World Journal of Innovative Research (WJIR)
ISSN: 2454-8236, Volume-12, Issue-2, February 2022 Pages 33-41

Constraints to Agricultural Production among the Nigerian Military Personnel

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Abstract— **Agriculture is the only form of enterprise military personnel are officially allowed to embark on in addition to defending the Nation and ensuring its national security. While the military are engage in different agricultural enterprises, there is insufficient empirical information on the returns to agricultural enterprises among the personnel. The aim of the study was to investigate economic analysis of agricultural production enterprises among the Nigerian military personnel. The objectives were to: (i) identify the socioeconomic characteristics of military personnel involved in agricultural production; and (ii) determine the constraints to agricultural production among the Nigerian military personnel.**

The population for this study comprised all Nigerian military personnel involved in agricultural production. Based on survey as the research design, 275 military personnel from 10 out of all military formations across Nigeria used were selected through a two-stage sampling technique. A structured questionnaire with a reliability coefficient of 0.86 was used for the study. Descriptive statistics and Likert type scale.

The findings of the study were that:

Identified severe constraints to agricultural production among military personnel were frequency of military posting (98.00%), inadequate access to good arable land (80.00%), pest and diseases infestation (75.00%), inadequate access to market (63.00%), negative effect of climate change (63.00%), and inadequate access to credit facilities (52.00%).

The study concluded that agricultural enterprises among the Nigerian military personnel were profitable and constrained mainly by inadequate attention to agricultural enterprises by the personnel due to frequent posting from one formation to another. The study recommended that Nigerian military authorities should be lenient with the posting of personnel who may want to be close to the location of their agricultural production enterprises, and provide credit support for non-commissioned officers.

Index Terms— **Constraints, Agricultural Production and Nigerian Military Personnel.**

I. Introduction

Background to the study

One of the problems facing some military officer at the edge of retirement is how to live life after retirement; agricultural production enterprises will go a long way in addressing these issues. The government in collaboration with the Nigerian army established the Nigerian Army Farms and Ranches Limited (NAFARL), which enabled small-scale agricultural enterprises among the army personnel to start up on army farm lands. Thereby the military demonstrates the benefits of non-nomadic livestock breeding and creates jobs. It is too early to conclude the effectiveness of NAFARL, as less than two years, have passed since its inception. However, it's going to be argued that the military is capable of not only resolving conflicts but also supporting the event of agriculture and achieving food security (Nina, 2020).

Nigeria is the most populous country in Africa with about 200 million people and also among the largest in terms of land area (910,770 km2). Compare to some other countries in the world Nigeria has a big economy, with a gross domestic product (GDP) of about US$550 billion and per capita GDP of about US$3,000 (World Bank, 2020). The agricultural sector employs 60% of Nigeria's working population and accounts for over 40% of its GDP, although a higher level of poverty is observed among households whose primary source of income is agriculture (World Bank, 2014). In agricultural sector, crop production has the largest share estimated at 91% of the GDP from agricultural sector (Mogues, 2014). The agricultural sector in the nation grew by about 6.1% annually from 2012 to 2019, but it is argued that the development in the agricultural sector is linked to population and varse size of land own by Nigeria farmers (Oseni, 2020). Nigerian agriculture is primarily rain-fed, which is characterized by low productivity, low technology, and high labour intensity (Mulubrhan, 2017).

Though, agricultural development is propelled by agricultural policies. The major bottleneck to food security in Nigeria can be well laid at the doorstep of policy inconsistency and policy summersaults (Anyanwu, 1997). Therefore, development in agriculture and food production can only be achieved if there is an enabling environment that enhances a sustainable and inclusive private investment in agriculture. The Nigerian military could play a major role in food production, promoting increased food security for themselves and communities as it contributes a significant step towards more agricultural development (Acharya, 2006).

Every person needs food not only for energy giving but to sustain life generally. The challenges of food security shouldn't be overemphasized because of its importance, security of life and property through agricultural production enterprises. A nation with enough food tend to live a happier way of life and healthy. Improves the standard of living, children, and vulnerable health condition tends to be improved.

II. Statement of the Research Problem

Nigeria is one of the major African countries that are susceptible to insecurity and terrorism. This has the effect of threatening the territorial integrity, stability and security of

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the nation. One way to keep the peace and stability of the country is to improve access to food as a basic human need. Improvement in the food security status of the population is the most effective means of improving the security of lives and property of the citizens. Agriculture is the only form of enterprise military personnel are officially allowed to embark on outside defending the nation and ensuring national security (Code of Conduct Bureau- CCB, 1989). However, there is no empirical information on the agricultural enterprises that military officers are engaged in and their contribution to agriculture in Nigeria has not been given the required attention.

Nigerian military personnel are faced with a number of constraints that need to be addressed for improvement in their agricultural productivity. Despite the relative security which the military officers have over their farmland, they may not able to produce at their full capacity because of some challenges associated with their official responsibility. Such constraints could impede the effect of their production.

Conceptual Framework

This section focuses on the linkages between socioeconomic characteristics of the the Nigerian military personnel and issues relating to their agricultural production enterprises.The conceptual framework for this study is as presented in

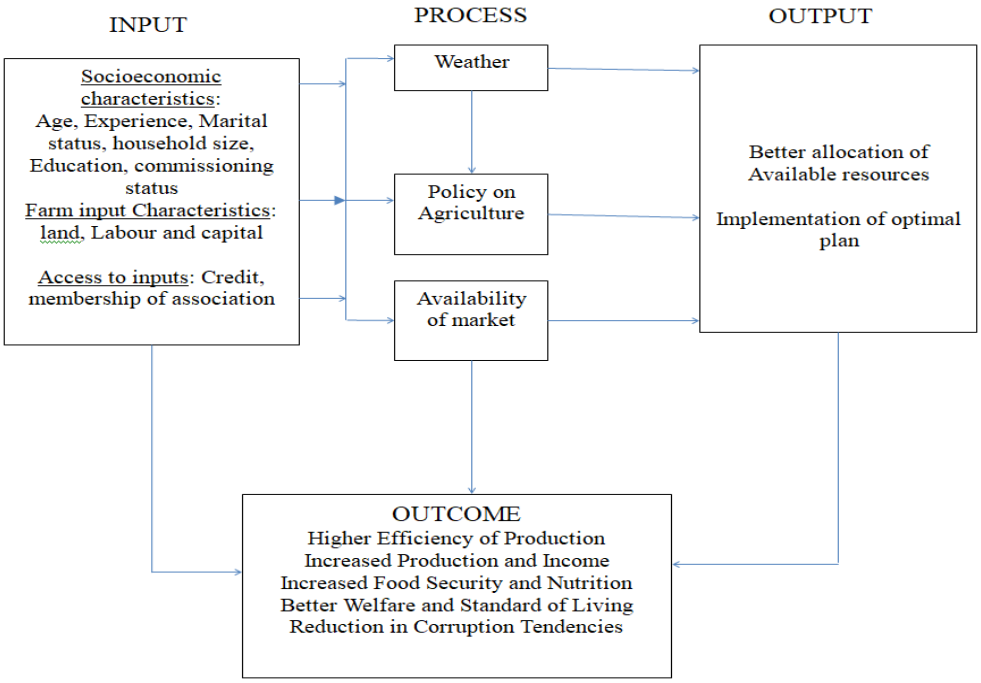

Fig. 1: Conceptual Framework

Author's compilation, 2021

As shown in Fig. 1, there is a strong relationship between input and output linkages in agricultural production and a conceptual framework was used to analyzethe process of agricultural production and the outcomes. Livestock production requires more intermediate inputs, but crop production depends on all the inputs, such as age, farming experience, marital status, household size, educational status, commissioning status, land, labour and capital. Outputs were, increased returns to production, better allocation of available resources, implementation of optimal plan. Processes of production were weather, military policy on agriculture and availability of the market. Expected outcomes were higher efficiency of production, increased production and income, increased food security and nutrition, better welfare and standard of living and reduction in corruption tendencies of some personnel.

In the framework, there exist substitutable linkages between inputs, the process of production, output and the expected outcome. The inputs which include the socioeconomic and farm characteristics are necessary to produce output and required outcome, input can also be seen as an investment in agriculture and also factors that will determine the productivity of military personnel which is also expected to go through some processes which are weather; adequate weather is required for proper growth of agricultural produce, this may involve temperature from sun and humidity from rainfall, there are different weather requirement for various agricultural produce to survive; Military policy on agriculture is very important because the military personnel can easily venture into agriculture since it is the only form of enterprise they are officially allowed to embark on, this policy will enable them to seek for permission from time to time when required to attend to their agricultural enterprises; Availability of market is one of the major factor contributing to the profitability of agriculture as this will encourage a military personnel to be engaged in agricultural production enterprises. Outputs are the result that comes after processing of inputs, better return to agricultural production, better allocation of available resources such as land, labour, capital amongst others and optimal plan implementation will be achieved.

Expected outcomes are the things that should be the outcome and results after making judicious use of inputs and proper processing to achieve the required outputs, Production and Income tend to increase, Food security which is also considered as an integral part of national security is expected to be the outcome of the agricultural production processes, Better Welfare and Standard of Living of the military personnel involved in agricultural production is expected and

the level of corruption should reduce drastically after majority of the personnel venture into agriculture. In all, these outcomes will in turn enable a better livelihood among the Nigerian military personnel.

III. Methodology

Study Area

This section discusses the study area, sampling techniques, and the analytical tools used to achieve the objectives of the study.This is an exploratory researchso no work has been published on the economic analysis of agricultural production enterprises among the Nigerian military personnel which made it impossible to draw broad conclusions from the literature. However, by compiling lists of agricultural enterprises among the personnel few of such studies have been undertaken in other parts of the world.This study was carried out in Nigeria across all locations with military formations across all the zones in Nigeria.The Nigerian military personnel primary responsibilities are to ensure national security, to protect the country against external foes and non-state elements.

Crop production has been seen as a major enterprise among the Nigerian military personnel, the officers were engaging in other forms of agricultural enterprises such as poultry, cattle and fish production. Although the military personnel are faced with different constraints, these forms of enterprises are still considered highly profitable among the military personnel. Their farm locations were mainly in the northern part of Nigeria and a lesser percentage in the south. According to Njoku (2018) the Northwest region accommodates two wide belts of dominant staple cereals, millet and sorghum. The other cash crops that are commonly associated and that are also peculiar to the local economy are cowpeas which are grown in excess, groundnuts, cotton, and sesame. Many of the military personnel have their agricultural production enterprises in the northern part of the country where agricultural practices are more prominent. Out of the six geopolitical zones in Nigeria, three are in the northern part of the country and they have the highest rate of agricultural practices involvement in Nigeria compared to the other zones. The Northern Nigeria, occupying 70% of Nigeria's landmass also have the added advantage of producing agricultural produce especially crop production in large quantity. Although the vast majority of the people of the northeast are sedentary farmers, most part of the area is noted for cattle rearing, and this rest majorly in the hands of local Fulani and some of the Arabic-speaking pastoralists and agro-pastoralists.

The North-east part of Nigeria is dry and sparsely populated with an extensive grazing route compare the Northwestern part of the countrywith extensive grazing routes. Their lands are also used occasionally by a greater number of incoming nomards from Niger and Chad, some of which are making their way down to the north central and southern Nigeria. They collaborated with the local herders to supply the main cattle markets, including Maiduguri, with livestock for movement to the south to satisfy the huge meat consumption of southern Nigeria (Titus, 2017). Domestic livestock is widespread in the Nigerian agricultural enterprises. Poultry and to a lesser extent, fish production is generally associated with the southern region who is reputed to own approximately 70% of the national livestock production enterprise (Suleiman, 1988).

Agropastoralism, which is an age-long traditional system in the northern savannah has just emerged in the derived savannah of Nigeria, and it is an up-spring from transhuman pastoralists who are sedentary and add crop cultivation to livestock production. The derived savannah of the southwestern zone of Nigeria is recently experiencing pressure on land and such pressure is as a result of the increase in population, land development and expansion of cropping land (Olafadehan, 2007). Southwestern Nigeria has been known to have the greatest concentration of agropastoral farmers in Nigeria (Okoruwa, 1994). It lies roughly between longitude 3^{o} West, 6° East of Greenwich and latitude 6° and 9° North of the equator.

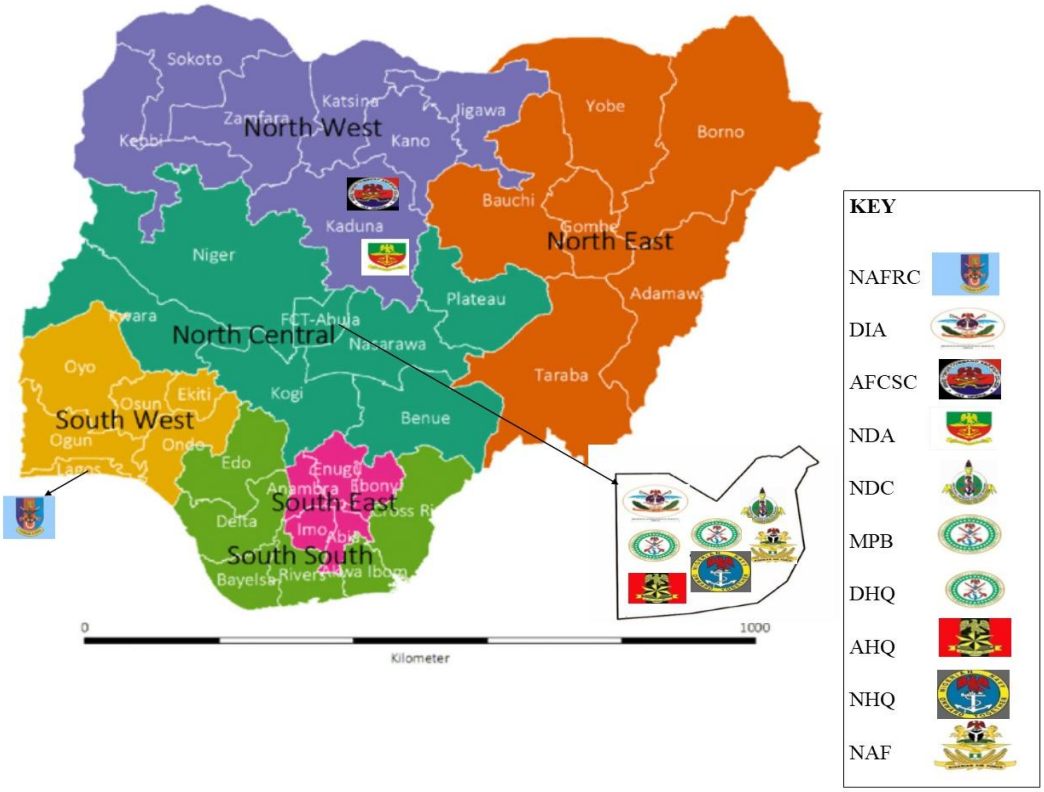

Fig 2: Map of Nigeria showing Study Area

Sources and Types of Data

Primary data using a well-structured questionnaire was collected and used for this study. The questionnaire was pre-tested for appropriateness propriety and revised based on the pre-test feedbacks before it was administered to the sampled respondents. Information collected includes those relating to demographic and socio-economic characteristics, farm-level inputs and outputs, cost of production and revenue, and constraints to agricultural production among the Nigerian military personnel.

Sampling Procedure

The population for the study comprised all Nigerian military personnel involved in agricultural production. A two-stage sampling techniques was used to select respondents for this study. First was purposive selection of 10 out of all the military formations in Nigeria that comprise the three services, namely, Army, Navy and the Airforce. The three services formations were Defence Industrial Corporation of Nigeria, Kaduna, Kaduna; Nigeria Defence Academy, Kaduna, Kaduna; Armed Forces Command and Staff College, Jaji, Kaduna; National Defence College, Abuja, FCT; Defence Intelligence Agency, Abuja, FCT; Nigeria Military Pension Board, Abuja, FCT; Mogadishu catonement, Abuja FCT; Ushafa Barracks, Abuja, FCT; Niger Barracks, Abuja, FCT; Nigeria Armed Force Ressetlement Centre, Oshodi, Lagos; Defence Headquarters, Abuja, FCT and Armed forces complex Abuja, FCT. The Military formations selected for this study were located within Abuja, Kaduna and Lagos.

The second stage was was proportionate sampling of military personnel across the three military services. The military personnel involved in agricultural production was identified with the assistance of the military authorities. Several means of reaching out to the respondents were used. These includes the use of durbar, during durbar the researcher informed the commander ahead of time then permission was granted and questionnaire were administered. Another means of reaching out to respondents was by informing the Commandants and Commanders ahead of the interview. Also walk in by the researcher into some of the formations

A total of 300 respondents were selected for the study and questionnaires were distributed accordingly. A follow-up was carried out by the researcher to validate the responses provided in the questionnaire. After each visitation, a review was carried out to check for disparities, where required phone calls and revisits were made and some were discarded. At the end of this process, a total of 275 representing about 92% of the total 300 pieces questionnaire were used for use for the study.

IV. RESULTS AND DISCUSSION

Socioeconomic Characteristics of the Nigerian Military Personnel involved in Agricultural Enterprises

The socioeconomic characteristics of the Nigerian military personnel involved in Agricultural production enterprises as identified in the study are presented in this section. These comprises age, years of experience in agricultural activities, education level, household size, gender, marital status, coomissioning status, other sources of income as well as other notable socioeconomic variables. Agricultural enterprise is not the primary occupation of the military personnel, it is, however, important to know that agricultural enterprise is the only form of enterprise allowed by the military personnel

aside from their primary profession which is ensuring national security. The socioeconomic characteristics are presented in Table 1.

Table 1: Socioeconomic Characteristics of the Nigerian Military Personnel (n = 275)

Socioeconomic Characteristics	Frequency	Percentage
i. Age		
Less than 30	17	6.18
30 – 39	74	26.91
40 – 49	93	33.82
50 and Above	91	33.09
ii. Sex		
Male	250	90.9
Female	25	9.1
iii. Marital status		
Married	247	89.82
Single	26	9.45
Widower	2	0.73
iv. Years in agriculture		
Less than 10	204	74.00
10 and above	71	26.00
Rank & equivalent		
Commission Officers	168	61
Non Commission Officers	107	39
Educational status		
Tertiary	275	100
Others	Nil	Nil
Religion		
Christian	116	42.18
Muslim	159	57.82
Source of capital		
Personal savings	275	100
Others	Nil	Nil
Access to credit		
No	246	89.45
Yes	29	10.55
Amount of credit accessed (₦)		
Less than 1000,000	14	4.55
1,000,000 and above	15	5.45
Not applicable	246	80.00

Field Survey, 2020

As shown in Table 2, the majority of the officers were males accounting for about 91 percent while only 9 percent were females. The findings seem to suggest that the officers involved in agriculture are mainly males. This may be a reflection of the fact that the majority of the Nigerian military personnel are males because of the peculiarity of the

profession and the rigorous nature of their job. The military profession is dominated by more men than the women. Allthough, some women start military careers later discovering that this career is not desirable with motherhood, and choose to quit the job mostly when they start a family (Smith & Rosenstein, 2016).

The distribution of the officers by age shows that the age group was between 24 and 56 with the mean age being 43 years. The importance of age can be linked to the Federal Ministry of Youth and Sport in its study that shows that only about 6% of Nigerian youths are involved in agricultural production which also reflects in this study where we have about 6.2 percent of the officers that are 30 years and below. The minimum age recorded for this study is 24 years while 56 years was the maximum age recorded. In line with the Armed Forces of Nigeria Harmonized terms and conditions of Service, the age range of an average Nigerian Military officer should be between 18 and 56.

Similarly, about 90 percent of the officers were married while the rest of them were single, separated or widowed and this may also be due to the policy of age in rank in the military. The large percentage of married officers may imply large household sizes for the officers. The household size for the study was between two and eleven with a minimum and maximum household size. The significance of the household size on the positive side is that the larger the household size, the more the family labour that will be available for farm activities. In small scale agriculture, the average farmer almost completely relies on family labour and will usually first exhaust all sources of family labour before looking out for hired labour. This is so that the cost of production will be reduced as much as possible (Muhammad-Lawal, Omotesho & Falola, 2009).

The years of experience in agriculture shows that about 74 percent of the officers have below 10 years of experience in Agriculture. However, the almost 26 percent population of those who had more than 10 years of farming experience indicates that some of the military personnel are still seasoned farmers and have been in agriculture for a very long time and are well experienced in agricultural production activities. The years of experience could define the productivity of the individual and the ability to harness agricultural resources to their advantage. Therefore, years of experience is expected to impact positively the activities of the officers. Years of experience in agriculture enhances production (John & Johnny, 2014).

The role of credit in agricultural development cannot be overemphasized. Credit is a strong tool that is capable of enhancing the productive capacity of all forms of agricultural enterprises (Raji, 2000). The result shows that 89 percent of the military personnel had no access to credit. Out of the 11 percent that had access to credit, almost 75 percent of them obtained their loan from banks and the government. About 25 percent got theirs from friends and relatives. Access to credit can also be an indication of some degree of business stability among farmers. The fact that few of them had access to credit may be a result of the fact that officers are not allowed to join any form of association outside a professional association.

Constraints to Agricultural Production among the Nigerian Military Personnel

The most critical constraints identified is frequency of posting from one military formation to another, a pass is required to move from the point of duty to visit their enterprises.

Others include, encountered are frequency of posting, inadequate access to good arable land, pest and diseases infestation, lack of access to herbicides, inadequate access to market, high cost of veterinary doctors, negative effect of climate change, low pricing of produce, inadequate labour, high cost of farming implement, inadequate access to credit, untimeliness of access to improved seed varieties, lack of access to fertilizers, lack of technological know-how and inadequate access to storage and processing facilities.

Table 2: Constraints to Agricultural Production among the Nigerian Military Personnel

Constraints	Not severe (2)	Moderately severe(3)	Severe(4)	Very Severe(5)	Mean	Rank
Frequency of posting	23.27	14.18	6.20	56.40	3.40	1st
Inadequate access to good arable land	4.00	17.09	27.00	52.70	3.39	2nd
Pest and diseases	20.72	8.00	27.00	47.64	3.37	3rd
Lack of access to herbicides	21.81	14.90	26.00	37.50	3.34	4th
Inadequate access to market	20.00	16.36	26.00	37.00	3.29	5th
High cost of veterinary services	20.72	15.27	14.20	36.00	3.26	6th
Negative effect of climate change	25.81	12.72	62.00	36.00	3.25	7th
low pricing of produce	25.09	36.00	27.27	11.60	3.24	8th
Inadequate labour availability	28.00	31.27	28.36	12.40	3.23	9th
High cost of farming implement	26.54	34.90	26.18	12.40	3.22	10th
Inadequate access to credit	27.63	33.81	25.09	13.50	3.21	11th
Lack of access to improved seed varieties	24.72	37.09	28.00	10.20	3.20	12th
Lack of access to fertilizers	27.27	36.72	28.36	7.60	3.16	13th
Lack of technological know-how	32.36	34.54	22.90	10.20	3.15	14th
Inadequate access to Storage and processing facilities	36.00	29.45	24.72	10.00	3.10	15th

Table 2 shows the ranking of different constraints to agricultural production among the Nigerian military personnel, the mean scores are within 3.1 and 3.4 while the average mean score was 3.25. The constraints that had a mean score of greater than or exactly 3.25 which are the average mean score for the study were discussed in this study.

Frequent posting of the personnel from one formation to another ranked 1st with a mean score of 3.4 with about 56.4 percent of the officers considering this as highly severe. Inadequate access to good arable land ranked 2nd with a mean value of 3.39 and about 53 percent of the officers further buttresses the point that the problem of inadequate access to good arable land is highly severe. The prevalence of pests and diseases ranked third among the constraints identified. The mean score was 3.36 with about 47.54 per cent puts it as highly severe. The major common constraints to crop production in smallholder farmers are pests and diseases and these limits farmers in obtaining better crop yield and ensuring food security. Some smallholder farmers have adopted the use of chemicals to manage insect pests and diseases in crop production. However, there is an issue of insect resistance. This is building up and hence, becoming a thing of concern to insect pest management and making good crop yield a difficult task (Jallow, 2017).

Lack of access to herbicides ranked 4th among the constraints with a mean value of 3.34 with about 37.5 percent of the officers viewed it as a highly severe problem. This is in line with the findings of Adedayo and Tunde (2013), which stated that inadequate supply of herbicide ranked 4th among constraints to agricultural production among farmers. The results show that inadequate access to the market ranked 5th with a mean score of 3.29 and about 37.5 percent as highly severe. This is in line with the study of David (2019) that Several issues that were not properly handled by the Nigerian government obviously led to the decline in agriculture, one major example is the problem of agricultural marketing and transportation, other reasons are responsible for the practice of agriculture mainly at subsistence level in Nigeria. The high cost of veterinary services ranked 6th among the constraints to agricultural production among the Nigerian military personnel with a mean score of 3.26 and about 37 percent rated it as highly severe. Most animal production activities are located in rural areas or remote areas inaccessible to proper veterinary services and many that are accessible find the high cost of veterinary services prohibitive. Therefore, they fall back to the easily available quacks that cause more harmto the animal industry. These quacks use expired vaccines, fake drugs and wrong prescriptions to treat diseases. Sub-standard and all variety of low-quality drugs and vaccines fill the market space and can easily be purchased and usedapparently by almost everyone (Olugasa, 2013).

Negative effect of climate change ranked 7th among the constraints with a mean score of 3.25 and about 36 percent of the officers considered it as a highly severe problem. Climate change is expected to affect food and water resources that are critical for livelihoods in Africa where much of the population especially the poor rely on local supply systems that are sensitive to change in weather (IPCC, 2007). Other constraints that were below the average mean score and considered as mildly severe were low pricing of produce, Inadequate labour, High cost of farming implement, Inadequate access to credit, Untimeliness of access to improved seed varieties, Lack of access to fertilizers, Lack of technological know-how and Inadequate access to Storage and processing facilities.

V. Conclusion

In view of the resource constraints to their production, the military personnel are required to implement the optimal plan for crop and livestock production. While the majority of the personnel have the capacity to implement optimal plan, the level of their capacity to implement the plan for is affected by their socioeconomic characteristics.

VI. Recommendations

The study proffered the following recommendations based on the research findings:

Considering the constraints to agricultural production among Nigerian military personnel, the

Nigerian military authority is advised to be a bit lenientwith issuing passes for personnel who may want to visit the locations of their agricultural production enterprises. This may reduce the negative effect of frequent posting of military personnel on agricultural enterprises and also encourage more of the personnel to participate in agricultural production.

References

[1] Acharya, S. S. (2006). Sustainable Agriculture and Rural Livelihoods. *Agricultural Economics Research Review*, 19(4), 205-217.

[2] Adedayo, L.O. & Tunde C. (2013). The Technology of Certainty: The Case of Animal Production and Health. *International journal on animal health and production*, 15(3), 205-210.

[3] Code of Conduct Bureau (CCB),(1989). History and Functions of Code of Conduct Bureau as related to public services in Nigeria

[4] Jallow, U. (2017). Constraints of Pest and Diseases among Vegetable Production Farmers in Lebanon. *African Journal of Economics 3 (2): 41-43.*

[5] John, H. and Johnny M., (2014). Farming Experience and Adoption of Agricultural Technologies: Evidence from Rice Farmers in Uganda *African Journal of Social Sciences 8 (2):1-3.*

[6] Mogues, R.T., Gujarati, D. N., Porter, C.D., Grieshop, I., Zalom, G. and Miyao, G. (2014). Adoption of integrated pest management agricultural Production: Retrieved from Bulletin of Agricultural Society of America

[7] Mulubrhan, E. (2017). A Panel Data Analysis on the Impact of Agricultural Productivity on Farmer's Welfare and Growth of Farming Households in Nigeria. *African Journal of Agriculture and Rural Development 3(11)21-23*

[8] Mulubrhan, V.C., Hoody, Q.D., Goodness, W.E., Keneth, D.H., Lydia, I.O., Sadia, S.O., and Patrick, M.N., (2017). A Binary logit estimation of factors affecting adoption of GPS guidance systems by cotton producers; *Journal of agricultural and applied*

[9] Nina, G., (2020). National Security and Food security: Contemporary Issues in Nigeria. Retrieved from pdf (arabianjbmr.com) on February 29, 2018.

[10] Njoku, N.L. (2018) Studies of Westernisation and Development in African, South African Publishers. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwi239D2p7PzAhWIa8AKHYoXDekQFnoECAMQAQ&url=https%3A%2F%2Fwww.ajol.info%2Findex.php%2Fjrhr%2Farticle%2Fview%2F180263%2F169610&usg=AOvVaw1r07Fb9GoUzaXatRuMJJHj on March 19, 2021.

[11] Okoruwa, V. O., Elijah, S., Busari, A. A. and Iyayi, E. A. (1994). Production dynamics and growth rates of livestock in the derived savanna of Oyo state, Nigeria. *Agricultural Science Journal 10(13), 15–16*

[12] Olafadehan, O. A. (2007). Challenges of dairy and cattle production in Burundi: Way Forward. *International Journal of Animal Production . 11(3), 115–116*

[13] Oseni, E.A., Kagbu J.H., Omokere D.F., and Akpoko, J.G., (2020). Adoption of Recommended Rice Production Practices among Women Rice Farmers in Nassarawa State, Nigeria. *Journal of Agricultural Extension, 20 (1), 107 – 120.*

[14] Raji,(2000). Economic Analysis of Maize Production in Kaduna State, Nigeria retrieved from http://kubanni.abu.edu.ng:8080/jspui/bitstream/123456789/4710/1 unpublished

[15] Smith, B. and Rosenstein H. (2016). The Military Profession: Role of Gender in Career, Attitudes, and Intentions. *International Journal of Veterans 8(3), 4-14*

[16] Suleiman, H. (1988). Effect of Policy issues on Ranching, Grazing Reserves on development in Nigeria. *International Journal of Agricultural Sciences 6(2), 4-18*

[17] Titus, O.B., Adedeyo T.A. and Adefisayo B.A. (2017). Factors Influencing Development of Improved technological Agricultural Practices in Nigeria. *International Journal of Science and Technology 3(13):09-10.*

[18] World Bank,(2014). Food Security Policy Brief of 2006. World Development Report (WDR 2012/2013): Attacking poverty. Geneva: World Bank; 2013. Retrieved from https://openknowledge.worldbank.org/handle/10986/11856 on December 23, 2018.

[19] World Bank,(2016). Innovative Technology strategies of Small Scale Farmers in the United State on World Development. Essential Design - Innovation Strategy & Design Research Services on April 13, 2018.

[20] World Bank,(2020). Millennium Development Goals Retrieved from www.worldBank.org/mdgs/poverty-hunger.html on July 13, 2021.