enhance their economic empowerment?

(3) How can policymakers and other key stakeholders (private sector, civil society, and local communities, donors) in the Sahel region of Nigeria be engaged and empowered through knowledge mobilisation to play major roles in identifying, adapting and scaling innovative and context-based policies and programmes on improving the lives of women/girls and promoting gender equality in Nigeria's Sahel region?

Objectives

General Objective: 'To contribute to socially equitable agro-pastoral/pastoral development and gender equality in Nigeria's Sahel region'.

Specific Objectives: The project has four specific objectives organized into four work packages: knowledge generation (research) (Objectives 1), interventions in pilot communities to promote gender equality and empowerment of women (Objective 2) capacity building and knowledge mobilisation (Objective 3) and knowledge dissemination (Objective 4) as follows:

1. To generate robust policy-relevant evidence on women and girls' lives in the context of economic, political and environmental changes in Nigeria's Sahel region and their impact on women's inequality status, the root causes of the inequality and the needed women empowerment strategies.
2. To improve the status of women/girls in farming and pastoral activities in Nigeria's Sahel region through the empowerment of women so that they can become agents of change with respect to promoting gender equality using the results of the project.
3. To promote the integration of context-specific innovative strategies on agro-pastoral women's empowerment and gender equality into public policies and programmes through proactive engagement and knowledge mobilisation with policymakers and other key stakeholders.

4. To communicate and disseminate the project results to key stakeholders and the general public within Nigeria and in other countries in West Africa's Sahel in order to facilitate the understanding and enhanced capacity for promoting women empowerment activities.

Outline of the Report

This research report responds to the first objective of the project that is knowledge generation. The remaining part of this report is organised into nine chapters as follows. Chapter 2, which focuses on the study's methodology, summarises the conceptual framework and the various modes of data collection and analysis. Chapter 3 synthesises the key literature on pastoralism and development in Nigeria's Sahel region by reviewing the various policies put in place to promote development in the region as well as examining the various development programmes implemented and the success achieved by them. Chapter 4, which is the first in the series of chapters presenting the empirical findings of the research, focuses on the demographic and social and housing characteristics of the sampled population in Bauchi and Gombe States. Chapter 5 presents the findings on economic productive characteristics of the sampled population with respect to farming, livestock production and migration characteristics as well as the impact of climate change and covid-19 on their economic activities. Chapter 6 presents mainly the results of the qualitative surveys focusing on gender equality attitudes, patterns and outcomes. Chapters 7 and 8 focus on the examination of the comparative role of women in relation to their male counterparts with respect to agricultural production and control over income, time use, freedom of association and leadership roles in their communities. Chapter 9 outlines the policy and intervention implications of the research findings for the empowerment of women in Nigeria's Sahel region while Chapter 10 concludes the report by relating the findings to the conceptual framework.

Chapter 2

Conceptual Framework and Methodology

The Conceptual Framework

Three concepts underline the project's implementation with two focusing on the research component and the third on the interventions. The first concept is that of intersectionality. Feminist theories often focus on understanding the peculiar problems women face in relation to men because of an unequal access to the socio-political and economic necessities in life. Gender and development theories have been developed for the attainment of international development goals. It is within this context that the concept of intersectionality was articulated. The Intersectionality concept first introduced by Kimberle Crenshaw as a means of explaining the unique experiences of discrimination faced by black women. Crenshaw explained "If an accident happens in an intersection, it can be caused by cars traveling from any number of directions and, sometimes, from all of them. Similarly, if a Black woman is harmed because she is in the intersection, her injury could result from sex discrimination or race discrimination." (Crenshaw, 1989: 149). Drawing on these unique experiences, Crenshaw further defined the term in the context of anti-discrimination laws, which she felt insufficiently addressed the experiences of black women who faced discrimination and exclusion in a variety of contexts. At the time, she argued, existing laws only accounted for gender and race, not the ways that the experiences of black women are compounded by sexism and racism. Instead, Crenshaw said, oppression should not be analyzed separately but rather as interdependent, and "intersectionality" was born as the idea that individuals experience oppression differently based on where they stand across social markers. It highlights how discrimination and exclusion are not simple and can't be solved by focusing on a single issue. Instead, it can help us understand how the experience of poverty is gendered and racialized and how it differs within different social contexts. This approach is crucial in understanding the inequalities different groups face — and by extension, how to overcome them by considering the complexity of the identities and patterns of oppression that individuals face within a given society.

Intersectionality is a critical framework that provides us with the mindset and language for examining interconnections and interdependencies between social categories and systems. Intersectionality is relevant for researchers and for practitioners because it enhances analytical sophistication and offers theoretical explanations of the ways in which heterogeneous members of specific groups (such as women) might experience the workplace differently depending on their ethnicity, sexual orientation, place of residence, and/or class and other social locations. Sensitivity to such differences enhances insight into issues of social justice and inequality in organizations and other institutions, thus maximizing the chance of social change. Intersectional feminism shows how patriarchy and gender inequality shape the work women and girls do and how they should be compensated (Raghuram, 2019). Change in women and girls' subordinate position requires community empowerment, "a social-action process that promotes participation of people, organizations, and communities towards the goal of increased individual and community control, political efficacy, improved quality of community life and social justice" (Wallerstein, 1992) and capacity building aimed at improving the well-being of the people in the case of this project rural women and girls (Wallerstein, 1992).

For example, the United Nations' Global Goals operate as a framework for the elimination of extreme poverty by 2030 but achieving them requires paying particular attention to how certain groups are disproportionately affected by inequity due to an underlying set of social factors. Failing to look at them from a multitude of perspectives could jeopardize the achievement of

the Global Goals and perpetuate inequalities in a vicious cycle of poverty. Child marriage is an example of how gender, age, and health intersect with poverty. Young girls are particularly vulnerable to the practice of forced marriage, with an estimated 40% of young women in developing countries married before the age of 18, posing a serious threat to their full economic participation and access to reproductive health care. Poverty is a complex problem, and while the Global Goals are a step in the right direction toward its eradication, it cannot be eliminated through the siloed approaches of single-issue activism. It will take an intersectional approach — understanding how social factors such as place of residence, gender, race, and others come together to affect people's quality of life — to move us forward. For instance, inequalities within the category “woman” will not become visible unless we move away from the single-axis dichotomy men/women to include further dimensions such as race, religion, sexual orientation, socio-economic status, place of residence and gender identity.

The present study addresses gender disparities in rural farming and pastoral communities and women empowerment challenges, which are products of intersecting social determinants including social norms, access to economic and social resources, encounters with gender-based discrimination, and the concepts of equity and inclusion (Marmot et al., 2008). It is in this context that the concept of intersectionality is a useful framework for the analysis of the nature of gender inequality in rural pastoral communities in the Sahel region of Nigeria particularly from the qualitative analysis perspective.

The second is the concept of empowerment with respect to women in agriculture and livestock production. A common definition of empowerment derives from the work of Sen (1990) and Kabeer (1999), who see empowerment as a process of enhancing individuals' capacity for self-determination, that is, their capability of living the lives that they have a reason to value. Other definitions focus on empowerment as an individual process of self-awareness and development (Eyben and Napier-Moore 2009); as a relational change in power dynamics (Drydyk 2013); and as changes in power structures (Kilby 2006). The development of the *Women's Empowerment in Agriculture Index* (WEAI) (Alkire et al., 2013) and the *Women's Empowerment in Livestock Index* (WELI) (Price et al., 2018) are examples of tools currently being used to identify ways in which women's empowerment can be improved through gender equity in agricultural and pastoralist economic activities. These tools also seek to account for women's productive and reproductive contributions to household livelihoods.

The Women's Empowerment in Agriculture Index (WEAI) is the first comprehensive measure of women's empowerment and inclusion in the agricultural sector. WEAI is an innovative tool composed of two sub-indices. The first assesses the degree to which respondents are empowered in five domains of empowerment (5DE) in agriculture. It reflects the percentage of women and men who are empowered and, among those who are not, the percentage of domains in which they enjoy adequate achievements. These domains are: **(i)** Decisions about agricultural production; **(ii)** Access to and decision-making power about productive resources; **(iii)** Control of use of income; **(iv)** Leadership in the community; and **(v)** Time allocation. Ten composite indicators are used to construct the 5DE. The second sub-index, the *Gender Parity Index* (GPI), measures gender parity. The GPI reflects the percentage of women who are empowered or whose achievements are at least as high as the men in their households. For those households that have not achieved gender parity, the GPI shows the empowerment gap that needs to be closed for women to reach the same level of empowerment as men in their households. WEAI was later revised to modify questions that were difficult to implement in the field, while maintaining cross-cultural applicability. A shorter, streamlined version of the WEAI, known as the Abbreviated WEAI (A-WEAI) was created. The A-WEAI is comparable to the original WEAI, subject to recalculation of baseline estimates restricted to the six indicators. Despite its reliability in certain agricultural contexts, the WEAI requires adaptation in settings where livestock farming is the dominant form of livelihood.

Using the WEAI as a starting point, a new index to assess the empowerment of women in the livestock sector known as the Women's Empowerment in Livestock Index (WELI) was developed. WELI dimensions of empowerment includes: (1) decisions about agricultural production; (2) decisions related to nutrition; (3) access to and control over resources; (4) control and use of income; (5) access to and control of opportunities; and (6) workload and control over own time. The two models guided the knowledge generation component of the project as diagnostic tools to identify women in need of support. Questions from the two indexes are adapted into the project's questionnaires to help assess its cross-cultural validity and triangulate against other qualitative assessments of gender inequality and empowerment.

Following the outcomes of the research guided by the concept of intersectionality and rural women empowerment measures i.e., WEAI and WELI, the project's *Theory of Change* is guiding the interventions which will constitute a separate report when interventions are completed. The use of the *Theory of Change* as a guide to the implementation of interventions will be presented as part of the analysis of the outcome of the interventions.

The Study Area

There is no internationally accepted definition of the 'Sahel' or the 'Sahel-Saharan' region. Each organizational actor defines the region differently according to its own needs, interests and perceptions. Broadly the Sahel region is understood, both in specialised literature and in practice as meaning the area comprising the great desert plains of the Sahara to the Atlantic Ocean and the Red Sea. The Sahel region lies at the southern edge of the Sahara Desert and is located between the dry desert land to the north and the forest areas to the south. The Sahel has a tropical semi-arid climate. The temperature is high throughout the year. There is little rainfall in the Sahel (between 100-150 mm and 600mm). It has been suggested that human-caused climate change, as well as natural climate cycles, caused the desert's expansion. The Sahel is a relatively fertile region, which makes it much more inhabitable than the Sahara Desert to the north. The Sahel is endowed with great potential for renewable energy and sits atop some of the largest aquifers on the African continent. Potentially one of the richest regions in the world with abundant human, cultural and natural resources. Despite this, the Sahel is one of the world's poorest, least developed and most food insecure regions, with the fastest growing population (FAO, 2019).

The Sahel region faces immense challenges. Land degradation is characterized by soil degradation and is a major environmental issue affecting the region, with negative consequences for agriculture. The region's underdevelopment has also been a driver of spiralling irregular migration, transnational organised crime and trafficking, internal conflicts, religious extremism and other terrorist-linked security threats. All these challenges pose serious problems, and not only to local populations in the Sahel region but spillover effects have consequences for neighbouring countries, such as those in North Africa, and increasingly, on the interests of the European Union. It is widely acknowledged that insecurity and conflict hinder social and economic development in the region. Therefore, improving the security situation is an important priority in the short term. However, in the longer term, many believe that an approach that fosters development will also be beneficial for security, even if the precise pathway remains unclear. Part of the difficulty in fostering development is that state authority is often weak and institutions fragile, and the Sahel region stretches across a vast and sparsely populated area. Clearly, the cross-border challenges experienced by Sahel countries defy simple solutions.

It is important to recognize the extreme political and social complexity that exists across the Sahel region. Politics and society are highly fragmented and are shaped by the conflicting interests of ethnic groups, clan or caste sub-groups, smuggling and criminal mafia, semi-official ethnic militia, separatists and Islamists. Political regimes tend to be hybrids ranging from semi-democracy to semi-autocracy and virtually all Sahel countries have experienced

civil uprisings or coups over the last decade. Large stocks of weapons have also entered the Sahel from West Africa, following the Second Ivorian Civil War in 2010-2011. A further driver of instability has been the establishment of stronger and better-performing drug trafficking networks, smuggling drugs from South America to Europe via West Africa. Aside from security related challenges, Lambin et al. (2014) point to a list of social, economic, environmental, and political transformations currently happening in the region. These include rapid urbanization; migration of young men leading to reduced labour availability in rural areas; increased food imports with fluctuating prices; introduction of new crop varieties, cattle breeds, and farming technologies; and increased commodification of agricultural production for urban and international export. Changes are also observed in property right regimes with land privatisation and the emergence of land markets; encroachment of large holders in areas traditionally dominated by communal land ownership; changing donor policies and priorities, and some large investments in external infrastructure projects including dams, oil pipelines, mines, irrigation schemes and power grids.

Pastoralism is one of the dominant economies of the Sahel and is by far the main economy on the fringes of the Sahara, a zone of which recently some areas have become unstable. It is estimated that about 50 million people rely on pastoralism for their livelihoods in the Sahel. Pastoralism provides affordable, high-quality proteins and nutrients to meet local demand and can help reduce a country's reliance on imports. And because herders travel with their livestock and work knowledgeably with nature to access water and forage, production inputs are low relative to outputs. Pastoralists have been classified in the past according to their production system, in line with their patterns of mobility and involvement of crop farming, but the boundaries between these groups have become vague, as former pure pastoralists are taking up farming and crop farmers take up livestock production. Sustainable pastoralism, which is centred on organized herd movements, contributes to food and water security, supports resilient livelihoods and national economies, and provides environmental services including carbon sequestration, biodiversity conservation, and protection of land and ecosystems. The mobile lifestyle has made it possible for them to avoid the centralization of cultural and social life following colonization and maintain their own cultural identity. It has led also to a strong hierarchical structure marked by very specific cultural identities and reluctance to deal with the overwhelming powers of the state authority. In recent years, researchers, development organisations, policymakers, and practitioners in the Sahel region have concluded that the development of pastoral economies and livelihoods is indeed an important contributing element to stabilization in the Sahel, and to acquire the cooperation of the pastoral population in the control of illicit and extremist activities.

Nigeria's Sahel region which is the main focus of this study covers the extreme northern parts of the northwest and northeast parts of the country. Most parts of Sokoto, Katsina, Kano, Jigawa and Zamfara states in the northwest are in the Sahel region while most parts of Yobe, Borno, Adamawa, Bauchi and Gombe in the northeast are also in the Sahel region (Fig.2.1). Although secondary data were collected across the Sahel region, Bauchi and Gombe States have been selected for field surveys and interventions largely because the insecurity characterised by Bandits in the northwest and Boko Haram in the extreme northeast are not rampant in them.

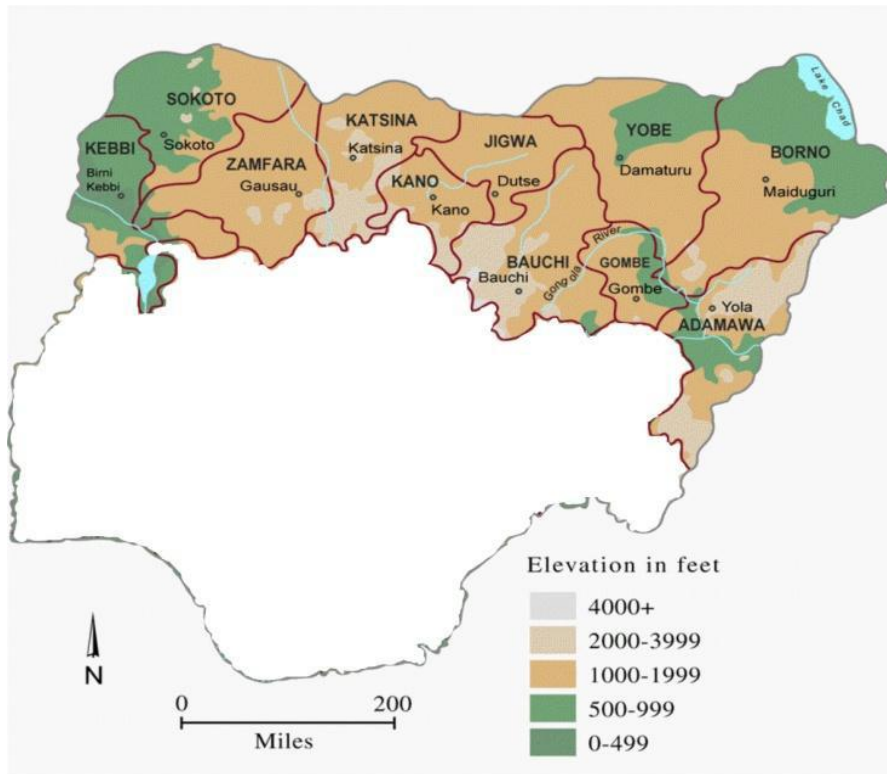


Fig. 2.1: Nigeria's Sahel Region covering most parts of 11 out of the country's 36 states

The Methodology

The research design framework

The design of this study is based on the transformative paradigm which is rooted in the recognition of the fact that injustice and inequality are pervasive and the belief that research is an important tool for addressing these societal ills. As articulated by Donna Mertens (2009, 2010), this paradigm maintains that research can and should play an explicit role in identifying and alleviating discrimination and marginalization based on factors such as race, ethnicity, religion, gender, age, and disability. The transformative paradigm directly engages the researcher in working inclusively with communities and relevant stakeholders to challenge the status quo as a means of ultimately furthering social justice. The mixed methods approach associated with the transformative paradigm combines qualitative and quantitative research methodologies to ensure that the perspectives of those who are disadvantaged and marginalised are considered. One major advantage which the present research derived from transformative paradigm relates to triangulation which enriches and strengthens the research results by the use of different methods of data collection and analysis to examine the gender inequality phenomenon so as to gain a complete understanding of the prevailing patterns.

Development of survey instruments

In view of the generally lack of detailed and relevant data on socio-economic patterns at the local and community levels in Nigeria, especially in the remote farming and pastoral communities, most of the data required to answer Research Question 1 and respond to Research Objective 1 were collected from the field entailing the administration of: (a) household questionnaires (quantitative data collection) and (b) the collection of qualitative data. Questionnaires were developed for household surveys and for qualitative data collection.

Ethical considerations

The ethical clearance approval needed for the project was obtained from the University of Benin College of Medicine Research Ethics Committee before the administration of the developed survey instruments. The key ethical considerations apart from the ethical clearance include: (i) *Individual Consent*: At the start of all interviews, respondents who were scientifically selected through sampling, were informed of the purpose and nature of the study through an information and consent form. Respondents were asked to sign a consent form or provide verbal consent if he/she was not able to write. The respondents were informed that the information collected will be held in strict confidence and that they were free to terminate the interviews at any point or skip any question that they did not want to answer. (ii) *Voluntary participation*: Participation was on a voluntary basis. Participants were informed that refusal to participate would not result in any negative consequences. (iii) *Confidentiality*: A number of mechanisms were used to protect the confidentiality of the information collected i.e. No names were recorded. Respondents were identified using a unique code; Care was taken during the analysis and presentation of the project findings to ensure that information is sufficiently aggregated so that no one community/individual can be identified. (iv) *Feedback of research results to relevant stakeholders* and respondents was carried out to review the major findings so that they can make their input. (v) *Harmful publicity*: Attention is being paid in the publication of the research reports to ensure that the findings are not used to categorise or stigmatise some parts of Nigeria's Sahel region as 'worse' than others. (vi) *Respect for the Open Access Policy for IDRC funded project outputs*: CPED's Research Ethics and Communications Policy are in line with the *Open Access Policy for IDRC funded project outputs* and this is being applied accordingly in the project.

Sampling Techniques for household questionnaire administration

There are no reliable and up-to-date household listings in different parts of Nigeria, particularly in the rural communities. Therefore, the principle of disproportionate sampling was used in selecting respondents that were interviewed. A sample size of 300 households per Local Government Area (LGA) has been calculated based on the following assumptions: (a) expect at least 70% of households are involved in pastoralism and agriculture; (b) 5% confidence limits; (c) 95% confidence level; and (d) analysis of data was done at the LGA level and later aggregated to state level in the tabulation of results. The overall sample size for analysis in the two target states was 3,000 households (300 per LGA x 10 LGAs). The sample size for each category of survey participant was proportionally distributed across all the demarcated socio-economic and political wards in a target LGA based on the size of each ward which was further demarcated into blocks of 10 housing units to ensure that people in all parts of the ward had an equal chance of being included in the sample. On average, there are six people per household in Nigeria and about 10,000 people per ward. Therefore, each ward had 150-200 blocks. All the blocks were listed and the number of blocks equivalent to the number of survey participants assigned to the ward were randomly selected using the random number function in Microsoft Excel. In each selected block, one household was randomly selected. In each randomly selected household, one adult male or females was interviewed.

Results of the surveys

The results of the quantitative and qualitative surveys are summarised as follows.

(i) Household Questionnaire Surveys

A total of 3,041 males and females responded to household questionnaires in the two target states (Gombe and Bauchi States) as indicated in Table 2.1:

Table 2.1
Overview of Data of Household Data Collected

States	N	%
Bauchi State	1516	49.9
Gombe	1525	50.1
Total	3,041	100.0

Considerable success was achieved in terms of the participation of females respondents to the questionnaires as indicated in Table 2.2. It shows that females constituted about 75 percent of the respondents which is in line with objectives of the survey in which the majority of the females are expected to respond to the questions. We believe that the employment of more females as field survey staff contributed to this success. Table 2.3 further shows that the degree of the participation of females is consistent across the two states and the local government areas covered by the survey. The active participation of females in the survey in the absence of the males during the interviews is valuable so that the females can report on the true position of gender inequality in the pastoral communities and their voices heard.

Table 2.2
Percentage of Respondents' Participation by Sex in the Project States

States	Male		Female		Total	
	N	%	N	%	N	%
Bauchi State	377	24.9	1139	75.1	1516	100
Gombe	374	24.5	1151	75.5	1525	100
Total	751	24.7	2290	75.3	3041	100

Table 2.3
Percentage of Respondents' Participation by Sex in the Project LGAs

Local Government Areas	Male		Female		Total	
	N	%	N	%	N	%
Bauchi State (N=1516)						
Dass	128	25.3	378	74.7	506	100
Kirfi	126	24.9	381	75.1	507	100
Tafawa Balewa	123	24.5	380	75.5	503	100
Gombe State (N=1525)						
Akko	124	24.2	388	75.8	512	100
Billiri	126	25.0	377	75.0	503	100
Kaltungo	124	24.3	386	75.7	510	100
Total	751	24.7	2290	75.3	3041	100

(ii) Key Informant Interviews

A total of 37 key informants, comprising 57 percent females and 43 percent males were interviewed across 6 local government areas (LGAs) where the household questionnaires designed for the project were administered as shown in Table 2.4. Again, females were active participants in the key informant interviews.

Table 2.4
Percentage distribution of Key Informant Respondents by Sex

Sex	Count	%
Female	21	57
Male	16	43
Grand Total	37	100

The selection of key informant interview participants paid attention to age grades (Table 2.5). Majority of those interviewed were between the ages of 40 – 59 years accounting for 51 per cent of the total respondents followed by those who were 60 years in age and older. And those married accounted for 84 percent as shown in Figure 2.2.

Table 2.5:
Percentage distribution of Key Informant Respondents by age

Age (Years)	Count	%
20-39	7	19
40-59	19	51
60 and above	11	30
Grand Total	37	100

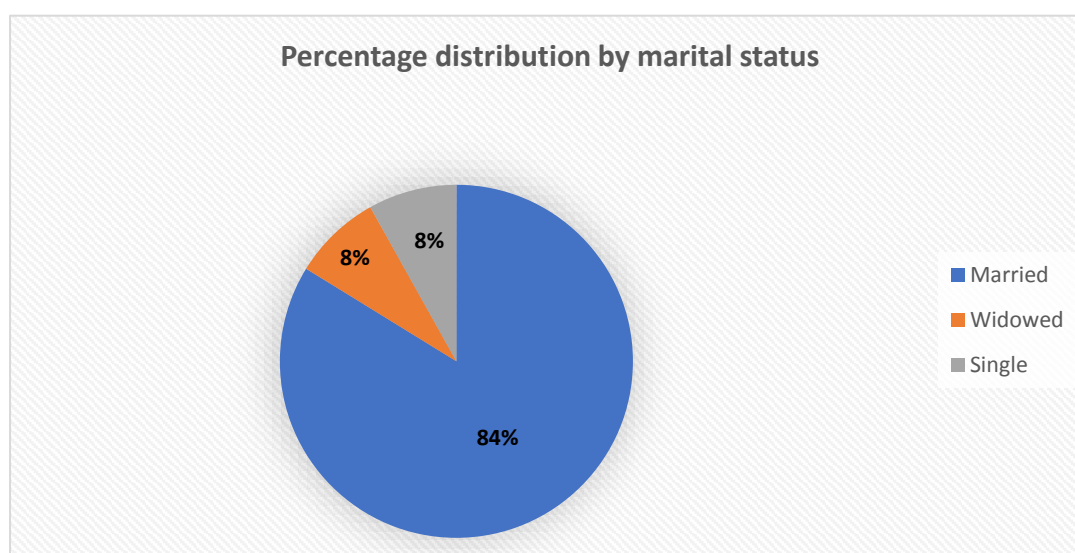


Fig. 2.2: Pie Chart showing percentage distribution of marital status of the respondents

Amongst those targeted for the key informant interview were those knowledgeable about the issues and challenges pastoral women and girls face in rural communities of Gombe and Bauchi States as well those who are engaged in pastoralism and agriculture in the Sahel region. Majority of those interviewed (over 70 percent) have attended primary, secondary or tertiary education which indicates that the respondents have the ability to comprehend the questions that were asked to be able to provide adequate information on the subject being discussed.

(iii) Focus Group Discussion (FGD)

A total of 12 FGDs were conducted comprising female only groups and male only groups in each target LGA. Participants selected for the FGD were people of similar background or experiences and have lived in any of the target communities for more than 3 years. Each group whether male only or female only groups was made up of between 10 to 13 participants.

The information gathered include opinions, beliefs, practices and attitudes of a group of people on women and girls' lives in the context of economic, political and environmental changes in their communities and their impact on women's inequality status, the root causes of the inequality and the needed women empowerment strategies.

(iv) Life History Interview

A total of 24 Life History Interviews were conducted in 6 local government areas in both project states (Gombe and Bauchi States). Those interviewed include one adult male and one adult female of age 60 years and older as well as one adolescent male and one adolescent female of age 18 to 24 years in each target LGA.

Specifically, as shown in Figure 2.3, the adult participants of the life history survey in Gombe State were male 65 years in age and the female 63 years in age in Akko LGA, male 60 years in age and female 60 years in age in Billiri LGA, and male 73 years old and female 63 years old in Kaltungo LGA. The adolescent participants in the state were male 24 years old and female 18 years old in Akko LGA, male 24 years old and female 18 years old in Billiri LGA, and male 19 years and female 22 years old in Kaltungo LGA respectively.

In Bauchi State, the adult participants of the life history interview were male 68 years old, female 60 years old in Dass LGA; male 68 years old, female 60 years old in Tafawa Balewa LGA; and male 60 years old, female 60 years old in Kirfi LGA. Subsequently, the Adolescents who participated in the life history interview were male 24 years old, female 24 years old in Dass LGA; male 24 years old, female 20 years old in Tafawa Balewa LGA; and male 19 years old, female 18 years old in Kirfi LGA.

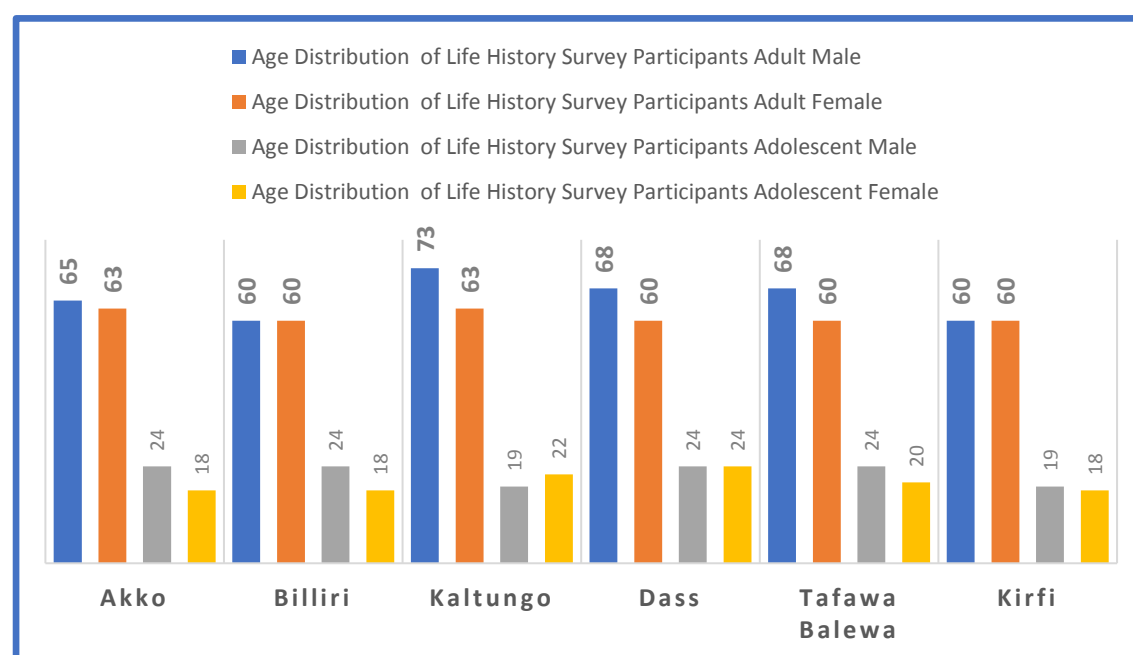


Fig. 2.3: Age Distribution of Life History Survey Participants

Data checking, cleaning and analysis

The reliability of data collected was ensured by an effective data quality control system entailing: (a) *Monitoring of fieldwork* through close and regular supervision by team members in specific localities/communities during the field surveys. (b) *Editing of records* was organised at field data collection points, and (c) CPED office carried out further data processing checks by its data analysts and programmers. Just as data collection was going on, CPED has a

system of checking and cleaning completed questionnaires so that missing and unclear responses could be further checked. The location of all respondents in the survey are in CPED survey system which enabled us to revisit households and communities where data were collected. This was done for all the data collected.

Secondary Data Collection

The existing literature on pastoralism and agriculture in Nigeria's Sahel region with particular reference to the role of women was synthesized entailing secondary data collection from government departments, libraries and various other published sources. Socio-economic data collected include those on policies and programmes implemented by international agencies and national governments as well as those relating to population, income, economic activities, prevailing gender norms and associated gender inequality and their implications for women empowerment amongst others.

Data analysis

Data were collected using KoboToolbox (Kobocollect). After the collected quantitative data were downloaded from server and cleaned, they were exported to Statistical Package for the Social Sciences (SPSS) for analysis. The choice of SPSS over other Statistical Software Packages is informed by its versatility and unlimited access to virtual cell space for large data storage and manipulations coupled with the unparalleled data handling tools available for migration which ensures the accuracy and integrity of migrated data to remain intact in other software environments such as Spread sheets, Databases and Graphical Domains. The data generated has largely been analysed in terms of frequencies, percentages, and central tendencies, as well as grouping the data into class intervals. This first approach to the data analysis is more relevant to policymakers, beneficiaries and other users of the results of the research. They will be able to understand and interpret the outcomes of the study.

The sampling procedure and the questionnaire format allow derivation of inferential statistics, where necessary. In this case, bivariate analyses would be done using Pearson's Chi-Square tests to measure the relationship between key independent variables and dependent variables, of explanatory variables (independent variables) cross-tabulated by state, local governments and communities. This second form of data analysis which is on-going is mainly of interest to other researchers entailing the analysis of the profiles of sampled pastoral communities in Bauchi and Gombe States using inferential statistical tests to isolate and relate key variables of women empowerment.

The first step in the analysis of qualitative data was the *transcription of the interviews and focus group discussions summary* which formed the foundation on which the process of data analysis was built. The second step is *coding* during which codes were assigned to the chunks of qualitative data. The codes were the labels applied to the segments of the transcript that described them followed by their grouping. The final step in the analysis relates to the *process of linking the different categories* so as to develop a logical explanation for the understanding of the patterns. It is at this stage that the Triangulation approach of the methodology was put into effect by linking the findings of the qualitative survey to those of the quantitative survey.

Chapter 3

Literature Synthesis on Pastoralism and Development in Nigeria's Sahel Region

Introduction

Over the last several decades, international organizations and donors, national and sub-national governments, private sector organisations and NGOs have initiated and implemented policies and programmes to improve lives and livelihoods in the Sahel region. Most of these policies and programmes, at least in the context of pastoralism in Nigeria's Sahel region, are not comprehensively documented, especially not through a gender perspective. For example, there has been very limited experience on how pastoral development initiatives can contribute to stability directly, and on how to better provide security to these populations and cooperate with them on security initiatives to combat terrorism, criminality, and other violent activities. This chapter reviews and synthesized some of such policies and programmes and particularly their effect on the women of the Sahel region of Nigeria.

International and Regional Policies on Pastoralism in the Sahel Region

Over the years policies designed to improve pastoralism have been formulated by international and national governments in the Sahel region. The African Union (AU) has launched two initiatives in the region: the Nouakchott Process in 2013, and the AU Strategy for the Sahel Region in 2014, with the objective of encouraging cooperation and better coordination among stakeholders in charge of security in the region (African Union, 2010, 2013, 2014). The AU Strategy for the Sahel region is the first continent-wide policy initiative which aims to secure, protect, and improve the lives, livelihoods, and rights of African pastoralists. It is a platform for mobilizing and coordinating political commitment to pastoral development in Africa and emphasizes the need to fully involve pastoralist women and men in national and regional development processes from which they are supposed to benefit. The AU Policy Framework for Pastoralism in Africa contains guiding and cross-cutting principles with two main objectives, and a set of strategies for each objective (African Union, 2013). The first objective focuses on securing and protecting the lives, livelihoods and rights of pastoral peoples as well as ensuring continent-wide commitment to political, social, and economic development of pastoral communities and pastoral areas. It therefore emphasizes the need to recognize the rights, existing economic contributions, and potential future contributions of pastoralists to development, with related political and policy processes needed to develop appropriate pastoral policies and fully integrate pastoralism into national and regional development programmes and plans (African Union, 2013).

The second objective is designed to reinforce the contribution of pastoral livestock to national, regional, and continent-wide economies. It emphasizes the need to improve the governance of pastoral rangelands and thereby secure access to rangelands for pastoralists. Strategies under this objective include the protection and development of pastoral livestock, risk-based drought management, and support to the marketing of pastoral livestock and livestock products in domestic, regional and international markets. Gender issues and participatory mobilization and continuous engagement of all stakeholders in the pastoral and related sectors at all stages of policy development implementation and review were treated as central elements of these processes (African Union, 2013).

Although the AU effort has been coherent on paper, the level of resources and political commitment is not sufficient to galvanise a process capable of addressing the root causes of regional conflict. It is against this background that West African governments

engaged in various initiatives to develop a regulatory framework for pastoralist transhumance. Most notable among them is the Economic Community of West African States (ECOWAS) Protocol on Transhumance (1998). The Economic Community of West African States (ECOWAS) was formed on 1975 to among other things encourage, foster, and accelerate the economic and social development of the Member States to improve the living standards of their peoples (ECOWAS Treaty, 1975). The recognition of the need for economic integration including free flow of persons, goods and services stimulated the enactment of Protocol on free movement of persons, and the right of residence and establishment in 1979. The first phase of the Protocol guaranteed free entry of citizens from Member states without visa for ninety days and it was ratified by all member states in 1980. The second phase of the protocol, right of residence became effective in July 1986 and all member states ratified it. However, the right of establishment is yet to come into force.

The ECOWAS Transhumance Protocol (1998) and Regulation relating to its implementation (2003) provide a regional framework that recognizes the economic value of transhumance and authorizes cross-border transhumance in respect of certain conditions. For pastoralists from neighbouring West African countries, access to grazing rights in other countries in the ECOWAS zone including Nigeria, are guaranteed by the ECOWAS Transhumance Protocol of 1998 and the ECOWAS Protocol of Free Movement of Goods and Persons in West Africa. To mitigate the conflicts between various interest groups and promote commercial livestock production, grazing reserves and stock routes development and utilisation have been stepped up in recent years. The grazing reserves are to settle transhumant pastoralists and reduce or eliminate crop farmer-pastoralist conflicts (ECOWAS, 2018). The ECOWAS Regulation on the Implementation of the Transhumance Protocol promulgated five years later emphasizes that given the resources presently available to the ECOWAS Member States, traditional pastoral farming systems such as transhumance subsist and contribute to socioeconomic development and the growth of livestock production.” It also expresses the Member States’ desire to induce a gradual evolution of the traditional farming systems towards intensive breeding methods, and to introduce transhumance regulations in the ECOWAS sub-region. In contrast to the Transhumance Protocol of 1998, the Regulation regards pastoralist transhumance not so much as a valuable economic activity than as a relic of the past that will soon be replaced by more intensive forms of animal husbandry (ECOWAS, 2018).

Challenges of implementing the ECOWAS Protocol on Transhumance

The experience of implementing the ECOWAS Transhumance Protocol has been mixed. After two decades, one of its major achievements can be described as the recognition of pastoralism as a legitimate economic activity by both Sahel and Coastal States of the West African region. Furthermore, the commitment of the various countries in the region to the sustenance of the regulatory framework for pastoralist transhumance that seeks a fair balance between the interests of farmers and pastoralists is another important achievement. In effect, the ECOWAS Protocol on Transhumance provides a legal basis to all cross-border movements of pastoralists in the West African region and thus plays a significant role in securing pastoralist livelihoods and supplying the growing urban markets with animal products (UNOWAS STUDY, 2018).

However, many provisions of the Transhumance Protocol have been difficult to put into practice. First, it has been difficult to achieve comprehensive monitoring and coordination of pastoralist movements across the region. Secondly, some provisions of the protocol designed to control pastoralist transhumance such as the requirement of communicating the intended transhumance dates and routes to the authorities of the host country well in advance have also been difficult to implement because they contradict pastoralists’ need for flexibility. Thirdly, the requirement of observing the transhumance dates set by the host countries and using the officially allocated grazing areas only has been difficult to implement. Fourthly, a major challenge has been the dearth of institutions delivering the services that pastoralists

need to comply with the Transhumance Protocol, especially the presence of veterinary services in the border regions that are able to issue the International Transhumance Certificate (ITC) and of properly equipped border posts that are able to inspect the herds in an efficient way (UNOWAS STUDY, 2018). In the fifth place, only a few countries have established National Transhumance Committees that serve as focal points and coordinating mechanisms for in-country and cross-border transhumance (ECOWAS, 2018). In countries where they exist, they are sometimes attached to the Ministry of Interior instead of the Ministry of Agriculture and Livestock, reflecting their role of controlling rather than developing pastoralist transhumance. Finally, limited progress has also been made on preparing a regional inventory of transhumance routes and developing an integrated regional strategy on pastoralist resources involving both Sahel and coastal countries. Indeed, the ECOWAS Protocol on Transhumance is not well known beyond a small group of experts in each country (FAO and ECOWAS, 2018).

However, some positive developments have taken place in a few countries in the region. For example, with respect to the establishment of regional pastoral infrastructure such as demarcated transhumance routes, grazing areas, water points and veterinary services, there are several valuable local initiatives which shows that participatory approaches and inclusive local institutions can help in promoting consensus between farmers and pastoralists on pastoralist resources. It should be noted that most of the tangible infrastructure has been financed by external partners, with the usual potential negative effects on their long-term sustainability. Since 2015, the World Bank has been financing the rehabilitation of pastoral infrastructure in the Sahel States, but unfortunately limited attention has been paid to the coastal States. Another positive development relates to the fact that the Transhumance Protocol provides for the establishment of local and regional coordination and conflict management mechanisms dedicated to cross-border transhumance. Within the framework of this protocol, local communities in several Members States have worked on establishing local and cross-border communication and coordination mechanisms regarding pastoralist transhumance (UNOWAS STUDY, 2018).

Policies on Pastoralism in Nigeria

Nigeria has a long history of articulating policies and legislations on pastoralism at the national and sub-national levels. These legislations reflect a long-standing effort to sedentarize transhumant pastoralists and transform their production systems. First attempts at articulating some policy framework on pastoralism in Nigeria began in 1942 during the period of British colonial rule under the “Fulani Settlement Scheme”, by which pastoralist households were allocated plots in the middle belt region of the country specifically in what is now known as Plateau State. The policy was designed to encourage pastoralists to practice mixed farming. The scheme proved costly and was abandoned in favour of tin mining operations which were more lucrative in the Jos Plateau area at that time (UNOWAS STUDY, 2018).

A World Bank-supported study on Fulani pastoralism in 1954 took up the British Colonial concept of grazing reserves and proposed this to provide the Fulani with secure land tenure for grazing. It was also designed to modernize the livestock sector, away from traditional practices of pastoralist transhumance. Emphasis was placed on the settlement of pastoralists with a view to reducing the phenomenon of farmer-herder conflict. The grazing reserves were to be provided with social and pastoral infrastructure (roads, schools, water resources, veterinary services, markets) and improve the living conditions of farmer pastoralists. When Nigeria became independent in 1960 the government continued the promotion of grazing reserves by enacting the Grazing Reserve Act in 1965. The act empowered the then Ministry of Animal and Forest Resources to acquire, preserve, control, and manage grazing resources. The Act also allowed for the demarcation of stock routes to link the Grazing Reserves with each other. The Grazing Reserve concept became part of the national livestock development strategy and was reflected in various National Development Plans formulated between 1970

and 1985 in Nigeria. The National Agricultural Policy of 1988 specified that at least 10 per cent of Nigeria's land area should be legally acquired for lease to herders. Between 1970 and 1980, the federal and state governments invested about 50 million USD in the establishment of Grazing Reserves. While the individual States were responsible for selecting and acquiring the grazing lands, the National Livestock Development Department was responsible for infrastructure development and the management of the reserves (Federal Republic of Nigeria, 1965, 2016).

Further support for the implementation of the grazing reserves policy during this period was provided by some international development partners mainly the World Bank and USAID that provided financial support for the equipment and operation of selected reserves (USAID, 2017). However, these grazing reserves policy later ran into difficulties and the expected expansion of the areas covered by grazing reserves failed to materialise. Thus, by 1980, Nigeria had established 2.3 million hectares of grazing reserves, which was just about 10 per cent of the planned size. Many States were dissuaded from establishing reserves due to the high levels of land compensation required by the Federal Land Use Act of 1978 (Federal Republic of Nigeria, 1978). At present, Nigeria has about 415 grazing reserves with only about a third of them in use. The remaining ones had in fact never been fully established.

Apart from the establishment of grazing reserves, there have been efforts to modernize livestock production through ranching in different parts of Nigeria. Ranches involve a system of extensive livestock production on large stretches of land that are individually owned and usually fenced. Commercial ranching began in Nigeria during the colonial period but took off with the state-sponsored establishment of several breeding and fattening ranches in the 1960s. Again, most of these initiatives ran into problems due to high production costs, adaptation difficulties of imported cow breeds, marketing challenges and mismanagement. Several urban elites – of Fulani and non-Fulani origin – have also benefitted from the Land Use Act of 1978 that allows the individual acquisition of up to 5,000 hectares of land for grazing purposes to set up private ranches. Public policy and discourse currently perceive pastoralism transhumance as backwards and as a security issue. Against this background, ranching appears as the only possible avenue for future livestock production.

It is in this context that the Federal Ministry of Agriculture has developed a “National Ranching Development Plan” in 2017 which envisages the establishment of cattle ranches on which cattle keepers shall be settled. The government also foresees investments in fodder production and veterinary services. The future ownership structure of these ranches and the future role of small-holder pastoralists on these ranches are unclear. At the sub-national level some state governments are opposed to open grazing which generates conflicts between farmers and herdsman. For example, in 2017, Benue and Taraba state governments enacted legislations banning open grazing on their territories, to reduce the escalating violence between farmers and transhumant pastoralists (Federal Republic of Nigeria Benue State Government, 2017). Taraba state also prescribes ranches as the only legal form of animal production (Federal Republic of Nigeria, Taraba State Government, 2017). Pastoralist groups are not happy with these new bills and in fact it has been difficult implementing them in the respective states.

Regarding the prevailing pattern of legislations at the national and sub-national levels in Nigeria, several observations can be made. In the first place, the distinction between indigenous population or owners of the land and settlers or migrants in most parts of Nigeria basically classified pastoralists as settlers which denies them basic civil rights, including the right to education and the right to own land, rendering them nearly stateless. Secondly, the concept of Grazing Reserves does not confer strong land rights to pastoralists. Many grazing reserves have not been formally gazetted for several decades. They legalize grazing in these areas but do not provide land ownership to pastoralists. This encourages encroachment by urban developers and farmers. Some traditional authorities sell land in Grazing Reserves to

outsiders for their private gain. Some Grazing Reserves are now occupied by private farms or polluted by mining. Third, Grazing Reserves have become unsustainable because the original concept did not take account of population growth and encroachment by outsiders. Due to the high concentration of animals, many reserves have severe animal health problems. Many pastoralists therefore use the Grazing Reserves as their base but send the herds on seasonal transhumance. Fourth, considering the escalating farmer-herder violence with strong ethnic and religious connotations, Grazing Reserves are now frequently interpreted as autonomous territorial units exclusively reserved for the Fulani community. There are even fears that the Fulani use their supposed right to Grazing Reserves to take over territorial control in some parts of Nigeria particularly in Christian dominated states and to forcefully spread their faith. Finally, livestock ranches usually involve the concentration of large stretches of land in the hands of a single owner. The current promotion of ranching may lead to the dispossession of thousands of small-holder farmers and pastoralists and exacerbate land scarcity in certain areas. Dispossessed farmers and pastoralists may be left with the option of competing for the few paid jobs on the ranch. Ranching may therefore lead to further conflict instead of reducing it (UNOWAS STUDY, 2018).

Promoting Security and Development

The articulation of the various international, national, and sub-national policies and legislations, particularly in recent years, has largely been in response to the rising security challenges in the Sahel region. Long-standing local cooperation and mediation practices have tended to keep conflicts to a minimum, though over the past decade these have been put under strain, especially when public policies have not adequately responded to the challenges. This is due to a combination of factors: demographic growth has increased the need for arable land and large-scale agriculture projects, shrinking the land available for cattle herding. The pressure for food security has driven unsustainable agricultural practices such as overgrazing, poor water management and excessive tree felling for domestic firewood and charcoal, all of which have significantly reduced the amount of fertile land. Violence in the Sahel region of Nigeria has fractured traditional herding routes, driving pastoralists further into localities where traditional cooperation arrangements have not yet been put in place. At the same time, sprawling networks of arms smugglers and illicit traffickers have provided a steady supply of small arms and light weapons, increasing the chances that tensions might boil over into deadly violence. Farmer-herder dynamics cannot be separated from religious divides within Nigeria, which have been deepened by the presence of violent extremist groups in recent years. Roughly 90 per cent of the pastoralists in Nigeria are Muslim Fulani while many of the major farming communities are Christian. Accusations that the Fulani have collaborated with so-called jihadist groups in Nigeria and neighbouring countries have fuelled tensions at different political levels of the country, contributing to mobilization of ethno-religious self-protection groups amongst Christian communities particularly in the Middle Belt region of the country.

It is in this context that strong anti-grazing laws passed by some state governments are viewed as a punitive act against herders, prompting them to move into neighbouring states where new conflicts broke out. More generally, the absence of strong State institutions in the Sahel states of Nigeria have led to widespread banditry and cattle rustling with high levels of impunity. The result is that Nigeria's Middle Belt and Sahel Region have become some of the most dangerous in the West African Sahel. It has been estimated that as a result of the conflicts, up to 300,000 people were displaced between 2016 and 2018 alone, with thousands of deaths in some of the most fragile communities in the country. Women in displacement camps too are often vulnerable to sexual and gender-based violence. In farmer-herder conflicts, the loss of male breadwinners often leaves women in highly patriarchal societies with few coping mechanisms to support themselves and their families. With low education rates and few economic opportunities, women in conflict-affected parts of Nigeria tend to suffer the most.

Security measures and anti-terrorism legislation have been introduced across the Sahel region including pastoral communities in Nigeria to counter cross-border threats. The Government's response to farmer-herder conflicts has been largely security-driven in the worst affected states, the Government has deployed security forces to contain the violence. While this has contributed to a short-term reduction in insecurity, the inability to maintain troops for longer periods of time, combined with the spread of violence in many areas beyond the reach of security agencies and personnel, has allowed farmer-herder violence to continue to grow over recent years. Apart from the use of force through security agencies to contain violent conflicts, the Federal Government has tried to tackle farmer-herder conflicts through mediation and resource management. Government-led dialogue promotion between farming and herding communities has resulted in some reductions in tensions but has thus far been small scale and *ad hoc*. Similarly, efforts at establishing "cattle colonies" that assign herding communities to specific areas have not resulted in major changes to the farmer-herder dynamics.

To be successful in the long term, responses must prioritize the human dimension of security. This encompasses social, cultural, economic, political, and psychosocial factors, which affect men and women differently. There is a growing recognition by all stakeholders that socioeconomic programming may hold more promise in addressing some of the major sources of insecurity in the Sahel region of Nigeria. Longer term incremental efforts to adapt agricultural and herding practices may hold some promise, particularly if it is paired with socioeconomic programming that addresses the issues of marginalization and poverty underlying many of the conflicts. In fact, these appear more likely to address the ways in which climate change is affecting security risks than the shorter-term efforts to curb grazing or deploy troops to conflict-prone areas. The *Common Fund for Commodities* (CFC) supports the view that security and development opportunities are linked. By taking a commodity focus, CFC works to develop the potential of commodity production, processing, manufacturing, and trade for the benefit of the poor, thereby contributing to sustainable economic development in the Sahel. By investing in commodity development, CFC has contributed to employment generation, increased household incomes, improved food security and greater resilience to shocks. Other concerted efforts to promote security with development include the EU's Strategy for Development and Security in the Sahel (2011), the UN Integrated Strategy for the Sahel Region (2013), the Nouakchott Process (2013), the AU Strategy for the Sahel Region (2014), and the ECOWAS Strategy for the Sahel (2014).

The EU was one of the first to issue an integrated strategy for the Sahel whose objectives explicitly recognised that security and development in the Sahel cannot be separated. In 2011, the EU External Action Service (EEAS) adopted the Strategy for Security and Development in the Sahel, a comprehensive and integrated approach to addressing the interlinked challenges faced by the region. The EU's approach stresses the link between development and security. With the sharp increase in migrant arrivals on European shores in 2015, several EU member states pushed for a more security-oriented response (Davitti and Ursu, 2018). They view migration both as a security challenge and as a threat to European liberal order. However, some experts argue that the external projection of domestic European fears puts the success of the mission at risk (Venturi, 2019). The introduction of the EU Global Strategy in 2016, improved coordination among the EU's different missions and instruments.

The lessons that emerge from the various programmes and experiences focusing on linking the promotion of security to development challenges are that to be successful in an unstable environment like the Sahel, development initiatives should be both stabilization oriented (providing better access to physical and livelihood security for populations) and conflict sensitive. State-supported projects that combine development and overcome security measures for the population's benefit, if designed and implemented in a participatory fashion, can improve pastoralists' perception of the state as repressive, especially if these projects truly improve the access to security and justice, among other services, by populations as well

as their living conditions and offer sustainable income opportunities that are more secure than trafficking.

Development Initiatives on women's economic empowerment

Women in the Sahel region are key agents in livelihood development. They engage in socio-economic and cultural activities, and in the conservation and management of natural resources. Despite the many challenges they face, women are resourceful in finding ways to ensure that their households' basic needs are met. However, their valuable role is only partially recognized in development programmes in the Sahel region. Women are particularly disadvantaged by the limitations they face within their own societies, for example in owning property or participating in decision-making processes. Increasing awareness of women's concerns and the value of their specific inputs is a step towards strengthening women's role in rural communities, thus reducing their vulnerability to external shocks. Women's control over farming and livestock resources is central to their economic empowerment, as well as being important for nutrition and sociocultural reasons. Many of the income-generating activities in which women engage are based on livestock, whether they involve trading livestock or marketing livestock products and handicrafts.

It is in this context that this section reviews some development initiatives implemented by governments and international agencies in Nigeria that focus on partly on women's economic empowerment. Several projects have been implemented to economically empower women in Nigeria. There is no doubt that promoting women's economic empowerment in rural farming and pastoral communities is essential to eradicating poverty, boosting productivity, increasing economic diversification and income equality, and other positive development outcomes.

The National Fadama Development Programme: The National Fadama Development Project has been incorporated by the Nigerian government to address the challenge of poverty in Nigeria. The project was started in 1990 and is now in its third phase. The project was targeted at the rural poor in economic activities (farmers, pastoralists, fishers, nomads, traders, processors, hunters, and gatherers, as well as other economic interest groups); the disadvantaged groups (widows, the disabled, the sick and other vulnerable groups, including people living with HIV/AIDS and unemployed youth); and the service providers, including government agencies, private operators and professional associations operating in project areas. Local community members oversee the design and implementation of the project. Community Driven Development and participatory local development planning approaches were designed to promote social cohesion and provide income and employment opportunities for the target population, especially women and the youth. This leads to empowerment, skill, and capacity building, and has led to improving livelihoods and income generation. The local communities have created more than 2000 development plans. Construction of wells, storage facilities and other initiatives have developed the farm infrastructure, and the farmers have acquired 8,000 pieces of equipment. The project has rehabilitated disabled men and women and trained them to be useful economic agents. FADAMA projects have made meaningful contributions to both the quality of life of the beneficiaries and the local economy (FAO and ECOWAS Commission, 2018: 59). However, despite the benefits it has been observed that the programme faces some challenges like insufficient disbursement of funds, problem of herdsmen, poor road network, and politicization of the programme among others. It was therefore recommended that policies aimed educating rural farmers should be adopted as illiteracy seems to be the major restriction to farmers adopting modern and better farming practices, Government should be more serious in implementing policies aimed at revamping agriculture by avoiding unnecessary bottlenecks and politics.

Rural Finance Institution Building Programme (RUFIN): The seven-year programme which was conceived in 2006 and began in January 2010 was completed in March 2017 and the programme closure took place on September 31, 2017. The objective of this programme is to

strengthen microfinance institutions and establish linkages between them and formal financial institutions in 12 Nigerian states including Bauchi and Gombe. It lays the foundation for the long-term development of a sustainable rural financial system that will eventually operate throughout the country. By reaching out to poor rural people including pastoral women, the programme ensures that they gain access to financial services and can invest in improving productivity in agriculture, livestock production and small businesses. Marginalized groups, such as women, young people and those with physical disabilities, are particularly targeted by RUFIN. The impact of this project include improved skills and knowledge in financial literacy; increased access to income: loans helped to foster crop farming, animal raising and business development associations, which played important roles in organizing the farmers to save, increase productivity and improve their marketing strategy; increased asset and ownership; increased gender equality and women's empowerment; reduced immediate vulnerability and food insecurity; targeted women experienced a significant in their self-esteem, recognition; increased shared roles and responsibility; increased participation and decision-making.

Educating Nigerian Girls in New Enterprises: The Educating Nigerian Girls in New Enterprises programme is designed to transform the lives of marginalised Nigerian girls through improving educational outcomes, enabling successful transitions into income-generating activities, and transferring knowledge to the regional and national education system to create sustainable changes in girls' empowerment. In-school girls (ISG) are expected to benefit from enhanced in-school facilities and improved digital and technology options. Out-of-schoolgirls (OSG) will gain access to digital learning with tailored modules, enabling them to complete school while maintaining economic and familial responsibilities. Leveraging innovative partnerships, girls will benefit from life skills, health education, digital and financial literacy, and job readiness training; peer networks and mentorships; and access to finance. Results of the implementation of the programme show girls delaying marriage to go to school, sharing life skill experiences with other girls as peer mentors, speaking up for their rights and leading actions that promote gender equality. By 2017, the programme had reached about 21,000 girls, with an average age of 18, in the poor northern states of Kaduna and Kano, the sprawling metropolis of Lagos, and the capital, Abuja." The project evaluation report shows that girls who were in school and girls who were out of school who participated in the program reported gains on several fronts and that their participation would expand their future economic opportunities.

Conditional National Cash Transfer (CCT): The National Cash Transfer Programme also known as Household Uplifting Programme (HUP) is one of the social safety nets programmes anchored by the Federal Government of Nigeria. The programme commenced in September 2016. It was conceived as part of the Federal Government of Nigeria's (FGN) larger growth and social inclusion strategies aimed at addressing key social concerns in the country. It is a component of National Social Safety Nets Project (NASSP) which is supported by the World Bank, to provide financial support to targeted poor and vulnerable Nigerian households. The programme is designed to deliver timely and accessible cash transfers to beneficiary households and sets to support development objectives and priorities, to achieve specific outcomes such as the improvement of household consumption, the increase in the utilization of health and nutrition services, improving school enrolment and attendance, improving environmental sanitation and management, encouraging household financial and asset acquisition and engaging beneficiaries in sustainable livelihood. By November 2020, about 1.2 million were enrolled while a total of 985,231 households received transfers for the May/June 2020 cycle (CCT Report, Nov 2020: Page 1). In June 2020, there were 22,065 savings groups and 9,716 cooperatives formed with a total of 345,610 beneficiaries. However, a recent review of the programme found that conditional cash transfer in Nigeria is characterized with several anomalies. These among others identified include diversion of funds by the beneficiaries for purposes other than investing in what it was originally meant for, the improper definition of exit and entry period (a period of one year is allowed in Nigeria) and this translates to nothing meaningful. It was found that beneficiaries are randomly selected in

Nigeria, thus leading to obvious errors of exclusion and inclusion particularly rural communities including those where pastoral women are based (Chima, 2022).

Growth & Employment in States 4 (GEMS4) Programme: The Growth and Employment in States 4 (GEMS4) programme, funded by the *UK Department for International Development (DFID)*, aimed to improve the livelihoods of the poor and women in Nigeria's wholesale and retail sector. Historic inefficiencies within Nigeria's distribution chain created lower prices for producers in rural communities including those in Sahel region, lower wages for employers, lower profits for businesses, and a higher cost of living for consumers. GEMS4 worked to address underlying weaknesses in the system while promoting pro-poor growth in the sector. The five-and-a-half-year programme was implemented in rural and urban areas across all states of Nigeria, with particular focus in the four states of Kano, Kaduna, Lagos, and the Federal Capital Territory (Abuja). As a result of GEMS4 interventions, more than half a million people in Nigeria increased their incomes—30,000 more than the programme's original target. Of those who benefitted, 57 percent were women. The programme also created more than 12,700 full-time jobs, exceeding the target by nearly 3,000. It was observed that the programme benefitted youths and women in pastoral communities in Kano and Kaduna States.

Government Enterprise and Empowerment Programme (GEEP): The GEEP programme was launched as one of Nigeria's National Social Investment programmes under the management of Bank of Industry to alleviate poverty by providing access to funds for Nigerian entrepreneurs who will otherwise struggle to have access to credit for their enterprises. This programme which covers all Sahel States in Nigeria was launched with two broad objectives. The first is the promotion of access to funding by providing microloans in an easily accessible way to those at the bottom of the pyramid who engage in commercial activities but face significant challenges with access to finance/credit. A significant proportion of the people in this category are living in rural areas including pastoral communities. Second, is the promotion of financial inclusion through these microloan offers and access to finance to ensure that the beneficiaries are brought under the formal financial sector and can further seize the opportunity to access other credit products from financial service providers. The beneficiaries include traders, women cooperatives, market women, enterprising youth, farmers, and agricultural workers including those in pastoral communities in the Sahel States in different parts of Nigeria. It is in this context that GEEP launched three products namely: Market Moni, Trader Moni, and Farmer Moni. The key to these programmes is that the beneficiaries receive interest-free loans starting from N10,000 and growing to N100,000, continued loans are given based on the repayment rate. When the money is paid back within 6 months, they immediately qualify for a second loan of N15, 000. After payback of the second loan, they qualify for N20,000 loan, and then N50,000, and then N100,000, payback is within the same 6 months. With over 2,279,380 enrolled, 54.3% of whom are female while the youth below 35 years of age constitute 46%.

Federal government special grant for rural women project: The special grant for rural women's programme was launched on October 15, 2020, by the Federal Ministry of Humanitarian Affairs, Disaster Management, and Social Development as part of Federal government's policy measure to empower rural women and realize the national aspiration of lifting 100 million Nigerians out of poverty in 10 years. The *grant for rural women* is designed to provide a one-off grant to some of the poorest and most vulnerable women in rural Nigeria including of course those in pastoral communities. About 160,000 rural women were expected to receive the sum of N20,000 each. Between October 2020 and February 2021, about N1.34 billion has been disbursed to 65,690 rural women from the One-Off Grant in 16 States including those in Sahel region and FCT.

Central Bank of Nigeria (CBN): As part of Central Bank of Nigeria's (CBN) initiative in investing in women economic empowerment projects, it has reserved 60% of its N220 billion

Micro, Small, and Medium Enterprises Development Fund for women entrepreneurs in 2020. This is part of Federal government's effort to assist women owned medium and small businesses (MSME's) recover from the impact of the COVID-19 pandemic. This policy suggests that women's access to financial services would increase by at least 15% annually to eliminate gender disparity. The Micro, Small and Medium Enterprises Development Fund is designed to further increase women participation in business and ultimately empower beneficiaries to be self-reliant and independent. As expected, the programme pays attention to women in Sahel states of Nigeria where a considerable proportion of women in Bauchi and Gombe States have been beneficiaries.

Nigeria's National Financial Inclusion Strategy (NFIS): This programme which was launched in 2012 by the Central Bank of Nigeria (CBN) is designed to increase the number of adult Nigerian having access to formal financial services to 80 percent by 2020. The programme identified five of the most excluded demographics: women; youth; micro, small and medium enterprises (MSMEs); rural dwellers; and individuals living in the country's northern region which is largely characterised by Sahel and indeed pastoral communities. Amid sustained focus on the five groups, the financial inclusion of women has been an area of key concern as the financial inclusion gender gap in Nigeria is higher than the global average of seven percent. According to a 2018 survey by *Enhancing Financial Innovation and Access*, financial inclusion nationwide stood at 59.1 percent for women compared with 67.5 percent for men, a gender gap of 8.4 percent, a slight improvement from a gap of 9.8 percent recorded in 2016. In the drive towards ensuring that more women are financially included in Nigeria, CBN has championed major activities and products tailored to accelerate women's financial inclusion. As the journey to bridging the financial inclusion gender gap in Nigeria gains momentum, it is important to keep sight of the many challenges confronted in advancing financial services and products to women, especially those in rural and pastoral communities. Specific barriers that women face include long distances to reach access points, particularly as women living in rural areas are often saddled with household responsibilities, lower levels of literacy and legal restrictions like property ownership. Going forward, the drive to provide financially excluded rural women with tailored products and an appropriate enabling environment through policies and regulations that entrench gender considerations will support the central bank's efforts to increase access to finance for women and an overall achievement of 95 percent financial inclusion in Nigeria by 2024.

Small & Medium Enterprise Development Agency of Nigeria (SMEDAN) – Women in Self-Employment Programme (WISE-P): The objective of the Women in Self-Employment Programme (WISE-P) is to facilitate access of women farmers and pastoralists to resources required to enhance their farming and pastoral activities with the aim of making them viable and sustainable. The justification for this programme is to ensure that rural women are empowered to achieve improved productivity and livelihood sustainability along the agricultural value chain. WISE-P Programme is expected to also expose women farmers and pastoralists to modern value addition techniques and facilitate access to finance as well as to promote market linkages. The WISE-P is designed basically to promote self-reliance amongst women and to empower them to achieve improved productivity and sustainability in businesses in terms of crop farming and agro-processing along the value chains. It is also to boost production of raw materials for industrial use and development because it is said that when you train a woman, you train a nation and when you empower a woman, you have liberated the nation.

Youth Entrepreneurship and Women's Empowerment in Northern Nigeria (Nigeria WAY)

MEDA and Global Affairs Canada (GAC) are working together to support women and youth-run businesses in the processing sector and food industry of Bauchi State, Nigeria. The project will work in three main value chains: rice, peanut, and soybean. WAY supports women and youth agro processors in Bauchi State. The goal is to improve their business performance,

enhance the business environment for women and youth, and strengthen community and family support to decrease the risk of early and forced girl child marriage. With increased access to productive technologies and business services, greater financial inclusion and inclusive community dialogs, Nigeria WAY supports women and youth-led businesses to transform their contributions to their households, communities, and the economy.

The WAY project supports small scale businesses and entrepreneurs by strengthening the capacity of small-scale businesses and other value chain actors so they can engage with other entrepreneurs through networking forums and stakeholder meetings, to create linkages among value chain actors; forging market linkages and providing access to green technologies, and green finance; facilitating community and family dialog on gender equality, women's economic empowerment, and sharing how empowered women strengthen their family units; supporting women as they strengthen their business capacities and increase their income; and supporting the development of life skill programmes for young girls to teach life skills, business development services, financial literacy and youth savings. From the project report, about 16,000 entrepreneurs and small-scale businesses will improve their business capacity and business environments and around 25,000 families and community members will become better educated on the consequences surrounding early and forced child marriage.

Women and Youth empowerment through Education

It is well known that education is the greatest force that can be used to bring about change. It is also the greatest investment that a nation can make for the quick development of its economic, political sociological, and human resources. Education in the wider sense of the term has always been an important factor in the way of life of people. In the Sahel region of Nigeria, certain groups in the population are disadvantaged in terms of educational provisions and opportunities because of their ethnicity, religion, sex, family socio-economic background and status as well as geographical location. Girls frequently have less access to education than boys because the investment is not considered worthwhile, or because of economic and cultural reasons. In early marriage, for example, girls soon belong to another family or community, which is a strong disincentive against educating them, as is the lack of employment prospects for pastoral women with formal education. Three key components of women and youth education programmes that are of relevance to the rural farming and pastoral communities of the Sahel region of Nigeria are nomadic education, home grown school feeding programme and the Almajiri system of education

Nomadic Education

Nomads were specifically identified in the 1990 World Declaration on Education For All (EFA) as one of several groups requiring 'active commitment' to the removal of educational disparities called for 'urgent action' to address the continuing and extreme educational deprivation of this category of people which reflects a marginalization rooted in underlying social inequalities. The National Policy on Education (FRN, 2004) and the Constitution of the Federal Republic of Nigeria have made provision for equal functional educational opportunities to all citizens of the nation irrespective of creed, location and circumstance through the nomadic education programme. The nomadic education programme grew out of the partnerships that had been established between the major stakeholders in the Borno and Katsina provincial governments and the nomadic communities, in the 1920s and 1950s respectively. Interestingly, between 1976 and 1986, fresh initiatives were embarked upon by some state governments in the Sahel North of the country, namely Bauchi, Plateau, Kano and Borno states. At the federal level, the provision of basic education to nomads was aided through the solid partnerships fostered between the federal government and two international development agencies – the United Nations Education, Scientific and Cultural Organisation (UNESCO) and the United Nations Development Programme (UNDP). These partnerships led

to a series of studies into nomadic communities and lifestyles, which were carried out at the University of Jos, Nigeria, between 1976 and 1988. The decade of research findings indicated clearly that there were grounds for treating the nomads differently in education provision (Ezeomah, 1998), and were used to develop national policy guidelines.

At the national level, the National Commission on Nomadic Education (NCNE) has established institutional partnerships with federal agencies in the implementation of the national policy on nomadic education. The NCNE's partners on a national level include: the Universal Basic Education Commission (UBEC); the Nigeria Education Research and Development Council (NERDC) in areas of curriculum adaptation; the Nigerian Teachers' Institute (NTI) in the area of teacher training and development; and the National Commission for Mass Literacy, Adult and Non-formal Education (NMEC) in the area of adult literacy for nomads. Other partners include Millennium Development Goals (MDGs) offices that focus on special interventions aimed at the attainment of MDGs for nomads; the Education Trust Fund (ETF); and the National Livestock Development Project (NLDP), which focuses on the development of stock routes and grazing reserves.

The problems of the programme as identified by the stakeholders include inadequate funding, inadequate infrastructural facilities, indiscriminate transfer of teachers, teachers' truancy, and lack of incentives for the teachers and supervisors. The situation report carried out in 2001 pointed out that the main problem of nomadic education as it relates to inadequate funding and the late release of funds even when such funds are approved. Because the Commission receives less than 30% of its budget request, it has been compelled to fund its field operations from its scanty resources in an attempt not to bring field operations to a halt. Thus, the Commission is compelled to spread its lean resources thinly such that its impact is not properly felt, and its objectives only tangentially realised. In addition, inadequate supervision and inspection of schools was reported by the Commission's situation report of 2001. Regular supervision and inspection of schools is the responsibility of Local Government Education Authorities and State Primary Education Boards (SPEBs). Lack of adequate means of transportation has hampered the supervision of schools, hence the need to provide supervisors and inspectors with motorcycles and bicycles.

Home Grown School Feeding Programme (HGSFP)

In a bid to reduce the number of out-of-school children in the country, the federal government in 2016 launched the Home-Grown School Feeding Programme (HGSFP) in public primary schools including those located in the states in the Sahel region of Nigeria. The aim of this programme is to deliver school lunches to young children with a specific focus on increasing school enrolment and reducing the incidence of malnutrition (especially among the poor and those ordinarily unable to eat a meal a day). The programme also aims to empower community women as cooks as well as support small farmers and pastoralists thereby engendering a ripple effect in the rural economy to stimulate economic growth. It is a multi-sectoral programme that involves ministries of education, health, justice, agriculture, budget and planning, in collaboration with interested state governments, community leaders, women groups and parents. The feeding programme is designed in such a way that the federal government takes up the feeding of pupils from primary one to three while interested state governments take up primary four to six. The programme has created significant economic impacts on local agricultural production, benefiting communities as well as the children. At present, over nine million pupils drawn from 54,619 schools are currently benefiting from the scheme, and with the participation of 80,000 farmers and engagement of over 102,097 cooks across 26 states in the country. However, investigations across the various geo-political zones in Nigeria indicate that the programme is fraught with problems of large-scale corruption, irregularities, politicization, poor quality control, lack of transparency and accountability (Nigeria's Home-Grown School Feeding Programme, 2023). The selection process of the food vendors in some of the schools was marred by controversies as loyalty to the ruling political

parties superseded competence and expertise. Other hiccups experienced in the programme include delays in payments of food vendors by the federal government in some states which have drastically reduced the frequency of food given to the pupils in terms of quality and quantities. Since the commencement of the programme in 2016, there have been no checks and balances to ascertain that the programme is being delivered as planned. Given the relative newness of the school feeding programme in Nigeria, there is currently little empirical evidence on the impacts and effectiveness at local or national level.

Almajiri system of education

The origin of Almajiri system of education has for decades been the issue for intellectual discourse. Originally, the Hausa word Almajiri referred to a pupil under the tutelage of an Islamic teacher receiving Qu'ranic education. In those days, the Almajirai were sent by their parents and guardians too far away villages or towns to seek Qu'ranic knowledge under the guidance and supervision of a Qu'ranic teacher known as a Mallam. Then it was the responsibility of parents or guardians to see to the upkeep of the pupils. The system was also supported and funded by relevant stakeholders viz: traditional institutions; host communities and sometimes through the farm output of the pupils/students. People gave accommodation to the pupils and at times fed them because their population was small (Maraya, 2019). During the period emphasis was on how the child can learn the rudiments of Islamic Religion especially on recitation and memorization of the Holy Book.

However, ample studies have shown that rather than acquire the knowledge of the Qur'an and jurisprudence, most of the pupils who later transform into adults while roaming the streets rarely acquire the requisite knowledge worthy enough to make them useful to themselves and the society. Although, this practice endured over time, abuse of the system began to set in as the teachers (Mallams), who are in most cases not remunerated by parents of the children nor the government, began to lose grip of the unusually large number of children that are dumped on them by parents. It is believed that although the system worked several decades ago, it is now a breeding ground for delinquent children and an escapist tool for lazy parents, who don't want to take responsibility of their children. Governors of the states in the Sahel region are also being accused of being indifferent about the plight of the young almajirai who, to a greater extent, are now recruitment harbour for men of the underworld. For decades, meetings, policies and 'punitive' measures put in place at the local and state levels rarely made any difference in addressing the menace as parents keep sending their children through some clerics.

It was amid what to do with the increasing number of almajirai that the Federal Government led by former President Goodluck Jonathan began constructing model tsangaya/almajiri schools across the country as part of the Almajiri Education Programme. Those in charge of the initiative at the time said it was done to help the almajiri system become more mainstream in basic education. However, years after Jonathan left office, it is argued that the initiative flopped because the Federal Government left the renewed system to states that were right from the beginning not bothered about resolving the problem around almajiri. Also, most of the clerics championing the *karatun allo* were evidently reluctant to key into the initiative, which would have paved the way for the children to learn both Qur'anic and Western education under one roof. A report by the Universal Basic Education Commission (UBEC) in 2022 showed that the commission constructed, equipped, and handed over the 157 model almajiri schools to states. It showed that Gombe State, for instance, has at least five of such schools, Katsina 10, Kano 12 and Niger 10. But the situation has not improved as most of the schools are in bad shape, even as many of them are struggling to remain afloat. In Gombe town, where there is the Sheikh Muhammadu Almajiri Memorial School, the pupils are left to feed themselves and they don't have enough space to sleep despite the school being designated as boarding. The school, established in 2013, has two-block classrooms, two hostel blocks, two staff rooms, a headmaster's office, a kitchen, a dining hall and a borehole. The initial two blocks of

classrooms meant for 50 pupils now accommodate about 480 pupils, with some of them taking lessons under a tree. Many key stakeholders argued that the modernised Almajiri concept could not be accepted by many clerics because they were not carried along from the beginning. There was serious mutual suspicion at the beginning because some of the tsangaya teachers believed their pupils would be taken away from them. Another problem is that some of the teachers have a different perception about moving into formal-like schools. They prefer to set bonfires at night while the children sit around it. Most stakeholders point out that the almajiri school system was a well thought out system but lamented that it was being driven by a faulty implementation strategy.

Women Empowerment on Reproductive Health

Despite Nigeria's apparent interest in the improvement of the country's health care situation including reproductive health, the outcomes remain extremely poor, especially in rural pastoral communities. Pastoral communities as in many other parts of Nigeria are characterised by different types of harmful practices that impact reproductive rights and gender. The most common includes, female genital mutilation (FGM), early marriage as noted earlier, the various taboos or practices which prevent women from controlling their own fertility, nutritional taboos and traditional birth practices. Others are male child preference and its implications for the status of the girl child, female infanticide, early pregnancy and dowry price. The prevalence of FGM is more than 50% in Nigeria and being the country with the largest number of women in Africa, it has the second largest number of women who have undergone the procedure (estimated to be about 64 million in 1998) (IAC Nigeria, 1998). Despite their harmful nature and their violation of international human rights laws, such practices persist because they are not questioned and take on an aura of morality in the eyes of those practising them.

Although the *National Reproductive Health Policy* and the *Strategic Plan of Action* indicate Nigeria's recognition of the health challenges of its young people, a lack of sufficient political will and resources prevent the policy from being translated into operational plans and programmes at the state and local levels. To date, there is little evidence that any of the 36 states and 774 Local Government Councils in the country has formulated specific policies aimed at promoting young adult and adolescent reproductive health. On its part the Federal Government has not concentrated on all the components listed in the *National RH Strategic Framework and Plan*. The safe motherhood initiative and the Family Planning Programmes have not received the much-expected priority and more importantly, many of the activities have been donor-driven. Other components of RH such as harmful traditional practices and screening of genital malignancies have also not received the needed drive in Nigeria. Most attention focused on the elimination of harmful practices that were funded by donor organisations and operationalised by NGOs. The way forward for the Nigerian weak RH services/programme is a renewed effort in terms of political support and priority at all tiers of governance, a review and wide distribution of RH services, especially to the users on the fields, better marching of policies with implementations in terms of funding and necessary leadership, periodic monitoring and evaluation of available services and legislative back-up of many SRHR issues that are begging for attention.

It is in this context that non-state actors have played major roles in the promotion of reproductive health in Bauchi State. A trial of a programme of universal home visits to pregnant women and their spouses, with an intention to increase male involvement in pregnancy and childbirth, showed improvements in actionable risk factors and in maternal morbidity in Bauchi State. In Bauchi State, family sizes are large, and polygamy is common. The main religion is Islam, with prominent Hausa and Fulani ethnicities. Women have low autonomy and low power over decisions for their health and the health of their children. The level of intimate partner violence is high. The government of Bauchi State identified maternal and early child health as priority concerns; a research group and a local non-governmental organization (NGO) undertook several household surveys and used the findings to support planning of services

for women and children.

From 2015 to 2019, the research group and local NGO implemented a cluster randomized controlled trial of universal home visits to improve maternal and early childhood health outcomes in the Toro local government authority (LGA) of Bauchi State. Increasing male involvement was an important element of the programme. Female and male home visitors visited pregnant women and their spouses during pregnancy and after delivery, sharing and discussing with them the same local evidence about risk factors for maternal health, actionable at the household level: heavy work during pregnancy, domestic violence, lack of spousal communication about pregnancy and childbirth, and lack of knowledge of danger signs in pregnancy and childbirth. In repeated visits, the home visitors shared evidence about the harmful effects of the identified risk factors and separately discussed with pregnant women and their spouses what they could do, and were doing, about these risks. They shared information about danger signs in pregnancy and the need to seek care from health facilities, and about the benefits of breastfeeding and childhood immunization. Quantitative analysis of the trial found that women in the visited areas had significantly fewer complications in pregnancy and after birth than women in non-visited areas, as well as improvements in the four identified risk factors; child outcomes also improved in the visited areas.

The home visits programme had the potential to be gender-transformative because it addressed maternal health risk factors strongly related to gender norms and dynamics. Reducing heavy work during pregnancy questions the traditional division of labour, increasing spousal communication impacts shared decision-making, and protection from gender violence is a fundamental aspect of women's dignity and rights. The home visitors invited pregnant women and their spouses to think about their behaviours and about social and cultural norms which could be harmful. In addition to the quantitative measurement of the impact of the home visits, we collected narratives of change from women and men in visited households, to understand what the visits meant to them. We describe here an analysis of the stories to specifically explore the impact of the home visits on gender roles and decision-making and to evaluate to what extent the intervention was gender transformative. The stories of change from women visited during their pregnancies and from the husbands of visited women suggest that the visits increased male involvement and led both men and women to take actions to improve maternal and child health. However, the stories did not indicate that the visits increased women's autonomy or their role in decision-making. Furthermore, across the 20 LGAs in Bauchi, 20 women-led groups are conducting community-based dialogue sessions with indigenous groups and through traditional media to provide information on sexual and reproductive health. These groups aim to address negative social norms that fuel harmful practices for women and girls while educating them about women's health and rights. Also, they use their platforms to advocate for the retention of girls in school and prevent early child and forced marriage alongside conducting referrals for GBV response being part of the LGA GBV response and referral networks.

Like in other Nigerian states, contraceptives in Gombe are provided free of charge from the Federal Ministry of Health. Yet this support does not cover fees associated with any materials needed to provide the method, such as a pregnancy test, syringe, disinfectant, and/or cotton wool, depending on the method. With support from Advance Family Planning local partner Pathfinder International Nigeria, the Gombe State Advocacy Working Group (AWG) focused on increasing funding for family planning consumables. In March 2018, Pathfinder trained the group in budget tracking. Using their new skills and applying SMART advocacy, the AWG pushed policymakers to create a separate budget for family planning in the overall LGA health budget. In addition, they engaged local media, which aired messages on radio and television about the need for family planning funding. Finally, the AWG monitored the state budget cycle and made a case for family planning during the 2019 budget process.

The multi-pronged efforts yielded results. In September 2019, the Commissioner for Health of Gombe State directed the Department of Planning, Research, and Statistics to create a separate budget of 11 million naira (US \$28,600) under the Ministry for Local Government (one million per LGA). But a budget inclusion does not automatically mean the funds will be spent. The AWG needed to advocate for the budgets' release at the LGA level. In March 2020, they met with the state health commissioner, who is the former Executive Secretary of the Primary Health Care Development Agency, and familiar with the AWG and their asks. He advised the AWG to liaise with the state family planning coordinator to ensure memos requesting releases were written. They also met with the chairman of the primary health centre (PHC) coordinators to explain the importance of family planning services and the connection to the release of funds for consumables. By this time, COVID-19 was spreading, and the team made sure they wore masks, physically distanced, and kept any in-person meetings to a small group of people. The group persisted and met with the commissioner of local government areas and chieftaincy affairs, who is the custodian of LGA funds, in April. The commissioner committed to follow through on any family planning related funds requests. He also agreed to support all future family planning advocacy efforts. Following this commitment, the AWG reached back out to the chairman of the PHC coordinators to submit the funds request memo. Nafada LGA and Funakaye LGA submitted requests for the release of 350,000 Naira (\$910) and 120,000 (\$312), respectively. On June 28, 2020, the LGA commissioner approved the release of 220,000 (\$752) for Nafada and 60,000 (\$156) for Funakaye. To ensure sustainable financing for consumables across all LGAs in the state, the Gombe AWG will continue their advocacy efforts to ensure the release of funds in the other nine LGAs, track spending, and advocate for an increase in the 2021 allocation.

Challenges and responses to climate change

Although it took a long time for Nigeria to respond the climate change challenges compared with countries in East Africa, in 2012, the country eventually articulated the Nigeria Climate Change Policy Response and Strategy to promote low-carbon emissions and to respond effectively to the impacts of climate change, such as extreme weather events, food insecurity etc. The vision of this policy document is aimed at a climate change-resilient Nigeria, ready for rapid and sustainable socio-economic development. Its mission is to strengthen national initiatives to adapt to and mitigate climate change and involve all sectors of society, including the poor as well as other vulnerable groups (women, youth etc.) within the overall context of advancing sustainable socio-economic development. To meet these challenges, the plan includes concrete targets in the areas of climate change adaptation, afforestation, and energy supply. Not much was achieved in terms of implementation activities at the national and sub-national levels and the negative impacts of climate change continued to characterize the grassroots population in the country. In fact, apart from one state, Delta that articulated its subnational policy on adaptation, all the remaining 35 states in Nigeria paid little attention to climate change challenges.

In 2021, the Federal Ministry of Environment, through the Department of Climate Change introduced the National Climate Change Policy (NCCP) for the 2021 to 2030 period. The NCCP sets out Nigeria's climate change policy direction, addresses conditions required to attain Nigeria's vision to be a climate resilient economy, and sectoral measures for mitigating the effects for climate change in Nigeria. The Act provides that the newly established NCCC, in conjunction with the Ministries in charge of Environment, Budget and National Planning, will be responsible for formulating Nigeria's National Climate Change Action Plan (Action Plan) going forward. The Action Plan would include details about Nigeria's carbon budget - defined in the Act to mean the approved quantity of GHG emission that is acceptable over a specified time -, GHG emission profile for sectors of the economy; incentives for private and public entities that achieve their GHG emission reduction targets; the level of Nigeria's compliance with its international climate change commitments etc.

Despite the commitment of Federal Government to climate change mitigation and adaption, as reflected in the National Climate Change Policy, not many activities are taking place at the sub-national and local levels to ameliorate the impact of climate change on agricultural and pastoral communities. Indeed, Bauchi State has not developed any sub-national plan for climate mitigation and adaptation. Between 1977 and 1992, the Bauchi State government, in conjunction with the World Bank Forestry II Project, embarked on a massive desertification plan in which it established 36 kilometre of forest shelter belts, 1,750 hectares of rural woodlots, and produced and distributed 10 million assorted seedlings. The project also assisted farmers to establish 250 hectares of private orchards in the northern parts of Bauchi State. It also distributed about 5,000 improved wood cooking stoves to individuals. Since then, there had not been any concrete effort to deal with the menace of desertification, deforestation and soil degradation in a consistent manner.

In Bauchi State, *The Mennonite Economic Development Associates (MEDA)*, an international economic development organization that creates business solutions to poverty, is one of the few non-state actors that has shown interest in promoting response to climate change in the state through its Women and Youth (WAY) project. The project has taken on a leadership role in response to the environmental challenges facing farmers in Bauchi State. This includes playing an active role in the creation of the Climate Collaboration strategy, which paved the way for the establishment of the Bauchi State Environmental Stakeholders Committee in 2018. The Strategy identifies the various environmental problems within and state and proposes strategies to address them. The primary focus in 2021 is to respond to the growing threat of drought and desertification. The Committee, which represents a diverse group of community stakeholders from government agencies, civil society organisations and the private sector, supported the planting of 9,500 trees in the 7 Local Government Areas where MEDA works. Tree planting is a frontline defence to slow the expansion of the Sahara Desert southward, thus protecting farmland and natural vegetation. In order to ensure success of the initiative, the Committee started a sensitization and awareness campaign within the impacted communities. The WAY project, through its partners and the Bauchi State sports council, supported the mobilization of 1000 youth from within WAY project to support the tree planting programme.

The Protect Our Planet (POP) Movement is an initiative designed to address the urgent need to share information and knowledge with the youth on solutions to achieve the Sustainable Development Goals (SDGs) adopted by the UN, mitigate climate change, and adapt to its growing impacts. Intended to ultimately reach the size, scale, and momentum to become a global movement, POP mobilizes the youth worldwide to take collective action needed to mitigate climate change and protect threatened ecosystems. It is in this context that the POP Nigeria team set in motion its climate education initiative in Bauchi State in November 2021. The project by POP Movement was executed in partnership with Global Environmental and Climate Conservation Initiative (GECCI). The project targeted public secondary school students in Bauchi state. Five schools were visited of which not less than 30 minutes of interactive sessions were held with the students. The students were taught basic indicators of climate change and its consequences. They were taught that one of the major contributors to climate change, is the actions of man such as the burning of fossil fuels, indiscriminate falling of trees (deforestation) that are supposed to serve as a carbon sink, and improper animals husbandry activities such as over grazing. They were also taught how to plant trees and encouraged to plant trees on their own as it will help in reducing the amount of carbon emitted in the atmosphere because carbon emission is one of the gases that constitute greenhouse gasses. To mark the end of our activities, nursery tree seedlings were donated to the schools visited. Each of the schools visited has not less than 500 students. Bringing the estimated numbers of both the staff and students sensitized during the project, to over 2,500.

Gombe State has not articulated any sub-national climate change policy. However, the state has keyed into the National Policy on Climate Change. Addressing the challenges of climate

change in the State is one of the mandates of the Ministry of Environment and Forest Resources, and the State has been doing this. Some of these actions already taken include addressing desertification and deforestation programmes, keying into the Great Green Wall Project, and granting access to environmentally friendly energy sources by creating and enhancing opportunities for improved means of livelihood. Though the State has no specific policy on climate change, it is guided by the national policies of the federal government. However, some of the actions put in place to reduce the challenges of climate change include the planting of trees, cooperating with the federal and other state governments, as well as research agencies on matters and facilities relating to environmental protection, checking desertification and deforestation, maintaining public awareness on the impact of climate change, providing alternative energy sources, and conducting environmental impact assessment of projects. Other actions taken include waste management and promotion of cooperation in environmental science and sanitary control with other similar agencies. These policy actions have led to increasing awareness of the people on the challenges of climate change. The people are becoming aware of anthropogenic impacts of climate change, especially in waste management, erosion control, use of agro-chemicals, use of eco-friendly energy sources and the effects of flooding and adherence to urban planning and control that affects the environment. The key challenges facing the management of climate change in Gombe State include inadequate funding, workforce, machinery, infrastructure and capacity. There is also the challenge of technical know-how and lack of modern science and technology equipment.

Chapter 4

Demographic and Social Characteristics of Survey Respondents

Introduction

Households in the study areas of Bauchi and Gombe States constitute the major unit of production and consumption. It therefore provides a key basis for decision-making with consequences for the empowerment of women. It is against this background that this chapter examines the major demographic and social characteristics of respondents in the study areas of the two target states and their implications for the challenge of promoting gender equity and the empowerment of women.

Age and Sex of respondents

As in many parts of the Sahel region of Nigeria, the population of the study areas in Bauchi and Gombe States is significantly youthful in character as reflected in the age distribution of the respondents in the survey. Table 4.1 shows that the majority (over 75 percent) of the respondents are under 60 years. However, the proportion of people under 60 years is higher in Gombe than in Bauchi. Table 4.1 shows further that a greater proportion of the female respondents in the study areas of Gombe and Bauchi States are in the age group 20 to 39 years. This can be explained by the fact that more males of that age category are able to migrate to other areas in search of work compared with females who may not be able to move to other localities freely. They generally remain in their households as girl child or as married women.

Table 4.1:
Percentage age distribution of respondents

Age of Respondents (Years)	Male	Female
Bauchi State		
Less than 20 years	1.6	4.4
20-39 years	38.5	54.7
40 -59 years	41.4	35.6
60 years and above	18.6	5.3
Gombe		
Less than 20 years	2.7	2.4
20-39 years	46.3	51.2
40 -59 years	43.6	38.8
60 years and above	7.5	7.6

With regard to the sex distribution pattern, Figure 4.1 shows that more females were interviewed than males as reported earlier in Chapter 2 which is a major success achieved during the survey. The Figure 4.1 shows that in Gombe State 75.5 percent of the respondents were females while in Bauchi State 75.1 percent were females.

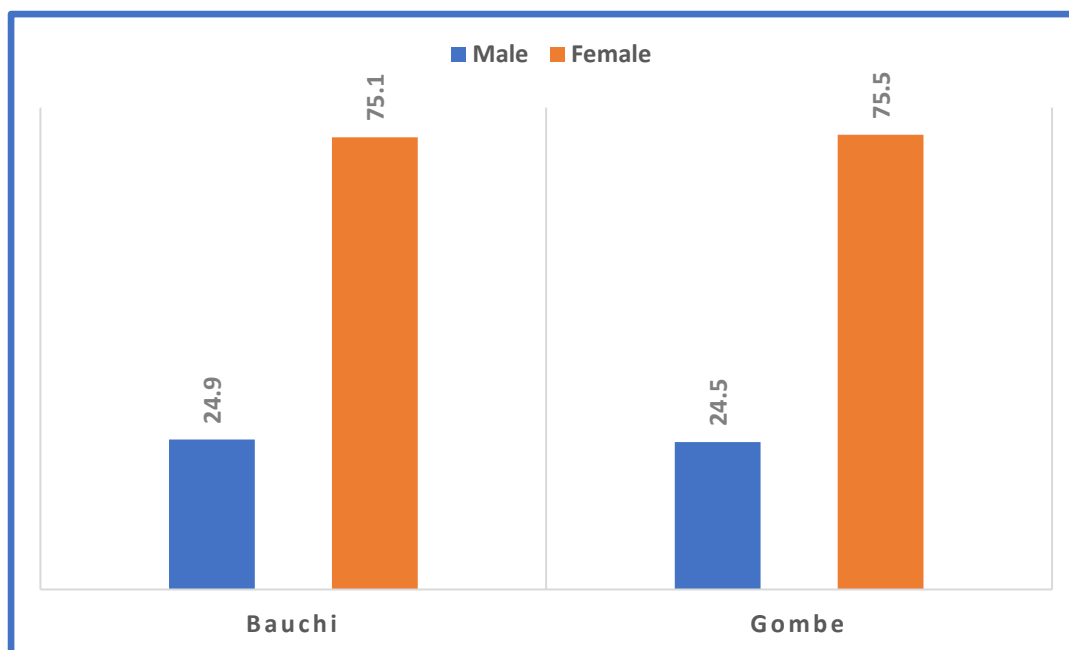


Fig. 4. 1: Percentage sex distribution of respondents

In view of the prevailing traditions and norms in the study areas efforts were made to interview females as representatives of their households which were sampled so that a true perspective of the prevailing patterns of women empowerment can be appreciated. We observed that the females respondents participated enthusiastically in the various quantitative and qualitative surveys with their voices effectively heard.

Marital Status of Respondents

The practices of polygamy and early marriage of young adults are very common phenomena in most communities of the study areas as in other parts of Nigeria. By age of 15 years, a

Table 4 2
Percentage distribution of respondents by Marital Status

Respondents' Marital Status	Male	Female
Bauchi State		
Single	2.7	0.6
Married	95.2	89.4
Widowed	1.9	8.1
Separated/Divorced	0.3	1.9
Gombe		
Single	20.1	4.8
Married	74.6	83.6
Widowed	3.2	10.3
Separated/Divorced	2.1	1.3

significant proportion of the females are married. Not only are many women married by the time they are 15 years old, but they also tend to stay married throughout. However, the pattern is changing as more women now wait for a relatively longer time before marriage. Table 4.2 shows that for the proportion of the male respondents that is single is less than 3 percent in

Bauchi but higher in Gombe which recorded about 25 percent. Table 4.2 further shows that a greater proportion of male respondents (95.2) in Bauchi are married compared with 89.4 per cent for females. The pattern in Gombe is a little different with a higher proportion of the female respondents (83.6) being married compared with 74.6 percent for male respondents. This pattern indicates that a relatively high proportion of respondents are mature and responsible enough to describe the nature of gender dynamics in their households in particular and their community in general so that they could provide the needed information for assessing the past and present patterns of gender equality characteristics as well as the emerging changes being experienced by them in their communities.

Educational level completed by respondents

Education is a human right and one of the major stimulants and impetus to development, and as such, its importance cannot be over emphasized. Education is essential in providing people with the basic knowledge and needed skills to improve the quality of their lives. In effect, a household with many educated members is likely to have better welfare and an improved standard of living. Thus, policies and programmes that help to expand access to, and the proper utilization of, educational opportunities will also assist in reducing poverty. The ability to read and write is an achievement that affords the individual a wide range of choice of means of livelihood. One is expected to acquire literacy after completing three years of formal primary education. By the educational policies and practices in Nigeria, the recommended age for entry in primary one is 6 years, thus by the end of primary three, these children should be 9 years. When computing adult literacy, persons aged 15 years and above are considered following the international convention. It is also important to analyze the adult literacy rates since after the introduction of Universal Primary Education (UPE) in Nigeria, various persons enrolled in different classes whether adult or young.

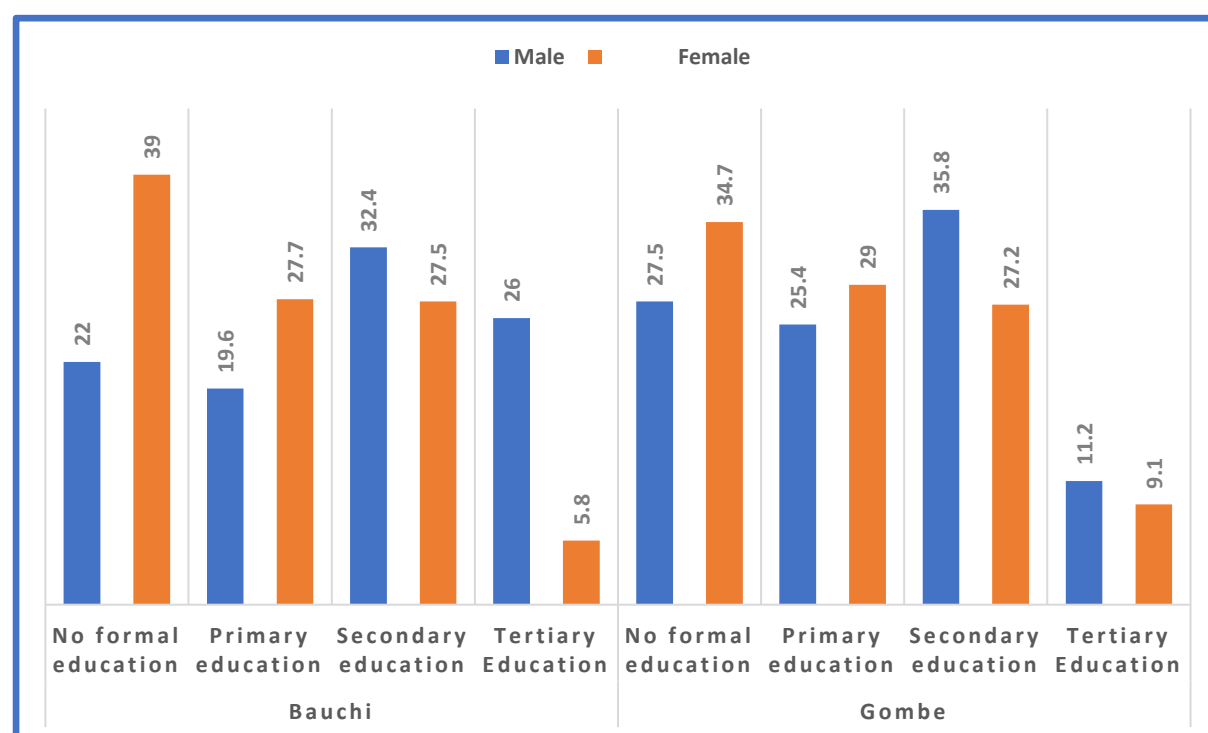


Fig. 4.2: Percentage distribution of respondents by highest educational level attained.

Figure 4.2, which presents the educational status of the male and female respondents, at the time of the survey, shows differences in the pattern of educational attainment between male and female respondents in Bauchi and Gombe States. With respect to the attainment of primary education Figure 4.2 indicates that a higher proportion (about 28%) of female respondents had primary education compared with about 20 percent of the male respondents. However, Figure 4.2 indicates that higher proportions of the male respondents in Bauchi State have secondary and tertiary education compared with the female respondents. The pattern is largely similar in Gombe State where 34.7 percent of the female respondents had no formal education while 27.5 per cent of the male respondents are that category. With regards to primary education a higher proportion (29.0%) of the female respondents in Bauchi are in that category compared with 25.4 percent for male respondents. When the situation with regards to secondary and tertiary education is examined male respondents in the two states had a higher proportion of the respondents with secondary and tertiary education compared with female respondents. This shows that males do have better opportunity for secondary and tertiary education compared with females.

On the whole it can be stated that, across the study areas in the two states, a good proportion of the respondents have the capacity to read and comprehend the issues raised in the questionnaires without requiring much assistance or being dependent on the field officers for interpretation. They are also in a position to appreciate the issues involved in the examination of the challenges of gender equality and women empowerment.

Occupation of respondents

Examining the composition of respondents by type of economic activity is vital for monitoring the patterns of economic activities and indeed development of any region such as the Sahel region of Nigeria. The distribution of opportunities in the working age population is an important element to the wealth of the population. A person of working age, 15 years and above is said to be employed if he or she is engaged in an activity through which he or she earns a wage or salary, in cash or in kind. The employer could be government, private establishment or a self-engaged activity. Table 4.3 shows the industry in which the respondents in the surveyed localities are employed. It indicates that, on average, the highest proportions of persons employed are engaged in farming and livestock production with farming having a higher proportion. In Bauchi State 70.8 percent of the males are in farming activities while a lower proportion 31.4 percent of the female respondents are in farming. The pattern in Gombe is largely similar with about 70 percent of the male respondents in farming activities and 43.9 percent of the female respondents also in farming. Table 4.3 further shows that a higher proportion of the female respondents are engaged in livestock production compared with male respondents. In Bauchi 51.5 percent of the female respondents are engaged in livestock production compared with 16.2 percent of the male respondents. In Gombe State 48.0 percent of the females are engaged in livestock production activities compared with only 24.3 percent of the male respondents. The findings show that women who normally do not move too far from their homes are largely engaged in carrying out livestock production around their homes rather than going to farmlands far away from home. Table 4.3 further shows that other economic activities such as trading, working in the formal public and private sectors where non-agricultural activities are carried out are of less significance in terms of the proportion of male and female respondents engaged in them. However, it should be noted that a higher proportion of female respondents in the study areas of both states are engaged in trading activities compared with the male respondents. Again, the same explanation can be given for the involvement of female respondents in trading in that their trading activities take place largely within their residential areas and communities.

Table 4.3:
Percentage distribution of respondents by Main Occupation

Respondents' main occupation	Male	Female
Bauchi State		
Farming	70.8	31.4
Livestock Production	16.2	51.5
Trading	8.2	16.6
Public Sector	3.7	0.2
Private Sector	1.1	0.3
Gombe State		
Farming	69.8	43.9
Livestock Production	24.3	48.0
Trading	3.5	5.6
Public Sector	1.3	1.1
Private Sector	1.1	1.5

The findings with regard to the dominant occupations of the respondents which are largely in farming and livestock production show that they are vulnerable to climate change because changes in the climate variables which is experienced in the study areas will have direct impacts on households' income and livelihoods. In this regard, men and women are likely to suffer differential impacts as the distribution of men and women in the various occupations differ somewhat.

Table 4.4
Percentage distribution of respondents by length of time in main occupation

Respondents' length of time in main occupation	Male	Female
Bauchi State		
Less than 10 Years	32.6	55.1
10-20 Years	36.3	34.6
Above 20 Years	31.0	10.3
Gombe State		
Less than 10 Years	33.2	39.4
10-20 Years	37.4	38.7
Above 20 Years	29.4	21.9

Table 4.4 indicate that most of the male and female respondents in Bauchi and Gombe States have been engaged in their present occupations for a considerable length of time. Indeed, over 50 percent of the female and male respondents have been in their occupations for more than 10 years. This finding indicates that the respondents are in a position to report on their experiences with respect to the challenges facing their main economic activities, especially the females in terms of the constraints they face in the context of gender equality and women empowerment issues. The survey also examined the degree to which male and female

respondents are engaged in their main occupations on a fulltime basis. Figure 4.3 shows that the vast majority (over 70%) of both the male and female respondents are engaged in their present occupations on a full-time basis. This indicates that most of the respondents of both sexes are devoted to their occupations and efforts to improve their livelihoods must focus on their present occupations.

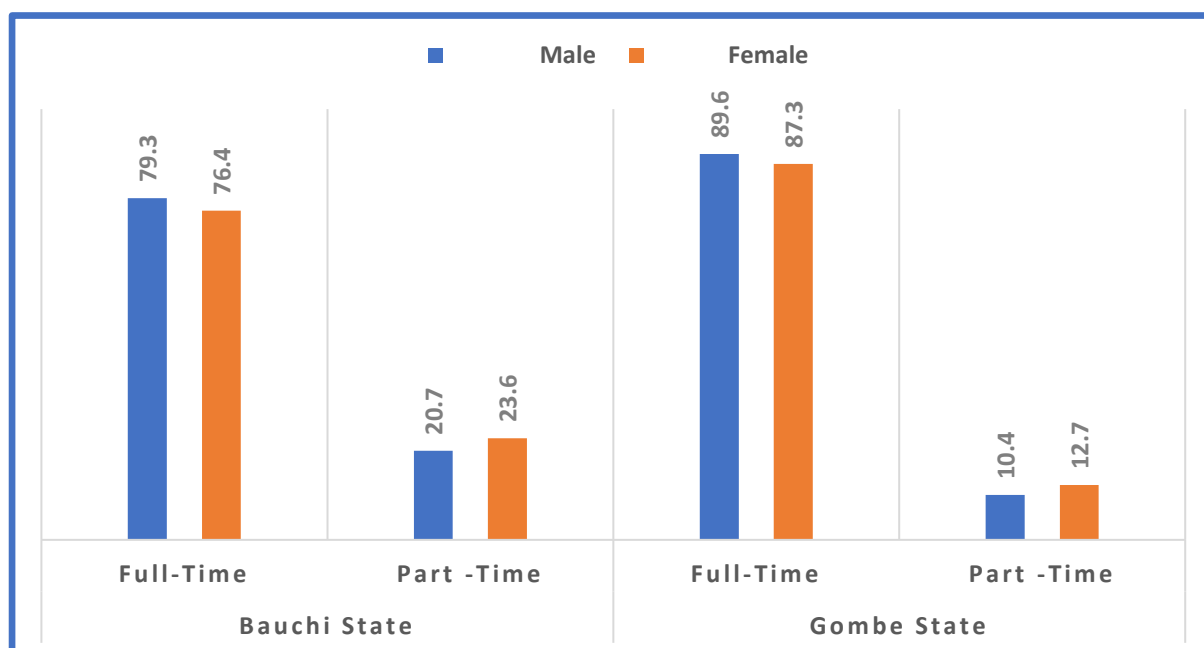


Fig. 4.3: Percentage distribution of respondents by whether the main occupation is full time or part time

Income level of respondents

The measurement of income level is generally a major problem in Nigeria because of the reluctance of respondents to give accurate information on their real income. Moreover, there is the problem of quantifying the real income of the rural working population because a good proportion of production activities does not enter or pass through the market system but is consumed directly by the producers. Despite these constraints, an attempt was made to

Table 4.5
Percentage distribution of respondents by their average monthly income from main occupation

Respondents by their average monthly income from main occupation	Male	Female
Bauchi State		
Less than N10,000	24.9	60.1
N10,000 - N20,000	44.0	34.8
Above N20,000	31.0	5.2
Gombe State		
Less than N10,000	38.8	55.3
N10,000 - N20,000	42.5	34.7
Above N20,000	18.7	10.1

extract from the respondents the estimate of their earned income per month excluding what they consume directly from their production activities. Table 4.5 show that over 60 percent of the female respondents in Bauchi State reported that they earn less the N10,000 a month compared with a lower proportion of 24.9 percent of the males. The pattern in Gombe is largely similar to the situation in Bauchi with 55.3 percent of the females reporting that they earn less than N10,000 per month compared with 38.8 percent of the male respondents. This shows that females in the two states earn extremely lower income compared with their male counterparts. This is further confirmed by the finding that in Bauchi State while 31.1 percent of the male respondents earn above N20,000 per month the proportion of the female respondents in that category is just 5.2 percent. Similarly, in Gombe State 18.7 percent of the male respondents report that they earn over N20,000 per month while the proportion of female respondents in that category is about 10 percent. What can be deduced from the findings is that income levels are quite low in most rural farming/pastoral communities in Sahel region of Nigeria as most of the respondents earn far less than 1 dollar per day. While the bulk of the income comes from those dwelling in the localities where the surveys were carried out, supplementary income is also received from husbands and relations that travelled out of their localities. These findings on income level in the Sahel region of Nigeria have implications for vulnerability, gender equality and women empowerment strategies in the communities.

Housing Characteristics of Respondents

Housing like food, clothing and fuel, is a basic human requirement. Housing is required for the protection of persons and of property from the vagaries of weather elements (sun, rain and wind). The provision of good housing has a profound influence on the health, efficiency and well-being of any community. Fundamental to the analysis of housing requirement is the definition of housing need. Housing need may be defined as the number of dwellings to be built or improved upon so as to provide each household or family with adequate dwellings of acceptable standards. This need should not be confused with effective housing demand, which is the number of dwellings that can be afforded by families, through unsubsidized loans from credit institutions. Housing demand is the desire for better housing supported by the economic ability to satisfy the desire. Hence, households living in overcrowded, dilapidated or makeshift dwellings only represent a housing need if they do not have the money to pay for better housing. It cannot be denied that the determination of the housing need is a basic tool in the formulation of any housing policy and its implementation in terms of housing production targets and priorities, and the preparation of the corresponding housing programme as part of the overall economic and social development programme of any region such as Sahel region of Nigeria. The need in terms of dwelling units will indicate not only the volume of construction materials and skills to be made available but also the investments and level of savings to be achieved.

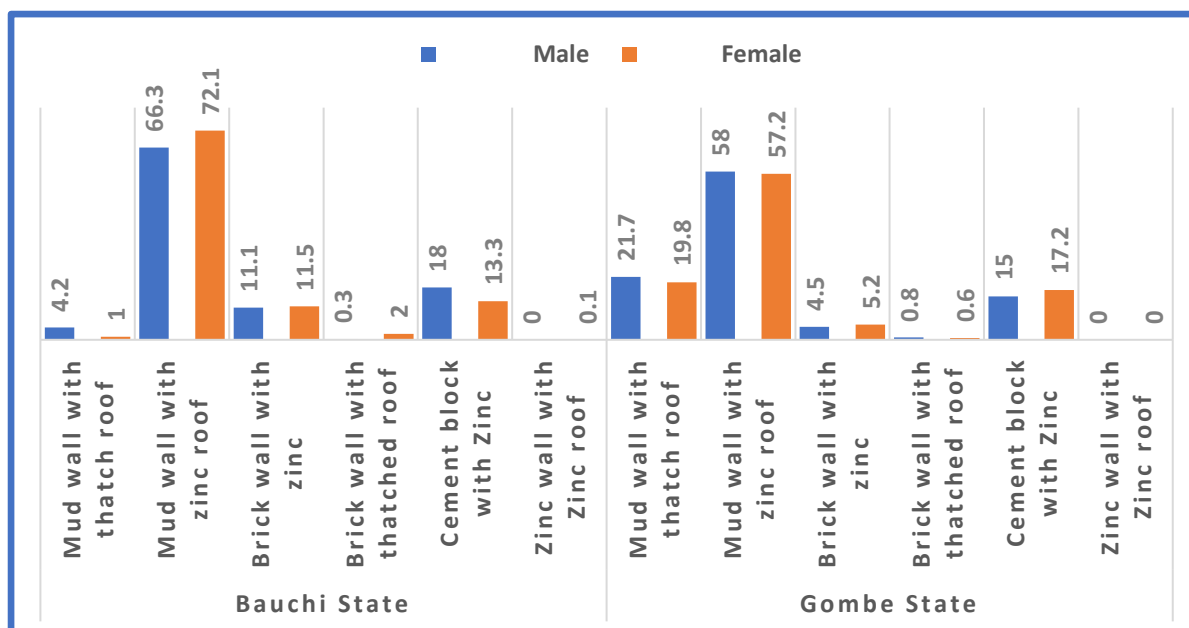


Fig. 4.4: Percentage distribution of respondents by the type of house they live in

Figure 4.4, which presents key indicators of housing types in the surveyed communities, suggest two basic features. In the first place, housing for the vast majority of the respondents' households is poor in terms of the materials used in constructing houses which makes them vulnerable to any violent or extreme climate change events such as flooding, erosion, windstorm and thunderstorm. Secondly, a large proportion of the households still depend on the local ecosystem in terms of the materials for the construction of their dwellings. Consequently, climate change effects on the ecosystem constitute problems for many households. On the other hand, dependence on the immediate environmental resources such as forest resources, which are depleted by frequent cutting down, negatively affects climate in the different parts of the Sahel region. Figure 4.4 reflects the fact that in the surveyed localities in Bauchi and Gombe States, over 50 percent of the houses are built of mud wall with zinc roof. The other significant groups of house types are those built with cement block and roofed with zinc. However, in Gombe State about 20 percent of the respondents are living in houses built with mud wall with thatch roof which is the poorest category of house types among the respondents. Comparatively, the respondents living in houses built of mud wall with thatch roof are quite insignificant with less than 5 percent. As expected, there were no considerable differences between houses where female respondents are living and those in which male respondents are living. The houses are often built by the males.

The type of toilet facility used by a household depicts its hygienic status. A good means of sanitary disposal was defined as households with flush to sewage system, flush to septic tank, covered pit latrine and ventilated pit latrine. The findings of the sample survey (Table 4.6) show that only about 10 per cent of the dwellings in which both the male and female respondents can be said to have good means of sanitary disposal due to the fact that they have water closet facility. The proportion of the respondents' dwellings which have pit latrine is over 60 percent in both Bauchi and Gombe. Households using open defecation constitute about 30 percent of the respondents in Gombe while it is less than 5 percent in Bauchi. If the communities are flooded, the flood enters the pit and open toilets. The bacteria and other infectious microbes therefore act as free agents to attack individuals that wade through the water leading to various diseases and ailments.

Table 4.6
Percentage distribution of respondents by the type of toilet facility in the house they live in

Respondents by the type of toilet facility in the house they live in	Male	Female
Bauchi State		
Open defecation	1.9	4.7
Pit Latrine	86.7	85.6
Water Closet	11.4	9.7
Gombe State		
Open defecation	31.0	33.4
Pit Latrine	64.4	61.4
Water Closet	4.5	5.1

Refuse disposal facilities are also important for the hygienic status of the people living in a house. The findings from the survey show that solid wastes, including dried wastes like yam or cassava peelings, leaves and food remnants are usually heaped on open grounds near dwellings within the communities. Figure 4.5 shows that in Bauchi State most of the respondents of both sexes reported that they dispose of their refuse by burning it. In Gombe State about 45 percent of the respondents reported that they burn their refuse. Table 4.9 further shows that the indiscriminate dumping of refuse in surrounding of their houses account for about 40 percent of the respondents in Bauchi and for about 50 percent in Gombe.

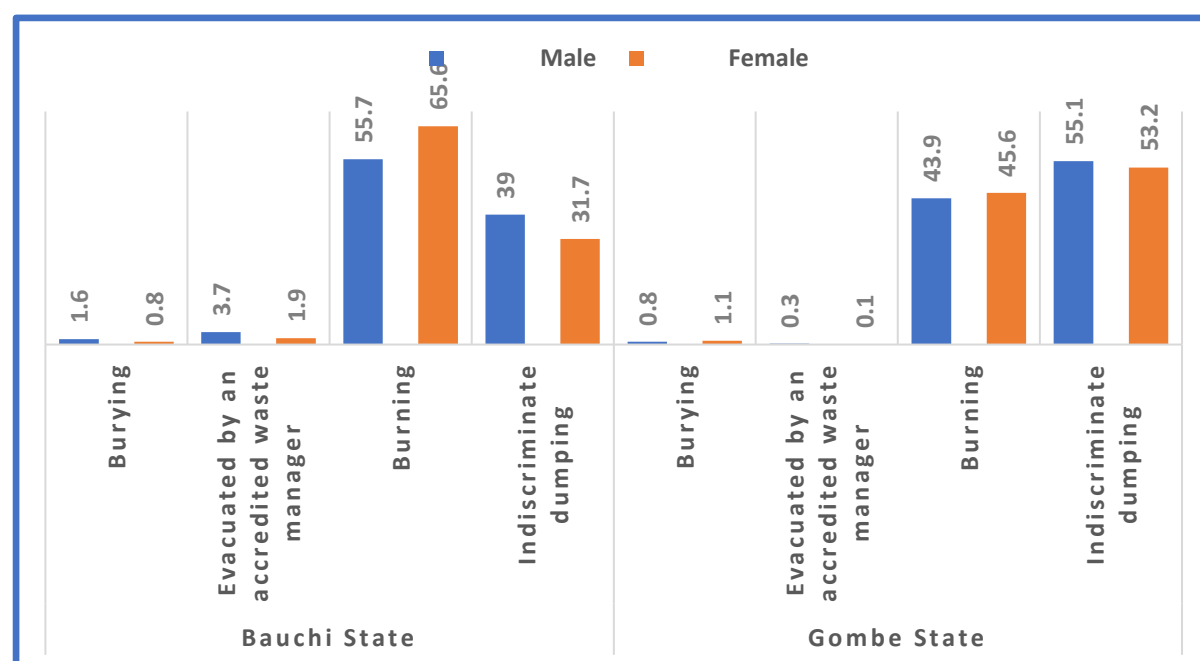


Fig. 4.5: Percentage distribution of respondents by the mode of solid waste disposal

These dumps constitute comfortable breeding grounds for rodents, rats, etc., all of which contribute to the spreading of diseases like plague once there is flood. It is only during the dry season that the dried refuses are disposed of by burning; otherwise, they are left to rot away and decay through the natural process of decomposition. During the period of heavy rain and flooding occasioned by climate variability and change some of these wastes are transferred to streams from where many households collect drinking water.

The quality of drinking water is of great importance to the health of every individual. Access to good water is, therefore, a measure of development. Drinking water is considered safe and good when it is from any of the following sources namely: piped water, standard boreholes and protected wells and springs. Access to good and safe water was defined for households with a good water source less than 30 minutes away. The findings of the survey (Table 4.7) show that less than 10 percent of respondents in the surveyed communities of Bauchi and Gombe obtain their drinking water from a public pipe born water system. On the other hand, over 70 percent of the respondents in Bauchi depend on boreholes sunk within their community. The proportion of respondents using water from boreholes in Gombe is about 40 percent. Wells of various types, most of which are poorly dug account for water supply to about 20 percent of the respondents in Bauchi and Gombe States.

In effect, most surveyed communities in Bauchi and Gombe States are extremely vulnerable to climate change in terms of access to water because whenever the rains fail to come at the right time and the quality of water from the local wells and even some of the boreholes declines, the people become susceptible to diseases due to the poor quality of water which they drink. This explains why a large proportion of the households cover long distances before getting the water they needed for drinking and even for bathing and other uses putting considerable pressure on women and girls who are largely responsible for fetching water for household use.

Table 4.7:
Percentage distribution of respondents by main source of drinking water

Respondents by main source of drinking water	Male	Female
Bauchi State		
Public pipe-borne system	9.5	7.8
Borehole	76.1	73.6
Open well	11.1	10.3
Ring Well	2.4	7.9
River/Streams	0.8	0.4
Purchased from tanker/other sellers	0.0	0.0
Harvested Rainwater	0.0	0.0
Gombe State		
Public pipe-borne system	5.6	7.0
Borehole	41.4	51.3
Open well	9.4	6.3
Ring Well	27.8	24.9
River/Streams	15.5	10.1
Purchased from tanker/other sellers	0.3	0.3
Harvested Rainwater	0.0	0.1

Wood fuel is still overwhelmingly used for cooking in most households in the communities of Bauchi and Gombe States. As Figure 4.6 indicates over 90 percent of the respondents' households in both Bauchi and Gombe States use firewood for cooking but when that fails,

they depend on charcoal. Other sources of fuel for cooking such as kerosene and gas are quite insignificant. This implies that the forests are exploited regularly for cooking fuel, and this further contributes to the reduction of carbon sinks and increases atmospheric warming and climate change in the Sahel region.

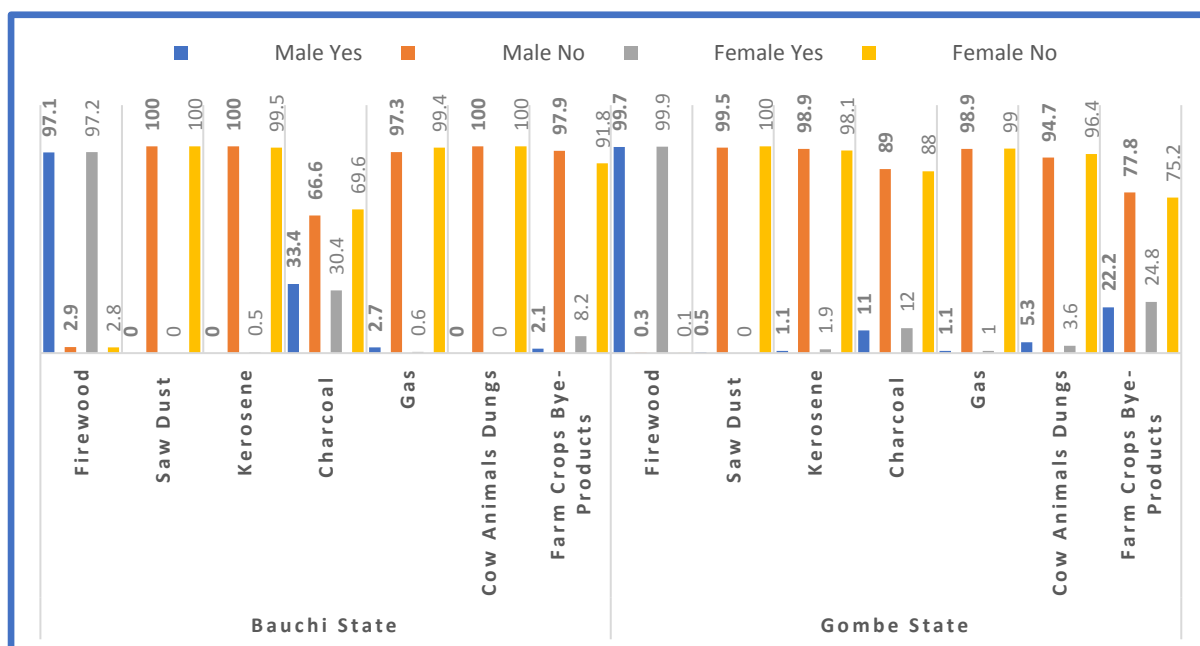


Fig. 4.6: Percentage distribution of respondents by types of fuel use in cooking

Chapter 5

Patterns of Agricultural and Livestock Production

Introduction

The agricultural sector is the oldest and most prominent economic activity in the Sahel region. It is also the principal source of food and livelihood as it employs the vast proportion of the labour force. Local agricultural production is a particularly important component of food security. As a result, agricultural productivity is critical to Nigeria's ability to meet food security. However, agricultural production has been under severe stress, having registered poor harvests in many previous years. Agricultural production was largely constrained by, among others, lack of access to adequate marketing, storage, transportation and finance. This chapter examines the pattern of agricultural and livestock production in the surveyed localities of Bauchi and Gombe States with particular attention to the role of women in the agricultural production process in the surveyed localities.

Access to and ownership of farmlands

Agriculture in the Nigerian Sahel region is mainly rain-fed with small field sizes. Variations across the region include higher levels of agricultural diversification towards the southern part of the Sahel region and the importance of harvesting tree products in the parkland areas of the northern Sahel. A key element of agricultural production in the Sahel region of Nigeria relates to access to farmland by both males and females. The findings of the survey show that over 90 percent of the respondents in the study areas of Bauchi and Gombe States reported

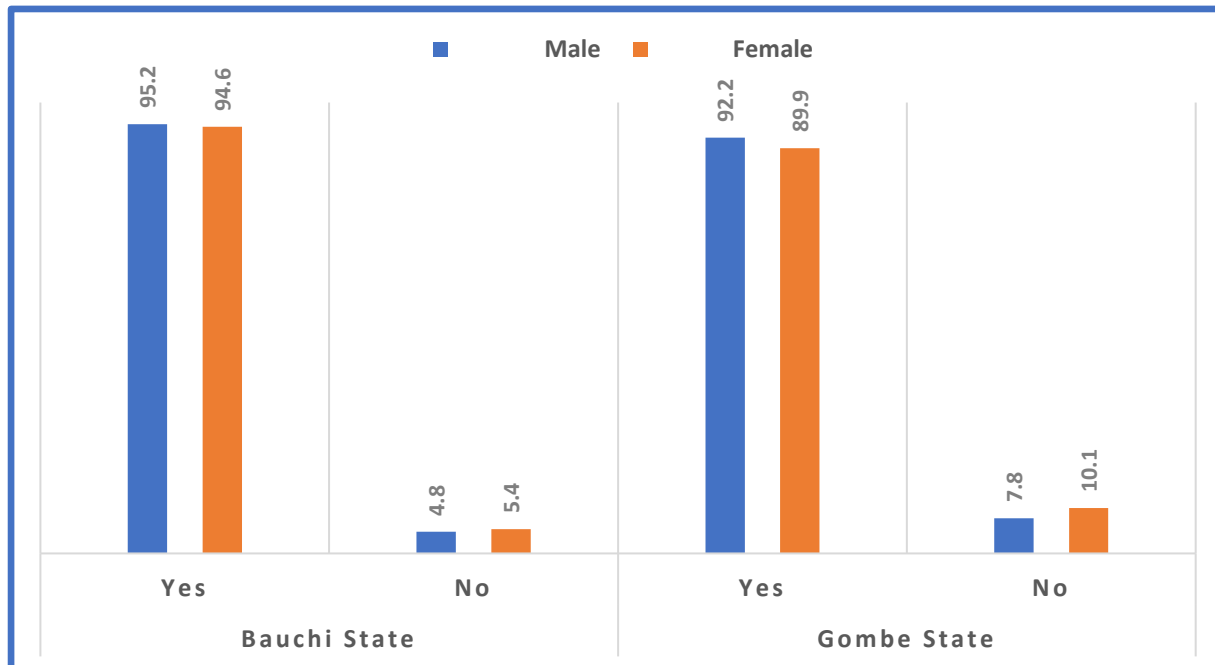


Fig. 5.1: Percentage distribution of respondents' household members currently having access any farmland

that they have access to farmlands for agricultural activities (Figure 5.1). The findings also indicate that both male and female respondents reported that they have access to farmland for agricultural production activities whenever they want to be involved in farming activities.

One common feature of agricultural production in the Sahel region of Nigeria as it is in many parts of Nigeria is the fragmentation of farmland holdings. Farmland fragmentation can be defined as a situation where a farming household possesses several non-contiguous land plots, often scattered over a wide area. The findings of the survey shows that farmland fragmentation is also characteristic of the respondents covered in both Bauchi and Gombe States. As indicated in Figure 5.2, over 95 percent of the male and female respondents in both

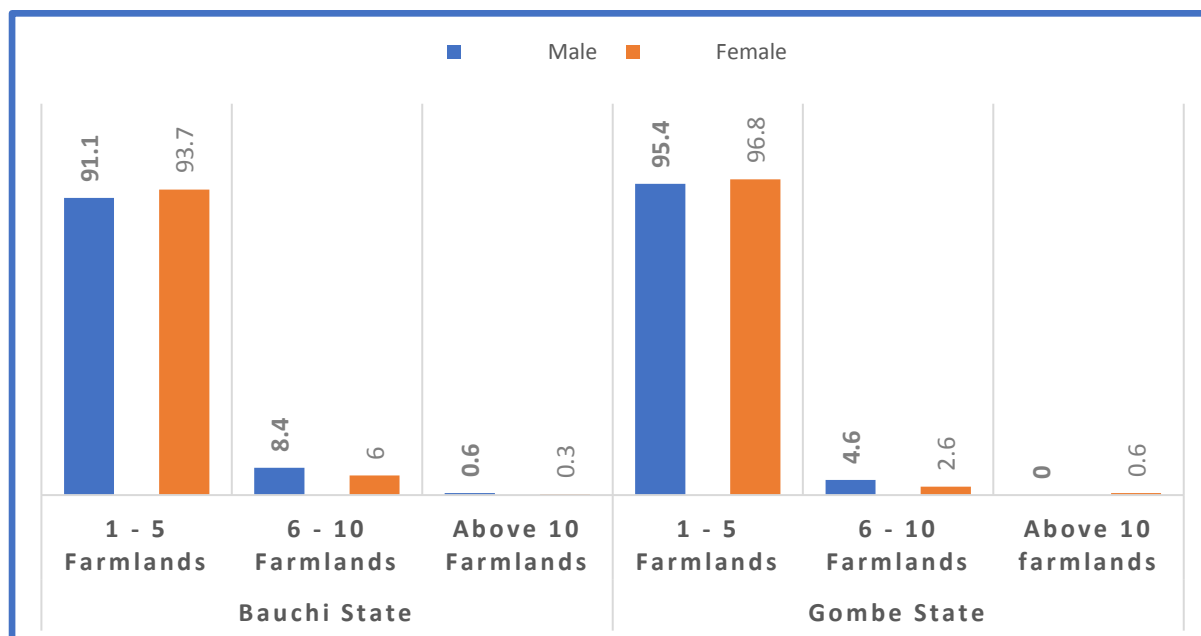


Fig. 5.2: Percentage Distribution of respondents by the number of farmlands owned by household members with land.

Bauchi and Gombe States have between 1 and 5 different farmlands. Further interrogation of the respondents during the interviews to determine the proportion of them that had just one or two farmlands show that the most of them have at least three different farmlands located in places that are over five kilometres from one and another. The small-scale nature of the farming activities of the respondents is reflected in the fact that most of them cannot sustain more than five different farmlands which explains the fact that just a few of them reported that they had over six different farmlands.

Having access to farmland does not always guarantee the availability of such land. Consequently, the ownership of farmland is more relevant and can enable farmers to carry out their farming activities without the fear that the real owner can deny them the use of the land at any time. It is in this context that the issue of ownership of farmland presently accessible to the respondents was examined. Table 5.1 indicates that the pattern of farmland ownership varies remarkably among male and female respondents. The findings show that while about 70 percent of the male respondents in Bauchi State reported that they own their farmland only 12.6 percent of the female respondents reported that they own their farmland. The situation in Gombe State is largely similar with 77.1 percent of the male respondents

Table 5.1:
Percentage Distribution of respondents by the ownership of most farmlands

Respondents by the ownership of most farmlands	Male	Female
Bauchi State		
Self	70.5	12.6
Partner/Spouse	12.8	57.3
Self and partner/spouse jointly	9.5	17.4
Another household member	7.2	12.7
Gombe State		
Self	77.1	22.5
Partner/Spouse	7.2	58.7
Self and partner/spouse jointly	4.3	11.3
Another household member	11.3	7.4

reporting that they own their farmland compared with 22.5 percent of the female respondents that indicated that they own the farmlands in which they carry out agricultural production activities. However, Table 5.1 equally indicates that a higher proportion of the female respondents reported that they own their farmlands with their partners/spouses who is often their husbands. In Bauchi State 57.3 percent of the female respondents indicated that they own their farmlands with their spouses while the situation in Gombe State is largely similar with 58.7 percent of the females reporting that they own their farmlands with their spouses. The other forms of farmland ownership in the target communities are largely insignificant.

Major agricultural crops produced by respondents

The Sahel region of Nigeria is known for the production of a variety of crops including cereals (maize, pearl millet, rice, sorghum); fiber crops (cotton); fruit crops (cashew, mango, shea nut); cowpea, groundnut); oilseed crops (sesame); and root crops (cassava, sweet potato). Table 5.2 shows the various crops produced in the surveyed localities of Bauchi and Gombe States and these include maize, cowpea, groundnut, vegetables, rice, sorghum, soya Bean, guinea corn and millet. As indicated in Table 5.2, the dominant crops produced by the respondents are maize, ground nut, cowpea, rice, sorghum, soya bean and millet. The findings show that there is no major difference between the crops produced by male and female respondents in both Bauchi and Gombe States. This suggests that both females and males are essentially engaged in the production of similar crops in their farmlands.

Table 5.2:
Percentage distribution of respondents by types of crops produced in their farm

Respondents by types of crops produced in their farm	Male		Female	
	Yes	No	Yes	No
Bauchi State				
Maize	92.3	7.7	82.7	17.3
Groundnut	42.9	57.1	42.0	58.0
Cowpea	51.8	48.2	53.2	46.8
Vegetables	10.0	90.0	8.4	91.6
Rice	77.4	22.6	77.6	22.4
Sorghum	28.7	71.3	17.5	82.5
Soya Bean	33.1	66.9	36.2	63.8
Guinea Corn	25.9	74.1	24.3	75.7
Millet	29.2	70.8	30.7	69.3
Gombe State				
Maize	87.4	12.6	89.9	10.1
Groundnut	65.5	34.5	63.2	36.8
Cowpea	74.5	25.5	78.7	21.3
Vegetables	13.6	86.4	14.7	85.3
Rice	38.8	61.2	43.5	56.5
Sorghum	14.2	85.8	14.0	86.0
Soya Bean	36.2	63.8	35.3	64.7
Guinea Corn	22.0	78.0	22.3	77.7
Millet	31.9	68.1	37.9	62.1

In view of the fact that both male and female respondents are involved in the production of different crops, they were asked to rank the various crops in order of importance.

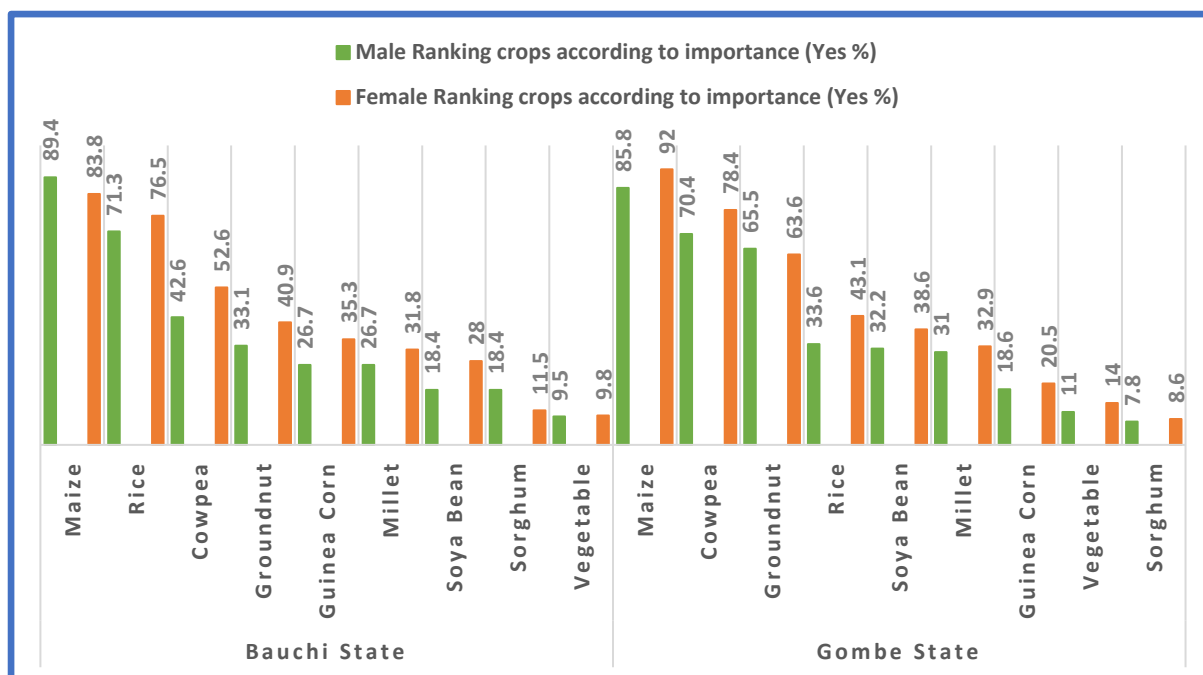


Fig. 5.3: Percentage distribution of respondents' ranking of the crops grown in order of importance.

Figure 5.3 shows that male respondents in both Bauchi and Gombe localities ranked maize as most important followed by rice, cowpea, groundnut, millet, guinea corn, sorghum and vegetables in that order. Similarly, the female respondents in both Bauchi and Gombe States also ranked the crops they produce in order of importance and basically reported the same pattern as those of their male counterparts. This can be explained by the fact that in most cases males and females do have joint ownerships of farmlands and the crops planted in them.

The common livestock produced by respondents

The common livestock animals produced in the Sahel region of Nigeria include Poultry birds like Chicken, Turkey, Quail, and Duck, Small ruminants (Goats, Sheep), Cattle, Pigs, Rabbits, and in some parts of the northern region of Nigeria, Donkeys, Camels, and Horses. The survey examined the ownership pattern by the male and female respondents in Bauchi and Gombe States by investigating their ownership of livestock. With regards to the ownership of large livestock, Table 5.3 indicates that over 60 percent of the respondents of both sexes in Bauchi and Gombe States reported that they do not have large livestock.

Table 5.3
Percentage Distribution of the current ownership of large livestock

Distribution of the current ownership of large livestock	Male	Female
Bauchi State		
Yes	31.8	31.7
No	68.2	68.3
Gombe State		
Yes	43.0	37.6
No	57.0	62.4

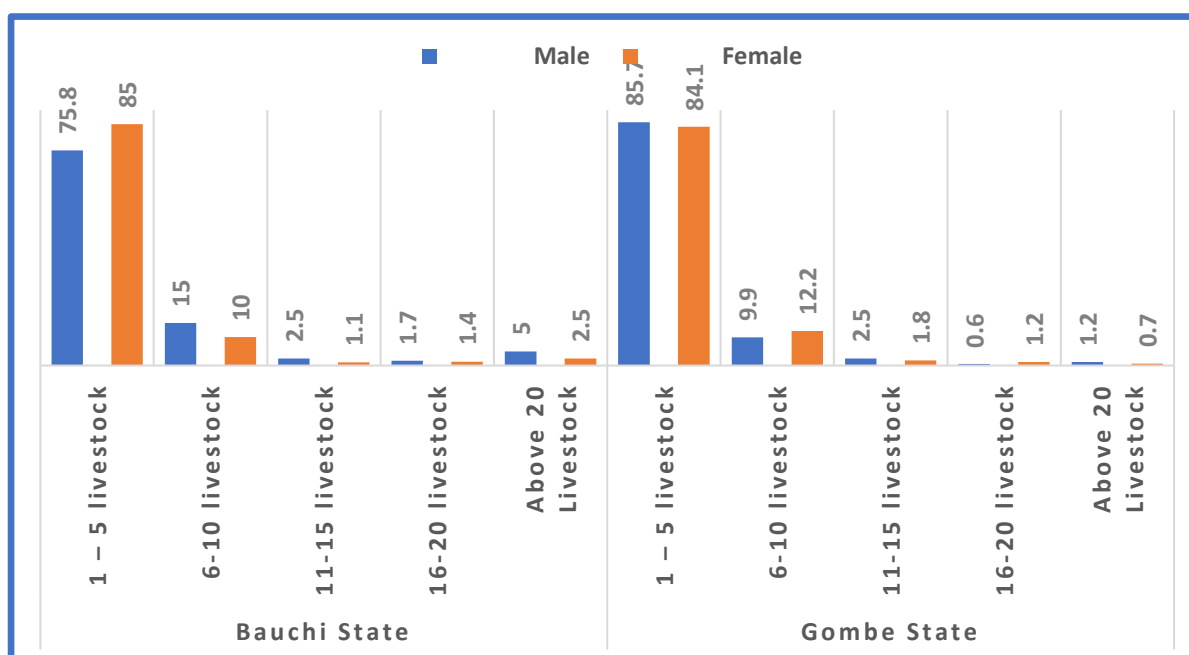


Fig. 5.4: Percentage distribution of Respondents by the number of large livestock currently owned by household.

About 30 percent of the male and female respondents reported that they had large livestock production capacities. In terms of the number of large livestock owned by the respondents, Figure 5.4 shows that most of them both male and female respondents own between 1 and 5. Figure 5.5 indicates that most of the large livestock are owned by the male respondents with over 60 percent of the male respondents in Bauchi State owning large livestock compared with just about 15 percent of the female respondents owning large livestock. The pattern is essentially similar in Gombe with 80 percent of the male respondents owning large livestock and while 24 percent of the female counterparts owning large livestock. The findings, as reported in Figure 5.5, further shows that in cases where female respondents are involved in the ownership of large livestock it is when they do so with their spouses as reflected in Gombe State where 56 percent of the female respondents reported that they own large livestock with their spouses. When it comes to the ownership of small livestock, the vast majority of the female respondents in both Bauchi and Gombe States reported that they own livestock on their own (Figure 5.6) just as the male respondents in both states also had their own. Table 5.4 shows the various types of livestock which male and female respondents keep in their communities, and it indicates that the dominant livestock owned by them are goat, sheep, chicken, ducks, cattle and pig. Again, both male and female respondents are involved in the rearing of the identified livestock. Finally, Figure 5.7 shows that both male and female respondents in both Bauchi and Gombe surveyed localities ranked the rearing of goat, chicken, sheep, cattle and duck in order of importance.

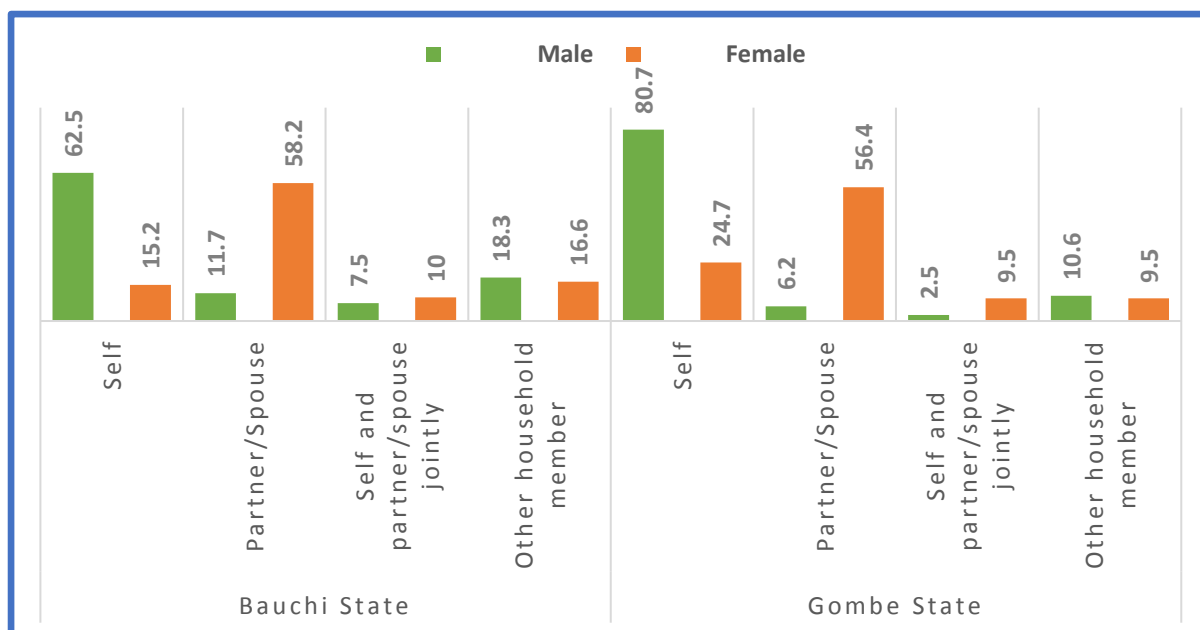


Fig. 5.5: Percentage distribution of respondents by the ownership of most large livestock

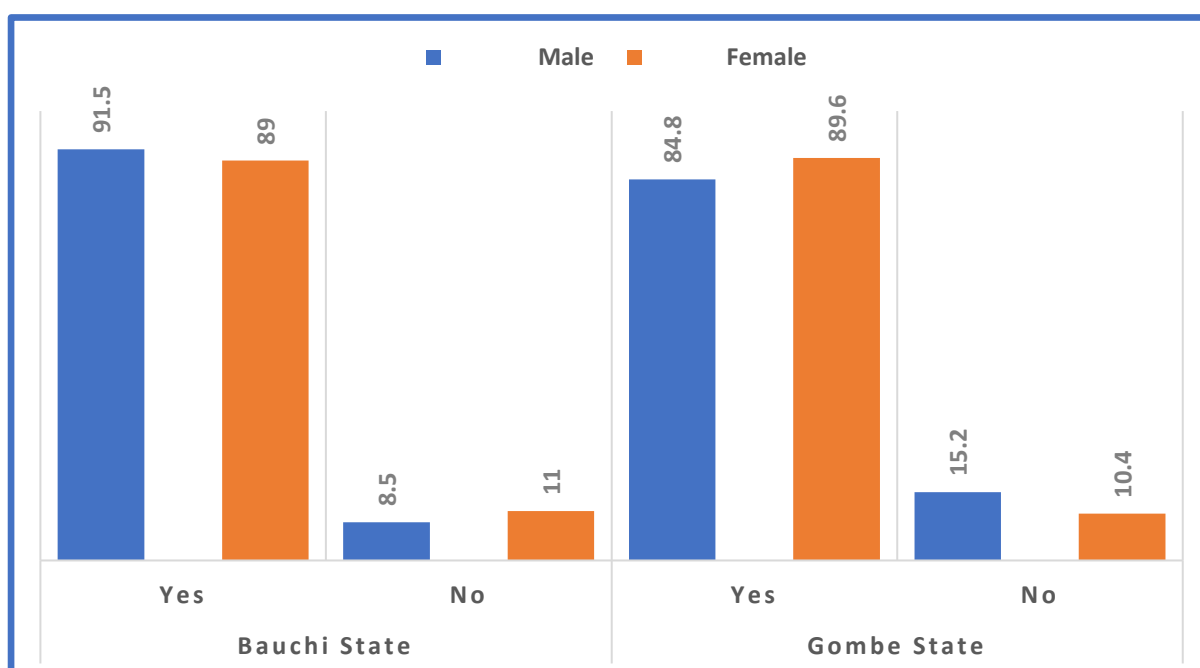


Fig. 5.6: Percentage distribution of respondents by the current ownership of small livestock

Table 5.4

Percentage distribution of respondents by types of livestock owned by respondents

Respondents by types of livestock found in their community	Male		Female	
	Yes	No	Yes	No
Bauchi State				
Goat	90.1	9.9	93.8	6.2
Pig	4.9	95.1	4.1	95.9
Sheep	75.7	24.3	72.6	27.4
Chicken	89.3	10.7	94.0	6.0
Turkeys	4.9	95.1	7.6	92.4
Pigeons	7.8	92.2	9.3	90.7
Ducks	33.0	67.0	39.2	60.8
Cattles	49.9	50.1	53.5	46.5
Oxen	2.0	98.0	5.0	95.0
Horses	0.6	99.4	0.3	99.7
Gombe State				
Goat	95.0	5.0	93.3	6.7
Pig	33.4	66.6	31.2	68.8
Sheep	63.1	36.9	62.4	37.6
Chicken	84.5	15.5	87.2	12.8
Turkeys	1.9	98.1	4.0	96.0
Pigeons	3.8	96.2	93.6	6.4
Ducks	22.4	77.6	22.4	77.6
Cattles	54.3	45.7	52.2	47.8
Oxen	0.3	99.7	1.2	98.8
Horses	0.0	100.0	0.1	99.9

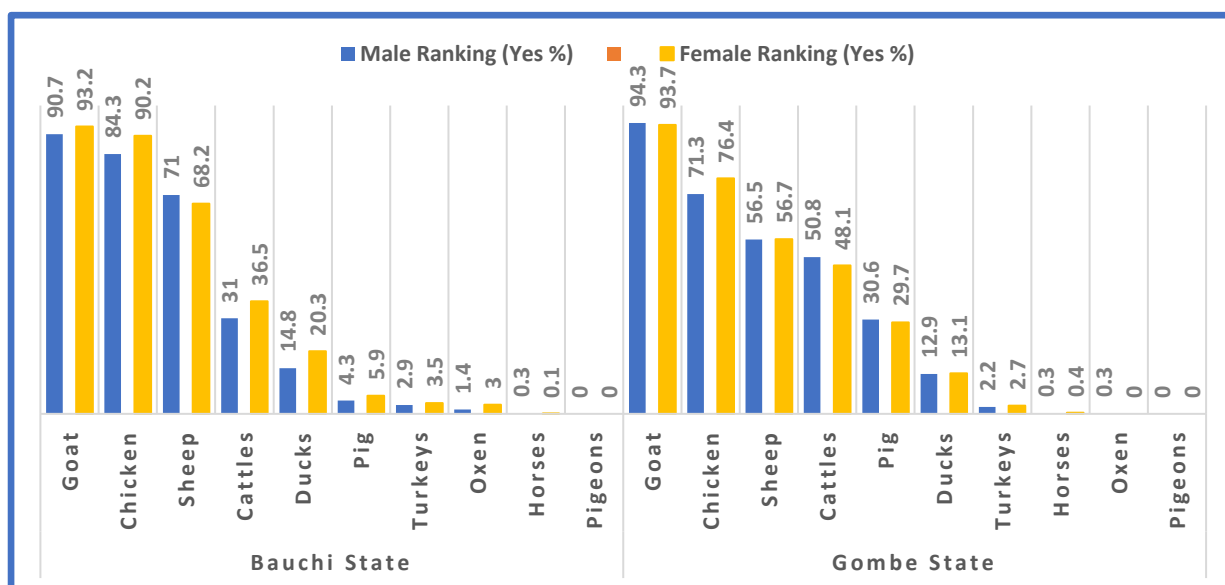


Fig. 5.7: Percentage distribution of respondents by their ranking of the livestock produced in order of importance.

Climate Change and economic activities of respondents

The majority of the people's livelihoods in the Sahel region of Nigeria, as in other parts of the West African Sahel, depend on agriculture and pastoralism, and these livelihoods are deeply affected by climate change. The survey examined how climate change has affected farming and livestock production in Nigeria's Sahel by interrogating the respondents on the issue with respect to their knowledge and perception of climate change.

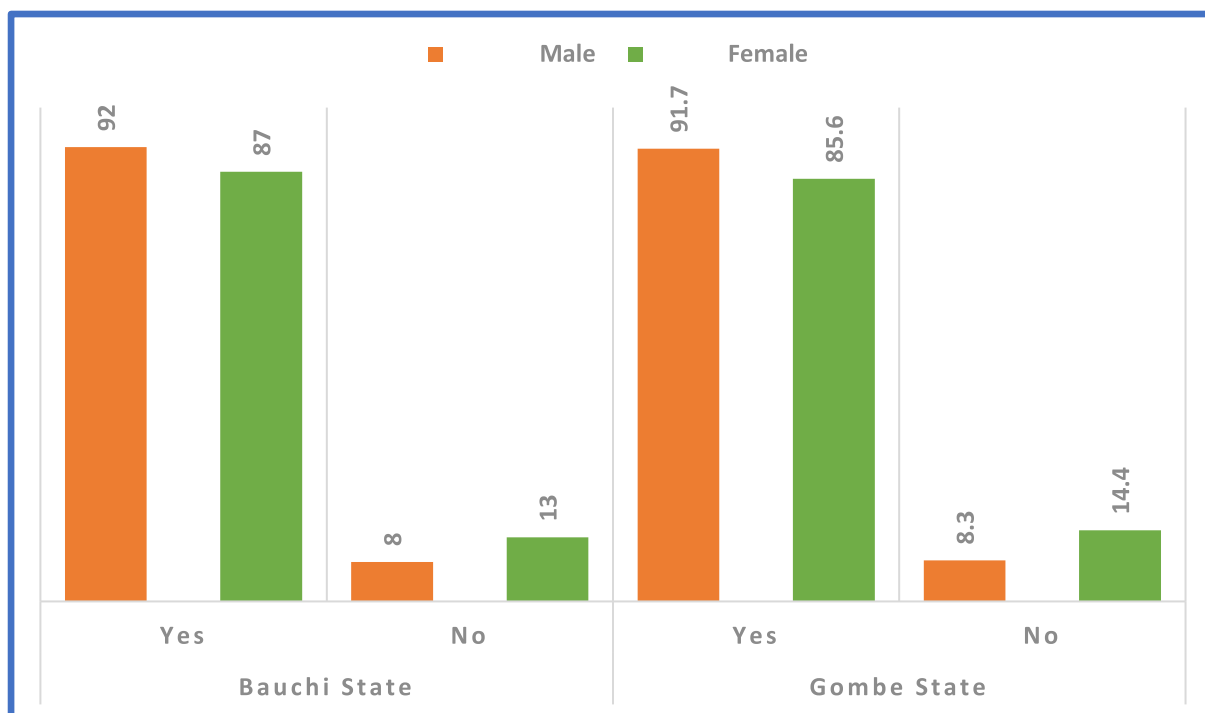


Fig. 5.8: Percentage distribution of respondents by knowledge of climate change

As shown in Figure 5.8, about 90 per cent of the respondents, both males and females, indicated that they had knowledge of the occurrence of climate change. The differences between male and female respondents with respect to their lack of knowledge of climate change are quite insignificant. The majority of the respondents perceived that these changes in climatic variables affect their agricultural products as well as decline in the availability of forest products. Some of these climate events and variables which the respondents revealed that have increased include shift in the start or end of rains, early rains that were not sustained, as well as the increase in occurrence of smothered crops by excessive heat. Most of the respondents reported on their understanding of the main causes of climate change. They identified various causes of climate change including burning fossil fuels, cutting down of trees, overgrazing and a combination of various factors. Some of the respondents, however, tend to attribute these changes to Allah or God, the Creator and saw themselves incapable of doing anything since they cannot question the Creator. The respondents also noticed increases in extreme weather events like floods, excessive heat and higher temperature, high rainfall intensity and high wind velocity.

The sources of information on climate change for both the male and female the respondents in Bauchi and Gombe States, as presented in Figure 5.9, it shows that radio is the most important source of climate information to the respondents. The respondents said they obtain climate information through radio announcements. Family and community meetings also provide climate information for a significant proportion of respondents in the study areas. The other sources provide limited sources of information to respondents. Thus, radio and family meetings seem to be the dominant sources of climate information available to the respondents.

In addition to these mass media sources, respondents also share climate information with their colleagues. Discussants in the focus group discussions and key informant interviews reported that in the absence of climate information institutions and irregularity of the “news” on weather from the radio stations, they rely more on their peers for climate information. Apart from the aforementioned sources of information, respondents noted that from their personal experiences, they are able to compare the current situations with the past and form an opinion as to how the climate situation which enables them to take decisions on their livelihood activities.

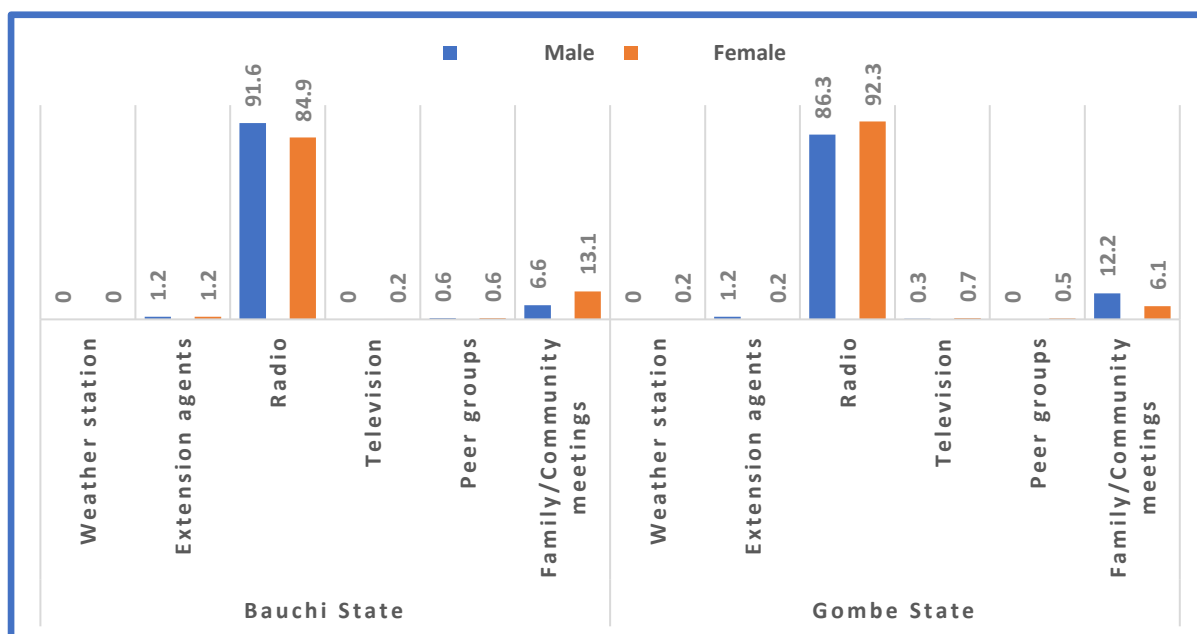


Fig. 5.9: Percentage distribution of Respondents by the source of climate change information.

Figure 5.10 shows that both male and female respondents in the survey areas of Bauchi and Gombe States have observed the occurrence of climate change in their communities over a period of time. However, most of them noticed these changes within the last ten years. A significant proportion of the respondents (almost 25 per cent) had knowledge of climate change effects in their communities over a period of between 10 and 30 years. The respondents’ knowledge and experience with respect to climate change is derived from changes in key indicators of climate variation in their locality. With respect to rainfall, an attempt was made during the field survey to explore respondents’ perception of the changes in rainfall in their locality over the years. Most of the respondents pointed out that one major feature is the early onset of rain in their communities. However, participants in the focus group discussion across the study areas in the two states indicate that rainfall has been erratic and at times heavy which affects farming activities. These findings indicate that, from the respondents’ perspectives, there are some imperceptible changes in the pattern of rainfall in their locality which has implications for their agricultural activities.

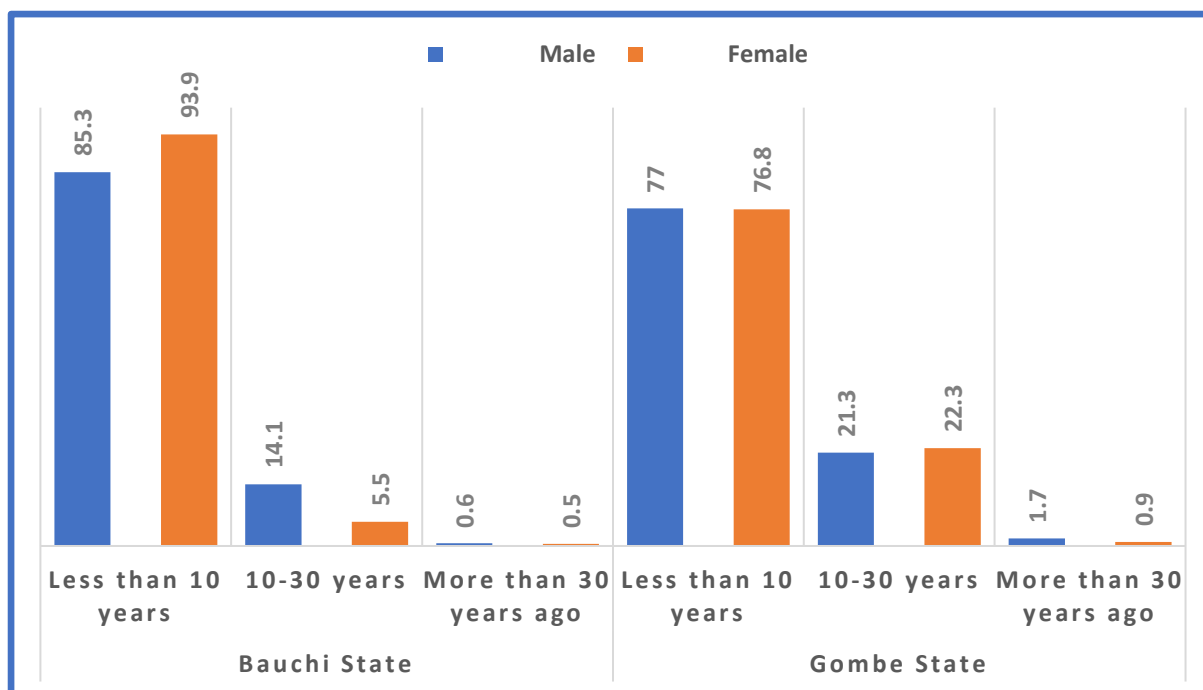


Fig. 5.10: Percentage distribution of respondents by the length of time they have observed climate change in their community

The results from surveys show that the changes in climate related hazards over the past 30 years have affected agricultural productivity including livestock rearing adversely. Both male and female respondents reported the negative impact of climate change on their livelihoods particularly farming and livestock rearing activities. As indicated in Figure 5.11, over 70 percent of male and female respondents in the survey localities of Bauchi and Gombe States confirmed that they had incurred losses at various times. The major impacts of climate-related hazards on crop production include loss of soil nutrients due to seeping, leaching and erosion, soil compaction, caking due to drought, changes in farming practices, flood and excess heat, waterlogged soil, low yield, low output, migration from farmlands, invasion of pests, scorched crops due to drought and early cessation of rains, and loss of lives were recorded in the past 30 years. All stakeholders in the communities are affected while the women are the most vulnerable. With respect to the impact of climate change on livestock production, this has led to the movement of animals to other localities where water is available with the conflicts that have emerged in those localities. The specific nature of the losses as reported by both the male and female respondents is reflected in Table 5.5 and Figure 5.12 which indicate that most of them incurred losses such as loss of farmlands, farm inputs, crop failures and loss of livestock. The response of the respondents to the impact of climate change as reflected in Figure 5.13 include livelihood/income diversification, outmigration, sharecropping, obtaining loans to carry out other income generating activities, use of alternative energy, premature harvest and relocation of livestock.

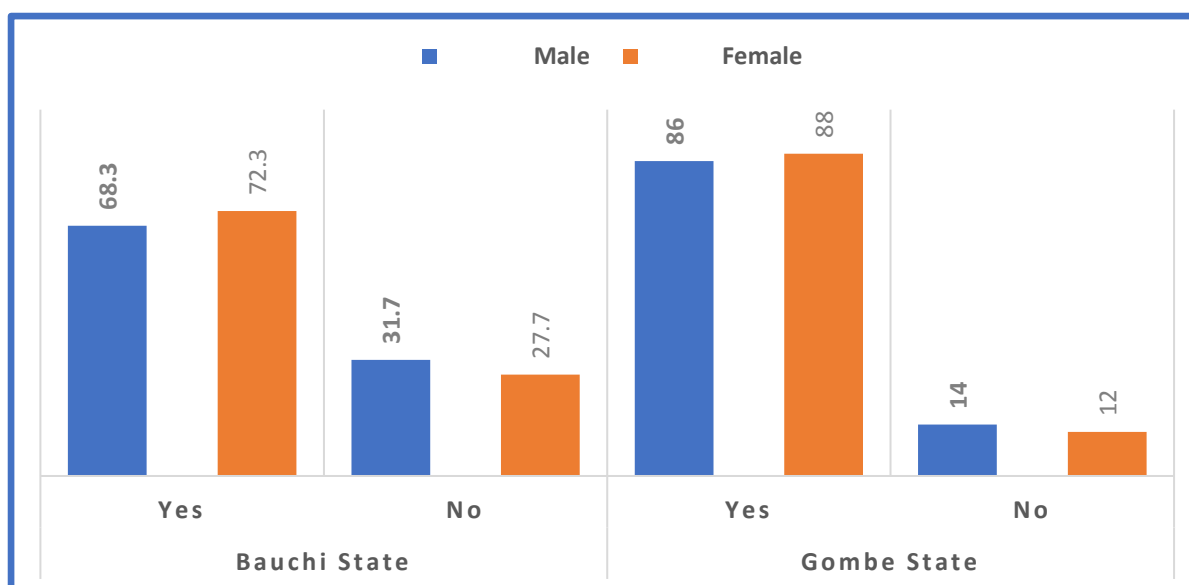


Fig. 5.11: Percentage distribution of respondents that have experienced any agricultural or livestock losses due to climate change

Table 5.5
Percentage distribution of respondents by nature of agricultural losses incurred

Respondents by Nature of agricultural losses incurred	Male		Female	
	Yes	No	Yes	No
Bauchi State				
Loss of farmlands?	48.9	51.1	43.0%	57.0
Loss of farm inputs?	43.0	57.0	39.4	60.6
Crops Failures?	61.6	38.4	54.7	45.3
Loss of livestock?	41.4	58.6	52.4	47.6
Loss of fish?	0.8	99.2	0.3	99.7
Loss of access to non-timber forest products?	0.0	100.0	0.0	100.0
Loss of crops to fire?	0.8	99.2	1.1	98.9
Gombe State				
Loss of farmlands?	38.3	61.7	36.9	63.1
Loss of farm inputs?	52.2	47.8	45.7	54.3
Crops Failures?	82.7	17.3	76.0	24.0
Loss of livestock?	29.2	70.8	31.1	68.9
Loss of fish?	0.0	100.0	0.3	99.7
Loss of access to non-timber forest products?	0.3	99.7	0.0	100.0
Loss of crops to fire?	0.3	99.7	0.2	99.8

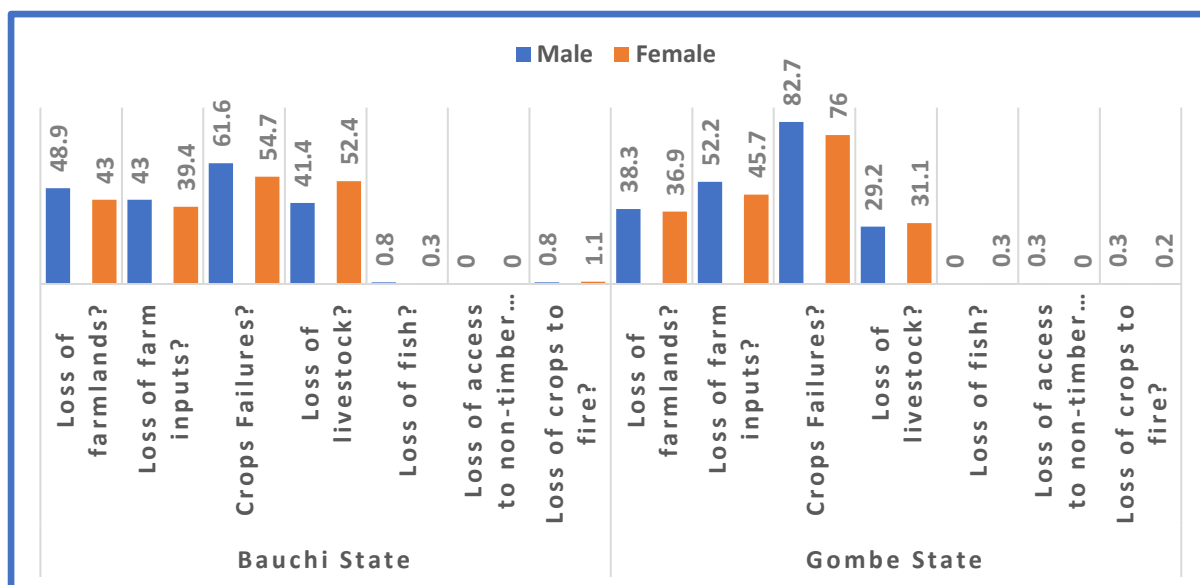


Fig. 5.12: Percentage distribution of respondents by nature of agricultural losses incurred.

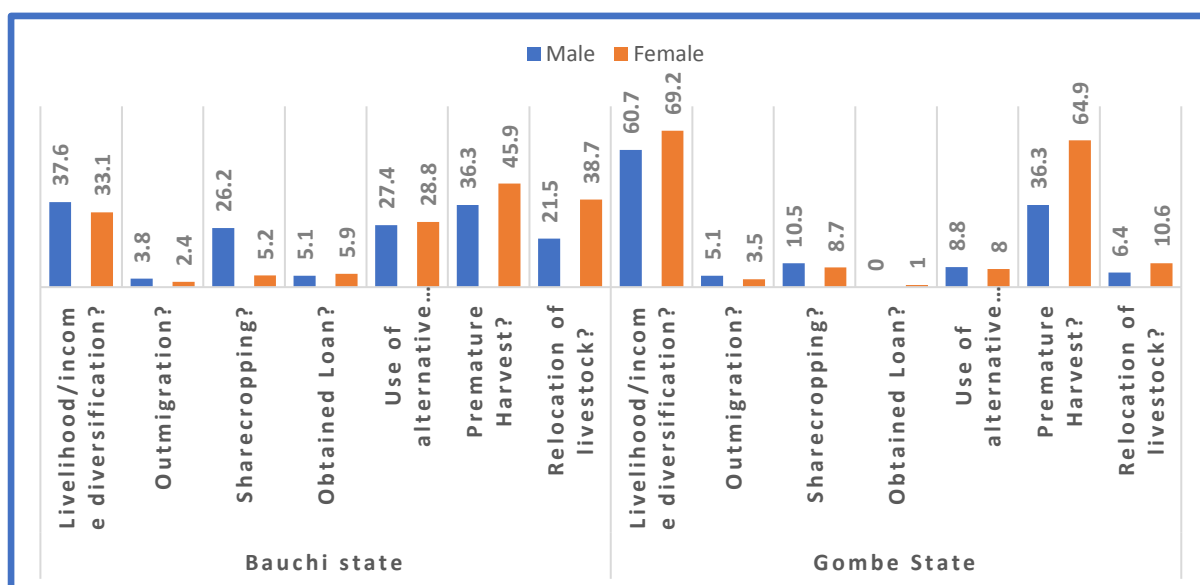


Fig. 5.13: Percentage distribution of respondents by nature of their immediate responses to climate change

Covid-19 and economic activities

The Covid-19 pandemic has had devastating effects in many countries across the World, affecting every aspect of humanity. Most countries in Sub-Saharan Africa including Nigeria met the crises in a weak position. Aside from the health/mortality effects of the pandemic in Nigeria, the seemingly clearer effect is the impact of the social distancing and lockdown measures on the economy. How people make a living and access markets is impacted by Covid-19 across the Sahel region of Nigeria. These disruptions were driven primarily by restrictions put in place to curb the spread of the virus. There were signs of the negative impact of Covid-19 on nutrition and food security including local food production and the informal economy's food marketing system. The study explored the impact of the Covid-19 pandemic on the livelihood of the male and female respondents in the study areas.

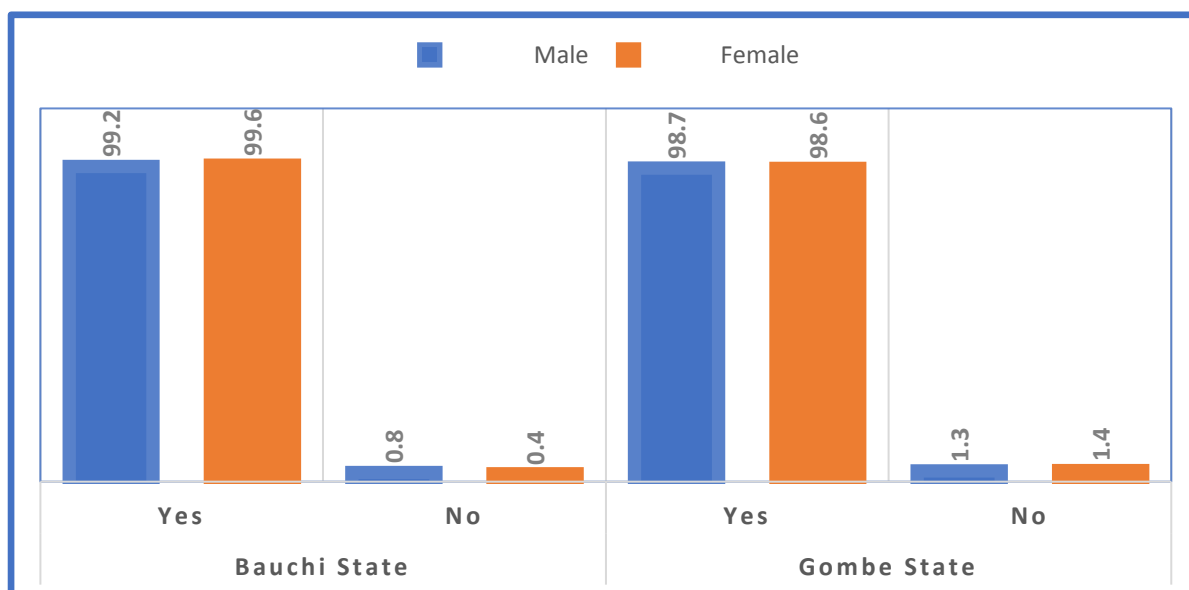


Fig. 5.14: Percentage distribution of respondents by their knowledge of coronavirus.

As indicated in Figure 5.14 virtually all the male and female respondents had knowledge of the existence of Covid-19 pandemic when it spread to different parts of the world in 2020. Most of the respondents got this information from radio/tv, family members and friends, place of worship, community meetings and announcements (Figure 5.15). Knowledge of all the actions taken by the government to contain the spread of Covid-19 by the various categories of respondents was quite high. Consequently, most of them adopted the measures to reduce the risk of contracting coronavirus including avoiding gatherings, restricted travel with their state of residence, disinfection of public places, use of face mask in public, regular hands washing, use of hand sanitizers, social distance and vaccination (Figure 5.16). With regards to the impact of Covid-19 on farming activities, especially the cost and access to farm inputs, the vast majority of both male and female respondents reported that the pandemic had considerable negative impact on their access to the required quantity of farm inputs (Figure 5.17) as well as a reduction in the quantity of harvests during the period (Figure 5.18).

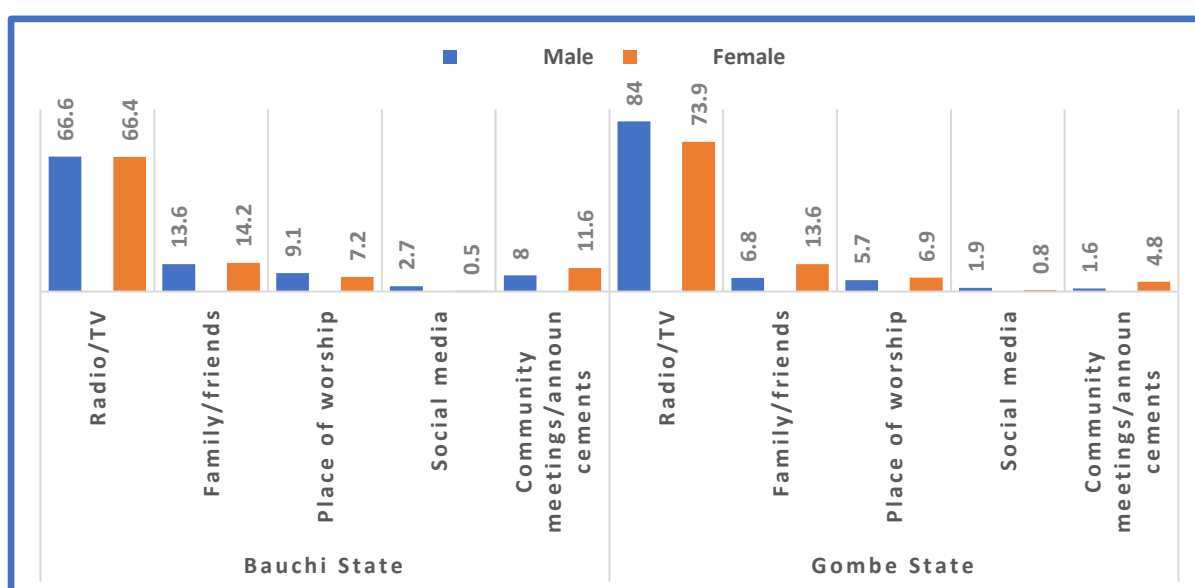


Fig. 5.15: Percentage distribution of Respondents by the source of COVID-19 information

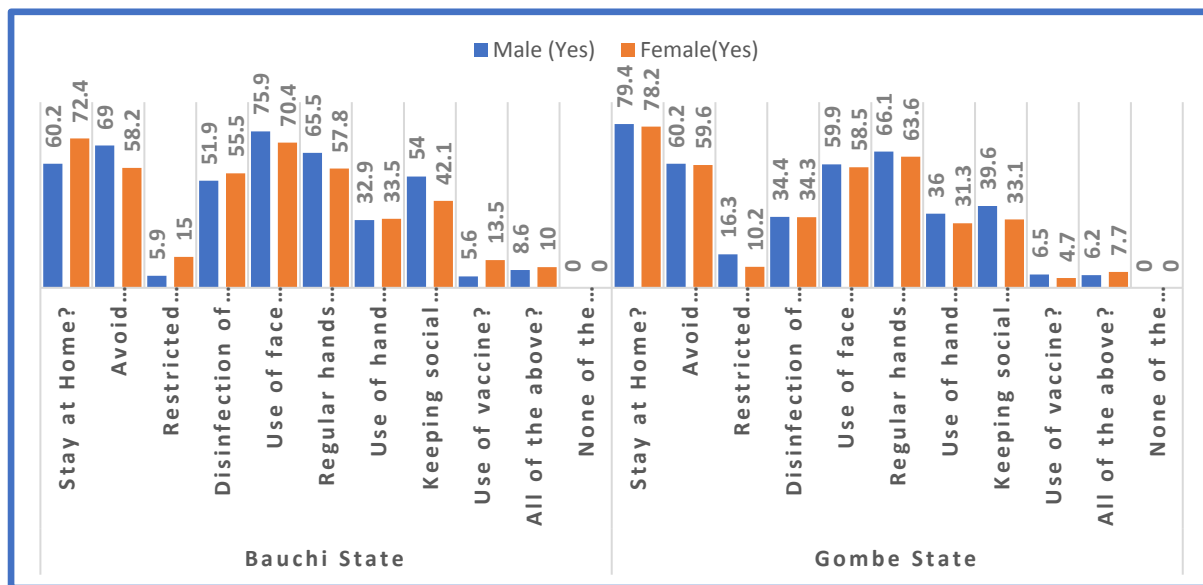


Fig. 5.16: Percentage distribution of respondents by Measures adopted (Yes) to reduce the risk of contracting coronavirus.

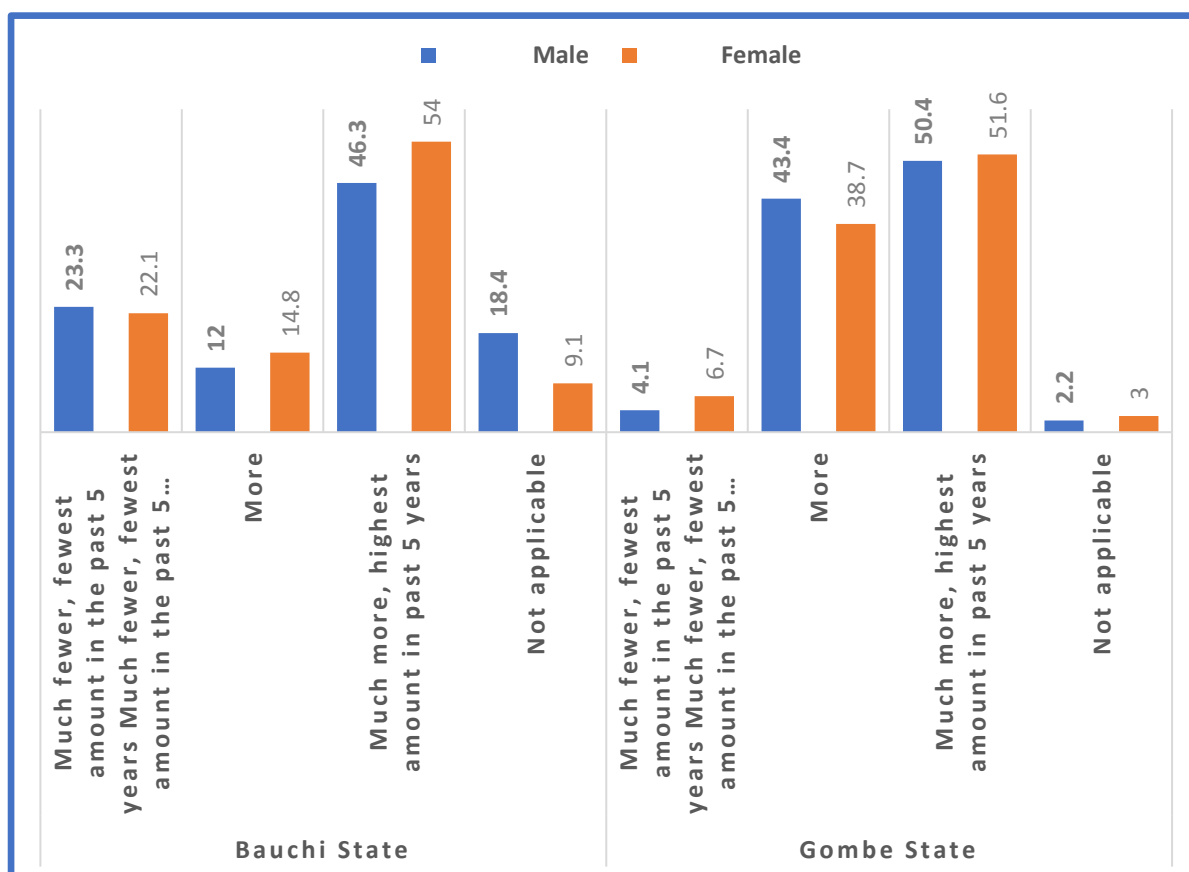


Fig. 5.17: Percentage distribution of respondents by the impact of COVID-19 on the quantity of farm inputs.

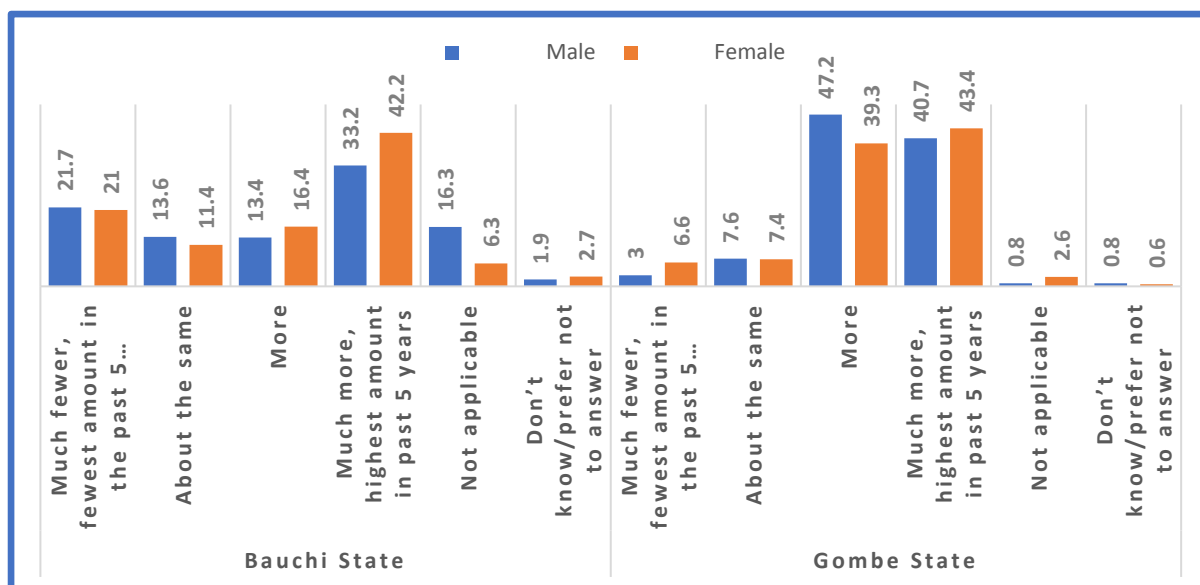


Fig. 5.18: Percentage distribution of respondents by the impact of COVID-19 on the quantity of harvest.

Migration and its implications for respondents

The Sahel region of Nigeria as in other parts of the West African Sahel has always been a region with high levels of mobility. It can be stated that the Sahel pastoralists were the “original climate adaptors,” migrating seasonally with their herds for water and pastureland. But with the effects of climate change, as expressed in increased water scarcity, reduced pasture availability, and shifts in harvesting seasons, migration patterns have been disrupted, causing frequent tensions between farmers and pastoralists. Moreover, gender norms leave women without adequate tools or the capacity to adapt to climate change, as well as impede their ability to leverage migration for risk reduction. Furthermore, the growth and development need of the youth, already facing a dearth of good jobs, are harmed by additional challenges created by the changing climate. Without a focus on climate-smart productive jobs in the rural economy, youth often migrate to urban areas, as current climate-sensitive livelihoods become increasingly untenable due to crop productivity losses and water stress on pastoral and other livelihoods.

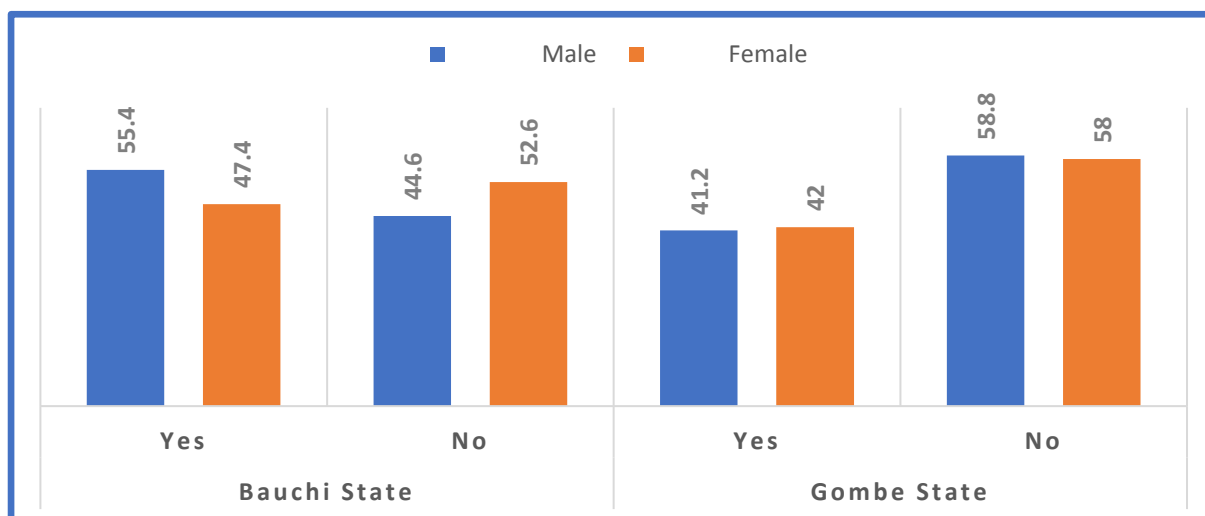


Fig. 5.19: Percentage distribution of respondents by members living outside the household

The survey shows that over 55 percent of the male respondents and over 47 percent of the female respondents in the surveyed localities of Bauchi State reported that there are members of their households who are not living with them as at the time of the survey. In Gombe State, the survey results show that over 40 percent of the male and female respondents reported that there are members of their households not living with them (Figure 5.19). It can be stated that there is a high level of migration from the localities in which about half of the members of the surveyed households have moved to other localities. Table 5.5 reinforces the pattern of movement from the surveyed households by reporting on the number of household members that migrated away to other places which varies from 1 to 4 members. The survey shows that two reasons account for the movement of household members to other localities. The first is marriage which accounts for about 50 percent in both states as reported by male and female respondents while the second is the search for better income generating or employment opportunities which accounts for about 25 percent. These two key reasons for the outward movement of household members to other places explains the fact that the proportion of males and females that migrated from the surveyed families are almost equal (Figure 5.20). The males are largely in search of work mainly in urban areas while the females are married to husbands in other localities including also urban areas.

Table 5.6
Percentage distribution of respondents by members living outside the household

Respondents by the number of family members living outside their household	Male	Female
Bauchi State		
1 person	23.9	24.6
2 Persons	32.5	31.3
3 Persons	27.3	27.2
4 Persons	16.3	16.9
More than 4 Persons	0.0	0.0
Gombe State		
1 person	22.7	26.1
2 Persons	35.7	31.7
3 Persons	23.4	26.3
4 Persons	18.2	15.9
More than 4 Persons	0.0	0.0

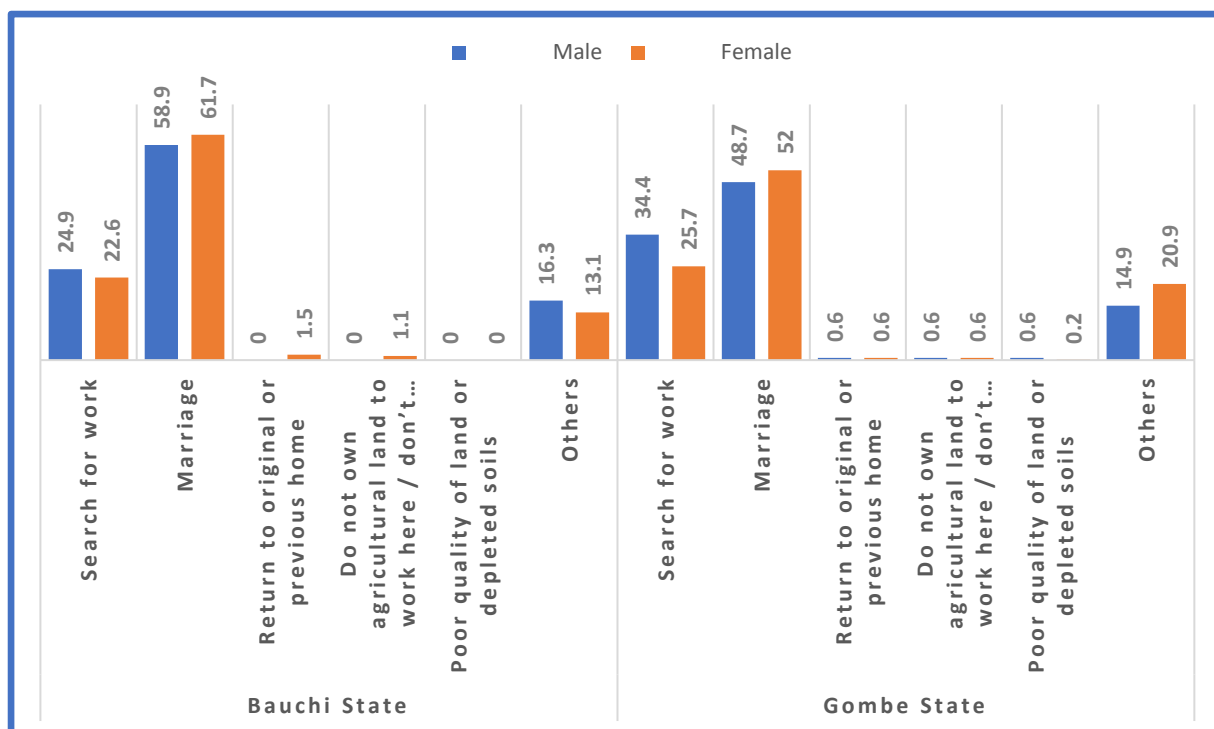


Fig. 5.20: Percentage distribution of respondents by the primary reason for the family member(s) currently living outside households

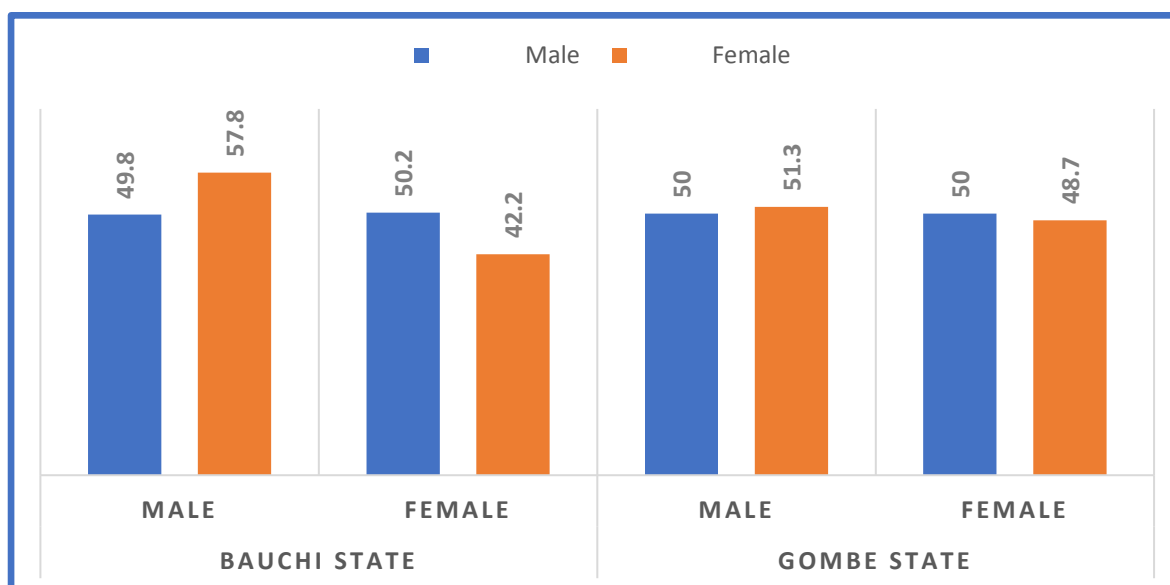


Fig. 5.21: Percentage distribution of respondents by the sex of family member living outside the households

Chapter 6

Gender Attitudes and Women Empowerment Patterns: Through the Voices of women and men

Introduction

Attitudes and norms about gender, that is ideas about what is appropriate or typical for men or for women, shape and influence men's and women's daily lives, from their household responsibilities to other socio-economic activities. This chapter examines what the ordinary women, men and the youth think and practice about gender equality and roles in the survey areas and communities of Bauchi and Gombe States. The discussion is based largely on the findings of the qualitative data collected in the farming and pastoral communities of the study areas entailing key informant interviews, life histories and focus group discussions. In line with the ethical considerations of this study with specific reference to confidentiality, as outlined earlier in Chapter 2, code numbers are used whenever specific quotations of the voices of any respondents and participants are presented.

Attitudes about Gender Equality and Gendered Roles

The findings of the qualitative surveys show that the surveyed localities are characterised, as expected, by gender norms. These gender norms are the spoken and unspoken rules of the farming/pastoral societies in the Nigerian Sahel region about the acceptable behaviour of girls and boys, women and men with respect to how they should act, look, and even think or feel. These expectations start early and powerfully shape individuals' attitudes, opportunities, experiences, and behaviour. The common challenges that women and girls face in the study areas were attributed to religion and traditional norms such as the girl child not being allowed to go to school, early marriage, women exclusion from social cultural activities, deprivation of women from engaging in out-door businesses and associations and women not being allowed to have full right over personal property. As pointed out by a key informant:

"The tradition in our community does not allow women to go out and farm but girls can go to farm together with their father. That means farming is an occupation for men only while women engage in small businesses at home like buying and selling of palm oil and frying of beans cake popularly known as Akara is made from soya beans." K01DA.

A female respondent based on her life history stated as follows:

"Women's roles in the family in this community are mainly to cater for the family needs in aspects like cooking, washing dishes, washing clothes, taking care of the children, looking after everything in the house in the absence of the men while men's role is primarily to generate income for the wellbeing of the family. When it comes to decision making, the man is the head of the household, and he mainly takes decision regarding almost everything in the family although there are situations where the women were also involved". LH 09AK.

Another female respondent based on her life history pointed out that the norms under which she grew up are gradually changing in her community when she stated as follows:

"Social norms and traditions in this community have less influence on attitude and behaviour towards the roles of both men and women in contemporary time. The roles that were reserved for men only are sometimes done by the women while those reserved for the women only were also done by the men. Some men sometimes do some domestic works while some women also work to generate income for the family. For instance, women engaged in small business, farming, pastoralists, trading, vendors etc. to earn a living and generate their own

income". LH 11BI

Furthermore, another female key informant respondent confirms the changing role of women in their community when she stated as follows:

"When we compare our past and current life experiences of men to women's roles when growing up in this community have slightly changed. Women's roles in the family are mainly domestic works that include cooking, washing dishes, washing clothes, changing diapers, bathing the kids, sweeping, cleaning and taking care of the children while men's role is to generate income for the family. This shows that some men engage in women's activities and women also engage in men's duties. Decisions in the family are mainly taken by both men as well as the women." KF07BI

Finally, a female respondent in a life history interview was also categorical about the changes that are taking place in their community when she stated as follows:

"There were restrictions in the past years on gender roles in this community. But the current situation clearly shows that there are no longer restrictions in respect to attitudes on gender roles in the household women rights are no longer deprived. Both men and women have their equal rights in the family. Equal opportunities are currently given towards income generation to men and women unlike the past years. Moreover, women currently have access to education which was totally different from the situation in the past as few of them had opportunity to study. I never got the opportunity to go to school during my days but now my grandchildren are in school. Women were not allowed to take part in leadership positions but currently they are fully into it". LF 21 KA.

Some male respondents based on their life histories appear to insist on the existence of norms influencing gender roles in their community but that some changes are now allowed. A male respondent based on his life history stated as follows:

"Social norms and traditions in our community have influenced the attitude and behaviour towards the roles of men and women in this community. This is because those roles that were restricted to only men are always done by the men while those reserved for the women were always done by the women. Women should do their domestic works while men should engage themselves in working to generate income for the family. Although there are few gender roles done by the other gender but was not much. Nowadays women now engage themselves in things like small business, farming, pastoralists, food vendors etc. and not completely dependent on the men to improve their livelihood". LH17AK.

Another male respondent was emphatic on the existence of norms which continue to influence gender roles and relationships in their community when he stated that:

"According to our culture, we regard men as superior to women. Our parents teach us to take good care of our female partners because they need help. On the other hand, girls are trained to be obedient to boys as they will be their leaders and providers. That is why you will see men into physically demanding activities while women are indoors taking care of household activities such as washing, cleaning, preparing food etc." Men generally take many responsibilities compared to women. Men work in various field of endeavours to meet their family demands. We generate income, provide shelter, food, cloths and the rest. Women are to take of what we have provided and support us where necessary. I can recall, during our childhood, the boys work on farm and girls take food and water to the farm for us." KF18DA.

Again, another male respondent emphasized the differences between male and females in their community as follows:

“Men work harder than women. We go to farm; we even travel to search for jobs. Men are usually into activities that are energy demanding to be accomplished. When it comes to community development services, men handle works such as construction work, building and other similar works. On the other hand, women are mostly indoors and support men in cooking food, water supply and the like. In most cases, men are into activities that involves exposure to the outside world and physical energy demanding to be accomplished. This makes them brave, courageous and often decides for the family. On the other hand, women are mostly indoors and obedient to men.” KF25BI.

However, some men pointed out that changes are taking place in their localities. One stated as follows:

‘Social norms such as culture and traditions have less influence on the attitude and behaviour towards the roles of men and women in their families and in this community. This is because there are roles that were earlier restricted to only men, but women now engage themselves in doing them and vice versa. For example, both men and women now work on the farm, fetch water for the family; do some domestic work together etc. After cultivation and harvest, some of the farm produce would be sold, some would be stored while the rest would be used for the family consumption.’ LH18 KA.

He stated further:

“Growing up in this community, there are no restrictions to attitudes on gender roles in the household. Men and women were given their due rights in the community and there are no violations against women by men in sexual performance. The past and present situations remain the same where women are given equal opportunities as men in terms of income generation. This is because they are allowed to generate their own income and earn a living. Moreover, women in this community acquire education ranging from primary, secondary and sometimes up to tertiary institutions. There are no harmful traditional practices that affect women in the community completely and bride prices were fully paid and given to their parents. Men were never tough and do not show any masculinity towards women. Currently, women are given opportunities to participate in leadership positions and there is no discrimination towards that by men.” LH18KA.

Another male respondent supported the position that the norms that tend to hinder women are changing in their community when he stated as follows:

“In my understanding, traditions of my people have not much influence nowadays on attitudes and behaviours toward the roles of both men and women in the community. There are no laid down conditions that if a man does some women role such as cooking should be considered as wrong. So also, women can generate income and assist their husbands. My mother is a banker working with the first bank. She sometimes shares responsibility with my father. In my thinking and understanding, tradition has less influence on men and women attitudes towards gender roles in families in this community. The tradition shows that women cook, wash and clean while men provide for the family. But this does not mean women don’t do other works that are known to be men work. Farm activities for example are known to be male responsibility in some communities but here we do them together. Some women fetch fuel wood from bush unlike other communities where women are always indoor. Women go to market for shopping. They bargain and transact. Women contest for leadership position and clubs and associations here in my community.” KF29DA.

It can therefore be stated that while men and women in the farming and pastoral communities reported very similar experiences and attitudes with respect to the gender roles in their locality, more women believe that changes in the prevailing norms are taking place compared with some men who continue to emphasize the continuation of gender differences. However, some

men are also acknowledging the growing changes that are taking place in gender relations in their community.

Household division of labour

Gender and power dynamics profoundly influence relationships between partners and spouses and shape the lives of adults and children alike. Globally, a stark division between work inside and outside the home endures, with men generally expected to be providers, breadwinners, and decision-makers outside the home, and women generally expected to provide care for the home, children, and other dependents. The qualitative data indicates that almost all the respondents agreed that there is no longer a strict division of labour in their households. A female respondent in the key informant interview stated that:

"Mothers cook and take it to the farm while the husband and the children work on the farm. Also, after harvest women ensure all farm produce are prepared and stored for future use. Most decisions in this community are mainly taken by the man who happens to be the head of the household. Decisions on fundamental issues such as building a house, job selection, spending on the family are mostly taken by the men. While the women make decisions on things like cooking, washing and other domestic works. On the other hand, decisions are jointly taken in areas like choice of school, hospitals, career selection, spouse selection, utilization of farm produce, animal selection for pastoralist etc.". KF21AK.

Another female respondent stated that:

"When growing up, division of domestic work and childcare were done by the women/girls in this community. All domestic works like cooking, sweeping, washing, cleaning, bathing the kids and taking care of the family were mostly done by the women/girls. Today, some men or male children sometimes may wish to assist them in carrying out these responsibilities traditionally reserved for the women/girls at home. In the household, there is a growing trend in which both men and women collectively do the domestic works like cooking, sweeping, washing, cleaning, bathing the kids and taking care of the family. When I got married, the situation remained the same as my husband always assists me in almost all the domestic works I do at home. Therefore, in the community, there are some men that share domestic works with women and there are some that don't." LH16BI.

But some men still emphasise their dominant role as the leader in the household. One of the male respondents stated, in a key informant interview, that:

"Men leads decision making in the family. We mostly decide for the family. But in some cases, decisions are jointly made, and some are even decided by women alone. Issues such as the decision to add a wife, the decision to either keep our wives in one house or separate them, the decision on which school to take children to, and when giving out a girl child for marriage, going shopping, purchase of food items, celebration of holidays, birthdays, naming ceremony and the like are jointly planned and decided. Women decide when it comes to purchase of bedding cloths, kitchen equipment, purchase of dresses etc. During festive days, my father allows my mother to buy for us dresses she decided. In this community, we men don't participate in women responsibility such as sweeping, cooking, cleaning. I can recall when I was taken to primary school, the first thing that shocked me was seeing boys sweeping the compound. It took me a long time to adapt to the situation. To my notice, I have never even once seen my father participating in women responsibility." KF25BI.

A male respondent was quite emphatic about the dominant role of men in household relationship between males and females:

"Most decisions in this community are mainly taken by the men as the head of the household,

especially the fundamental aspects like building of house, job selection, schools, hospital etc. the women also make decision regarding the family in domestic works like what to cook, washing of clothes and dishes, sweeping the house etc. while decisions are jointly taken in areas like choosing career for the children, choosing spouses for their sons/daughters, utilizing what have been harvested from the farm, what animals to rear etc. In this community, men take decision in most household decision but sometimes we engage our wives for advice. The decision I know which men take without consulting women includes building of house, giving out girl children for marriage, school to send children. Women decide on having cloths for children, how to take care of children, how to keep the house clean and tidy. The activities which males and females carry out together include shopping of food items and some types of cooking". KF22TA.

Yet another male in the life history interview insisted that men are still in charge of their households. He stated that:

"In the old days men mostly decide for the family. They believe that men are the heads of the family is always there. So, they have that privilege to decide what is to be done in the family. Provision of education, healthcare, type of food to cook are decided by men. Today, the situation is still the same but, in a few cases, it is in some marriage arrangements that women are involved in decision making. Division of labour in domestic work and care can be a good practice but this is not much practiced in our community. Activities that are traditionally identified as women responsibilities are handled by women. Men don't participate in such activities." LH16DA

Again, another male respondent, in a key informant interview, noted that:

"Most decisions in this community are mainly taken by the man as the head of the household especially the fundamental aspects like source of income, building or repairing the house, work, school, hospital etc. The women on the other hand make decisions regarding the domestic works in the family like what to cook, washing of clothes and dishes, sweeping the house etc. Decisions regarding the progress of the family as a whole are jointly taken by the men and women. For example, in pastoralism they both select the crops they will plant on the farm, the animals they should rear like fish and livestock etc." KF33BI.

Some other men differ and posit that changes are taking place in men and women relationships in the different households in their community. It is in this context that one of the male life history respondents stated that:

"With respect to the division of domestic work and childcare there have been changes to a large extent. During the past years, domestic activities like cooking, sweeping, washing, ironing and taking care of the children were mostly done by the women in the family. But presently, men sometimes assist the women in doing their responsibilities at home. While growing up, my father sometimes participates in domestic works and childcare even though traditional norms have prevented him from doing some of these activities. The dynamism is that women make decisions on domestic activities like what to cook, washing of clothes and dishes, sweeping the house etc. There are situations where decisions are jointly taken among the men and women which may include areas that involve the family as a whole. When we were growing up, our fathers hardly participated in domestic works because of the traditional norm that sees it as women's responsibilities. Currently, some men do share domestic works with the women, and they sometimes assist them." LH29BI.

Another male respondent confirmed that changes are taking place in patterns of relationships between males and females in the households of their community which are largely in favour of women empowerment. He stated as follows:

'When growing up, domestic works like cooking, sweeping, washing, ironing and taking care of the children were mostly done by the women/girls in this locality. But currently, the men sometimes assist the women in doing their responsibilities at home. There is no restrictive view about gender roles in our households. Women rights are duly observed, less violence against women and this is reflected in income generation, access to education, holding leadership position etc. The bride's price is paid based on traditional dowry, and it is the father that collects the dowry. There is no toughness on women, but men are always the head in the family.' KF14DA.

Again, another male respondent affirmed that changes are taking place in households within their communities in terms of the relationship between males and females when he stated that:

"In those days, our parents don't do women work. But today, things are gradually changing. Men have started doing women works especially in situation of sickness or to show their love. Some men give bath to children, prepare them for school. Some time, men assist their wives in cooking and some cleaning work. To a great extent, the practice preventing men from doing activities that are traditionally reserved for women in our community had changed. Men now engage themselves in domestic activities such as cooking, washing, sweeping, taking care of the children etc. Also, some women that are financially buoyant sometimes willingly assist the men in paying bills." LH23TA.

As pointed out earlier with respect to the nature of gender attitudes in the study areas, there is no definite agreement among male and female respondents in terms of household gender dynamics. While some respondents mostly women point out that changes are taking place in favour of women and some men agree with them but others mostly males do emphasise the dominant role of males in the households which they claim they inherited from their forefathers.

Women participation in decision making and in income generating activities

Control over farming and livestock production resources is central to the economic empowerment of women, as well as being important for nutrition and sociocultural reasons. Many of the income-generating activities in which farming and pastoral women are engaged are based on farming and livestock activities, whether they involve trading farm products and livestock or marketing these products and handicrafts. It is important to understand the extent of women pastoralists' rights and decision-making power over these critical resources in the study areas.

Both males and females that participated in the qualitative surveys agree that men make the final decisions on large household investments in productive activities in their relationships, and about one-third of both men and women reported that they make such decisions jointly. As for the question about who makes the investment and expenditure decisions in the household most of the respondents said the men do. Even the male key informants agreed that the culture and traditions of the people in the study areas do not allow women to make decision when the husband is still alive. Some respondents also attest to the fact that things have changed in recent times. Women now give advice where necessary as explained by one male respondent as follows:

"Decisions about expenditure and investment are mostly taken by men in this society even if the money to be spent or invested is coming from the women who labour tirelessly on peoples farm to earn or help in raising the livestock (goats, pigs and chicken). If you see any woman investing it is because her husband gives her the opportunity and the privilege to do that" KF32KI.

The dominant position of males in decision making regarding economic activities is further

emphasized by another male respondent who stated that:

The situation regarding men controlling larger assets and women controlling smaller assets in the household remains the same in this community. Men were always regarded as the heads of the households; their major responsibility is to source income for the family and therefore controls larger assets. Similarly, the women responsible for domestic works manage smaller assets compared to the men. Farming and rearing are for men, but women also engage in rearing animals. If animals are kept in the house, our wives take care of them. We only provide the feed, and it is their responsibility to make sure that the animals are well fed and taken care of. Women collect loan in their names with the permission of their husbands. The heads of the households owned and controlled a larger part of the assets. Men generate income and spend on the family. Women are given some amount to hold for daily minor expenses. They only control small assets to manage the house. I know of a man in this community that earns more ₦500,000 per month but his wife control not more ₦40,000.00.” KF27AK.

Most of the interview respondents reported crop farming and animal rearing to be the main income generating activities in the study area. The crops most farmers plant include Onions, Maize, Lettuce, Sweet Potatoes, Sugar Cane, Groundnut, Rice, Watermelon, Sweet Melon. Livestock farming include Cattle, Goats, Sheep, Chicken, Duck. Others engage in petty business (groundnut processing, Soya beans cake), trading and on the other hand work to take care of their families. With respect to female participation in income generating activities, the findings suggests that females do carry out income generating activities including pastoral and farming ventures. The changing pattern reported is that there is increasing role for women in the various income generating activities in the various localities. These economic activities are carried out in addition to their domestic activities.

A female respondent stated that:

“Women had always been pastoralists, and this was not regarded as part of their household duties. Women’s engagement in farming does not make it their household duties because they do it separately with their domestic works. Loans taken have always been in the woman’s name and not that of the man. Decisions on pastoralists and farming are made between the man and the woman because they both engage in it together. Traditional norms have less influence on the men in allowing them to do women’s activities.” LH13BI.

Another female participant in a focus group discussion confirmed that women do carry out various economic activities when she stated that:

“Women work as pastoralists and therefore keep domestic animals, and this is being considered as part of her household duties if the husband already has some animal in the house. But if she decides to start on her own after getting married, she seeks permission from her husband. When, for example my wife wants to apply for loan or grant, I will ask her to do it in her name. Women work as pastoralists keep domestic animals such as sheep, goats etc. but not as part of her household duties. She seeks permission from her husband and any loans, grants or agreement is made in her name but with the permission of the husband. This situation still remains in the community.” FG11AK.

Yet another female respondent in a life history interview noted that:

“While growing up, women’s work as pastoralists or on the farm were not regarded as part of their household duties. Therefore, they do their domestic works separately and also look after the animals and farms even if it’s near the house. If it happens to be far, they go there after doing their domestic works. The loans in support of rearing livestock, other animals and farming processes are taken in the woman’s name not the man’s name. Decisions regarding farming and pastoralists are made by the woman but the man also makes his own

contributions towards the achievement of the activities. Traditional norms in this community have no influence on the men because it allows them to participate in household duties like the women.” LH21BI.

Furthermore, another female respondent in a life history interview confirmed the income generating role of women in their community when she stated that:

“Growing up in this community shows that women were literally allowed to work as pastoralists, and it is regarded as part of their household duties. Loans are no longer taken in the man’s name rather the woman’s name but with the consent of the man. Decisions regarding farming and anything that has to do with them as pastoralists are made between the man and woman. They both decide on which crop to be planted or what animal to be selected for pastoralism. Moreover, traditional norms have less influence on the men because it allows them to sometimes assist the women when they are sick or during their leisure times”. LH19KA.

Male participants in focus group discussions also confirm the fact that women in their communities carry out different income generating activities. A male participant stated as follows:

“Women work as pastoralists and work on farm but is not considered as part of their household duties. They make decisions about the farms and the animals they rear. Men only support them but don’t consider doing it or not as disobedient to their home responsibilities. Loans taken are no longer made in the man’s name rather in the women’s name. Women seek for advice from men when applying for loan. During the Covid-19 lockdown, women in our community were encouraged to apply for the Covid-19 loan. Many women have gotten the loans and invested in different sectors.” FG08DA.

Another male contributor in a focus group discussion pointed out that women have been empowered over the years to be major participants in various income generating activities in addition to their domestic responsibilities: He stated as follows:

“In those days, women are not allowed to engage all but only in pastoralism and it is not considered as household duty to them. Decisions are made between men and women on pastoralism and women can engage under their husband’s permission. Women collect loans in their names, but she must inform and convince her husband that the loan is important. Good examples are loans such as Covid-19, SMEDAN, AGMEIS, RIFAN, NECAS, MAAN and a lot more. Many women got these loans and invested in various sectors. The situation, to some extent, remains with slight changes in some households. Men are heads of the households; they generate income and control larger assets. But in some households where women are opportune to excel, they control much asset than the men. Some women earn more than their husbands, so, there is that tendency of having greater assets over men.” FG11TA.

Yet another male participant in a focus group discussion agreed with the income generating activities of women when he noted that:

“The situation is the same in the community. Women work as pastoralists; keeping animals at home and is considered part of her household duties. Married women bear their husbands name as their surname not their father’s name. So, definitely, the husband’s name is involved when taking loans. There is some little change. Men are responsible for bringing in money for the household but sometimes women can be richer than men. This is possible by God’s willing. In a situation where the woman is richer, she can control large assets. My sister for instance, earns hundreds of thousands and controls several assets than her husband. She even supports the family more than the husband”. GF6BI.

It is clear from the responses and contributions of both males and females that women in the

surveyed farming and pastoral communities agreed that women play significant roles in income generation in support of their families in addition to their domestic duties. They noted that this trend is growing rapidly in their communities and men are supporting the involvement of their wives in various income generating activities.

Women's access to and use of income generated in their households

The examination of the degree of women control over income and expenditures within their households is also an indicator of women's role in household decision making. Most of the respondents and focus group participants in the Bauchi State study areas, agreed that women have control over the animals they own. According to them, once a woman or man buys an animal and rears it, it automatically belongs to the person. Whether man or woman, he/she has the full right to sell or use it for other purposes. The situation is somewhat different from the responses in Gombe State as culture and traditions of the people clearly specified that all livestock belong the man who is the head of the household. As far as the woman remains on the same roof as the man, she reports to her husband and takes permission from him before selling the animals even if she owns them. These general patterns are characterised by variations among households as reported by individual male and female respondents and participants in focus group discussions in both states.

A male respondent noted that:

"The practice and belief of men in their community is that men are responsible for earning income and women are responsible for caring for the children and the home is still present in the community. Men decides about how to spend income. Women are given some amount to take care of the household and sometime help other relative but with the permission of the husband." KF31TA.

Another male respondent also emphasized the dominant role of men in household decision making in relation to the use of income generated by the household including those of the women. He pointed out that:

"The tradition in this community is that it is men's responsibility to earn income for the family and women's responsibility is taking care of the children and the home. Although there are changes as men now engage in women activities and women engage in men activities, women also generate own income, and some men do some domestic works. Decision making on how to spend the income generated by the men is taken by the men and sometimes the women inclusive. Her suggestions and advices can be required and needed on how to spend the income generated." KF 07DA.

Yet another male respondent added as follows:

"As a farmer, when I harvest my farm products, I give my wives no more 5% of the total harvest and keep the remaining ones in store. They will use that percentage for their personal demand. For food, I use to open the store weekly for them to take what they will cook for us. Other expenses are strictly regulated and monitored by me." KF17BI.

However, another male respondent pointed out that some changes are taking place in which the dominant role of men in determining how household income is used is changing. He stated that:

"In this community the practice that men's responsibility is to earn income for the family and women's responsibility is to take care of the family has changed slightly. This is because men in the community are no longer the only ones responsible for earning income; the women also

generate their income by venturing into small business, farming, pastoralists and catering where they spend on taking care of their needs and also assisting the men in taking care of the family's basic needs." KF09DA.

A female respondent confirmed the prevailing situation in her community by stating as follows:

"Yes, it is the situation in this community. Majority of men take decisions on how to spend family income. Small amounts are given to women to manage the family." KF11BI.

Another female respondent further noted that the situation is changing in their community when she stated that:

"Women also generate their own income which they spend on the household likewise other members of the family. They also assist the men in taking care of the family like paying bills. Decision on how to spend the income generated by the men is mostly taken by both the men and women. Therefore, the women also make inputs on the decision made on how to spend the income generated". KF 23DA.

Another female respondent agreed that the situation is changing gradually in their community because:

"Both men and women make decisions on how to spend the income generated by the men. Men are responsible for earning income and women caring for the children and the home but when it comes to decision on how spend the income, they discuss and decide together at some points. Men can give amount to be spent on food for example but how to go about budgeting the amount on different food items can be decided by both of them. Thus, there is little change in the situation at the present time in the community." KF27TA.

There is no doubt that, based on the responses of both females and males with respect to the control of expenditure in households, women are gradually being empowered to take part on the use of income generated in their households. As pointed by most of the respondents the changing situation is due largely to the fact that women are now involved in generating income in their households.

Women household care duties

Feminists have long proposed that the rights to give and receive care should be recognized as human rights. More recently, interest in unpaid care and domestic work and its implications for women's human rights has also been growing in the literature on development. Therefore, the failure of states to adequately provide, fund, support and regulate care contradicts their human rights obligations, by creating and exacerbating inequalities and threatening women's rights enjoyment. Care services can reduce the time constraints faced by those—especially women—who perform the bulk of unpaid care and domestic work on a day-to-day basis. The availability of care services can help redress women's socio-economic disadvantage by enhancing their ability to engage in paid work. Care services also contribute to the transformation of gender stereotypes by allowing women to move out of the home and into the public domain. In doing so, they can enable women's enjoyment of a range of rights, including the rights to work, education, health and participation.

It is in this context that study explored the nature of women and men's involved in unpaid care duties. The findings show that women/girls in these communities still carry the major responsibility of household care compared with men/boys although the situation is changing with men/boys assisting in some aspects of household unpaid duties.

A male respondent recognised the burden of household unpaid duties which is changing but at a slow pace. He said that:

“Most of the women in this community use firewood in cooking which are in some cases fetched by the men from the bush or farm or sometimes bought from the firewood sellers. Household technologies are completely not available in this community and women spent more time and efforts on household related tasks. For example, we don’t have taps or bore holes which make fetching water from the stream stressful and tiring for women and girls.” KF12TA.

Another male respondent pointed out that:

“The situation regarding men’s involvement in childcare in this community has improved considerably. While growing up, men were involved in childcare unlike the days of our parents where they are not involved. Therefore, men now assist women in childcare and no longer leave the children under the care of the women alone.” LH04AK

Yet another male respondent was blunt when he stated that:

“Men don’t involve in childcare because it is believed that women take care of children and the family.” LH09BI.

Similarly, another male respondent stated categorically that:

“Men don’t involve in childcare. What is expected of us is to provide but keeping house clean and taking care of the children are done by our wives. Men involves in providing what is needed to take care of children, but women perform the direct caring duties. Provision of cloth, food, healthcare and all that are required to take good care of the child are being provided by men.” KF03AK.

However, a male respondent noted the changing trend in that men are now helping women in unpaid household duties when he stated as follows:

“Men in this community are usually out either working on the farm or trying to generate income for the family and spend little time at home. Therefore, their involvement in childcare in the past years was less compared to the current situation. The present situation indicates that men are now involved in childcare as they assist the women in taking care of the children at home.” KF16BI.

A female respondent expressed the challenges facing women in carrying out various unpaid household duties. She noted that:

“Women in this community mostly use firewood in cooking. They get the firewood from the bush or from the remains on the farm after harvest even though they sometimes use charcoal in cooking at home. Also, there is no availability of water as they have to walk along distance to get water for cooking and other domestic uses. There are no household technologies in the community and women spent more time and much of their energy on household related tasks like fetching water, gathering of woods and the rest.” KF22AK.

Another female respondent reinforced the practice when she said:

“Most of the women in this community use firewood or charcoal in cooking which were gotten from the trees cut in the bush or from the farm. Household technologies are unavailable in the community and women spent more time and efforts on household related tasks. For example, we don’t have access to tap or borehole water therefore we fetch water from a nearby stream

very early in the morning. We do this together with the men before they leave for either work or farm and this is very stressful.” KF19TA.

Another female respondent reiterated the same practice that is prevailing in their community but added that the use of gas for cooking is featuring in some households in the community when she pointed out that:

“Women in our community mostly use firewood in cooking which we fetched from the farm or bush. But I personally use gas cylinder and charcoal in cooking at home. However, the availability and use of household technologies are very low in this community and women spent more time and lots of their efforts on household related tasks like fetching water, gathering of woods and the rest. Household technologies are now available for use in reducing household related tasks like my late father bought a gas stove for my mother for cooking which is fast and efficient compared to the use of fuel wood. If households in my community can afford this practice and use of other modern technologies such as fuel-efficient stoves, women will have more time to participate in leadership roles and other community development services.” LH13BI.

Yet another female expressed the challenges of using gas in cooking because of the cost for the poor households in their community. She stated that:

“These technologies are not affordable by the majority of us. When I heard of gas cylinder and bought one, I couldn’t sustain using it because of the gas price. These and similar technologies help greatly in reducing time and energy, but affordability is the major challenge. Men in this community are presently involved in childcare unlike the past experiences. Although they go out to work either on the farms or their workplaces to generate income for the family, they spend less time at home. Hence, childcare is mostly done by the women but sometimes assisted by the men in the family. Therefore, their involvement in childcare is not frequent but sometimes. Fuel-efficient stoves, hot plates, electric kettles etc. reduce both time and efforts spent on cooking activities. Other technologies such as grinder hasten food preparation, but they are not well accepted by us that see fuel wood as free gift of nature that we can get close by.” KF32DA.

A female who responded with respect to the role of males in childcare pointed out that:

“The present situation regarding men’s involvement in childcare in our community has improved to a great extent. While growing up, men were normally involved in childcare. For example, my father always assists my mother in taking care of the children at home likewise her brothers too. Most men are now fully involved in childcare and hence, taking care of the children is not only the responsibility of the women alone rather every other member of the household” LH17BI.

Finally, a male respondent muted the changing trend of men’s involvement in childcare as follows:

Men involves in childcare sometimes willingly and sometimes not. Out of love and care, men involve in childcare but sometime, women tend to neglect their children, in this, men must take care of their children themselves. Thus, the situation of men’s involvement in childcare is still obtainable in the community.” KF18DA.

What emerges from the preceding findings with respect to women unpaid household care in the study areas of Bauchi and Gombe States is that gender stereotypes which see women as solely unpaid care givers is gradually changing and men are contributing to some aspects of unpaid household care. In other words, there is a gradual change in behavioural trends and challenges to existing gender norms by increasing male involvement in home-based care

services. There is no doubt that deliberate efforts towards advocacy, sensitization and awareness in these rural communities would help to reduce the stereotyping which sees the care giver as women's responsibility. Furthermore, there should be reduction of time spent by women in unpaid works through provision of time saving investment and infrastructure like; electricity, cooking gas, pipe borne water among others.

Women and Access to education

The international community has recognised the equal right to quality education of everyone and committed to achieving gender equality in all fields, including education, through their acceptance of international human rights law. This means that states have legal obligations to remove all discriminatory barriers, whether they exist in law or in everyday life, and to undertake positive measures to bring about equality, including in access of, within, and through education. However, in many parts of the Sahel region of Nigeria, girls frequently have less access to education than boys because the investment is not considered worthwhile, or because of economic and cultural reasons. In early marriage, for example, girls soon belong to another family or community, which is a strong disincentive against educating them, as is the lack of employment prospects for pastoral women with formal education. The results of the qualitative surveys brought into focus the challenges facing women/girls with respect to education in the farming and pastoral communities of the study areas in Bauchi and Gombe States.

Religion plays a major role in women/girls' access to education in the study areas. While some parents would allow their girl child to finish up to secondary school education before getting married, others allow their girls to be married off early enough even when they are still in school thereby dropping out of school. Some families in the study communities still consider it a waste in sending a girl child to school. Some parents preferred to send the girl child for hawking and other businesses rather than sending them to school. Some of the respondents also argued that some parents in the community want their girls and women to go to school, but many of the girls end up getting pregnant and thereby dropping out of school. These occurrences have made many parents stop sending their girl child to school, especially at the secondary level. In one of the focus group discussions a female participant stated as follows.

"Both men and women have equal access to western education. This clearly indicates that the situation in our community has completely changed as opportunities are now provided for both men/boys and women/girls. Girls are now fully allowed to further their education unlike before where they get married early which hinders their studies. There are little changes regarding opportunity to education. Before, girl child were allowed to only go to some level of education mainly elementary classes and got married and allow boys to continue. Now in this community equal opportunities are given to both genders to excel in their education. I only attended primary school prior to my marriage but some of my female children have obtained senior secondary certificates. Also, some of the women in the community have even gone far to tertiary institutions." FG09DA.

Another female respondent during a key informant interview further emphasised the fact changes are gradually creeping into their community with respect to the education of girls. She stated as follows.

"Men and women were given opportunities for education. The present situation with respect to education clearly indicates there are changes as women/girls have equal opportunities with men/boys in the community. Girls now further their education unlike the past years where they get married very early. I have completed my secondary education and wish to further my studies if I have the opportunity. The situation is no longer the same. Equal opportunities for education are available for both boys and girls. Today, we have female doctors, female professors, head teachers and a lot of them" KF07TA.

A male respondent in one of the life history interviews reflected on the changes that have taken place in their community overtime as follows.

“Opportunities for education are now available for both boys and girls in this community and in the locality as a whole. Our parents are telling us that, during their childhood time, girl children don’t go to school, they only stay at home and help their mothers in household activities. Unlike today that you see high population of female student in our schools from elementary to tertiary levels. This clearly indicates that the situation has completely changed as opportunities are provided for both men/boys and women/girls. Girls are now fully allowed to further their education unlike before where they get married early which hinders their studies.” LH15AK.

Finally, during a focus group discussion session a male participant summarised the emerging views regarding female education in their community as follow.

“Girls are now given equal opportunities to have education like their male counterpart. Civilization is far reaching in our community. It is being widely accepted in this community that a woman can be a leader, woman can be a doctor, woman can be a lawyer, police, engineer, professional farmer etc. And it has been understood that, to achieve these positions, both boys and girls need to attend school. So, the cases of girls are just to be married and live as housewives is no longer common. Girls are given opportunities to have education.” FG11KI.

The findings of the survey through the voices of both males and females in the study areas indicate that women are gradually being empowered through the promotion of their participation in education. As pointed by most of the male and female respondents the changing situation is due largely to the fact that the benefits of female education are being appreciated by the people in the study areas of Bauchi and Gombe States.

Women and Access to primary health care

The challenges of adequate health care facing women farmers and pastoralists are in many ways similar to the situation in most rural communities in Nigeria. In the context of the Sahel region, women and men farmers/pastoralists have poor access to government health-care facilities, and maternal mortality rates are far higher among women farmers and pastoralists than other women in the population, especially when compared with women in urban areas. Female genital mutilation and other harmful practices such as early marriage, rape and abduction are still prevalent in many localities within the Sahel region.

Almost all the respondents in the qualitative surveys agreed to the fact that women and girls are allowed to visit health care centres where such services with the appropriate personnel are available. They however lament that very few primary healthcare centres have nurses and healthcare staff. The hospitals and health centres lack personnel to attend to patients visiting them which makes many people not visit the health facilities in the locality. According to some respondents the challenge is not only the non-availability of health facilities rather it is the availability of health centres with the right personnel and adequate facilities. Even then the majority of the respondents agree that there has been considerable improvement in allowing women to visit available health care facilities compared with the situation in the past when women and girls are prevented by their husbands and parents from visiting health care centres. One male respondent during a life history interview reflected on these changes when he stated that:

“There have been significant changes in women seeking for medical attention in our community at present. I heard our father saying that during their childhood, a pregnant woman would carry a pregnancy for nine months of pregnancy without seeing a midwife or nurse and

of course a doctor. Thus, traditional healers were mostly used for health care and the delivery of babies by pregnant women. But today, women can visit health centres to see a health personnel possibly every month during the period of their pregnancy. Presently, most medical attentions are sought through modern health facilities with less consumption of traditional medicines and both men and women seek equal medical attentions.” LH14AK.

The changing situation was emphasised by another male respondent during a key informant interview when he stated that:

“Women in their community during the past years had no access to essential sexual and reproductive health care. I should add that despite that there were not many unintended pregnancies, unsafe abortions and birth risks. But today, women are educated on essential sexual and reproductive rights like safe childbirth, child spacing, family planning, safe abortions etc. through modern health clinics/maternalities especially when they go for pre-natal and post-natal care,” KF32BI.

A female respondent during a key informant interview also reported on the improved availability of reproductive health care facilities in their locality compared with the past. She stated:

“The current situation in our community with respect to women’s access to essential sexual and reproductive health and rights has changed compared to the past years where women have no access to these. Women during the past years have little or no knowledge of sexual and reproductive health and rights. Presently, women have been educated on essential sexual and reproductive health to avoid high risks of unintended pregnancies, unsafe abortions and birth risk for both mothers and babies.” KF 23DA.

Yet another male respondent during a focus group discussion confirmed the changes that have taken place in their community as follows:

“Modern health care facilities were unavailable in the past years and medical attentions were mostly sought using traditional medicines. But the current situation is that we have primary health centres where both men and women seek medical attention.” FG05KA.

However, a female respondent during a key informant interview outlined the key challenges which some women face with respect to the use of modern health care facilities. One of these is the fact that some husbands do not support their wives visiting modern health centres largely because of the cost implications. In such cases women do not have the freedom to visit health centres without the permission of their husbands. She stated as follows:

“Women have access to essential sexual and reproductive health, but their access to these services is regulated by their husbands. Women have access to essential sexual and reproductive health and rights but with a strong agreement and permission of her husband in case of couple. Reproductive issues are discussed and agreed upon among partners. For unmarried girls, access to these essential services often lead to increased prostitutions because girls believe that they can be protected from unintended pregnancies by using some devices and pills. These factors tend to make some parents and husbands show limited interest in the use of available modern health facilities in their locality” KF21TA.

Another female respondent during a key informant interview corroborated the existence of major challenges affecting the use of primary health care facilities in their locality when she stated that:

“Women have access to essential sexual and reproductive health and rights but with a strong agreement and permission of her husband in case of couple. But for a single and independent

woman, she plans as she wish. That is why sometimes, we record cases of abortions and birth risk in the community.” KF36KI.

The issue of lack of professional health staff and adequate facilities was emphasized by many respondents. A female respondent stated this during a focus group discussion as follows:

“There is availability of modern health facility in this locality where both men and women seek medical attentions. There are differences in the past compared with the present situation with regard to the availability of health facilities. Even though modern health care is largely available, they have no facilities and equipment for proper medical care. This often led to difficulties in obtaining the medical attention needed by the people in the community. Consequently, traditional medicines were also used. But the current situation has changed in the sense that government had made efforts to supply medical facilities and equipment for proper medication.” KF31DA.

One other issue which the respondents reported upon is the issue of given opportunity to both women/girls and men/boys for modern medical attention. Although most of the respondents pointed out that both women/girls and men/boys receive equal attention when they fall sick including during pregnancy some of them stated that there is a tendency to give preference to the man/boys than women/girls. There appears to be disagreement between female and males on this issue.

A male participant during a focus group discussion stated that:

“Equal opportunity is given to both men and women in terms of health care services and medical attention. Everybody has right for health care services as they are mostly gotten from public owned facilities.” KF16BI.

Another male participant also confirmed the fact that both women and men are given equal attention when they fall sick in their households as follows:

“Health services are available for and accessible by both men and women. At some points women seek more medical attentions than men because of their vulnerability. Women are given more care and attention than men in hospitals and healthcare facilities in the community.” KF16BI.

But a female participant differed from the position of some of the other participants on the issue. She stated that:

“Equal access to health services is given to both men and women. Because men are the pillars of the family, sometimes more medical attention is given to them so that they should not fall down sick and the entire family fall into crises. When a women give birth to a baby boy, you will see that she will be given specially treatment for that boy to survive well.” KF16BI.

Again, it can be summarised that women in the study areas of Bauchi and Gombe States are experiencing improved access to and use of modern health care compared with the past. However, the respondents complained about the lack of adequate personnel and physical facilities in the health care centres available while in some cases women had to get approval from their husbands before they can use modern medical care facilities. Some of the respondents reported that there is an underlying tendency to give preference to males/boys in seeking medical attention compared with females/girls.

Women's right to membership and leadership of associations

Freedom of movement, membership of associations and assuming leadership roles are key components of women's empowerment. The study areas are characterised, based on their identification by respondents, by a variety of associations such as farmers association e. g. rice farmers association, association of traders, traders' unions, mechanics group, women group, youth association, men group, drivers' group, and business owners' group. Others include multipurpose cooperative society and advocacy groups. Some were created or formed to render community service e. g. sweeping and cleaning the community environment, digging of wells for water storage, contributing money to support one another during events and emergencies, etc. Other groups work on members farms, helping each member with farm work to reduce the workload and to be able to farm large area. And most importantly social groups were formed to foster peace and unity amongst community members and to encourage group member to be hard working and embrace peace and development. There are women-only and men-only based social association. There are also mixed gender associations too like farmers groups and livestock production groups. All of them have leadership structures including both genders. Most common social organisations include Multipurpose cooperative society for men only, Rice farmers' association and Maize farmers association, Youth farmers association and old soldier wives' association.

One major issue explored during the interactions with respondents relates to the desire of men allowing their wives to take part in social organisations and taking leadership positions in them. About half of the male respondents said they will allow their wives to hold an office in a group in which they are members. Others who responded otherwise stated that allowing their wives to hold an office in such groups would cause disrespect and the wife may no longer be submissive to them. Furthermore, the majority of the female respondents said that they would not like to be members of the same group with their husband. They pointed out that their husband will not allow them to participate fully in the deliberations of the association like their mate. And that it may lead to power tussle between the man and wife in the house. Some other female respondents said they will be in the same group only if the husband permit them to do so.

There were divergent views as to the effectiveness of the women organisations that exist in the study area. Some key informants believed most women do not attend the meetings regularly. They said that sometimes some men do not allow their wives to go out in order to participate in women's gathering and that they prefer their wives to be indoors at all the times. Others see their effectiveness from the way the organisations support women's interest in the development of their community or constituencies. A female respondent in a key informant interview pointed out that:

"Women associations are very effective in their community. They assist each other. The women groups are the main support of women in the community. They get help, financial assistance, and support from such groups. When growing up in this locality, women were believed to be too busy with childcare and domestic activities and therefore are not capable of becoming leaders. Social norms and traditions prevented most of the women from participating and playing roles in leadership. Rather the men are the only ones that partake in such associations. But the situation has changed to considerably as women are now given opportunities to form groups and associations and as well contest for political positions. I am a leader in one of the groups formed in the community and if there is anything brought for the development of women in the community, we are the ones to organize those that will benefit from it. Moreover, women's participation in politics in the community has greatly improved compared to those days." KF27AK.

Another female respondent in a life history interview argued that things have changed for the better in that some women are now able to take part in the activities of associations to which they belong and, in some cases, take leadership roles. She stated as follows:

“There are some changes in the ability of women to take part in the activities of associations to which they belong compared to early days. Today women contest for local political positions and are elected. There is the habit of employing house aid to carry out some of the household responsibilities while housewives are into other activities. Household duties are no longer barriers which inhibit women from playing greater leadership roles. If there is a barrier, it must be the believe by some people that women are meant to serve as family care givers”. LH10KA.

Yet another female respondent in a key informant interview agreed and pointed out that:

“In the past experiences, women were believed to be too busy with childcare and domestic activities and therefore are not capable of becoming leaders in this community. Another factor that prevented women from participating in leadership roles and positions is the norm and tradition of the community. The current situation has changed as women are allowed to form groups and associations and take political positions. I am a member of one of the associations formed in the community where they meet at the end of every month to discuss on the progress of women in the community. But I must warn that not all women are able and allowed to do so” KF34TA.

On the other hand, a male respondent during a key informant interview had a different position when he pointed out that:

“Women have routine duties and responsibilities in the family. These family activities will inhibit them from playing greater leadership roles in society. Leadership involves commitment and time that is why we always prefer men for leadership position to women in the community.” KF29TA.

Another male respondent during a key informant interview was emphatic about not allowing women to take part in the activities of associations and indeed playing leadership roles as he stated as follows:

“The situation of women not playing active leadership roles in associations and groups is still obtainable in the community as it was in the past. I cannot as a man allow my wife to take leadership position. I married her to stay and work at home. I am sure, if she is appointed or elected as a leader, she will not be able do her home assignments as expected. Many people have similar thoughts in this community that is why you can hardly get many women playing greater leadership roles.” KF1426DA.

Yet another male respondent during a key informant interview said:

“Actually, I may allow to some extend my wife to participate with me in the same group, but she has limit to whatsoever she will do. When it comes to leadership to be candid, I personally have issues with that”. KF23BI.

However, another male respondent during a life history interview acknowledged the changing situation with respect to women leadership roles in their community when he stated as follows:

“Past practices and experiences in this community show that most people particularly men believe strongly that women were too busy to be leaders. The situation has changed

remarkably. This is because women were in those days considered to be busy too with childcare and other domestic activities and as such, they are not capable of becoming leaders. Therefore, the men were the only ones that attend meetings. Social norms and traditions have also created a strong barrier which inhibited and prevented women from participating in leadership roles in the community. However, the situation has at present changed to a great extent as women are now playing greater roles in leadership. They also form their groups and associations and also contest for political positions." LH07KI.

Finally, this changing situation was also accepted by another female participant during a focus group discussion when she stated that:

"In my community, social norms no longer prevent women from joining groups, associations and also allow them to participate fully in them. The situation nowadays is no longer on what is to be done by who (man or woman), it is about what is to be done to make life better regardless of gender biasness. So, in a situation when a woman is found fits for a leadership position or can contribute substantially to a given responsibility in the community, that privilege is granted." FG11TA.

Again, what has emerged from the respondents is that changes that allow women to be members of associations and take leadership role in them is taking place even though this is not universal yet as some men resist the situation by regulating the participation of their wives as members and leaders of various associations.

Women, climate change and migration outside their communities

The respondents in the study areas recognize the advent of crop diseases and pest invasion of farmlands to be more prominent now compared to situation many decades ago which they attributed to changing climate. Others also complained of excessive heat, flooding, shift in rainfall patterns and longer period of dry season now compared to the past decades. Other respondents also complained of low farm yield and produce. Drought and land degradation was largely reported as indications of climate change that has made animal rearing and agricultural practice more difficult for the farmer/pastoralist compared to the situation about three decades ago. Extreme cold due to climate change was frequently reported by the pastoralists as it negatively affects their livestock.

An aged female respondent during a life history interview pointed out that:

"Drought, deforestation, desert encroachment, flood, overgrazing, erosion and soil depletion have become more glaring now more than before". LH09AK.

Similarly, a male respondent in a life history interview reiterated the impact of climate change in their locality when he said:

"Ten years back, the rainy season could last up to November, but these days it only lasts till September thereby making their crops die and dry, sometimes the crops in the farm get dried up before producing. Due to climatic condition some of the animals, especially chickens die due to the cold weather and the cost of feeding the chickens is so high nowadays". LH19KI.

Again, another male respondent in a life history interview was more explicit when he stated that:

"The climate condition is worse now compared to two decades back. With the increase in population, access to farmland is limited and land has depreciated in fertility. The rainy season starts very late now and ends too early. The vegetation, the trees are destroyed due to the activities of man thereby increasing global warming. We experience excessive heat making

other crops not survive. Irrigation farming in some of our communities is not possible. We are experiencing low yield in our farm produce. The air is no longer filtered because we have less trees and that alone has exposed us to different kinds of diseases, unlike ten years back were we had forests, and we receive fresh air, and we have less sickness. Most of our lands then were not eroded due to scanty vegetation. We had more food crops and tree crop. Hunger was not an issue at that time. We have higher yield from our farm produce. The soil was highly fertile and didn't need much fertilizer about ten years ago" LH21KA.

As income-generating opportunities decline in the agricultural and livestock sectors of the localities in the Sahel region, migration has become the response of many people in the study areas, as in many other parts of the Sahel region of Nigeria. However, such migrations are largely limited to males as females are rarely allowed to migrate to other areas on their own for improved livelihoods. The issue of preventing females from migrating for better life was explored with the respondents. Most of them including males and females agreed that the migration of women/girls is totally not allowed except the woman is migrating with her husband. Again, when the men migrate in search of improved livelihood, the women/girls bear the burden as they are left alone to care for the family, especially the children and the aged. Migration of men increases the workload of the women and girls. Even when the wife is allowed to migrate with the entire family, starting business in the new location also pose a greater challenge for the women/girls than the boys/men as the women are expected to remain indoors in the new location. Therefore, getting customers to buy their products or goods becomes a daunting challenge for the women. Others reported that some women resort to taking loans which they are unable to pay back or going out to beg from relatives or neighbours to be able to feed. This has posed a very big challenge for women and girls as they often a times fall into the wrong hands and being assaulted and sexually harassed.

A male respondent during a key informant interview emphasized the social norm that prevents women/girls from migrating to other areas as he stated as follows:

"The traditional norms and religion do not support women to go out of their husbands house for business when the household migrate in search for livelihood the women are at the receiving end of providing for the family and mostly, they will be left without no option than to seek external support" KF33AK.

Another male respondent during a key informant interview reiterated the practice when he said that"

"Here in this community, we normally don't allow our girls to go out and look for work, we want them to stay close to us so that we can monitor them, some of them do go and engage in things that are not pleasant all in the name of livelihood, even the boys now we prefer they school first before they can even travel out" KF17TA.

Finally. a female participant during a focus group discussion emphasised the negative effects of the pattern of migration on women and girls in their locality when she stated that:

"It affects women negatively than the men because when men migrate women will be left with no option than to take care of the family in the absence of the Husband" FG05BI.

Chapter 7

Women's Role in Agricultural Production and Control Over Resources

Introduction

Addressing the barriers that reduce the participation of women in the Sahel region of Nigeria along the agricultural value chain, from production through to processing and trade, will be pivotal in transforming their role in the sector and in empowering them economically. Empowering women in the Sahel region is essential to the improved economic productivity of the rural economies of the region. Promoting the participation and productivity of women should have a direct impact on improved food security through increased productivity, improved quality of life, higher household incomes, and increasingly sustainable livelihoods. It is in this context that this chapter examines the role of women in the contemporary agricultural production and other non-farm income generating activities in the study areas of Bauchi and Gombe.

Women participation in farming activities and their use of income

Over the years, women in Nigeria including those in the Sahel region have established defined roles in agriculture. In different parts of the Sahel region, women are involved in agricultural production, processing and utilization. A woman's role in the agricultural sector is significantly affected by socio-economic factors such as gender norms, income, education and access to infrastructure. The findings of the survey show that women in the study localities of Bauchi and Gombe are playing significant roles in food crop farming activities. In Bauchi State, while 74 percent of the male respondents reported that they are involved in farming activities during the last 12 months, about 65 percent of the female respondents also indicated that they took part in farming activities during the same period. In Gombe State, 68 percent of the male respondents reported that they are involved in farming activities while the proportion of the female respondents participating in farming activities is 53 percent during the same period. These findings show that the majority of the females like their male counterparts are key contributors to food crop farming activities in their communities thereby enhancing food security in their households and communities at large (Figure 7.1).

Often, despite the significant role which women play in farming activities, men have reportedly continued to dominate farm decision making, even in areas where women are the largest providers of farm labour. Table 7.1 indicates that a higher proportion of the female respondents in the survey localities of Bauchi and Gombe States reported that they make input into very few decisions compared with the males that indicated that they do make input into most decisions regarding food crop farming. In fact, while 58 percent of the male respondents in Bauchi reported that they make input in all decisions the proportion of females in that category is just 8 percent. The situation in Gombe State is a little better in that while 46 percent of the males reported that they take part in all decisions about 27 percent of the females is in that category. It can be stated that the low participation of females in decision making regarding food crop farming could be counter-productive, because there is bound to be conflict when women, as key players, carry out farm tasks without being part of the decision process, especially when the decisions fail to recognize women's other peculiar household responsibilities.

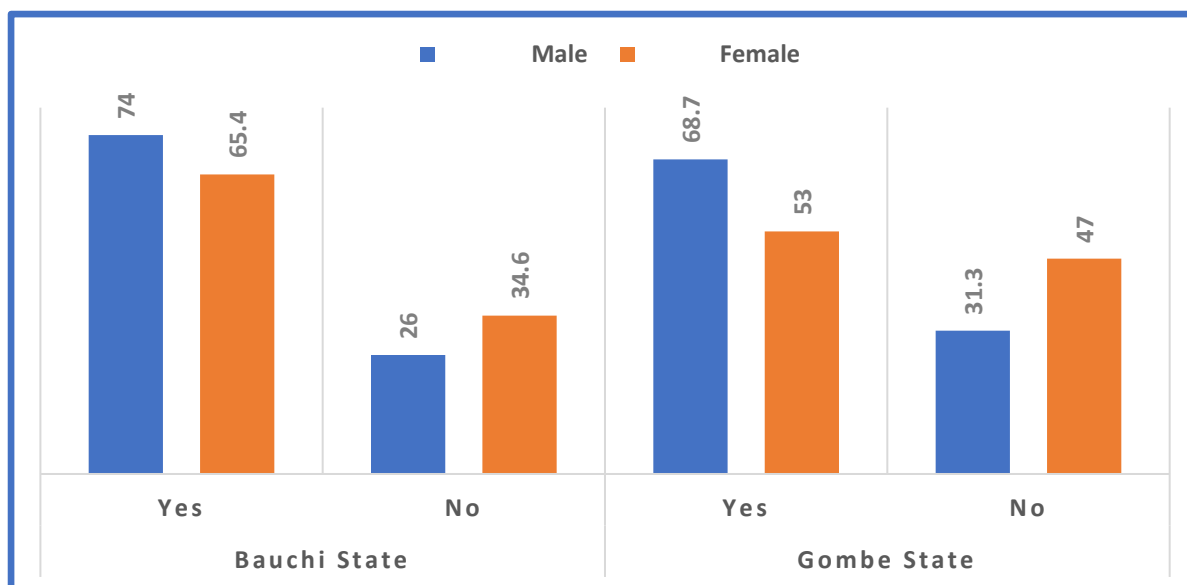


Fig. 7.1: Percentage distribution of respondents by their participation in food crop farming in the past 12 months.

The dominant role of males in decision making regarding farming activities is further shown with regards to the person who takes decision on types of crops to grow for agricultural production in their household. Figure 7.2 indicates that while 65 percent of the males in Bauchi reported taking decision by themselves on the types of crops to grow only about 12 percent of the females are in that category in which case, they cannot take any decision on their own. The situation in Gombe State is not much different in that while 60 percent of the male respondents indicated that they take decision themselves, the proportion of female respondents in that category is only about 24 percent. Often as shown in Figure 7.2 the females reported that their spouses took such decisions without their involvement. The best the females got involved in decision making is when they jointly took decisions with their spouses. The findings of the survey also show that male respondents do play a dominant role on the decision to take the products of farming to the market compared with the females. Figure 7.3 indicates that while about 60 percent of the male respondents in Bauchi reported that they take decisions on the marketing of their farm products themselves only about 12 percent of the female respondents is in that category. The situation in Gombe is essentially similar in that while about 59 percent of the males reported that they take decision on the marketing of their products themselves just about 20 percent of the females are able to take such decisions themselves. The best situation in which the females took part in decisions regarding the marketing of their farm products is when such decisions are jointly taken with their spouses. Finally, Figure 7.4 shows that in both Bauchi and Gombe States while males make input in all decisions regarding the use of income from farming activities females make fewer decisions, except jointly with their spouses.

Table 7.1

Percentage distribution of respondents by how much input into decision of household food crop farming

Respondents by how much input into decision of household food crop farming	Male	Female
Bauchi State		
No input	0.4	1.2
Input into very few decisions	5.7	23.9
Input into some decisions	11.5	43.6
Input into most decisions	24.0	23.2
Input into all decisions	58.4	8.1
Gombe State		
No input	0.0	1.5
Input into very few decisions	5.1	6.6
Input into some decisions	6.2	21.1
Input into most decisions	42.0	43.8
Input into all decisions	46.7	27.0

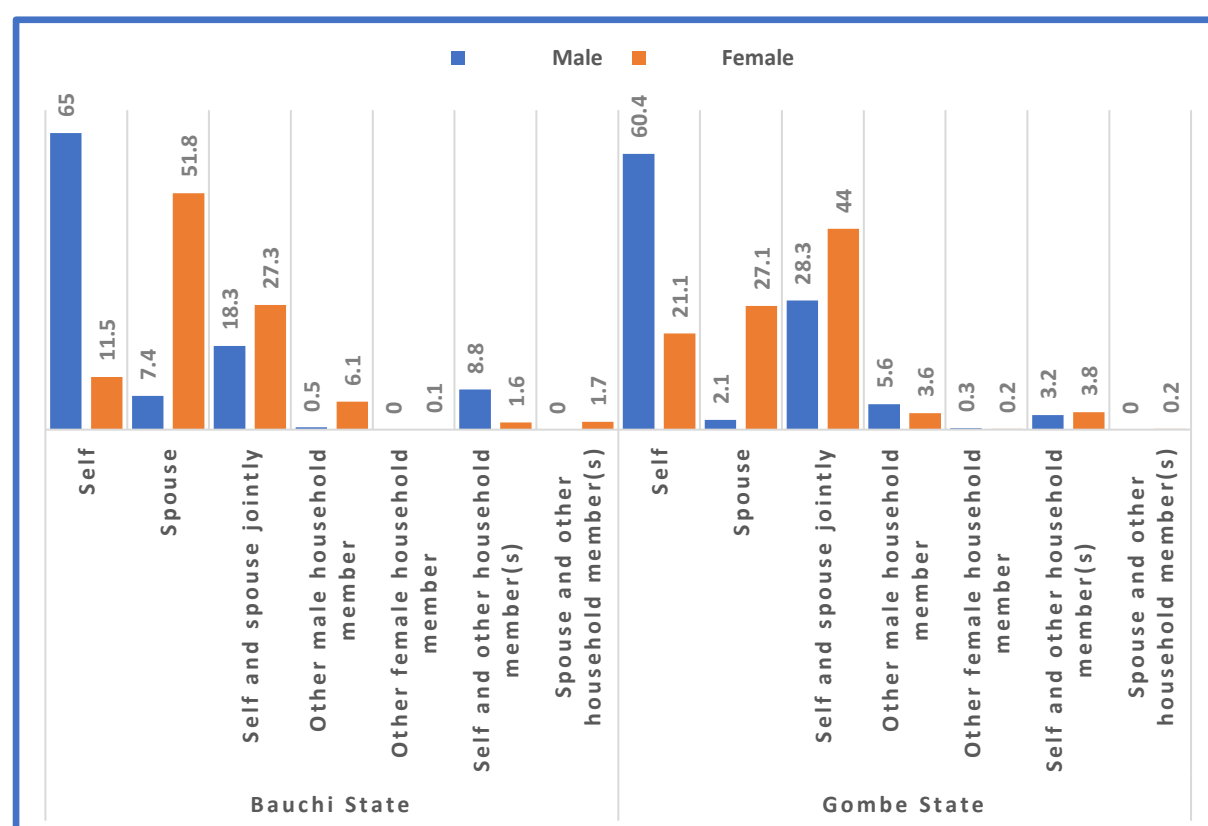


Fig. 7.2: Percentage distribution of respondents by the person who takes the decision on types of crops to grow for agricultural production in their household

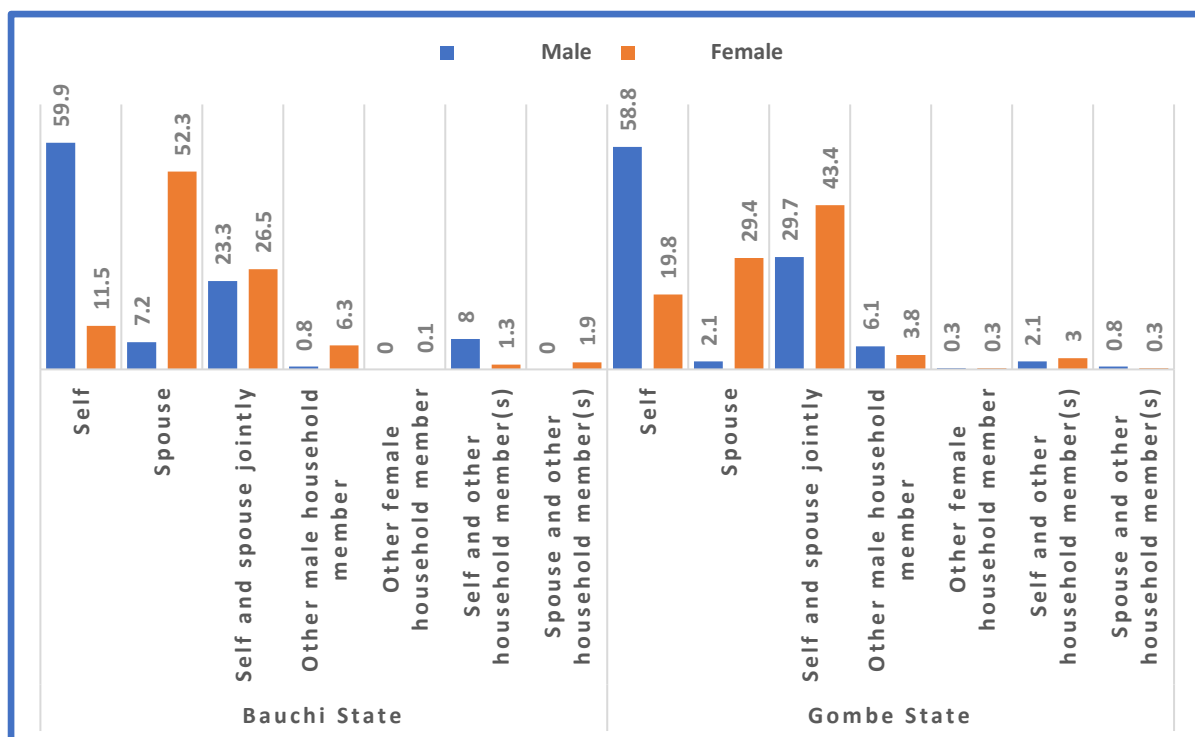


Fig. 7.3: Percentage distribution of respondents by persons who take the decision on when to take or who will take crops to the market in their households

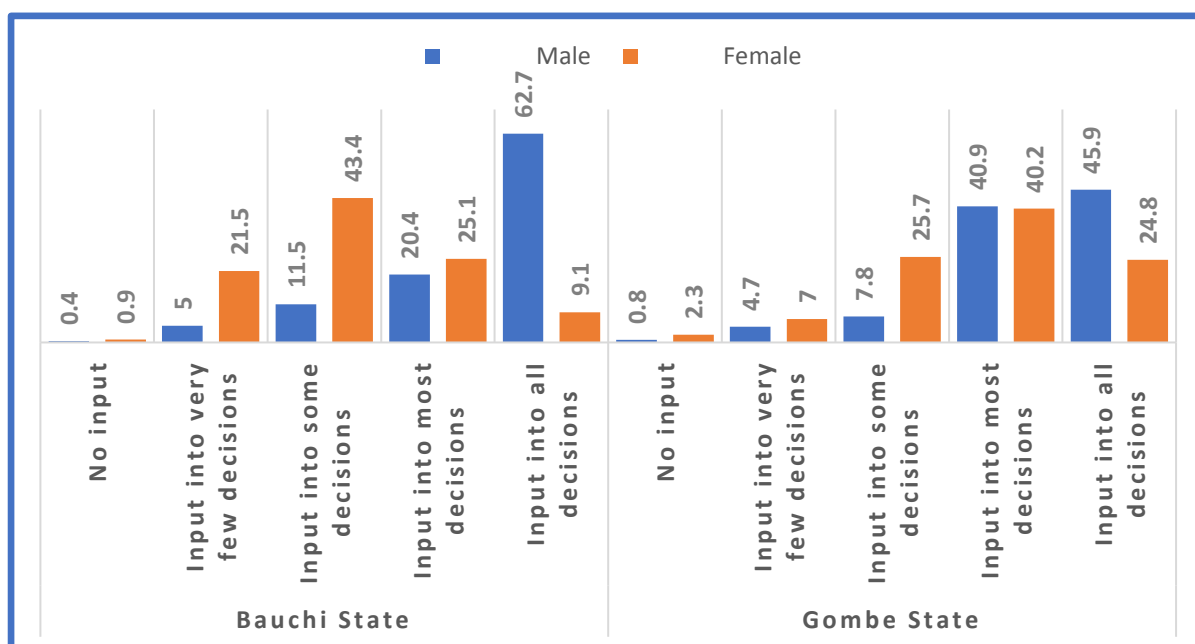


Fig. 7.4: Percentage distribution of respondents by how much input they make into decision on the use of income generated from food crop farming

Access to agricultural land

Women in Nigeria generally have limited access or own less agricultural land influenced largely by prevailing gender norms. According to the 2012 'Gender in Nigeria' report by the British Council, women own 4% of land in the North-East which is in the Sahel region, and just over 10% in the South-East and South-South, less than 10% of Nigerian women own land (British Council, 2012). Thus, the lack of land ownership significantly reduces the chances for women's access to financing of agricultural and other economic activities because of the need for collateral. However, ownership is different from access to land for use at least on a temporary basis. Figure 7.5 shows that in Bauchi State about 42 percent of the males reported that they have access to land for farming whenever they want while about 58 percent of them stated that they do not have access to land. On the other hand, about 45 percent of the females reported that they have access to land for farming while 55 percent indicated that they had no access to land for farming.

As noted earlier, there is difference between ownership of land and access which suggests that male and female respondents that reported that they do not own their personal land for farming still have access to land which they hire or leased to them for a period of time. When it comes to outright ownership of land for farming activities Figure 7.6 shows that the males again own most of the land for farming activities. In Bauchi State the survey shows that while about 72 percent of the males reported that they own land for farming, whether in use or not, only about 22 percent of the females reported that they own such land for farming. The findings with respect to Gombe is similar to the Bauchi situation in that about 72 percent of the males reported that they own land for farming while only about 30 percent of the females indicated that they own such land for farming. As Figure 7.6 further indicates, it is only when it comes to joint ownership with their spouses that a majority of the females can claim ownership of farmland. Thus, while about 70 percent of the female respondents in Bauchi reported that they have joint ownership of farmland with their spouses, about 53 percent of their counterparts in Gombe reported owning farmland with their spouses. These findings show that women are highly disadvantaged in terms of ownership and use of land. They cannot use any farmland the way they want without the approval of their spouses. Thus, if there is any marital problems between the women and their husbands it is obvious that they will be denied the use of such land.

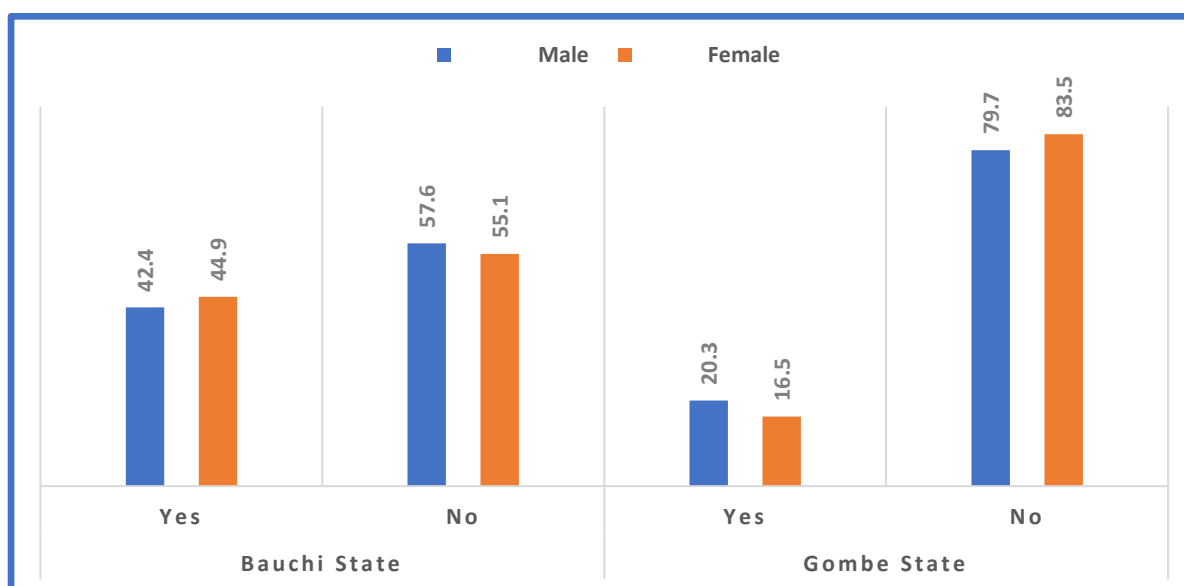


Fig. 7.5: Percentage distribution of respondents' household members currently having any Agricultural land, or any land not presently used for agriculture

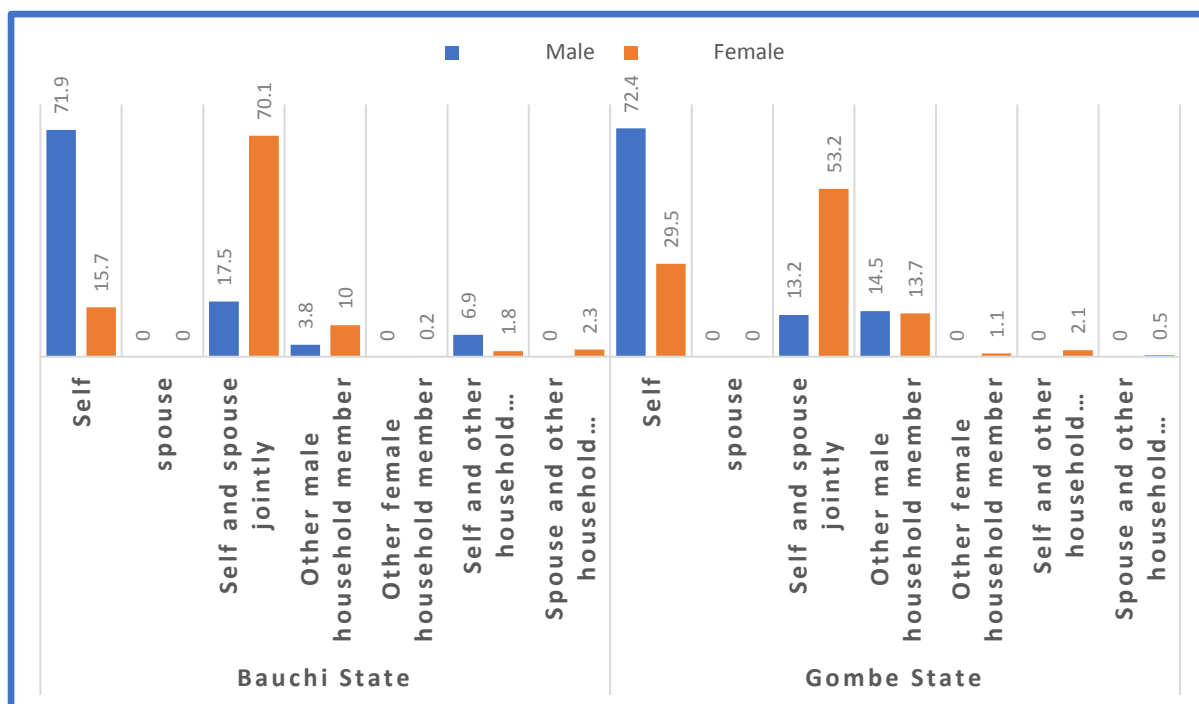


Fig. 7.6: Percentage distribution of respondents by ownership of most of the agricultural land or any land not in use

Furthermore, the survey shows that the farmland owned by females cannot be disposed of without the support of their spouses. Figure 7.7 indicates that in Bauchi State over 82 percent of the male respondents reported that they are solely responsible for taking decision on whether to sell or give away or rent the land they own. On the other hand, only 30 percent of the female respondents indicated that they could sell or give away their land themselves without permission from anybody. In Gombe State a higher proportion (92%) of the males reported that they can dispose the farmland they own without consultation with anybody while 60 percent of the female respondents indicated that they could do away with the farmland they own without approval from anybody. An interesting finding from the survey is that in Bauchi State about 51 percent of the female respondents reported that their spouses can sell or give away the land they own without their involvement in taking the decision. Similarly, a lower proportion of the female respondents (about 22%) in Gombe indicated that the farmland which they own can be disposed of by their spouses without their involvement in taking such a decision.

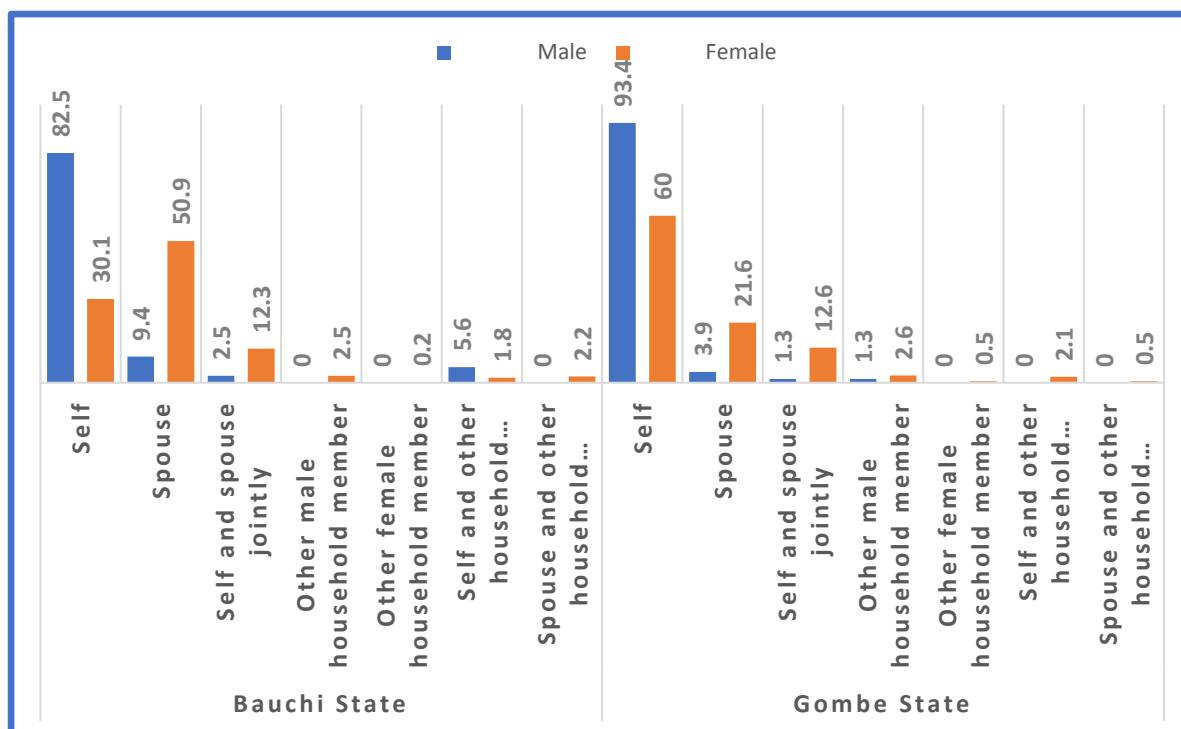


Fig. 7.7: Percentage distribution of respondents by who takes the decision to sell/give away or rent out the agricultural land which they own most of the time

Participation in livestock raising and the use of incomes

In the Sahel region of Nigeria, within pastoralist and mixed farming systems and as indicated in Chapter 5, livestock play an important role in supporting women and in improving their financial situation. In effect, women are heavily engaged in livestock rearing activities. They share responsibility with men and children for the care of animals, and particular species and types of activity are more associated with women than men. For example, women often play a prominent role in managing poultry and dairy animals and in caring for other animals that are housed and fed within the homestead. When tasks are divided, men are more likely to be involved in constructing housing and the grazing of animals, and in marketing products if women's mobility is constrained by the prevailing tradition and norms. The influence of women is strong in the use of eggs, milk and poultry meat for home consumption, and they often have control over marketing these products and the income derived from them. Perhaps for this reason, poultry and small-scale dairy projects have been popular investments for development projects that aim to improve the lot of rural women (FAO, 2015). Livestock ownership is particularly attractive to women in societies where access to land is restricted to men as in the case of the Sahel region. Pastoralist and small-scale mixed-farming systems continue to be important in meeting the needs of rural consumers, the demands of growing urban populations are increasingly supplied with meat, milk and eggs from intensive commercial systems. This has implications for the engagement of women in the livestock sector because of the different roles, responsibilities and access to resources that are evident within different scales of production system and at different points on the production and marketing chain (FAO, 2015; Sasa et al, 2022). Many of the income-generating activities in which pastoral women engage are based on livestock, whether they involve trading livestock or marketing livestock products and handicrafts.

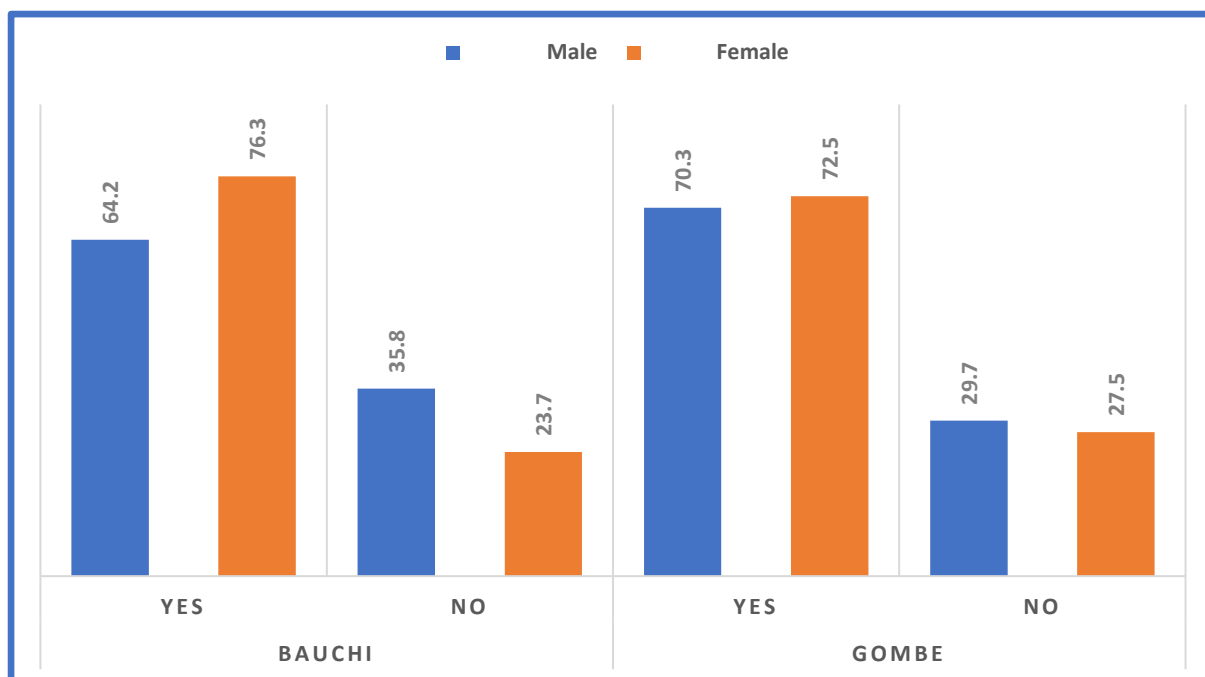


Fig. 7.8: Percentage distribution of respondents' household that participated in livestock raising (Goat, cow, buffalo), Poultry (e.g., chicken, duck, pigeon) in the past 12 months

It is in this context that the survey examined the nature of the participation of males and females in livestock production in the study areas of Bauchi and Gombe States. Figure 7.8 indicates that in Bauchi and Gombe States an almost equal proportion of males and females (about 70%) are involved in livestock raising. It is only in Bauchi State that 64.2 percent of the male respondents are involved in livestock raising compared with the proportion of females which is 76.3 percent. With regards to the specific ownership of the livestock being raised, Figure 7.9 indicates that in Bauchi State, about 44 percent of the female respondents reported that they own most of the livestock they are rearing compared with about 22 percent for male respondents. Figure 7.9 further shows that about 30 percent of the female respondents in Bauchi indicated that they jointly own most of their livestock with their spouses compared with 36.4 percent in the same category. In Gombe State 35.2 percent of the female respondents indicated that they personally own most of their livestock while 36.1 percent reported that they own most of the livestock they are rearing with their spouses. Ownership of livestock is particularly attractive to women in many parts of the Nigerian Sahel region where access to land is largely dominated by males, as reported earlier. As far as the degree of male and female respondents' input into livestock raising is concerned, Figure 7.10 indicates that even though male respondents still play leading roles in decision making with respect to livestock rearing issues, female respondents are also playing significant roles in decision making compared with the degree of their involvement in decision making in farming activities.

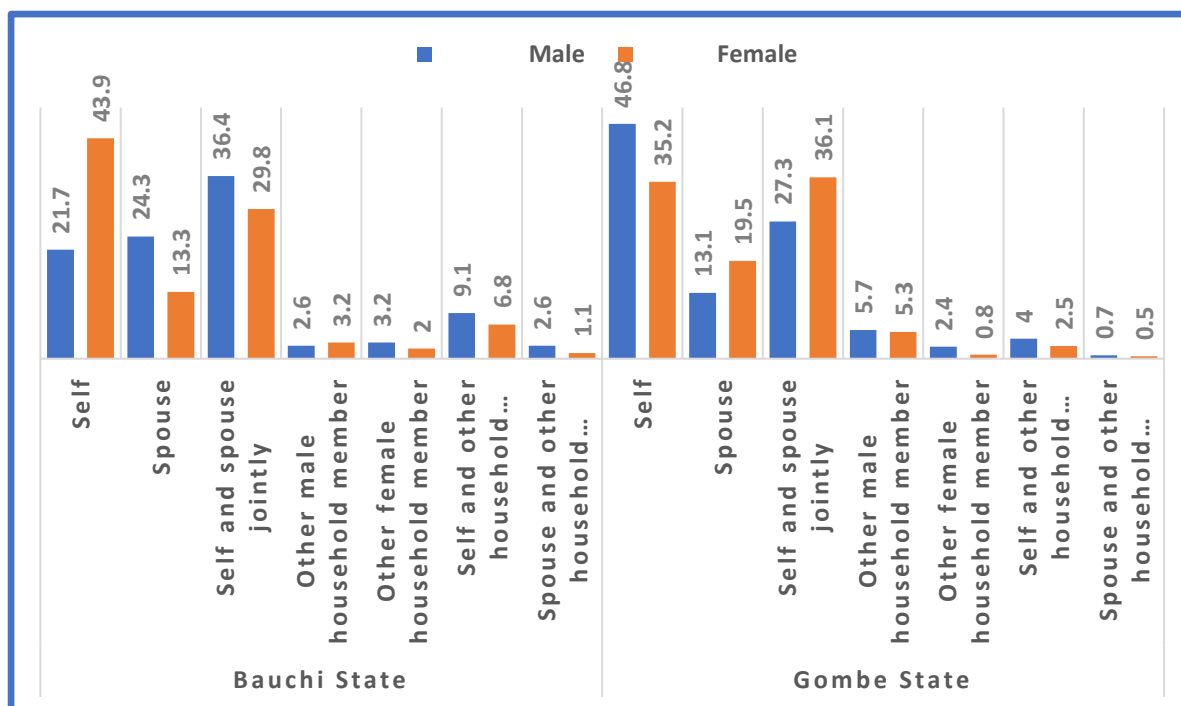


Fig. 7. 9: Percentage distribution of Respondents by the ownership of most livestock

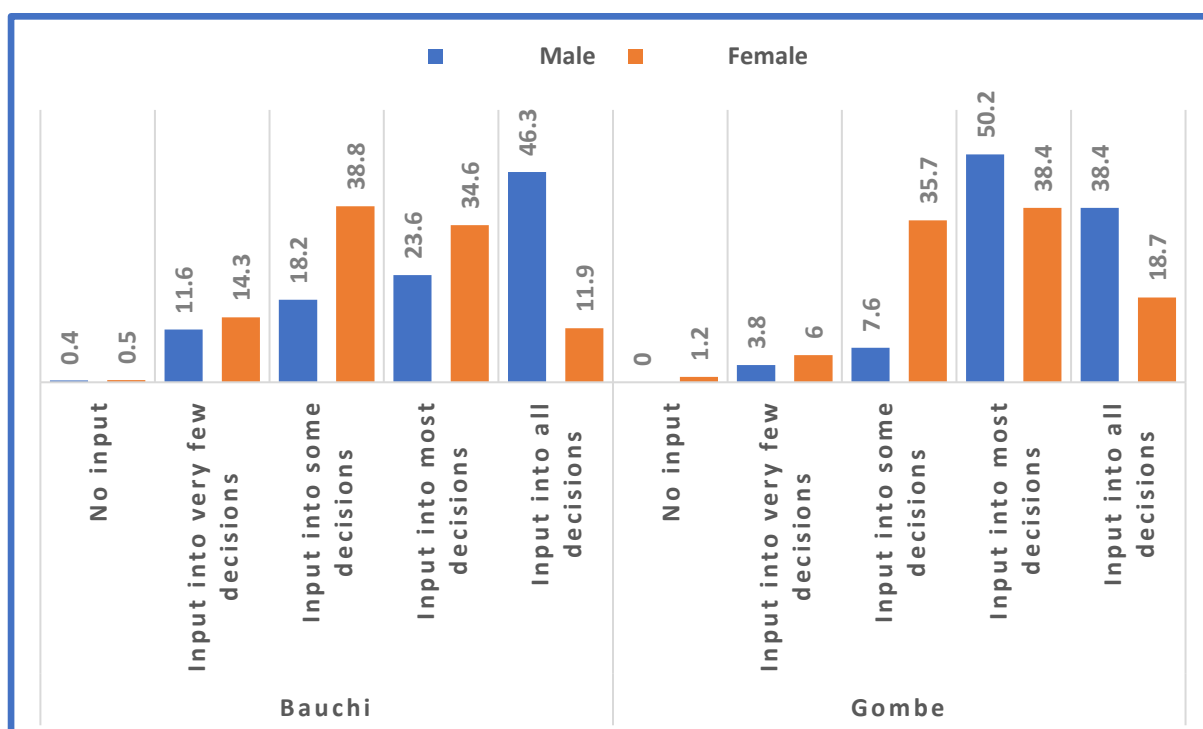


Fig. 7.10: Percentage distribution of Respondents by how much input they make into decision of household livestock raising (Goat, cow, buffalo), Poultry (e.g., chicken, duck, pigeon) in the past 12 months

This is obviously a reflection of the fact that women play key roles in livestock rearing in the survey localities of Bauchi and Gombe States as in many other parts of the Nigeria's Sahel region.

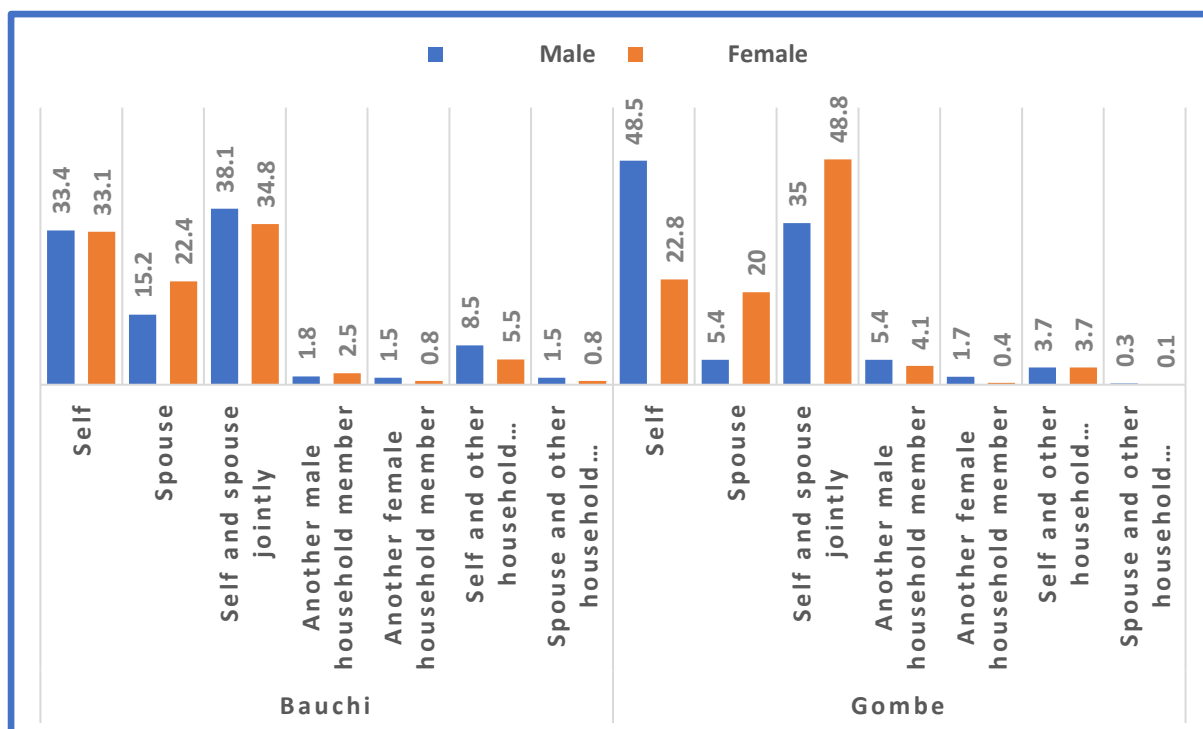


Fig. 7.11: Percentage distribution of respondents by who takes decision to buy/sell/give away livestock most of the time.

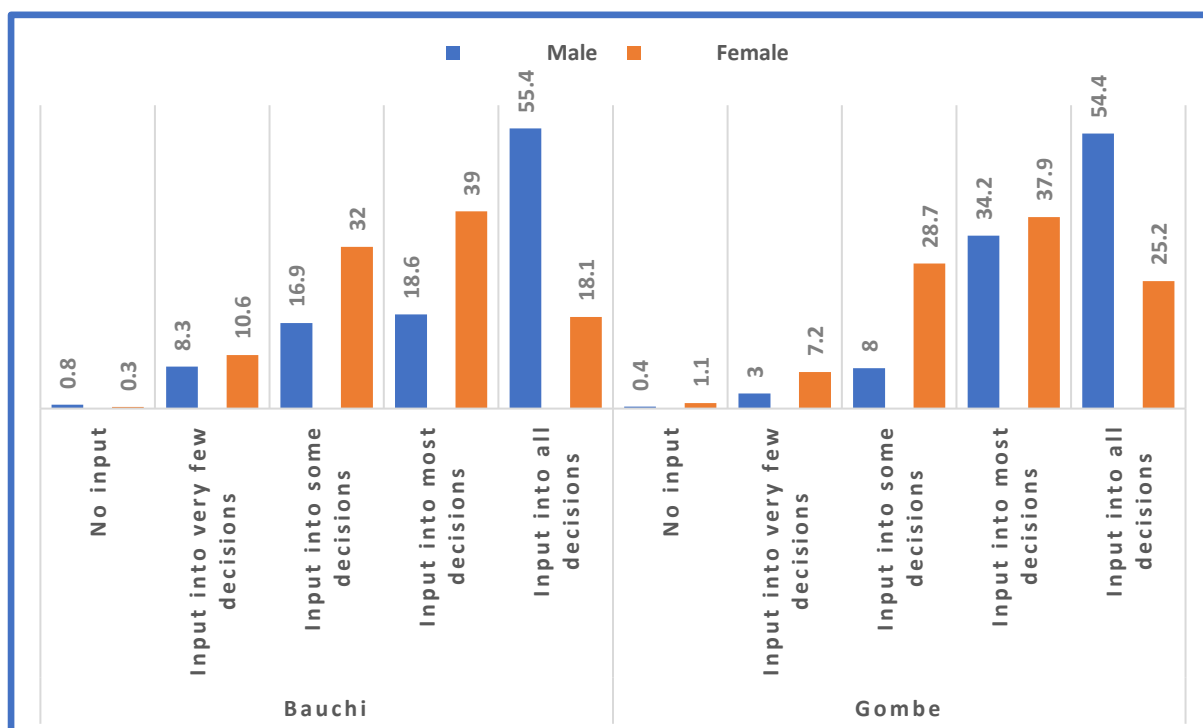


Fig. 7.12: Percentage distribution of respondents by how much input they make into decision on the use of income generated from livestock raising

The significant role being played by female respondents in the study areas of the two target states, is also reflected in their involvement in taking decisions regarding the purchase and sale of their livestock. Figure 7.11 indicates that female respondents reported that they are playing major roles in deciding on the buying and sale of livestock as they make input into

most or all decisions relating to the sale of their livestock. Figure 7.11 shows that while males' respondents are still taking most of the decisions female respondents are playing significant roles with respect to making inputs into most or all decisions relating to livestock raising. Again, this reflects the recognition given to women in livestock raising in the survey areas.

Finally, the results of the survey show again that women make a more significant input into how income generated from livestock raising in both Bauchi and Gombe States is spent. As indicated in Figure 7.12 a higher proportion of female respondents in the two states reported that they make input into most decisions or all decisions with respect to the use of income generated from livestock raising. As stated earlier, this reflects the recognition given to women in livestock production in the study areas of Bauchi and Gombe States.

Access to agricultural inputs

For agriculture to prosper, farm inputs need to be available, affordable, accessible, and of good quality. Input supply is a critical factor in agricultural production and small-scale farmers' access to inputs is paramount (FAO, 2013). In the Sahel region of Nigeria, as in most of the other parts of the country, the small-scale farmers, who constitute the largest percentage of the farming population, are often threatened by the problems of rural poverty and neglect which hampers their ability to access farm inputs. Poverty contributes to poor agricultural productivity, as many rural farmers in Nigeria cannot afford to purchase the necessary farm inputs such as fertilizers, pesticides and improved seeds, which would bring about increased productivity. In achieving the ultimate goal of maximizing agricultural productivity, farm inputs have a huge potential to increase agricultural productivity in the Sahel region of Nigeria.

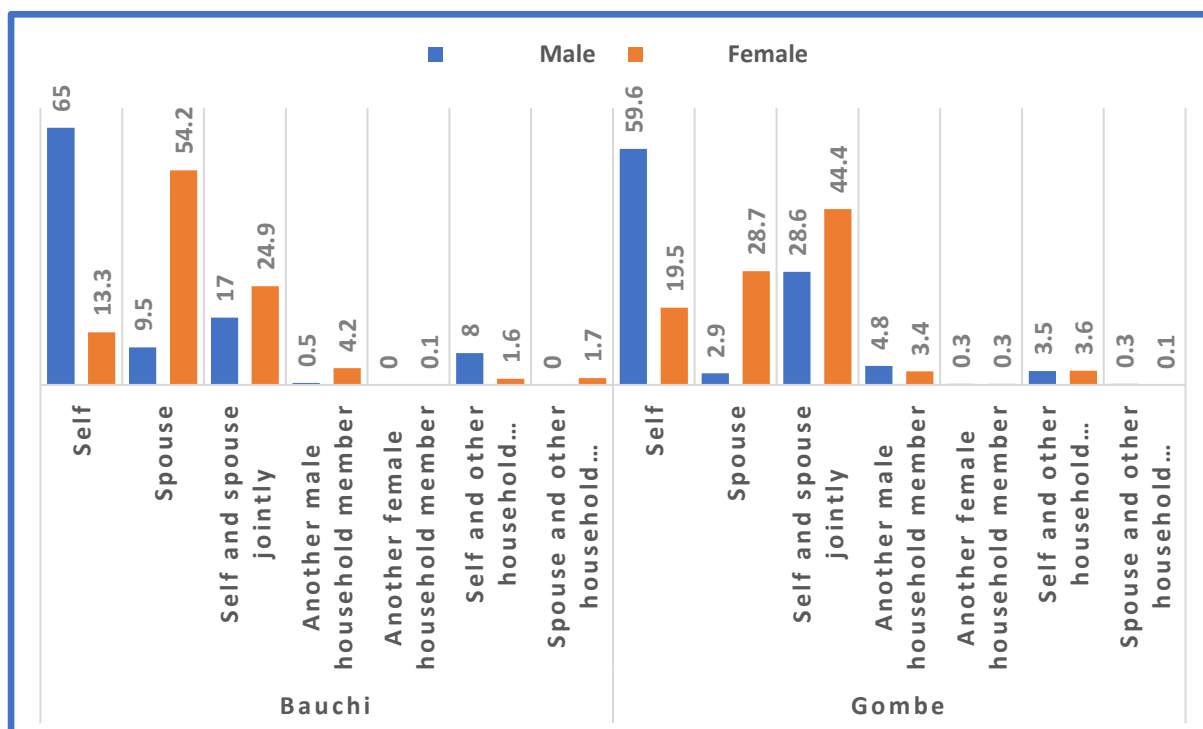


Fig. 7.13: Percentage distribution of Respondents by persons who take the decision for getting inputs for agricultural production in their households

Often due to poor financing, women are unable to access agricultural inputs such as improved seedlings and fertilizer as women farmers often point out that they are unable to use farm inputs due to their high cost in the open market. The challenges which women farmers face are further complicated by the fact that they may not be able to take the needed decision on

accessing inputs for their agricultural activities without the approval of their spouses. Table 7.2 shows that the vast proportion (about 60%) of the male respondents in Bauchi and Gombe States take decisions on getting inputs for agricultural production themselves while in a few cases they take decision with their spouses. However, when it comes to female respondents only a smaller proportion (about 20%) of them are able to take the necessary decision themselves. Rather most of the women depend on their spouses to take such decisions on their behalf. At best they take decisions jointly with their spouses in which case their male counterparts can still cajole them into taking decisions largely determined by their spouses.

Table 7.2

Percentage distribution of respondents by persons who take the decision for getting inputs for agricultural production in their households

Respondents by persons who take the decision for getting inputs for agricultural production in their households	Male	Female
Bauchi State		
Self	65.0	13.3
Spouse	9.5	54.2
Self and spouse jointly	17.0	24.9
Another male household member	0.5	4.2
Another female household member	0.0	0.1
Self and other household member(s)	8.0	1.6
Spouse and other household member(s)	0.0	1.7
Gombe State		
Self	59.6	19.5
Spouse	2.9	28.7
Self and spouse jointly	28.6	44.4
Another male household member	4.8	3.4
Another female household member	0.3	0.3
Self and other household member(s)	3.5	3.6
Spouse and other household member(s)	0.3	0.1

Participation in non-farm economic activities and use of income

Non-farm income generating activities include all economic activities in rural areas of the Sahel region except agriculture, livestock, fishing and hunting. It includes all off-farming activities, processing, marketing, manufacturing, wage and casual local employment in the rural villages. It encompasses all economic activities except conventional crop production and livestock rearing. Rural non-farm income sector includes household and non-household manufacturing, trade, handicrafts, repairs, constructions, processing, transportation, communication, mining, and quarrying, as well as community and personal services in rural areas.

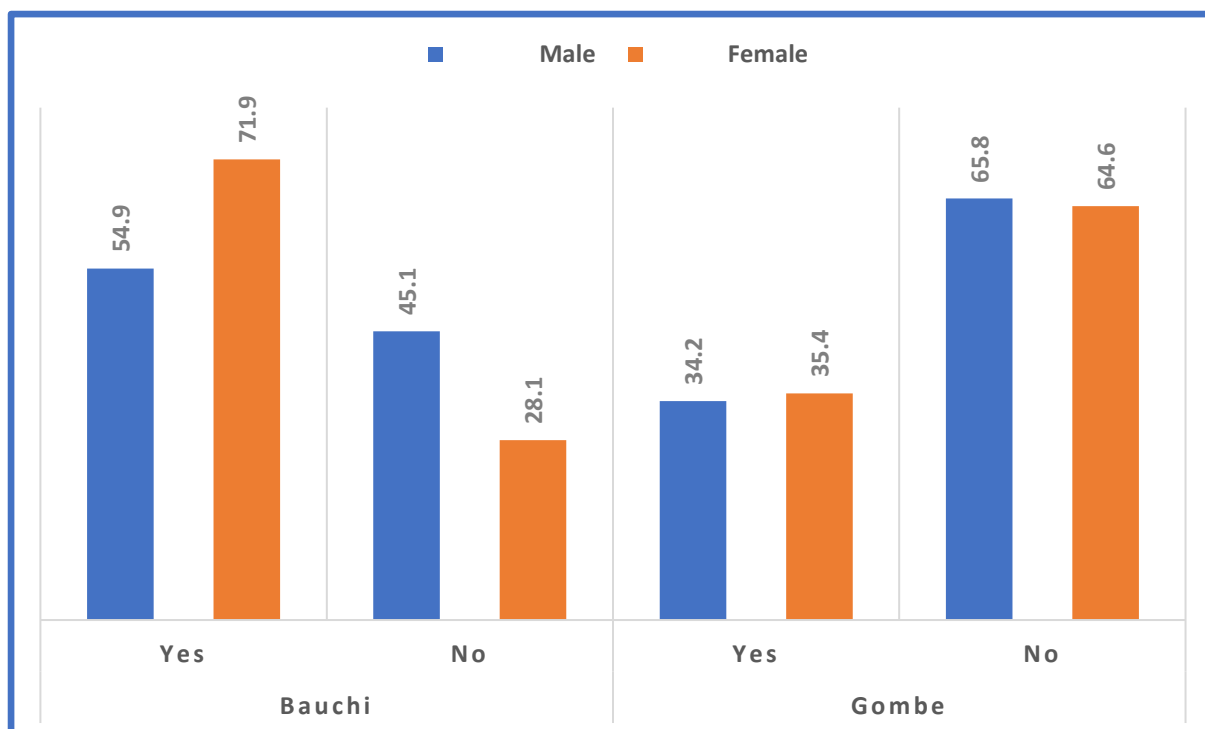


Fig. 7.13: Percentage distribution of Respondents' that are participating in non-farm economic activities

Rural non-farm activities account for between 25 and 30 percent of rural income in the Sahel region and for the landless and the very poor, sustainable income gains at the household level are associated with additional wages earned from non-farm activities. Households relying only on farming tend to be among the poorest. The rural non-farm sector can, and often does, contribute to economic growth, rural employment, poverty reduction, and a more spatially balanced population distribution. In the context of the Sahel region of Nigeria, non-farm economic activities have been used as part of the adaptation strategies to climate change. Indeed, rural non-farm income generating activities is considered as an essential component of livelihood strategies among rural households. The reasons for diversification to non-farm activities include declining farm incomes and desire to insure against agricultural production risk. Figure 7.13 shows that about 55 percent of the male respondents in Bauchi State reported that they are involved in one form of non-farm income generating activities or another while the proportion of female respondents that are participating in non-farm income generating activities is even higher at about 72 percent. However, the situation is quite different in Gombe State where a lower proportion (less than 50 %) of male and female respondents indicated that they are participating in non-farm income generating activities. In both states a higher proportion of female respondents are participating in non-farm income generating activities such as handicrafts, household as well as non-household small-scale manufacturing, repair, transport, community service, etc. Indeed, more women are involved in non-farm economic activities because they can do so within their home environment.

Table 7.3***Percentage distribution of respondents currently having transportation facility***

Respondents' household members currently having transportation facility	Male	Female
Bauchi State		
Yes	55.2	55.4
No	44.8	44.6
Gombe State		
Yes	31.3	49.3
No	68.7	50.7

The survey used one common non-farm economic activity to explore the nature of non-farm economic activities in the study areas of Bauchi and Gombe. Table 7.3 shows that about 55 percent of both the male and female respondents indicated that they have a transport facility. The proportion is however lower in Gombe where 31 percent of the male respondents and 49 percent of the females reported that they have a transport facility for generating non-farm income. In view of the generally poor public transport facilities in the rural communities of the study areas, providing local transportation facilities such as motorcycles and what is called 'keke vehicles' is a lucrative non-farm business which women who have some capital can engage in. What they do is to buy a motorcycle and employ a driver that makes returns every day or every week depending on the arrangement.

Apparently, as a result of the fact that a higher proportion of female respondents in Bauchi and Gombe are participating in non-farm income generating activities, they play a more significant role in decision-making on these activities in their households. Figure 7.14 shows that a significant proportion of the female respondents in both Bauchi and Gombe States make input into most or all decisions relating to non-farm economic activities. Thus, they are collaborating with their spouses in most decisions relating to non-farm economic activities unlike other socio-economic activities where their male counterparts tend to dominate the decision-making process. Similarly, the major role played by women in non-farm economic activities is reflected in their playing a significant role in deciding the use of income from these economic activities. Table 7.4 indicates that the vast majority of the female respondents in Bauchi and Gombe States reported that they make input into most decisions, or all decisions made with respect to the use of income generated from non-farm economic activities. It appears that in some cases where women are playing significant roles in generating income, they are allowed to make input into how the income generated should be used largely for their benefits.

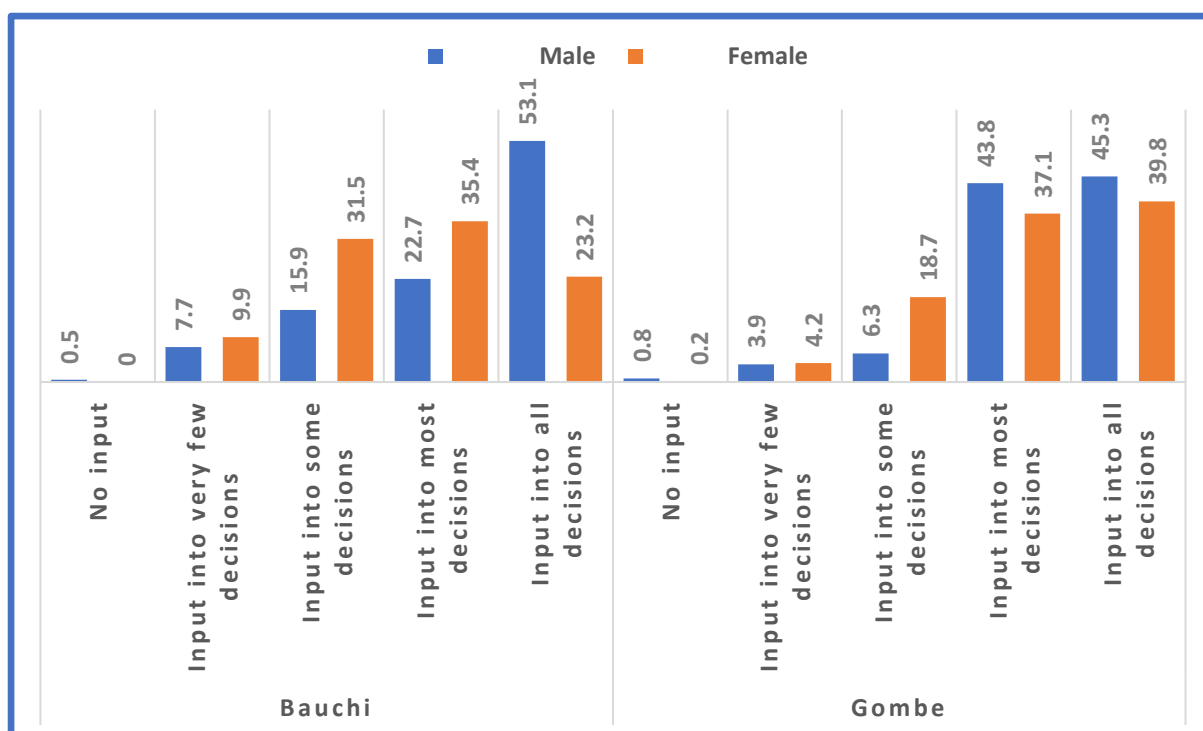


Fig. 7.14: Percentage distribution of respondents by how much input they into decision of household non-farm economic activities in the past 12 months

Table 7.4

Percentage distribution of respondents by how much input into decision on the use of income generated from non-farm economic activities in the last 12 months

Respondents by how much input into decision on the use of income generated from non-farm economic activities in the last 12 months	Male	Female
Bauchi State		
No input	4.8	1.8
Input into very few decisions	5.8	5.7
Input into some decisions	7.7	21.9
Input into most decisions	16.4	38.2
Input into all decisions	65.2	32.4
Gombe State		
No input	1.6	1.7
Input into very few decisions	3.1	3.4
Input into some decisions	3.9	17.0
Input into most decisions	37.5	33.9
Input into all decisions	53.9	44.0

Access to credit for economic activities

Credit markets in rural areas of the Sahel region are often constrained by inadequate property rights and high transaction costs. Credit is an important instrument for improving the welfare of the poor directly through consumption smoothing that reduces their vulnerability to short-term income. It also enhances the productive capacity of the poor through financing investment in their human and physical capital. Access to credit is regarded as one of the key elements in raising agricultural productivity. Rural farmers often have to plough back their profit (if any) or rely on informal village money lenders to source finance which in turn can be used to pay for the services of the productive factors employed in the course of farming activities. In the Sahel region of Nigeria, women farmers receive less than 10% of the credit offered to small-scale farmers. Women farmers are deterred from applying for formal loans because of the complexity of the administrative process, unsuitable loan sizes and credit rates. During key informant interviews and focus group discussions, it was observed respondents displayed aversion to the risk of indebtedness, especially on the part of women. This aversion particularly prevented many from borrowing. Many women felt they did not possess enough livelihood skills to productively apply loans, or that they did not have control over borrowing decisions and feared their husbands could misapply loans. Livelihood skills training and basic financial literacy for women could result in significant empowerment.

Table 7.5 indicates that generally a small proportion of both male and female respondents in Bauchi and Gombe States reported that they took loans for their economic activities in the last twelve months. In Bauchi 35.3 percent of the male respondents took loans while only 20.4 percent of the female respondents took advantage of any loan. In Gombe 23.1 percent of the male respondents took loans in the last twelve months while only 10.3 percent of their female counterparts had benefitted from loan facilities. As noted, earlier women are comparatively disadvantaged with respect to having access to credit for their economic activities.

Table 7.5
Percentage distribution of respondents that have taken a loan in the past 12 months

Respondents' household members that have taken a loan in the past 12 months	Male	Female
Bauchi State		
Yes	35.3	20.4
No	64.7	79.6
Gombe State		
Yes	23.1	10.3
No	76.9	89.7

One of the key issues relevant for women empowerment in terms of access to credit is the degree of autonomy with which they can take decision on seeking financial support for their economic activities. Figure 7.15 presents the findings with respect to the person who takes the decision on seeking credit facilities within the household. It shows that women do have considerable discretion on seeking for loan to carry out their economic activities. In Bauchi State, the findings show that while about 64 percent of the male respondents reported that they take the decision to obtain loans themselves the proportion of female respondents that indicated that they also take decision on seeking loans without approval of their spouses is 63 percent which shows that a considerable proportion of women in the study areas do have freedom to seek for credit for their economic activities. The findings from Gombe are

essentially similar to those of Bauchi. It shows that about 82 percent of the male respondents take the decision on obtaining credit themselves while about 67 percent of their female counterparts also take decision themselves. Another issue examined was the degree to which women take responsibility for the credit. This is an important challenge because if women are not allowed to take loans in their names, then their spouses could pose obstacles to their obtaining credit if they refuse to stand as the loan recipient on behalf of their spouses. Figure 7.16 shows that a large proportion of women do in fact take loans in their individual names. The findings show that in Bauchi State about 84 percent of the male respondents reported

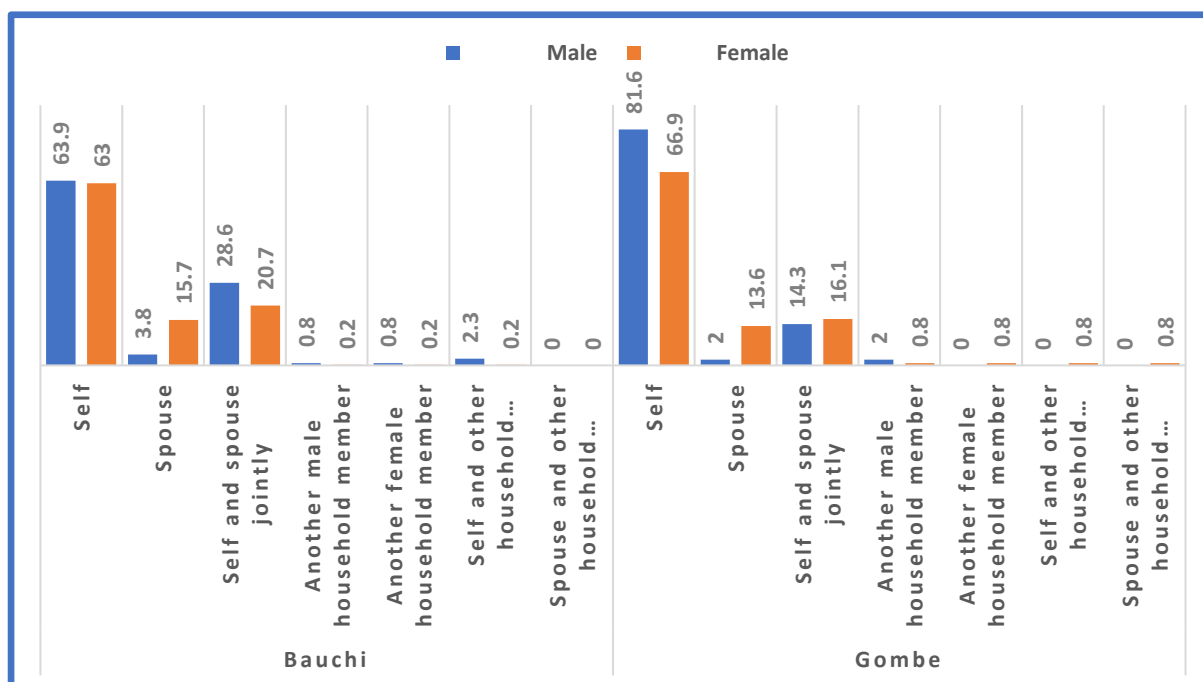


Fig. 7.15: Percentage distribution of respondents by who takes decision to borrow

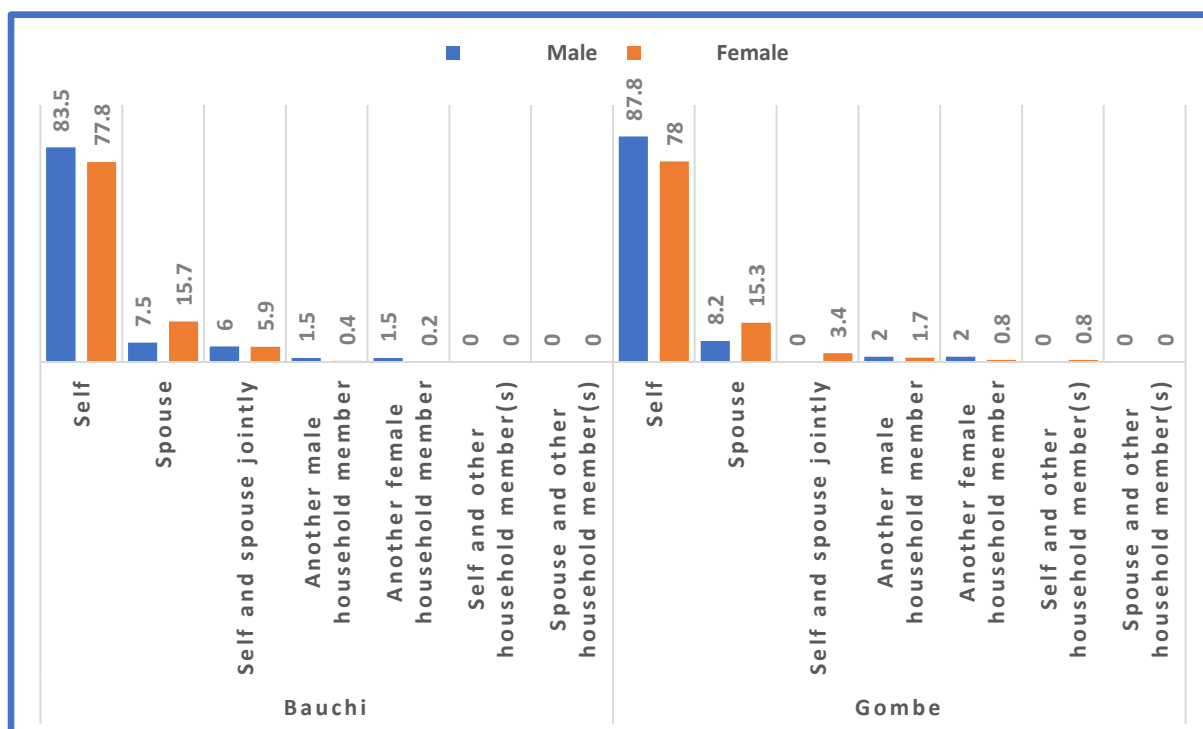


Fig. 7.16: Percentage distribution of respondents by persons in whose name loan was taken.

that they take loans in their names while a considerably high proportion (about 78%) of female respondents also reported that they take loans in their names. In Gombe State, the findings are similar in that about 88 percent of the male respondents reported that they take loans in their names while 78 percent of the female respondents also do take loans in their individual names. These findings are quite positive in that it shows that women do not have to depend on their spouses to obtain credit as they are recognised to do so on their own. This positive development is obviously a reflection of various government policies reviewed in Chapter 3 of this report in which efforts are being made by various state and non-state actors to improve the access of women to credit.

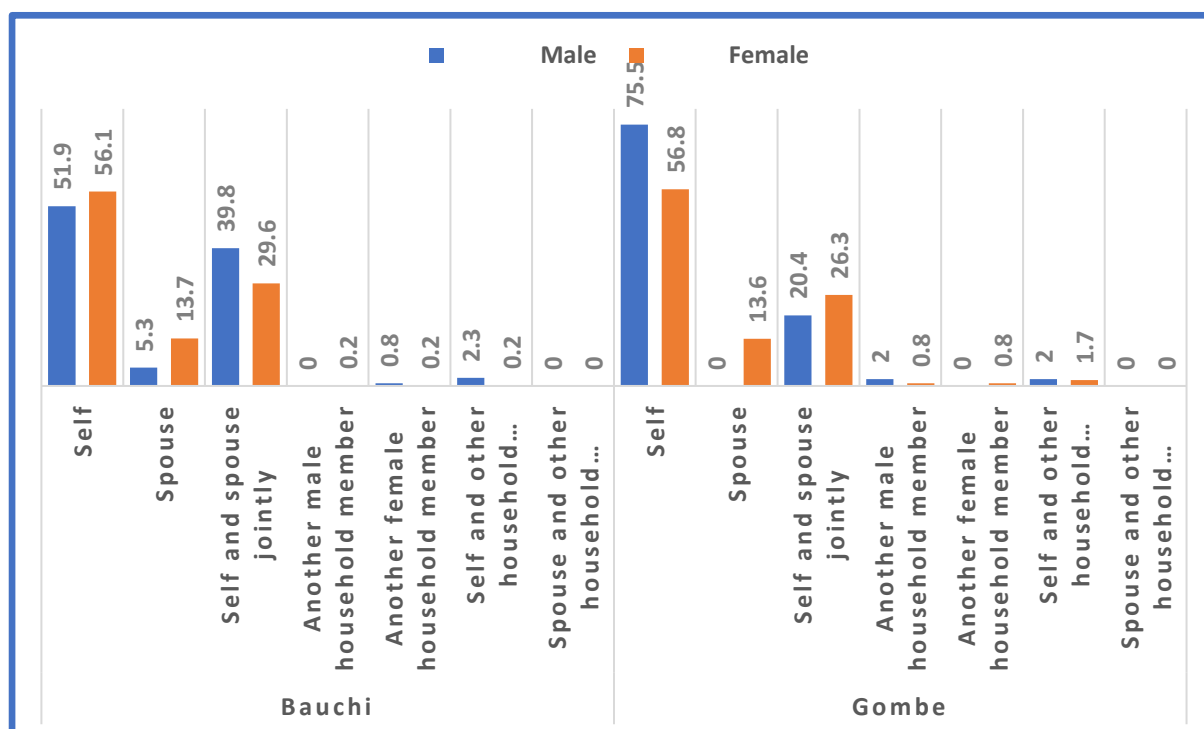


Fig. 7.17: Percentage distribution of respondents by the person who makes the decision about what to do with the money/item borrowed

Figure 7.17 confirms the increasing autonomy of women with respect to access to credit in that the findings in the two states show the females have considerable autonomy with respect to the decision about how to use the money borrowed. In Bauchi State, about 52 percent of the male respondents reported that they take decision on the use of the credit obtained by themselves while the proportion of female respondents in the same category is about 56 percent. In Gombe State, the findings are largely similar to the situation in Bauchi State in that about 76 percent of the male respondents indicated that they often decide on their own how the credit obtained is used while about 57 percent of the female respondents are in the same category. Figure 7.17 also shows that a significant proportion of the male and female respondents in the two states reported that the decision on the use of the loans they obtained was made jointly with their spouses.

The survey also examined the factors which prevented the respondents who did not obtain any credit for their economic activities from doing so. Table 7.6 which show the findings with respect to this issue indicates that in Bauchi State about 60 percent of the male respondents reported that credit facility was not accessible to them while 48 percent of the female respondents were in the same category. In Gombe State about 47 percent of the male respondents also indicated that lack of access to credit prevented them from taking loans compared with about 52 percent of the female respondents that gave the same reason. The

findings further indicate that a significant proportion of the male and female respondents in Bauchi and Gombe States reported that they do not like taking loans. This can be explained by the fact that most of them are not properly informed about the benefits of accessing credit for their various economic activities which is a challenge to policymakers and other actors.

Table 7.6
Percentage distribution of respondents by the reason for not taking loan from any available sources

Respondents by the reason for not taking loan from any available sources	Male	Female
Bauchi State		
Interest rate was too high	8.2	6.2
Credit facility not accessible	59.8	48.2
I don't like taking loan	20.5	31.7
I did not have the required loan collateral	5.3	6.8
Unfriendly repayment term	4.1	4.6
My spouse did not approve of me getting loan	2.0	2.7
Gombe State		
Interest rate was too high	4.3	3.7
Credit facility not accessible	47.4	52.0
I don't like taking loan	35.7	29.8
I did not have the required loan collateral	6.2	6.9
Unfriendly repayment term	4.0	4.5
My spouse did not approve of me getting loan	2.5	3.1

Decisions on Household Needs

Women are the backbone of the family welfare, and they play a vital role in their household economic well-being. Intra-household decision making can be well understood as negotiation among family members on how to allocate financial resources within the same household. It has been argued that women's preferences and responsibilities for making decisions within the household do influence economic outcomes. This suggests that the degree of women's autonomy in terms of decision making relating to intra-household needs and expenditure is closely related to women's empowerment. In the Sahel region of Nigeria, there is increasing involvement of women in recent years in decisions on key issues affecting the family. The findings of the survey in Bauchi and Gombe States reflect this changing trend. Table 7.7 indicates that in Bauchi State about 43 percent of the male respondents reported that they take major and minor decisions on household expenditure themselves without the participation of their spouses compared with about 17 percent of the female respondents that reported that they take such decisions themselves. Table 7.7 further indicates that about 43 percent of the female respondents in Bauchi State indicated that their spouses often take such decisions on their behalf. However, Table 7.7 also show that about 40 percent of the male respondents and about 36 percent of the female respondents reported that such decisions are made jointly with their spouses.

Table 7.7

Percentage distribution of respondents by the persons who take the decision on major and minor household expenditures in their households.

Respondents by the persons who take the decision on major and minor household expenditures in their households	Male	Female
Bauchi State		
Self	42.7	17.3
Spouse	12.7	42.9
Self and spouse jointly	39.8	36.2
Another male household member	0.5	1.2
Another female household member	0.3	0.1
Self and other household member(s)	3.4	2.0
Spouse and other household member(s)	0.5	0.3
Gombe State		
Self	46.8	20.5
Spouse	7.0	23.3
Self and spouse jointly	36.1	49.3
Another male household member	6.1	3.0
Another female household member	1.1	0.3
Self and other household member(s)	2.1	3.1
Spouse and other household member(s)	0.8	0.3

The findings from Gombe State shows the same trend in that while about 47 percent of the male respondents reported that they solely take such decisions without input from their spouses, only about 21 percent of the female respondents are in that category. Again, about 23 percent of the female respondents in Gombe State pointed out that their spouses took such decisions without their involvement. Finally, Table 7.7 shows that about 36 percent of the male respondents and about 49 percent of the female respondents indicated that such decisions are made jointly with their spouses.

Childbearing is a household/family issue to which both male and female members should normally take joint decisions on when to have a child and how many children should be welcomed to the family. Figure 7.18 indicates that in Bauchi State 22 percent of the male respondents reported that they take decisions relating to childbearing solely without any input from their spouses while the proportion of female respondents in that category is 11 percent. Indeed, about 23 percent of the female respondents reported that they leave such decisions for their spouses to take. However, the majority of male and female respondents in survey areas of Bauchi State indicated that such decisions are jointly made with their spouses which is a good development. The findings from the survey in Gombe are in many ways similar to that of Bauchi as a higher proportion of the male and female respondents reported that they jointly take decisions on such issues with their spouses. The findings from the two states reflect the growing participation of women in decisions relating to intra-household needs.

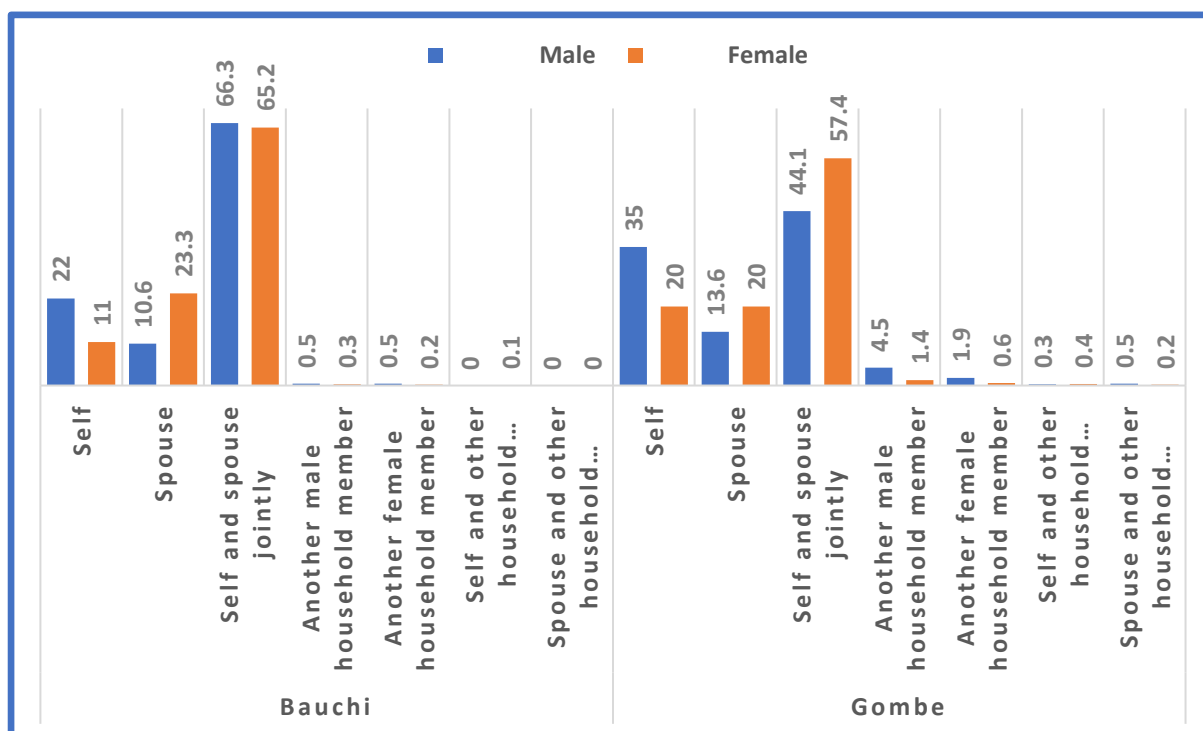


Fig. 7.18: Percentage distribution of respondents by the persons who take the decision to have a child, how many children to have or family planning in their households

Table 7.8

Percentage distribution of respondents by persons who take the decision on healthcare when family member is ill

Respondents by persons who take the decision on healthcare when family member is ill in their households	Male	Female
Bauchi State		
Self	49.3	11.8
Spouse	9.5	40.9
Self and spouse jointly	39.0	44.8
Another male household member	1.1	1.1
Another female household member	0.0	0.0
Self and other household member(s)	1.1	1.2
Spouse and other household member(s)	0.0	0.2
Gombe State		
Self	40.1	19.6
Spouse	5.1	17.1
Self and spouse jointly	46.3	56.8
Another male household member	4.8	2.9
Another female household member	0.3	0.9
Self and other household member(s)	2.9	2.4
Spouse and other household member(s)	0.5	0.3

Finally, Table 7.8 presents the findings of the survey with respect to decision-making relating to the care of family members when they fall ill. It shows that in Bauchi State over 49 percent of the male respondents reported that they are the ones taking the decision on what to do while only about 12 percent of the female respondents indicated that they are the ones taking the decision. The insignificant decision-making power of females in the study area of Bauchi State is further confirmed by the fact about 41 percent of them indicated that their spouses usually take the necessary decision on what to do to care for the sick in the family. However, the findings show that a considerable proportion (about 40%) of the male and female respondents reported that they jointly take the necessary decision for the care of any sick member of their families in which case women do make some input into decision making in many families when it comes to the health care of family members. The findings from Gombe State are a little different from those of Bauchi State. Table 7.8 shows that a comparatively lower proportion of the males (about 40%) indicated that they are the sole decision makers on the mode of the health care of family members whenever anyone falls sick while about 20 percent of the female respondents reported as such. Again, the proportion of the female respondents that indicated that their spouses are solely responsible for taking the decision on the mode of care of sick family members is just about 17 percent which is considerably less than the respective proportion in Bauchi State which is about 41 percent. Thus, in Gombe State a higher proportion of the male and female respondents (46% for male and 56% for female) reported that they jointly take decision on the health care method of any member of their family when they fall sick. Finally, it can be stated in conclusion that increasingly women are getting involved in decision making on the health care of their family members.

Chapter 8

Women's Time Use and Leadership

Introduction

Time use, or how women and men allocate their time, is an important element of the empowerment processes. This chapter examines the challenge of care giving and unpaid household work in the study area and its relationship to the autonomy and the participation of women in the activities of the various associations in their communities.

Household Work Distribution

Care is essential for human survival and personal well-being. It can build the intellectual, physical and emotional capabilities of care recipients, to the benefit of themselves and others, and also confers benefits on caregivers. However, the benefits of care to society are often not recognized and the provision of care, mostly by women, may be taken for granted especially in the Sahel region as in other parts of Nigeria. Excessive caring duties have been identified as a barrier to various human rights of girls and women, including the rights to freedom of speech, association and leisure, and the rights to formal productive work. Heavy care workloads can decrease health and well-being, while certain activities – for example, fetching fuel or water – can expose girls and women to the risk of assault. It has been argued that heavy and unequal care responsibilities are a major barrier to gender equality and to women's equal enjoyment of human rights, and, in many cases, condemn women to poverty.

Therefore, the failure of countries such as Nigeria to adequately provide, fund, support and regulate care contradicts their human rights obligations, by creating and exacerbating inequalities and threatening women's rights enjoyment. The provision of care services can reduce the time constraints faced by women who perform the bulk of unpaid care and domestic work on a day-to-day basis. As such, they play a pivotal role in promoting substantive equality for women. The availability of care services can help redress women's socio-economic disadvantage by enhancing their ability to engage in paid work. Care services also contribute to the transformation of gender stereotypes by allowing women to move out of the home and into the public domain. In doing so, they can enable women's enjoyment of a range of rights, including the rights to work, education, health and participation.

One of the indicators used to examine the overall workload by males and females in the study areas of Bauchi and Gombe States is the time available for rest after a day's work. Table 8.1 which presents the number of hours which respondents had to sleep shows that males tend to have more hours of sleep compared with females. Table 8.1 indicates that in Bauchi State while just about 13 percent of the male respondents reported that they had sleep for less than 5 hours the previous night a higher proportion about 24 percent of the female respondents indicated that they had sleep for less than 5 hours. The Table further shows that while 80 percent of the male respondents reported that they had sleep for between 5 and 9 hours the proportion of female respondents in the same category is about 74 percent. Finally, while 7 percent of the male respondents reported that they had between 10 and 15 hours of sleep only about 3 percent of the female respondents are in that category. The discrepancy in the pattern of sleep hours for male and female respondents in Gombe State is largely similar to that of Bauchi State. Table 8.1 shows that while about 17 percent of the male respondents in Gombe had less than five hours of sleep the previous night the proportion of females that had less than 5 hours sleep was about 23 percent. The Table further shows that while a higher proportion (66 percent) of female respondents in Gombe had between 5 and 9 hours of sleep the previous night compared with about 51 percent of males in the same category, there is a

remarkable difference between males and females with respect to the proportion of the respondents that sleep for between 10 and 15 hours. Table 8.1 further shows that while about 22 percent of the males in Gombe slept for between 10 and 15 hours the proportion of female respondents in the same category is only 10 percent. Finally, about 10 percent of the male respondents in Gombe reported that they slept for over 15 hours the previous night the proportion of female respondents who had over 15 hours of sleep been just about 1 percent.

Table 8.1

Percentage distribution respondents' number of hours spent on sleeping the previous night

Respondents number of hours spent on sleeping the previous night	Male	Female
Bauchi State		
Less than 5 hours	12.9	23.8
5 to 9 hours	80.1	73.7
10 to 15 hours	7.0	2.5
over 15 hours	0.0	0.0
Gombe State		
Less than 5 hours	16.9	22.9
5 to 9 hours	50.6	66.0
10 to 15 hours	22.1	10.1
over 15 hours	10.4	1.0

There is no doubt that males in both Bauchi and Gombe States had more hours of sleep in the previous night than females. This may reflect the pattern of the time for sleeping available to the respondents in the study areas to the disadvantage of the females. The survey tried to confirm whether the reported sleeping hours by the male and female respondents was normal or was it that the previous night was an exception. Figure 8.1 shows that the vast majority of both male and female respondents in Bauchi and Gombe States confirm that the sleeping hours which they reported over the previous night is the average or what can be described as the normal situation. In effect, females being under considerable stress working in unpaid household care combined with their normal economic activities are having less time to sleep or rest. This is obviously an indicator of gender inequality in the study areas.

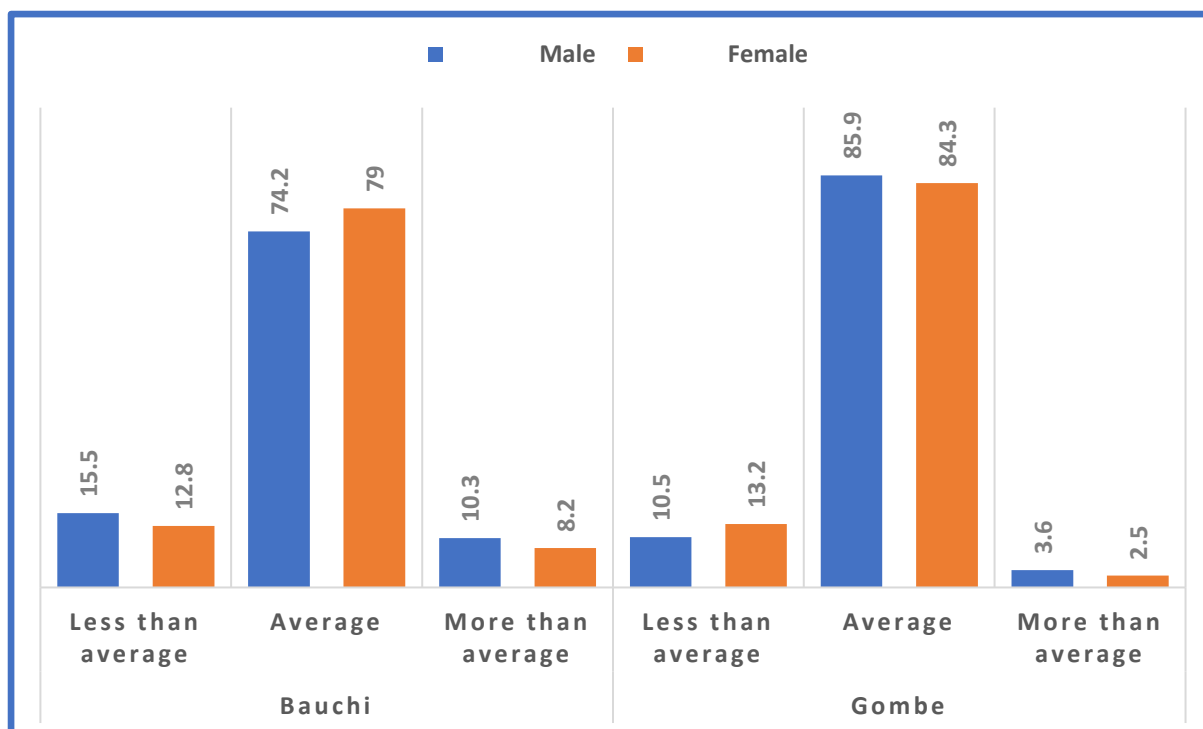


Fig. 8.1: Percentage distribution of respondents according to whether the amount of sleep in the previous 24 hour was less than average or more than average

With respect to the number of hours spent working by the male and female respondents, Table 8.2 shows that in Bauchi State about 21 percent of the male respondents reported that they worked for less than 5 hours in the previous 24-hour period compared with a relatively lower proportion (19%) of females in that category. Table 8.2 further shows that while about 56 percent of the males in the study areas of Bauchi State reported that they worked for between 5 and 9 hours, a lower proportion (about 29%) of the female respondents are in that category. The differences between male and female respondents in Bauchi State in terms of the number of hours spent working during the 24-hour period before the survey are clearer with respect to working between 10 and 15 hours and over 15 hours. Table 8.2 further indicates that while only about 23 percent of the male respondents reported that they worked for between 10 and 15 hours a higher proportion (about 42 %) of the female respondents are that category. Furthermore, while less than 1 percent of the male respondents indicated that they worked for over 15 hours the proportion of female respondents that worked for over 15 hours is about 11 percent.

In Gombe State, Table 8.2 also broadly indicates that females work longer hours than males. It is indicated in the Table that while about 22 percent of the male respondents reported that they worked for less than 5 hours in the last 24-hour period, about 18 percent of the female respondents are in that category. For those who worked between 5 and 9 hours a higher proportion (46%) of males are in that category compared with the proportion of females which is about 36 percent. Furthermore, Table 8.2 shows that a higher proportion (34%) of females work for between 10 and 15 hours compared with the male respondents with about 30 percent. Finally, while just about 2 percent of the male respondents in the survey areas of Gombe worked for over 15 hours during the previous 24-hour period, the proportion of females in that category is about 12 percent. On the average women work for longer hours per day than men.

Table 8.2:
Percentage distribution of respondents' number of hours spent working during 24-hour period

Respondents' number of hours spent working during 24-hour period	Male	Female
Bauchi State		
Less than 5 hours	20.6	18.9
5 to 9 hours	55.8	28.9
10 to 15 hours	22.7	41.7
over 15 hours	0.9	10.5
Gombe State		
Less than 5 hours	21.8	17.9
5 to 9 hours	46.4	36.1
10 to 15 hours	30.2	34.4
over 15 hours	1.6	11.6

It has been noted that both male and female respondents in the study areas do spend considerable hours daily working although females are working longer hours than males. It is in this context that the survey examines the time which is available to the respondents in terms of leisure and how they are satisfied with the prevailing situation of long hours of work. Figure 8.2 indicates that females in both Bauchi and Gombe surveyed areas are less satisfied with the leisure time available to them than their male counterparts. Women therefore are conscious of the fact that they are forced to work longer hours than their male counterparts and obviously not satisfied with the situation.

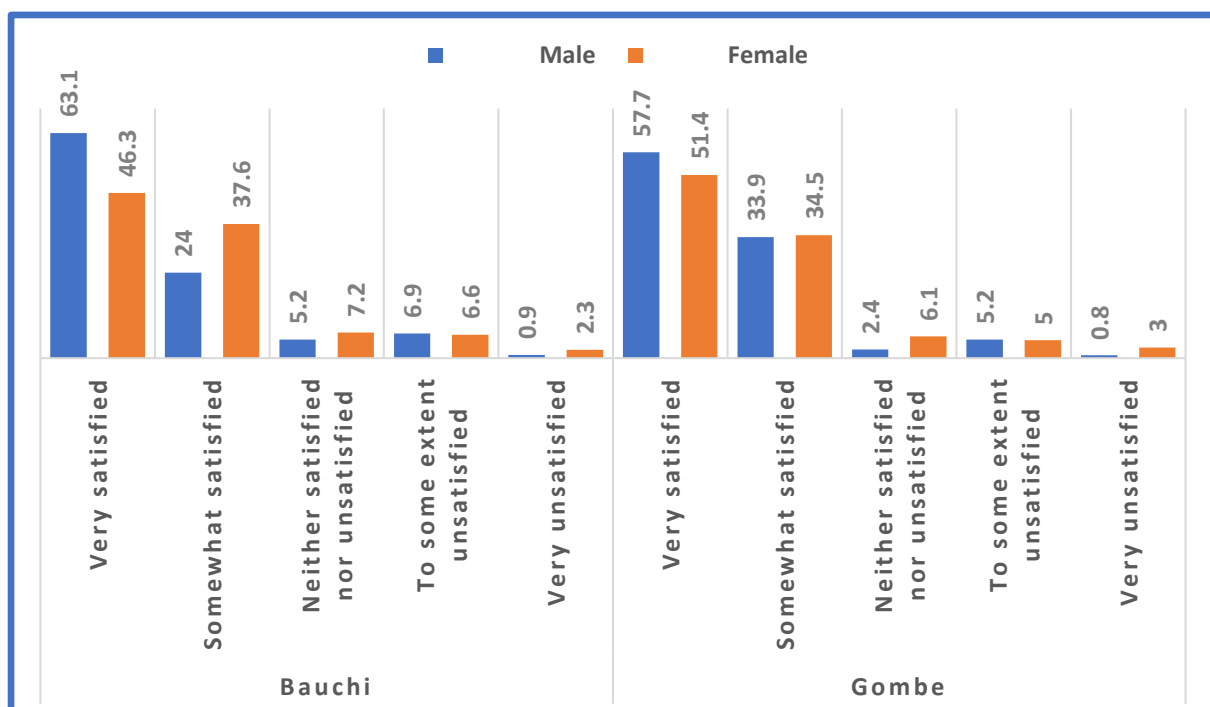


Fig. 8.2: Percentage distribution of respondents according to their satisfaction with available time for leisure activities

Women Participation in paid and unpaid productive work

One of the key indicators of the active involvement of women in the primary producing sector of the rural economy is the amount of time spent in any activity in the sector compared with engagement in other activities. Table 8.3 brings into focus the differences between male and female respondents with respect to their participation in productive economic activities in the primary sector within the preceding 24-hour period. It shows that in Bauchi State 40.2 percent of male respondents reported that they worked for less than 5 hours in the primary sector while over 63 percent of the female respondents worked for less than 5 hours in the sector. Furthermore, Table 8.3 also indicates that while 30 percent of the male respondents reported that they worked for between 5 and 9 hours in the preceding 24-hour period only about 21 percent of the female respondents are in that category. It can be observed in Table 8.3 that about 10 percent of the male respondents reported working for 10 to 15 hours and also for over 15 hours virtually no female respondents reported working in the primary sector for those hours.

Table 8.3

Percentage distribution of respondents' time spent working in economically productive work in primary sector during the preceding 24-hour period

Respondents' time spent working in economically productive work in primary sector during the preceding 24-hour period.	Male	Female
Bauchi State		
Less than 5 hours	40.2	63.9
5 to 9 hours	30.0	21.1
10 to 15 hours	10.4	1.1
over 15 hours	10.4	0.0
Not working in the sector	8.9	13.8
Gombe State		
Less than 5 hours	37.5	58.7
5 to 9 hours	48.0	26.9
10 to 15 hours	4.8	3.9
over 15 hours	0.0	0.1
Not working in the sector	9.7	10.4

The findings of the survey in Gombe State are also in agreement with the pattern in Bauchi. Table 8.3 indicates that while about 38 percent of the male respondents reported working for less than 5 hours in the primary production sector in the preceding 24-hour period over 58 percent of the female respondents indicated that they worked for less than 5 years. Again, while the proportion of male respondents that worked for 5 to 9 hours is 48 percent the proportion of female respondents is about 27 percent in the same category. These findings suggest that even in the primary production sector where most females in the study areas work, they devote less time to their work in the sector because they are engaged in other activities largely unpaid household and care activities which tend to reduce the amount of time, they can devote to primary production activities. Rural women of all ages spend much of their day engaged in domestic chores, including collecting water and firewood, processing and preparing food, travelling and transporting, and caregiving. These tasks are unpaid and restrict

a woman's time and mobility. These domestic chores are a major constraint to the ability of smallholder farmers to increase agricultural productivity and achieve food and nutrition security.

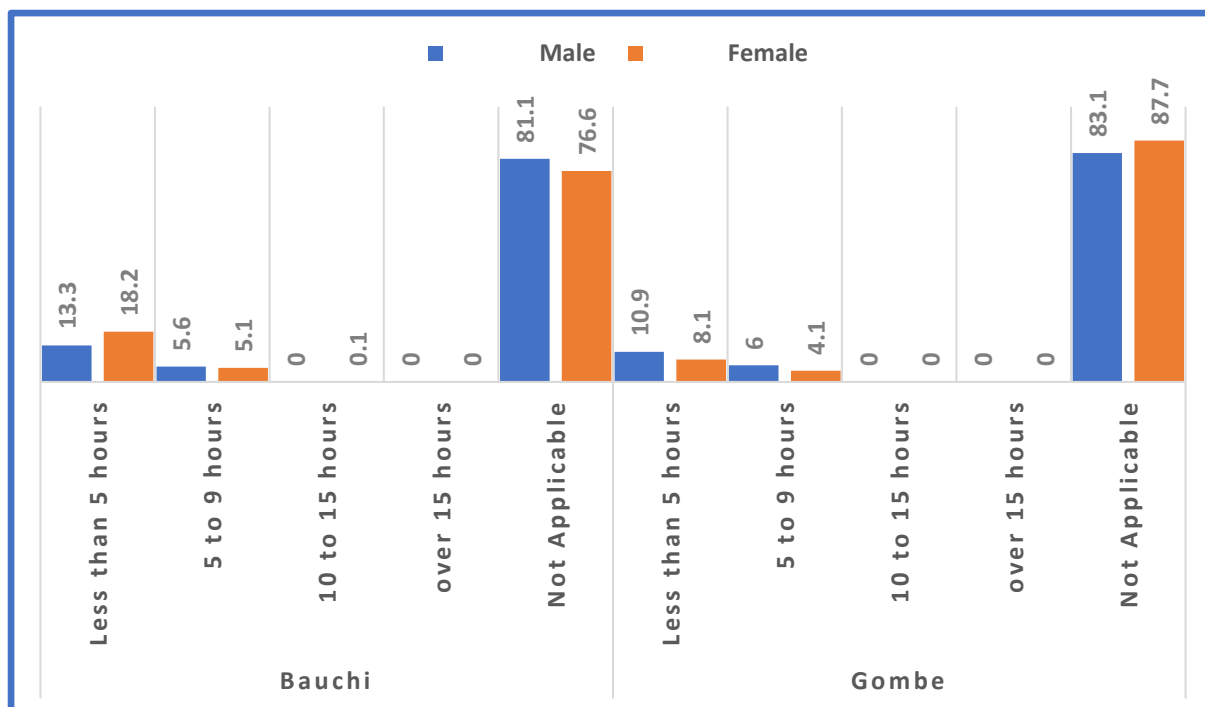


Fig. 8.3: Percentage distribution of respondents' time spent working in economically productive work in secondary sector during the preceding 24-hour period.

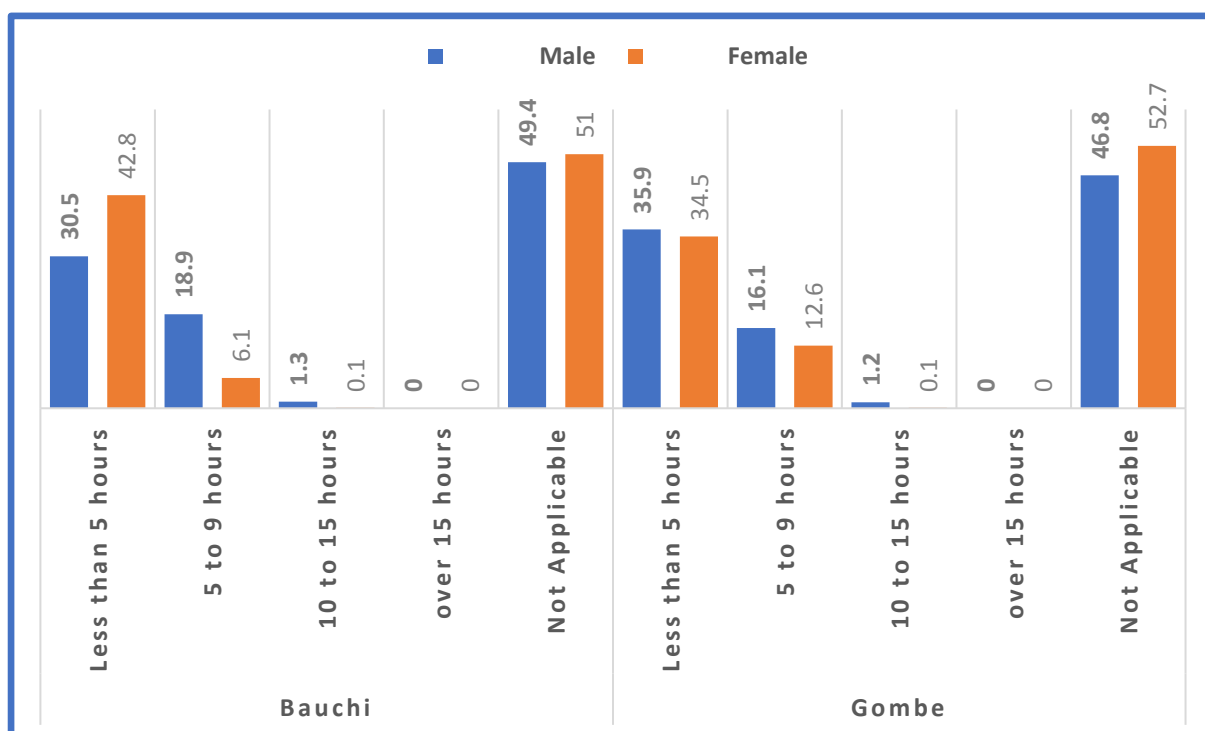


Fig. 8.4: Percentage distribution of respondents' time spent working in economically productive work in tertiary sector in the previous 24-hour period.

Figure 8.3 indicates that in both Bauchi and Gombe States, the vast majority of both male and female respondents reported that they are not actively involved in secondary production activities largely because there are no secondary industries in the study areas that can engage them. Similarly, Figure 8.4 shows that most of the male and female respondents in Bauchi and Gombe States are not actively participating in tertiary production as in the case of secondary production. However, while a higher proportion (43%) of the female respondents working in the tertiary sector devoted less than 5 hours in the previous 24-hour period, the proportion of male respondents that worked for the same period was lower (about 30%). Furthermore, while about 19 percent of the male respondents worked for between 10 and 15 hours in the previous 24-hour period, the proportion of female respondents in the same category is only about 6 percent. This confirms the observation made earlier that few women are actively engaged in the various productive sectors, especially the secondary and tertiary sectors which are not available in their localities apart from the constraint of their involvement in unpaid household care.

Table 8.4

Percentage distribution of respondents' time spent working in unpaid household work in the previous 24-hour period

Respondents' time spent working in unpaid household work in the previous 24-hour period	Male	Female
Bauchi State		
Less than 3 hours	58.5	22.3
3 to 5 hours	16.5	39.2
6 to 8 hours	0.9	15.2
9 to 11 hours	0.0	10.4
12 to 14 hours	4.2	3.0
Over 14 hours	0.0	0.0
Not Applicable	20.0	0.0
Gombe State		
Less than 3 hours	50.7	21.8
3 to 5 hours	10.9	33.1
6 to 8 hours	1.2	25.6
9 to 11 hours	1.0	18.0
12 to 14 hours	1.1	1.5
Over 14 hours	0.0	0.0
Not Applicable	21.0	0.0

Table 8.4 which shows the pattern of the participation of male and female respondents in the study areas of Bauchi and Gombe States in unpaid household work indicates that a higher proportion of female respondents are involved in unpaid household work compared with the male respondents. In Bauchi State 58.5 percent of the male respondents reported that they spent less than 3 hours in unpaid household works compared to 22.3% of women, thus showing that a significant proportion of the male respondents in Bauchi are participating in household work even though at a low scale since they devote less hours to these activities compared with the female respondents that devote a higher number of hours to household work. The pattern of participation in unpaid household work by male and female respondents in Gombe State is largely similar to that of Bauchi State. Table 8.4 shows that 50.7 percent of

the male respondents used less than three hours in household works compared to their female counterpart with 21.8%. Indeed, about 64.8 percent of the female respondents devoted between 3 and 11 of their time to unpaid household works during the previous 24-hour period in Bauchi State while the figure is 76.7 percent in Gombe State. Even though the findings show that male respondents do participate in unpaid household work on a limited scale most of the female respondents are involved in unpaid household work for longer hours which negatively affect their participation in other productive economic activities.

Women Participation in group activities

In rural communities of the Sahel region, groups with markedly different focuses such as savings and co-operatives, can serve to strengthen women's engagement in decision-making processes and build their social capital. They are also ideal entry points for other development interventions and hence can expose women to a range of benefits. At times, separate groups for women will be needed to enhance outcomes through building confidence and at other times, women may have more influence if they participate in mixed groups. Enhancing women's roles in mixed groups is particularly important if the groups act as decision makers on resource use or if the groups are influential in decision-making processes beyond the community. Increased visibility and interaction can help women move toward social and economic equality. It is in this context that this study examined the nature of the participation of women in the study areas of Bauchi and Gombe in group activities and associations within their communities of residence.

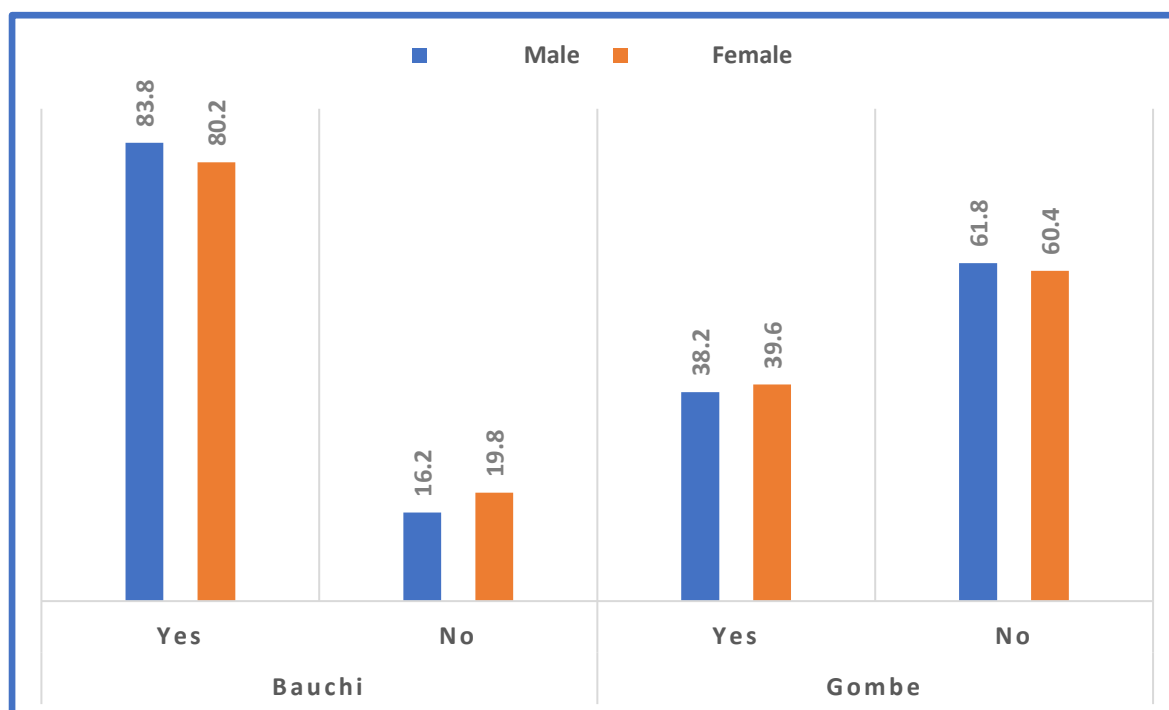


Fig. 8.5 Percentage distribution of respondents by their indication of the availability of trade and business association in their community

The findings indicate that the existence of associations or formal groups to which women can be active members are quite few in the study areas of Gombe State. Figure 8.5 shows that in Bauchi the vast proportion of both male and female respondents reported that there are local trade and business associations in their community. In Bauchi State, about 84 percent and 80 percent of the male and female respondents respectively reported that there are local trade and business associations in their communities while less than 20 percent of them indicated the absence of such associations in their communities.

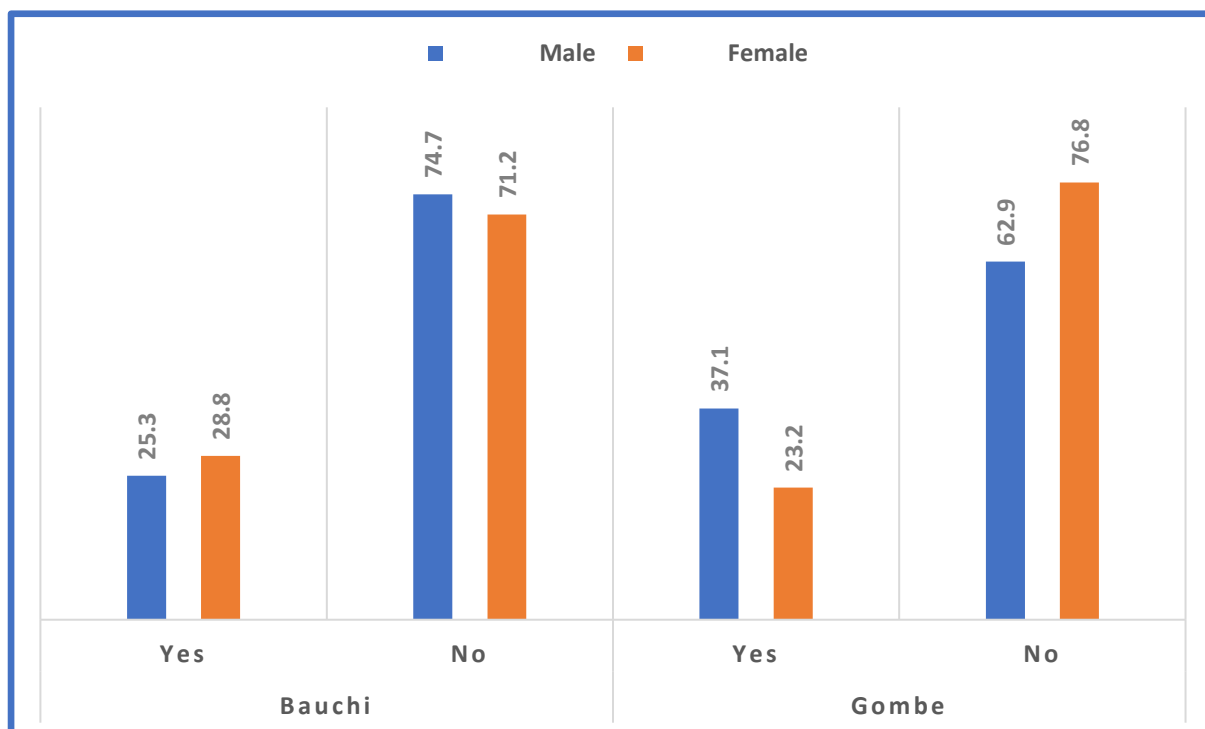


Fig. 8.6: Percentage distribution of respondents by membership of trade and business association in their community

However, the situation in Gombe is rather different in that the proportion of males and females that reported the existence of trade and business associations in their respective communities are quite few. The findings show that only about 38 percent and 40 percent of the male and female respondents respectively indicated that such associations exist in their communities. The absence of such associations in many communities in Gombe State is obviously a major constraint to promoting women participation in the activities of such associations. The problem of the lack of local trade and business associations in the study areas of Bauchi and Gombe State is further exacerbated by the fact that many male and female respondents are not members of the existing trade and business associations available in their communities. Figure 8.6 indicates that just about 25 percent and 28 percent of the male and female respondents respectively reported that they are members of trade and business associations in their communities. The situation in Gombe State where there are relatively few trade and business associations compared with Bauchi is largely the same in that most male and female respondents are not members of the existing trade and business associations in their communities.

As reflected in Figure 8.6, while about 37 percent of male respondents in the study areas of Gombe State are members of trade and business associations only about 23 percent of the female respondents reported that they are members of the existing trade and business associations. Females that need to be members of such associations to enhance their participation in decision-making on issues affecting them and their economic activities are therefore placed at a great disadvantage. To be a member of an association is one thing and to participate in the activities of that association is another. Figure 8.7 indicates that the vast majority (over 70%) of the male and female respondents in the study areas of Bauchi and Gombe States who indicated that they are members of trade and business associations have not attended any meeting of the association in the last one year. Indeed, they are not active members of these associations. As indicated in Table 8.5, the majority of male and female respondents in the study areas of Bauchi and Gombe State reported that lack of interest is the major reason for not being a member of trade and business associations in their communities.

It shows the need to carry out advocacy activities to promote their interest in the membership of these associations particularly the women.

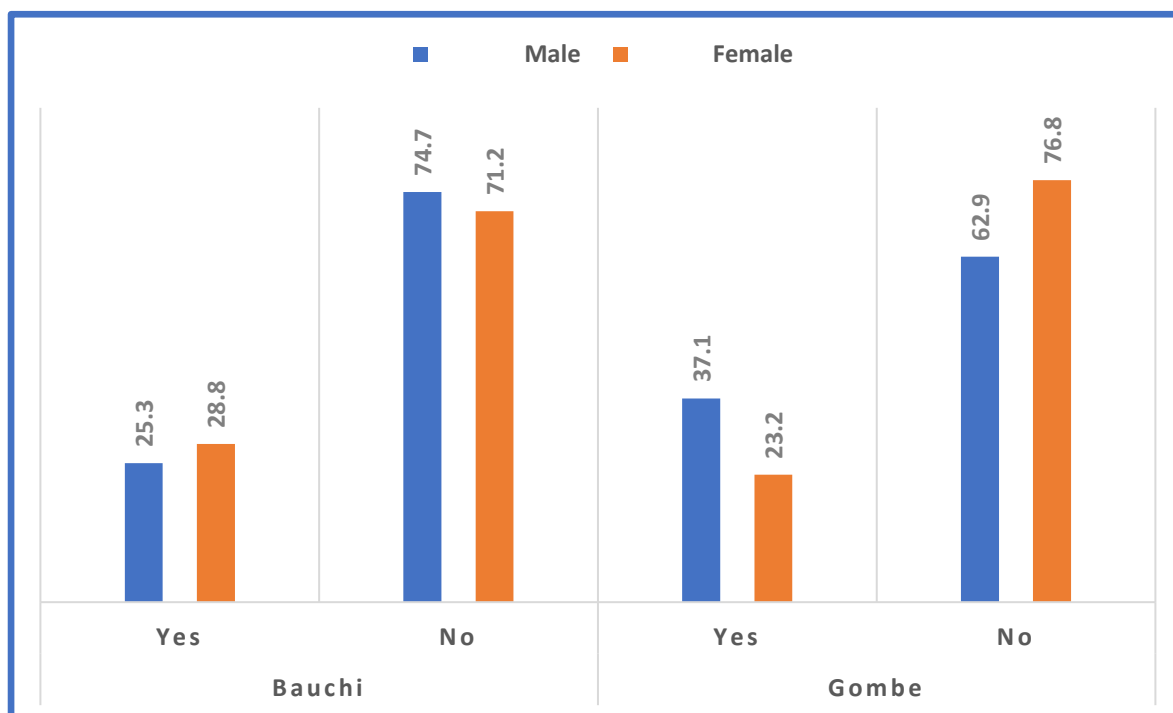


Fig. 8.7: Percentage distribution of respondents' attendance at trade and business association in their community

Table 8.5

Percentage distribution of respondents by reasons for their not being member of associations in their community

Respondents by reasons for their not being member of associations in their community	Male	Female
Bauchi State		
Not interested	68.6	57.4
No time	14.8	20.8
Unable to raise entrance fees	8.9	6.0
Unable to raise reoccurring fees	7.6	14.8
Not allowed to participate in any association/group	0.0	1.1
Gombe State		
Not interested	67.8	63.4
No time	18.9	22.3
Unable to raise entrance fees	7.8	5.4
Unable to raise reoccurring fees	3.3	7.4
Not allowed to participate in any association/group	2.2	1.4

Women participation in community development associations

Another component of the participation by women in group activities examined relates to community/village development associations. These community-based associations are key Decision-making Avenue for all members of a community including women. Figure 8.8 indicates that the vast majority of the male and female respondents in the study areas of Bauchi reported that there are development committees in their communities. It shows that in Bauchi State about 93 percent of male respondents and about 95 percent of the female respondents respectively reported that there are community development associations in their communities. The existence of community development associations in the study areas of Gombe State is not as high as that of Bauchi with about 56 percent of the male respondents and the same 56 percent of the female respondents confirming the existence of community development associations. Figure 8.9 indicates that just about half of female and male respondents reported that they are members of the community development associations. In Bauchi State, about 53 percent of the male respondents reported that they are members of the community development associations in their communities while the proportion of female respondents who are members of such associations is lower at 31 percent. In Gombe State about 51 percent of the male respondents and about 44 percent of the female respondents respectively reported that they are members of community development associations. Again, the membership by women of these community associations is lower than those of men in both states.

For those who are members of the various development associations in their communities an attempt was made to examine their attendance at the meetings of these committees in the last 12 months. Figure 8.10 shows that in Bauchi State while about 48 percent of the male respondents reported that they attended any of the meetings held by their community development associations in the last 12 months, the proportion of the female respondents that attended the meetings in the last 12 months is just about 28 percent. The pattern of attendance at meetings of community development associations in Gombe is not much different from that of Bauchi. As shown in Figure 8.10, while about 42 percent of the male respondents reported that they attended meetings of their village community development association in the last 12 months, about 38 percent of the female respondents indicated that they attended such meetings during the period.

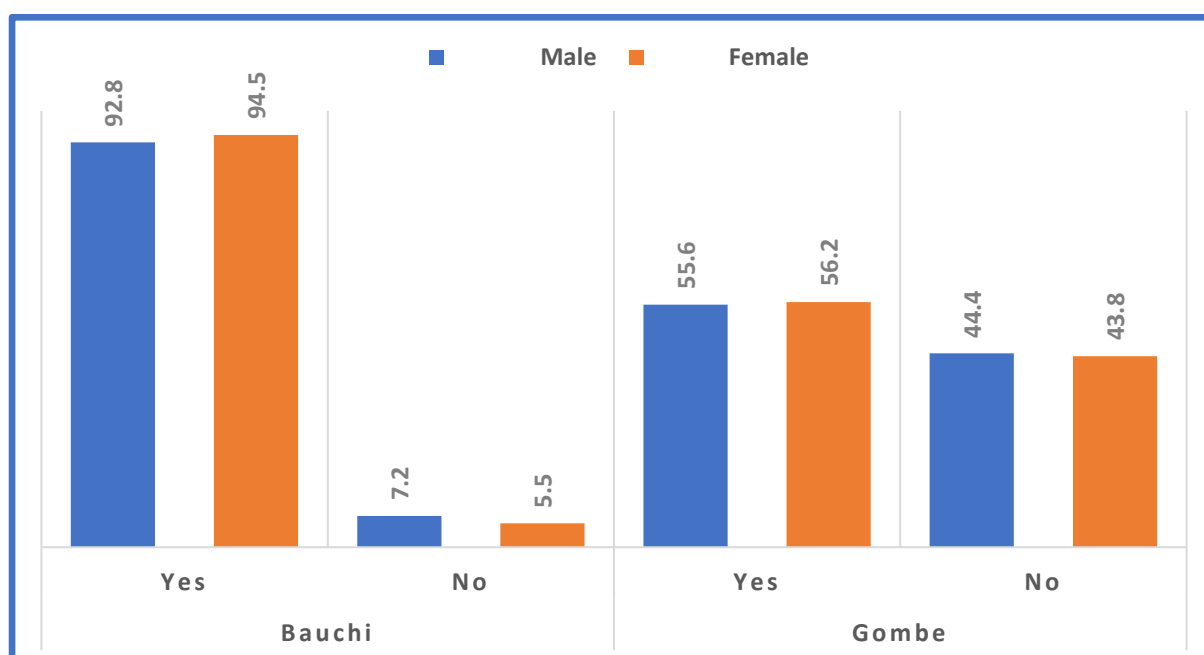


Fig. 8.8: Percentage distribution of respondents by the existence of Village Development Committees in their community

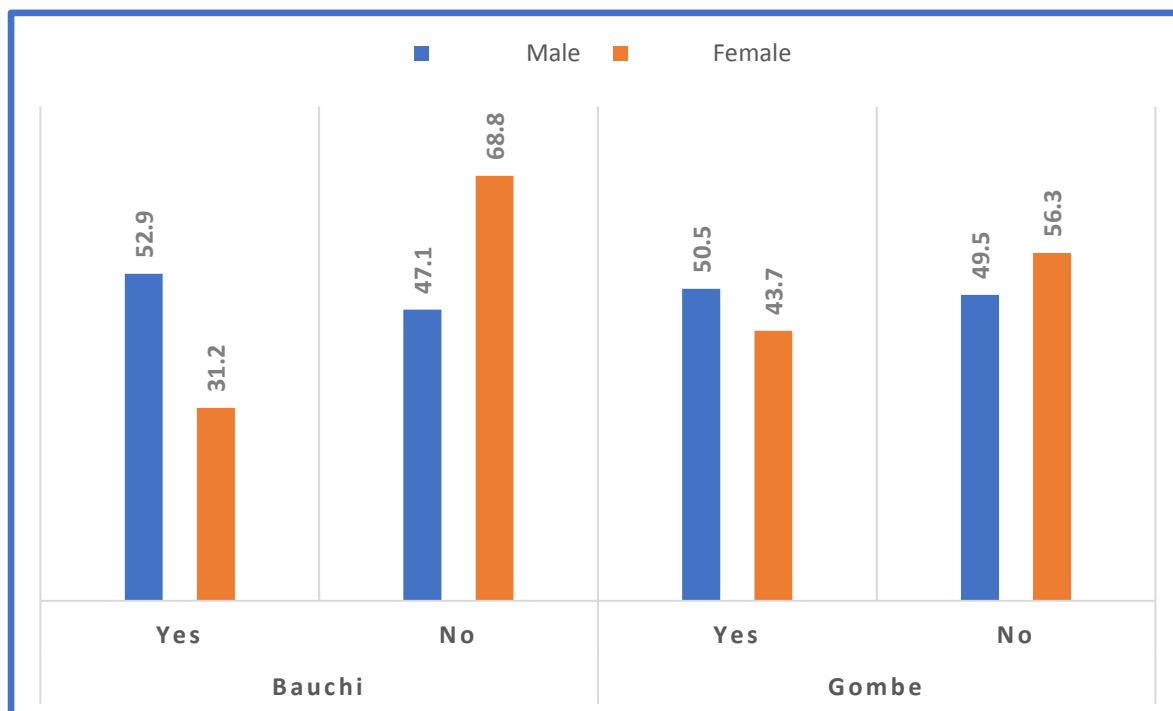


Fig. 8.9: Percentage distribution of respondents who are members of Development Committees in their community.

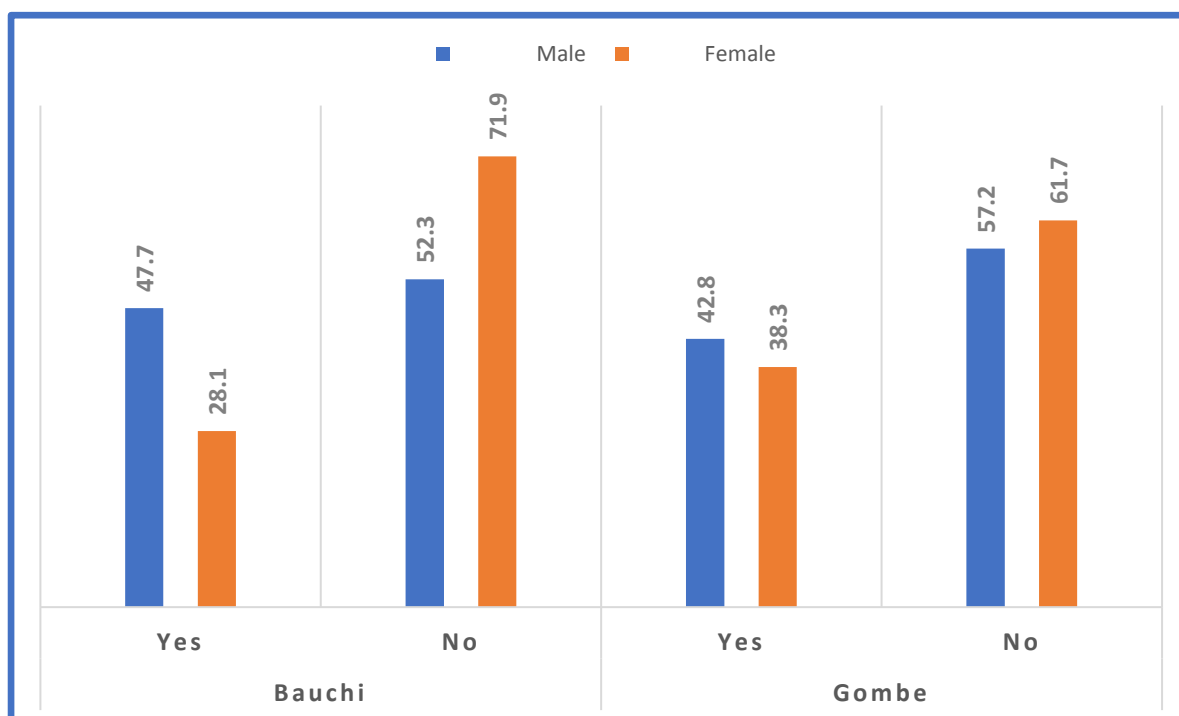


Fig. 8.10: Percentage distribution of respondents' attendance at Development Committees meeting in community in the last 12 months.

Table 8.6

Percentage distribution of respondents' involvement in making decisions in Development Committees in their community in the last 12 months

Respondents' involvement in making decision in Development Committees in their community	Male	Female
Bauchi State		
Not involved	24.0	41.1
Little extent in very few decisions	14.9	23.1
Large extent into some decisions	32.3	28.3
Input into most decisions	16.6	5.0
Large extent in all decisions	12.0	2.3
Decision not made	0.3	0.1
Gombe		
Not involved	29.8	36.6
Little extent in very few decisions	17.3	18.9
Large extent into some decisions	29.8	30.3
Input into most decisions	17.3	9.4
Large extent in all decisions	5.3	4.8
Decision not made	0.5	0.0

Finally, the degree of the participation of male and female members in their community development associations was examined and the findings show that a significant proportion of the respondents particularly females reported that they are not involved in the decisions of the associations. Table 8.6 indicates that in Bauchi State, 24 percent of the male respondents reported that even though they attend the meetings they are not involved in the taking of decisions arrived at the meetings. The proportion of female respondents in the same category is higher at about 41 percent. In Gombe State, about 30 percent of the male respondents and about 37 percent of the female respondents respectively reported that they are not involved in the decisions arrived at during the meetings of the various community development associations to which they belong. With respect to those who made input in most of the decisions of the community development associations, the male respondents played a dominant role compared with the females as shown in Table 8.6. This suggests that women are again disadvantaged in the active participation in community development associations to which they belong compared with their male counterparts.

Chapter 9

Implications for Policy and Interventions

This Chapter presents some perspectives on the key findings, a number of policy recommendations in response to the key findings the recommendations of the respondents for action and the main components of the interventions that could be carried out in the target localities.

Perspectives on the findings of this study

The findings of the synthesis of the literature show that despite the challenges facing the Sahel region of Nigeria in recent years, farming/pastoralism is not only a viable livelihood but also successfully conserves fragile natural resources and contributes significantly to the economy of the Sahel region in particular and Nigeria in general. However, with high population growth rates, reduction in livestock herds and restrictions on rangeland access all being exacerbated by climate change, those on the margins of the pastoralist economy are particularly vulnerable. Large pastoralist groups stretch across the Sahel region, herding cattle along traditional seasonal routes that have existed for hundreds of years. Long-standing local cooperation and mediation practices have tended to keep conflicts to a minimum, though over the past decade these have been put under strain. This is due to a combination of factors including population growth that has increased the need for arable land and large-scale agriculture projects and shrinking of the land available for cattle herding. The pressure for food security has driven unsustainable agricultural practices such as overgrazing, poor water management and excessive tree felling for domestic firewood and charcoal, all of which have significantly reduced the amount of fertile land in the Sahel region of Nigeria.

Conflicts between herders and farmers, which have caused hundreds of deaths in recent years is largely attributable to the use and ownership of land, which the authorities have mismanaged for decades. Without appropriate solutions, droughts, soil degradation and water scarcity will tend to foster such conflicts, which are already exacerbated by the current security environment. Violence in the Sahel region of Nigeria which has extended to the Middle Belt region in the central parts of the country has fractured traditional herding routes, driving pastoralists further into regions where traditional cooperation arrangements have not yet been put in place. At the same time, sprawling networks of arms smugglers and illicit traffickers have provided a steady supply of small arms and light weapons, increasing the chances that tensions might boil over into deadly violence. From recent happenings in the northern parts Nigeria and indeed other parts of the country, farmer-herder dynamics cannot be separated from religious divides within Nigeria, which have been deepened by the presence of violent extremist groups in the last ten years. Roughly 90 per cent of the pastoralists in the Sahel region of Nigeria are Muslim Fulani while many of the major farming communities to the Middle Belt and to the south of the country are Christians. Accusations that the Fulani have collaborated with so-called jihadist groups in Nigeria and neighbouring countries have fueled tensions at the political levels of the country, contributing to mobilization of ethno-religious self-protection groups amongst Christian communities in the Middle Belt in particular.

Furthermore, the synthesis of the literature on policies and programmes designed to improve the socio-economic situation of the Sahel region shows that the articulation of the various international, national, and sub-national policies and legislations, particularly in recent years, has largely been in response to the rising security challenges in the region. Embedding this into a broader regional strategy is seen as crucial, but longstanding plans for an African Union-led approach to managing Fulani transnational migration have not yet been put into action. Security measures and anti-terrorism legislations have been introduced across the Sahel region including the farming/pastoral communities in Nigeria to counter cross-border threats. The literature synthesis further shows that the government's response to farmer-herder

conflicts has been largely security-driven in the worst affected states. At the same time, the Government has deployed security forces to contain the occurrence of violence whenever they occur. While this approach has contributed to a short-term reduction in insecurity, the inability to maintain troops for longer periods of time, combined with the spread of violence in many areas beyond the reach of security agencies and personnel, has allowed farmer-herder violence to continue to grow.

Similarly, efforts at establishing “cattle colonies” that assign herding communities to specific areas have not resulted in major changes to the farmer-herder dynamics. More ambitious is Nigeria’s National Livestock Transformation Plan, designed to bring about an incremental shift from open grazing to ranching, reducing the movement of herding communities, modernizing livestock management and improving agricultural productivity. In the short term, however, it does not appear that farmer-herder conflicts are abating as a result of these new laws. Some have suggested that this points to a weakness in the resource-scarcity argument, whereas more structural issues around marginalization, weak state capacity and religious polarization are more causally important.

The agricultural sector is strategic in the Sahel region of Nigeria, where an overwhelming share of the population depends on agriculture and herding for their livelihood. However, the rural areas of the region are also home to the greatest poverty as well as populations highly vulnerable to shocks. Although women hold crucial roles in the farming/pastoralist economy of the Sahel region of Nigeria, they are also marginalized by institutions and policies both within their own communities and in wider governance. This study has highlighted some of the ways in which the marginalization of women and the neglect of the rural farming/pastoralist population intersect to leave the farming and pastoralist women extremely vulnerable. It is observed that public services such as education and healthcare have been shown to be chronically insufficient for the rural farming and pastoralist population in general and women in particular.

Women lag even further behind than men due to socio-cultural factors. Women also have extremely limited rights over resources despite legislation designed to offer them an equal footing. While some legislations are in place to offer women in the Sahel region greater opportunities than ever before the findings show that most rural communities in the Sahel have not benefited from legal provisions and remain bound by customary practices. As shown by the findings, it is the customs and practices in the rural communities of the Sahel region that determine the status of women as actors in society, political and democratic life, the economy and the private sphere. This is the case of those social institutions that determine the decision-making power and status of women at home and in the family. Marriage and divorce, parental authority and inheritance rights are governed by laws and informal rules, norms and social practices that are highly unfavourable to women.

However, the findings of the qualitative and quantitative surveys show that the social structure of rural farming/pastoral communities of the Sahel region of Nigeria has been changing gradually over the years. This change is chiefly manifested in the redefinition of roles and responsibilities within households. Women’s contribution to maintaining their households, particularly in the times of crisis is tacitly expected, even though this increased responsibility within the household is not always reflected in increased power within the household. In the eyes of the community particularly some of the conservative male members, women remain under the guardianship of their husbands or, if they are not married, that of their brothers or their eldest sons. The social perception of the role and place of women in the surveyed communities has influenced general attitudes regarding access to factors of production. Men’s dominance in decision-making related to agricultural activities, particularly in terms of using money from sales for their own purposes, undermines women’s ability to contribute to increased household food security and resilience. Furthermore, as long as women continue to see themselves as subservient, there is no reason for men to change their attitudes. While

improved knowledge and skills, and increased access to loans and agricultural inputs which the study reported are steps in the right direction, they will not be sufficient for women to sustainably improve household food security and resilience as well as enhancing their empowerment.

The survey findings point to the fact that women and young girls are doing more unpaid work, and this have impact on women's inability to engage in other aspects of public life including political participation. For young girls, involvement in household chores further limits opportunities. Women are required to be both housewives and farmers. Beyond this, the phenomenon negatively wedged on women and girl child education, as they perform the bulk of housework, leaving less time for education, which is an essential element of women's empowerment. Women in farming/pastoralist communities of the Sahel region must work longer and harder than men, fulfilling the so-called 'female' roles in the household, as well as making money from tasks traditionally deemed to be 'women's work', including collecting firewood, and making and selling handicrafts. This labour is in such demand that girls are often removed from school to work. Women do not attend many of the social occasions at which men make decisions that affect the whole community. Even if they attend, they do not make any contributions, especially when their spouses are present at such meetings.

Furthermore, the findings of the qualitative surveys in particular show that traditional gender norms can also contribute to conflict dynamics involving some farming/pastoralist population in the Sahel region. Ideals of masculinity shape expectations of how livestock, clan, and family must be defended. In some farming/pastoral localities, youth conduct cattle raids both as a rite of passage to manhood and to acquire livestock to cover the high costs of a bride price, which remains a common practice. These raids can trigger repeat cycles of theft and retribution between communities that take on particular social or emotional significance given their relationship with gender roles.

The men and women in the surveyed communities during focus group discussions recognized that monogamous households with a limited number of children were more resilient and better equipped to seize new opportunities in terms of mobility and education. The more children the women have, the more they are in charge and the more vulnerable they become within their households. In this regard, women's family responsibilities are increasing, even when they are not household heads, nor even recognized as having responsibility for their households. The place and role of women in surveyed communities of Nigeria's Sahel has evolved over years of food insecurity, gradually leading to their exclusion from access to natural resources. Despite of this, and in response to the growing need to generate useful resources to sustain their households in times of crisis, women continue their involvement in agricultural and pastoral production.

Women from pastoralist societies are often portrayed as silent and subordinate individuals existing on the margins of an already marginal system. But they are far from helpless. As this report has tried to show, pastoralist women face multiple challenges in achieving their potential. However, some of them have been able to overcome these challenges and become key players in the affairs of their households and communities. Women are more likely to stay behind in their communities to manage household and economic affairs while other members of their households mainly spouses and male children take the livestock on migration. Climate change has also taken its toll. As drought forces men further afield with herds in search of water, women remain behind and must manage the household. Women's knowledge of the environment is crucial in these times, and yet this knowledge, along with the specific plight women face, often goes ignored in drought mitigation strategies.

Despite their leadership in community affairs, women's voices often go unheard when interveners prioritize traditional or public forms of leadership. Engaging women as allies and

direct beneficiaries in programming can be difficult, as access must often be mediated through traditional (and generally patriarchal) institutions. In many families, the decision to educate girls depends on the economic situation of the family and is subordinate to the educational and occupational choices of boys as well as the pregnancies, child marriages and domestic duties imposed on girls. The tens of millions of nomadic or transhumant pastoralists in the Sahel are particularly affected by inequality of access to basic services (health, education, drinking water, etc.), which are ill-suited to their way of life. In all of these various issues raised with respect to the position of women in Sahel communities, it is obvious that changes in favour of women are going on and they are gradually becoming empowered in their communities, and it is expected the trend will continue in the coming decades. This is where appropriate policies and interventions need to be put in place to speed up the process of change that has started in these communities.

Towards policies on women empowerment

A key policy issue in the Nigerian Sahel region relates to the need to appreciate the fact that farming and pastoralist communities are conservators of their environment. Policymakers should refocus efforts currently concerned with sensitization and work in closer collaboration with NGOs concerned with the future of pastoralism, in consultation with pastoralist communities. Policies that revoke pastoralist rights to access and use natural resources without free, prior and informed consent and compensation should be reviewed. Going forward, more attention is needed on issues relating to land rights and natural resource management. The 1998 ECOWAS Protocol on Transhumance, along with existing national transhumance protocols, should be reviewed, updated and enforced. A regional communications strategy is needed to raise awareness about herder-farmer relations and ways to promote peaceful co-existence. Concrete actions to prevent human rights abuses and promote justice should be taken. The role and participation of women and youth as peace builders should be strengthened.

There is no doubt that socioeconomic grievances are at the core of many of Nigeria's conflict risks and constitute an important link between climate change and violence. Economic and socioeconomic programming, therefore, can play a crucial role in mitigating the impact of climate change on conflict risks. It is generally accepted that economic development, employment generation, and political inclusion would reduce pastoral peoples' involvement in illicit activities. Development programmes in the Sahel region must be an integrated package that focuses on generating employment, increasing productivity, and reducing pastoralists' vulnerability. It must also respect pastoralists' rights, including mobility, and strengthen education, animal and human health services with methodologies appropriate to their conditions, and infrastructure development in underused areas. In addition, it must be promoted in real partnership with target populations.

The Sahel region's various governments should consider enforcing schemes that restrict absentee rangeland users, protect rangelands from further agricultural encroachment, and help pastoralists deter cattle rustling. It is in this context that there appears to be a growing recognition by international agencies, governments and civil society organisations in Nigeria that socioeconomic programming may hold more promise in addressing some of the major sources of insecurity in the Sahel region of Nigeria. Longer term incremental efforts to adapt agricultural and herding practices may hold some promise, particularly if it is paired with socioeconomic programming that addresses the issues of marginalization and poverty underlying many of the conflicts. In fact, these appear more likely to address the ways in which climate change is affecting security risks than the shorter-term efforts to curb grazing or deploy troops to conflict-prone areas. The responses provided by governments and the international community to the humanitarian, food, climate and security crises must prioritize the reduction of inequality and injustice. It is vital that policy solutions be conceived through this lens to get populations on the path of inclusive development and provide lasting solutions to the current

insecurity. Inequality is not inevitable; rather, it calls for strong and coordinated responses from all stakeholders. Marketing can play a useful role in reducing the vulnerability of poor pastoralists. Some local market development might be needed, but generally the traditional sector is quite efficient; it is preferable to avoid heavy public sector involvement.

Policymakers at the national and sub-national levels in Nigeria have much to do in terms of providing the enabling environment through the implementation of the relevant legislations on protecting girls and women from multiple forms of discrimination and violence, and by expanding their rights in marriage. This effort begins by enforcing current national laws that already prohibit all forms of female genital cutting that outlaw forced marriages and prohibit marriage before the age of eighteen years. Once married, women should deserve the rights to initiate divorce, obtain recourse against violence, and secure custodianship over their children in case of marital separation, divorce, or the death of their spouse. Women should have the right to legal recourse and equal treatment in state-run family courts of law, rather than being limited to the judgments of religious and traditional courts, which have generally failed to protect women and children from physical, psychological, and economic harm. No donor-supported project should facilitate the efforts of governments, political parties, or traditional and religious leaders to impede women's progress in any sector of development. Governments and NGOs have a more active role to play in supporting and promoting women's empowerment.

Women and men in rural farming/pastoral communities have great knowledge of livestock and production, particularly in the areas where they have direct contact with the animals, such as milking, or tending young or sick livestock, which are more likely to be kept near the homestead. This knowledge should form the basis for decisions about livestock development, and women should play a central role in decision-making processes. Valuing women's knowledge will result in not only a better livestock production system, but also increased self-esteem and confidence among women. The priority is to continue advocating for the importance of pastoralism while building awareness of the challenges facing pastoralist women, in the hope of enabling these women to benefit fully from future development. Health and educational services must be adapted to mobile households.

Policies and programmes are needed on the reduction of time spent by women in unpaid works through the provision of time saving investment and infrastructure such as electricity, pipe borne water among others. For example, when electricity was introduced in rural settlements in South Africa, it was discovered that the time women spent on housework decreased leading to increased employment in paid labour by 9 percent (Dinkelman, 2011). Nigeria government can then take a cue from the South African example, by providing social infrastructure that can reduce burden on women. Better access to public services, childcare and care for the elderly by the government would reduce the time spent by women in unpaid work. While longer school time for children would reduce the time spent by mothers on unpaid care work. Gender stereotypes which see women as solely unpaid care givers should be discouraged through the implementation of appropriate policies and programmes involving the participation of men. Training initiatives that empower women in household bargaining or encourage men to recognize women's paid or unpaid work have proven effective in redistributing uneven workloads in the few settings where they have been studied. Deliberate efforts towards advocacy, sensitization and awareness in Nigeria society would help to reduce the stereotyping which sees care giving as women's responsibility. Men and other critical stakeholders should be targeted to achieve this aim. Relieving women of some of the burdens of domestic work would allow them to engage more fully in the life of their communities.

Universal primary education must be fully realized in farming/pastoral communities. Curricula that increase their skills and include subjects they value, such as veterinary skills, should be introduced. Supporting institutions of collective action (groups and associations) can help amplify men and women's voices, increase their inclusion in the national policy debates, and,

in principle, reduce the temptation to participate in illegal activities. These associations can also provide a successful framework for much-needed service delivery, such as veterinary services, which can eventually be combined with human health services. Decisions in household agriculture are largely made by men as the findings of this study show, and so women are often left with manual labour. Yet, empowering women to lead agricultural projects and activities will have a trickle-down effect on other women and the wider group as a whole.

Proposals by respondents on women empowerment

During the various quantitative surveys, respondents and participants made suggests for policymakers and other stakeholders concerned about women empowerment in their communities to focus on a number of issues so as to promote gender equality and women empowerment which would benefit all stakeholders. The summary of the various key suggestions they made are presented below as part of hearing the voices of women and men on women empowerment.

(1) There is need for men/boys to share domestic activities with women/girls as this will build a strong relationship between them. Even though men/boys don't normally share home chores with the women/girl, rather they engage in activities that are reserved for them.

(2) Women should be engaged as pastoralists to enhance their development. When women are into pastoralist and farming, they will generate income and also assist the men in taking care of the family's needs. In order to achieve this, women should be well empowered as government should give loans and supports to them.

(3) There is need to address the longstanding inequalities experienced by women in our communities. Women should participate in pastoralists and agriculture, informal economy, improves working conditions and means of livelihoods. They should be productive financially and also engage in leadership and decision making. This in turn will enhance their development and also the community. Therefore, involvement of stake holders like community leaders, government and traditional leaders towards women's engagement as pastoralists will be of benefit to the development of women and the community as a whole.

(4) By addressing the longstanding inequalities experienced by women, strengthening their resilience and allowing them to participate in economic activities, you are reducing their unpaid care burden. To some extent we are also relieving ourselves of some of our responsibilities. Marriage will turn out to be a "joint venture" if we agree to empower our wives because they are known to be care givers. If they can have the opportunity, they will definitely help us.

(5) There is need to for men/boys to share domestic activities with women/girls in our communities as this will build a strong relationship between them. Men or boys should, therefore, engage in home chores with women/girls at home.

(6) Government should also provide adequate facilities needed for pastoralism to the women when they are empowered by giving them loans supports needed. This development will be of benefit to the community at large.

(7) Women in our communities are into farming and pastoralism without any major support from policymakers at the national and local levels. There is a need for support to them.

(8) There is critical need to address the inequalities experienced by women and disadvantaged groups in our communities. In addressing this there is need for awareness campaign through traditional and religious leaders. If women are empowered, our economy will boom.

(9) Women in pastoral communities should be empowered which will aid in women's development. Identify women involved in keeping of domestic animals, train and empower them through grants and loans. This will have a multiplier effect in the development of not only women but the entire community.

(10) Traditional rulers should be actively involved in discussions of promoting gender equality and women empowerment in their communities.

(11) The perception and stigmatization to women that engage in some business activities should be wiped out in the community. More awareness and enlightenment should be done.

(12) Religious leaders must also be involved so also is the media and other means of communications that should be used to create awareness on the needs to empower women in our communities.

(13) There is need for division of domestic work among men/boys in the family. Thus, works done by the women/girls in the house should be shared with the men/boys. When the men/boys learn these domestic works, they will assist the women/girl when they are around. In a situation where the women/girls fall sick, the men/boys can manage the house.

(14) More women in our communities should be engaged as pastoralists than they are at present in order to enhance their wellbeing and development. Engaging them into farming or as pastoralist will enable them to generate their own income and assist the men in taking care of the family.

(15) There is need for women to be productive financially and also be involved in leadership and decision making. There shouldn't be gender biased when it comes to various types of economic activities.

(16) Social norms shouldn't prevent women from having their rights. Community leaders with the government should work on engaging women in building productive assets like land, finance and infrastructural services that will enhance their empowerment.

(17) There is need for improved portable water provision, health care facilities, schools, good access roads and electricity.

(18) There is urgent need for the provision of adequate security by government and community leadership so that women can move freely in their communities.

(19) Female respondents and participants specifically advocated for enlightenment and sensitization campaign for women groups and men groups on harmful traditional practices and the need to increase women access to farmland and livelihood activities. They also mentioned support with soft loan for women to increase their agriculture/livestock production capacity.

(20) Women specifically need access to modern methods of farming. They also need support in getting farm inputs (e. g. fertilizers herbicides etc.).

Key principles and issues on interventions on women's empowerment

The proliferation of intervention frameworks and strategies in the Sahel region of Nigeria increases the risk of competition between actors, complicating the design of equitable, concerted and inclusive policies and programmes. The number of NGOs that address development in the Sahel region of Nigeria has increased dramatically in the last decade. These organizations are contributing to the debate on women's role in rural and pastoralist

development in the region, which in the past tended to overlook the roles of women. In many intervention programmes, women in the farming/pastoral communities of the Sahel region are being encouraged to diversify their incomes by forming savings and credit groups and are being provided with access to educational opportunities and healthcare. It is in this context and against the background of the findings of the study that a number of principles and issues which must be taken into consideration in the conception and implementation of interventions on women empowerment in the Sahel region are outlined below.

1. Women can be empowered through the community-based associations to exercise their rights over key household and community assets such as small livestock. Negative attitudes towards girls' education must be advocated against and the value that an educated girl has needs to be exemplified. Farming/pastoralist women who become community leaders should be supported and promoted to help create positive role models within the community, educate wider society about farming and pastoralism and help put pressure on governments.

2. The dynamics and function of livestock ownership and access for various household members need to be fully understood to ensure that women's rights are not undermined or overridden. It is especially important to identify women's livestock roles and responsibilities in the local context, and to incorporate these into planning and intervention programming.

3. The livestock sector can be an entry point for promoting gender issues because of its relatively good access arrangements; the involvement of all household members in production, which facilitates shared goals and working relations; the interrelations between livestock and other sectors such as marketing, the environment and the provision of basic needs; and evidence that long-term gender promotion through livestock interventions can lead to sustainable development. Livestock projects that include or target women can have empowering impacts, including increased self-confidence, well-being, security and purchasing power

4. The processing and marketing of livestock products offer women a suitable vehicle for increasing their economic and social empowerment and are often regarded as culturally acceptable occupations for women. When well organized and linked to sustainable market development, these activities can promote growth. However, there may be constraints to overcome, and if men are not included in planning and providing approval and support, they may feel marginalized as women gain more power.

5. Women may not participate in project activities because of their household commitments and may need to provide inputs without being present at project sites and meetings. Where possible, committees linked to economic activities should include women and facilitate their participation.

6. Avoid assumptions about women's roles within pastoral societies, which can vary widely. Invest time and effort in effective strategies for hearing from women themselves, working round their workloads and social constraints.

7. Invest in labor-saving initiatives that are accessible to women, low-cost and low-maintenance and that genuinely save time.

8. Ensure that training and outreach activities reach pastoral women, who may have limited mobility and time.

9. Engage and involve men as much as possible in all stages, as their approval is often essential to project success. Employ culturally acceptable ways of seeking inputs from women, directly or indirectly.

10. Support women's access to knowledge and innovations by, for example, fostering exchange of experiences and practices among women's groups.
11. Promote women's income generation activities by providing training, appropriate technology, credit and access to networks through locally managed credit schemes, and support for running small businesses, including understanding of value chains and access to markets. Ensure that credit schemes are accessible to women, do not expose them to increased risk, and include management of any inevitable risks.
12. Identify and address issues of unequal access to land and land tenure, as this is fundamental to supporting pastoral women's empowerment.
13. Engage with existing informal and formal social networks such as women's groups, community groups, civil society organizations, and women's right organisations to support their efforts as first responders and their solidarity efforts to prevent social isolation.
14. Access to land and land rights have been and continue to be a barrier for women in the agricultural sector to graduate from small-holder production to more commercial modalities. Security land tenure rights for women needs continued attention.
15. Women specifically need access to modern methods of farming. They also need support in getting farm inputs (e. g. fertilizers herbicides etc.).
17. Traditional rulers should be actively involved in discussions of promoting gender equality and women empowerment in their communities.
18. The perception and stigmatization to women that engage in some business activities should be wiped out in the communities. More awareness and enlightenment should be done.

Immediate priorities of interventions on women empowerment

Based on the findings of the study and against the background of the key issues on needed interventions, the following priority interventions to which CPED will key into with the participation of the stakeholders and beneficiaries are outlined.

- (i) Awareness raising on harmful gender norms and practices in the community
- (ii) Providing support to grassroots gender and women's organisations
- (iii) Support for the establishment of locally accessible adult literacy programmes for women
- (iv) Improve rural access to quality primary and secondary education
- (v) Support to Village Savings and Loan Schemes
- (vi) Provide capacity building and extension services to women's groups
- (vii) Support for the provision of basic infrastructure - rural roads, water, sanitation and electricity)
- (viii) Support for the provision of alternative sources of energy and transport
- (ix) Support for non-agricultural economic activities
- (x) Support girls' education by implementing interventions that reduce early marriages and pregnancies amongst girls and providing incentives which will allow them to complete their education
- (xi) Sensitization of communities and gatekeepers on dangers of early marriages
- (xii) Support for the enforcement of laws around marriages, trafficking in children, child labour and others

Chapter 10

Conclusion

In this concluding chapter the findings of the study are examined against the background of the concept of intersectionality and the women empowerment index that provided the research component of the study's conceptual framework.

Intersectionality and gender inequalities in the survey communities

The results of the qualitative and quantitative methods demonstrated the intersection of gender inequalities, climate risks and rural based discrimination that create multiple discriminations for women based in rural communities who embody the multiple marginalization of being a woman and also being from a marginalized rural community. For example, gender and cultural norms in some pastoral communities do not allow women to inherit or own property, leading to higher rates of financial instability. It is in this context that the concept of intersectionality provides a useful framework from two perspectives. In the first place, it allows us to explore the ways that gender interacts with ethnicity, religion, social norms, economic status, employment, education, location, environmental action, age and participation in farming/pastoral communities of the Sahel region of Nigeria. Secondly, understanding how these elements impact and influence each other in pastoral communities allows us to better identify and address how challenges are compounded, how needs are best met, and how women can be effectively empowered. Using an intersectional feminist lens to dig deeper into the factors that affect and hinder efforts for equality also enhances the design of programmes, the implementation of interventions, and the promotion of support systems that aim to dismantle systems of inequality. When the roots and intersections of inequality become clear, we can treat the cause rather than the symptoms.

It was noted in this study that women in rural farming/pastoral communities of the Sahel in Nigeria face a double burden: the expectation to do unpaid domestic care work, and farming and livestock productive work outside the family responsibilities. With largely informal agricultural activity comes little access to formal financing. Consequently, women remain disproportionately barred from growing their own income-generating enterprises. This is combined with social norms that give men preferential treatment. However, even as women make strides in claiming their rights, they remain at the mercy of challenges driven by climate change: scarcity of resources triggers tensions between farmers and pastoralists and forces migration; unpredictable weather reduces crop yields; and women working down the production line must contend with rising prices for raw materials.

Using an intersectional feminist lens to examine these contexts in which women in pastoral communities of the Sahel find themselves, it is imperative that addressing the challenges of sustainable, equitable development is one of gender, climate and economic growth. Focusing on any one of these themes alone is not enough. It is essential that solutions must strive to capture needs and opportunities that intersect and interact, resolving root causes of inequality, injustice, and insecurity. Whether at the micro or macro level, using an intersectional feminist lens improves effectiveness, impact, sustainability, and relevance of development initiatives, and it presents a coherent approach to dismantling systems of oppression and to building better systems before oppression has a chance to take root.

Women's Empowerment in Agriculture Index/ Women's Empowerment in Livestock Index

Although the WEAI/WELI was originally intended to measure women's empowerment alone, it became clear that by focusing only on women in isolation from the men in their households, the index would be missing an important piece that contributes to disempowerment or conversely to empowerment that is gender equality. This is the approach of this study in which data were collected from both male and females. Using the five domains of empowerment (5DE: production, resources, income, leadership and time) the degree of women's empowerment relative to that of men is briefly outlined. As far as **production** is concerned, the findings of the qualitative and quantitative surveys show that women's sole input into decisions regarding food farming, major cash crop farming and livestock rearing is limited compared with the men who can take sole decisions, although a significant proportion of the female respondents reported that they take sole decisions on many aspects of livestock raising. The interesting finding is that a large proportion of women are involved in taking joint decisions with their spouses regarding the various farming activities in which they are involved. This development reflects the growing recognition of women in farming and livestock production in the study communities of Bauchi and Gombe States. It is not full empowerment for the women yet, but it is hoped that with advocacy and interventions women would be able to take decisions on their farming activities without the involvement of their spouses.

With regards to **resources** which focuses on ownership of and access to land, agricultural equipment, consumer durables, and credit, the findings again show that women are at a great disadvantage compared with men. The challenges which women farmers face relates to the fact that they may not be able to take the needed decision on accessing inputs for their agricultural activities without the approval of their spouses. At best they take decisions jointly with their spouses in which case their male counterparts can still cajole them into taking decisions largely determined by their spouses. However, the findings show that when it comes to household non-farm economic activities women are taking sole decisions on the use of resources without the involvement of their spouses. Apparently, as a result of the fact that a higher proportion of female respondents in Bauchi and Gombe are participating in non-farm income generating activities, they play a more significant role in decision-making on these activities in their households. It can also be summarised that with advocacy and interventions women would be able to take decisions on access to and use of farming and livestock resources without the involvement of their spouses.

On the **use of income**, the findings show that in both Bauchi and Gombe States while males make input in all decisions regarding the use of income from farming activities females make fewer decisions, except in cooperation with their spouses. With respect to livestock raising the results of the study show again that women make a more significant input into how income generated from livestock raising in both Bauchi and Gombe States is spent. A higher proportion of female respondents in the two states reported that they make input into most decisions or all decisions with respect to the use of income generated from livestock raising. This again reflects the recognition being given to women in livestock production in the study areas. It can thus be summarised that women are gradually being empowered in decision making in some agro-livestock and non-farm economic activities. As regards **time** which relates to the allocation of time to productive and domestic tasks the findings show that women the average women work for longer hours per day than men. These findings suggest that even in the primary production sector where most females in the study areas work, they devote less time to their work in the sector because they are engaged in other activities largely unpaid household and care activities which tend to reduce the amount of time, they can devote to primary production activities. Rural women of all ages spend much of their day engaged in domestic chores, including collecting water and firewood, processing and preparing food, travelling and transporting, and caregiving. Finally, as far as **leadership** is concerned, which is measured by membership of formal or informal economic or social groups the findings show

that women are again disadvantaged in the membership and active participation in community development associations to which they belong compared with men. Women who are carry out most of the unpaid household activities coupled with their economic activities have little time for participation in group membership, although their spouses sometimes determine their participation.

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