

LEASECON 2020

International Conference «Land Economy and Rural Studies Essentials»

**CHALLENGES AND OPPORTUNITIES IN NIGERIA'S
AGRICULTURAL SECTOR**

Nina G. Gavrilova (a)*

*Corresponding author

(a) Institute for African Studies of the Russian Academy of Sciences, Centre for Transition Economy Studies,
Moscow, Russia, ninagavrilova1976@gmail.com

Abstract

Nigeria is a formerly agrarian country that in the past supplied many agricultural products to the world market and provided itself with food. Everything changed after the shift of government focus agriculture to the mining sector. Nigeria is still a country with significant resources for successful farming. However, the country is experiencing considerable nutrition deficiencies and sharp food insecurity. The population growth rate of Nigeria exceeds the pace of agricultural production; the industry has low labor productivity, which is coupled with high labor intensity of production. The current state of both plant growing and animal husbandry is characterized by a low level of mechanization and the lack of modern means of caring for animals and plants. The country needs further intensification of production to increase agricultural output to provide food for its rapidly growing population and to increase exports. The aim of the work is to conduct a SWOT analysis, which summarizes some of the advantages and disadvantages, opportunities and threats to the modern development of the agricultural industry in Nigeria. The research issue is the current state of agriculture in Nigeria. The analysis makes it possible to forecast the prospect of in-country transformations and the strategic development of the country in the long term. The methods used in the study include empirical, theoretical and quantitative methods. It is recommended that the Government of Nigeria would focus on the development of legislation that takes into account all identified factors and create conditions for the sustainable development of agriculture.

2357-1330 © 2021 Published by European Publisher.

Keywords: Agriculture, food security, Nigeria, SWOT analysis, sustainable development



1. Introduction

The development of agriculture in the late 1960s and early 1970s was greatly influenced by the civil war (1967–1970), when military expenditures significantly exceeded the amount of financing channeled to the agricultural sector; many types of economic activity, including agricultural one, were suspended, and infrastructure was destroyed. In subsequent years, the emergence of oil as the dominant source of export revenue became the main reason for reallocating state financial support to the extractive industry and reducing the allocation of funds for agriculture.

This reallocation caused many negative consequences for agriculture, the main of which was the insufficient food production to meet the demand of the population. It seems necessary to identify and group some factors that impede the sustainable development of agriculture in modern conditions. Based on this analysis, it is expected to infer the recommendations regarding the agricultural policy of Nigeria.

2. Problem Statement

Modern agriculture in Nigeria does not ensure the country's food security. Despite the improvement of production indicators, local agricultural producers cannot satisfy the demands of the constantly growing population of the country. The underdevelopment of agriculture is influenced by a whole host of factors, which may be identified and grouped using SWOT analysis. The analysis and the clustered factors will help to see the development of agricultural production in Nigeria, determine the existing reserves for their implementation, and help to develop recommendations for the government.

3. Research Questions

The research issue is the current state of agriculture in Nigeria.

4. Purpose of the Study

The purpose of the study is to conduct a SWOT analysis and infer the recommendations to stabilize the state of agricultural production.

5. Research Methods

The main method applied by the author in the work is the SWOT analysis method, which determines the strengths and weaknesses of Nigeria's agriculture, as well as opportunities and threats to its development. In the study, the author also applies empirical (collection of statistical information), theoretical (analysis and synthesis of statistical information, its classification) and quantitative (statistical and bibliometric) methods.

6. Findings

Currently Nigeria possesses plentiful resources for successful farming. Firstly, it has a large (over 200 million people) population, 36% of which is engaged in agricultural production. In addition, the territory of Nigeria constitutes 92.4 million ha, of which 70.8 million ha are agricultural lands, including arable land, pastures, meadows and forests. Nigeria ranks 13th in the world in terms of agricultural land availability, and 16th – in terms of arable land as the share of the total land area. However, despite the rich resources, the situation in agricultural production remains unfavorable: the country is experiencing acute food insecurity due to the small volume of agricultural production, i.e. food security in the country is extremely low (Gavrilova, 2018, p. 382).

Crop production continues to play the leading role in the structure of agricultural production in Nigeria. The structure of the gross value of agricultural products in the postcolonial period has not undergone significant changes: both in 1961 and in 2018 the share of crop production was 91.2%, while livestock accounted for 8.8% (Food and Agriculture Organization, 2020). From 1961 to 2018, significant changes took place in the structure of the agricultural land fund: the area of arable land increased by 43.6%, of meadows and pastures – by 16.5%, which was due to a decrease of 67% in the area of forests (Food and Agriculture Organization, 2020). The increase in the area of arable land was mostly associated with the need to meet the growing demand of the population (because of its growth) for food by expanding the cultivated area for the main food crops. However, the expansion of the area did not provide for the achievement of food security due to the low yield of food crops.

The main problem that concerns the increase in crop production and the achievement of food security for the population of Nigeria is the increase in productivity, which is still significantly lower than its potential (King et al., 2015, pp. 17-21). Productivity directly depends on the volume of fertilizers containing additional nutrients applied per 1 ha of fertilized area. Nitrogen, potassium and phosphate fertilizers are used. Organic fertilizers are rarely used in Nigeria, since the areas of agriculture and livestock breeding practically do not coincide. In Nigeria, the use of fertilizers is modest, and this significantly affects the productivity of crops and, accordingly, the gross value of crop production, agricultural value added and other important economic indicators.

The state of Nigerian animal husbandry is also inadequate for the country's self-sufficiency in its products. Nigeria has significant livestock resources, including a large number of cattle, sheep, goats, pigs and poultry. However, significant livestock resources do not solve the problem of low animal protein intake (De Vries-Ten Have et al., 2020). Livestock industry is at great risk: in recent decades, epidemics have repeatedly occurred among animals and poultry, and their number has declined sharply. Viruses of highly pathogenic bird flu, horse plague, African swine fever, etc., the spread of the tsetse fly and the low level of veterinary services for animals not only make it difficult to maintain the livestock, but also reduce the export of livestock products to neighboring countries (Bamaiyi, 2013). The extremely low productivity of animals is noteworthy. The sustainable development of agriculture, including animal husbandry, is also hindered by the emergence of conflict situations. In recent decades, conflicts between farmers and pastoralists have intensified due to the constant migration of herds.

The bulk of agricultural products are produced on small farms, which number about 14 million (Apata et al., 2019, p. 776). The financial condition of most small farms does not allow the use of not only the necessary amount of mineral fertilizers, but also modern technology. The use of obsolete tools makes production more labor-intensive.

In 2013, researchers in the Department of Social Sciences at the University of Benin (Nigeria) used survey data from rural populations in their work on agricultural development and food security. In the course of the survey, the researchers collected demographic information, data on socio-economic and cultural infrastructure, morbidity, real wages, level of employment and adequacy of nutrition (Ikelegbe & Edopka, 2013).

The interviewed farmers indicated several reasons for the poor food supply, among them – the lack of storage facilities and lack of funds for their construction. As one of the main reasons limiting physical access to food, 82% of the respondents called poor, nearly impassable roads. Only 36% of farmers can deliver produce to the point of sale using motorcycles, bicycles and carts. Poverty of farmers also places serious limitations on their ability to improve the situation (Igbalajobi et al., 2013, p. 132).

An unexpected reason for the inhibition of agricultural development was the lack of labor. Amid rapid demographic growth, large-scale urbanization is also observed in Africa (Abramova, 2013). In 1991, the rural population of Nigeria stood at 69.8%, but in 2018 it was 50.2%. In addition, the share of people employed in agriculture in the total number of able-bodied people also fell: from 60% in 1991 to 36% in 2018. That is, in 1991 each worker in agriculture corresponded to an average of 5.4 dependents, but in 2016 – already 11.6.

To summarize the problems of agriculture and to form scenarios for the balanced development of the industry and its way out of the crisis, it is necessary to conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. When analyzing the factors included in the SWOT analysis, different parts of it should be combined in order to develop a strategy for further development of the industry.

Strengths of Nigeria are as follows:

- advantageous geographical position;
- high potential and extensive experience in growing export crops (cocoa, cassava, etc.);
- increase in the number of livestock and poultry;
- the opportunity to attract foreign specialists to teach agricultural practices to Nigerians;
- abundance of agricultural land and the opportunity to expand it;
- growing efficiency of agricultural production;
- extensive experience in agricultural development: in the past, Nigeria fully provided itself with food.

Weaknesses of Nigeria's agricultural development:

- investment climate is improving too slowly (Denisova, 2017, p. 41);
- lack of state support for farms;
- farmers lacking collaterals to obtain loans;
- outflow of labor from rural areas;
- lack of qualified farming personnel;
- poor development of the risk insurance system;

- great dependence on weather conditions;
- the lack of rural infrastructure (poor condition or lack of roads, storage, livestock buildings, warehouses, etc.) (Morozenskaya, 2012);
- insufficient or non-existent access to processing and marketing of products;
- environmental degradation (deforestation, climate change, desiccation of natural water bodies, low soil fertility, etc.).
- the lack of a stable forage base for animal husbandry, low level of veterinary services.

The opportunities for Nigeria in promoting agricultural development and increasing exports of agricultural products include:

- increase in the production of individual crops though an increase in sown areas or recultivation of out-of-circulation lands;
- the use of zoned varieties of plant and animal breeds;
- the increase in crop yields through the use of advanced technologies (agricultural technology, mechanization of labor, rational use of land);
- the use in a number of areas of modern technology in order to intensify labor;
- development and implementation of biotechnologies suitable for local climatic conditions;
- expansion of cooperation with foreign countries both in Africa and abroad;
- securing assistance of international organizations in providing seeds, fertilizers, etc. (Sapuntsov, 2015);
- prospects for the creation of inter-sectoral clusters to increase the added value of agricultural products;
- the growth in foreign and local private investment.

Threats to agricultural development include:

- the dependence of the country's budget on oil revenues;
- the occurrence of armed conflict in agricultural zones (Kostelyanets, 2014, p. 34; Kostelyanets, 2016, p. 106);
- imbalances in the standard of living of the urban and rural population;
- the threat of growing demand for agricultural products due to rapid population growth;
- completion of assistance programs by international organizations;
- low share of the agricultural sector in the country's economy;
- instability of food prices in the world market.

The combination of "opportunities" and "strengths" allows us to predict the development of the country's agriculture in the long term. Most of the opportunities are associated with the introduction of the latest scientific developments in the agricultural sector. Nigeria needs to expand cooperation with foreign countries for the exchange of experience and for the implementation of agricultural developments, training of farmers, development of rural infrastructure, etc.

An analysis of the weaknesses in the development of agricultural production in Nigeria shows that they are mainly associated with underfunding (or its complete absence) by the state of the agricultural sector and imbalances in agricultural policies of the government. The combination of weaknesses and opportunities determines the prospect of in-country transformations: increasing investment potential,

creating a competent agricultural policy, developing and implementing state support programs for the population engaged in agricultural production.

Threats and weaknesses limit the development of Nigeria, primarily affecting the improvement of the investment climate. However, a combination of identified threats and strengths can be used as a potential advantage strategy.

7. Conclusion

An analysis of the current state of agriculture, including its crop and livestock sub-sectors, allows us to conclude that in Nigeria there is an ongoing intensification of agricultural production, but its pace remains unsatisfactory in terms of the need to increase production to provide food for a rapidly growing population and export development. The main findings are confirmed by a SWOT analysis, in the course of which certain advantages and disadvantages, opportunities and threats to the modern development of agriculture in Nigeria have been summarized.

Among the key reasons and aggravating factors hindering the healthy development of agriculture, one can note the lack of state support for farms, which, in turn, leads to the outflow of labor from the countryside, deficit of qualified personnel, lack of rural infrastructure, etc. There are also a number of environmental factors that negatively affect agriculture, i.e. deteriorating environmental conditions. At the same time, the strengths of the industry are identified, consisting in the existing reserve of agricultural land and the growing population that can be engaged in the sector. Opportunities for improving the situation in agriculture are associated with the introduction of advanced technologies, the adoption of experience by Nigerian farmers from foreign farmers, and the creation of intersectoral clusters to increase the added value of agricultural production.

Currently, in addition to Nigeria Vision 20:2020, the Economic Recovery and Growth Plan (ERGP) has entered into force since 2015 after adoption by the government of Muhammadu Buhari (Denisova, 2015, p. 12). The ERGP focuses on the accelerated development of the agricultural sector. However, the abundance of laws and regulations developed for each sector of agriculture does not lead to the improvement of the situation in the agricultural sector (Denisova, 2019, p. 38-39). This is partly due to the fact that their preparation did not take into account the opinion of actual producers, while the development of laws requires the participation of farmers and agricultural workers, who are able to point out their problems to the authorities and help formulate an effective agricultural policy both on the state and regional levels.

The Government of Nigeria should develop legislation that takes into account all identified factors that impede the sustainable development of agriculture. Firstly, special attention should be paid to the foreign experience of introducing the latest scientific developments into the agricultural sector. For this, Nigeria should expand and strengthen cooperation with foreign countries to exchange experience in agricultural matters: to introduce agricultural technologies, educate farmers in the advanced ways of growing crops and animals, develop infrastructure, etc. In addition, the development of laws requires the participation of farmers and agricultural workers, who can clarify their needs to the authorities and help formulate a real agricultural policy both at the state and regional levels.

References

- Abramova, I. O. (2013). Urbanization in Africa. The engine or brake of economic growth. *Asia and Africa today*, 8, 2-9.
- Apata, T. G., N'Guessan, Y. G., Ayantoye, K., Badmus, A., Adewoyin, O., Anugwo, S., Borokini, A., Sani, T., Aladejebi, O., Ojedokun, S., Ajakpovi, A., & Nwaogu, F. (2019). Tenacity of small farms and poverty levels: Evidence of relationship among farming households in Nigeria. *Research on Crops*, 19(4), 775-786. <https://doi.org/10.31830/2348-7542.2018.0001.62>
- Bamaiyi, P. H. (2013). Factors Militating Against Animal Production in Nigeria. *International Journal of Livestock Research*, 3(2), 54-66.
- De Vries-Ten Have, J., Owolabi, A., Steijns, J., Kudla, U., & Melse-Boonstra, A. (2020). Protein intake adequacy among Nigerian infants, children, adolescents and women and protein quality of commonly consumed foods. *Nutrition Research Reviews*, 33(1), 102-120. <https://doi.org/10.1017/S0954422419000222>
- Denisova, T. S. (2015). Nigeria 2015: Leadership Change. *Asia and Africa today*, 8, 12-17.
- Denisova, T. S. (2017). Investment climate of Nigeria. *Scientific notes of the Institute of Africa RAS*, 4(41), 40-58.
- Denisova, T. S. (2019). Nigeria: The Results of Muhammadu Buhari's First Presidential Term and the 2019 General Election. *Asia and Africa today*, 8, 37-42. <https://doi.org/10.31857/S032150750005775-4>
- Food and Agriculture Organization (2020). FAO price data and analysis. Retrieved on 28 August 2020 from <http://www.fao.org/prices/en/>
- Gavrilova, N. G. (2018). The current state of the economy of Nigeria. *Eurasian Law Journal*, 5(120), 380-384.
- Igbalajobi, O., Fatuase, A. I., & Ajibefun, I. (2013). Determinants of Poverty Incidence among Rural Farmers in Ondo State, Nigeria. *American Journal of Rural Development*, 1(5), 131-137.
- Ikelegbe, O. O., & Edopka, D. A. (2013). Agricultural production, food and nutrition security in rural Benin. *African Journal of Food, Agriculture, Nutrition and Development*, 13(5), 8388-8400.
- King, F. S., Burgess, A., Quinn, V. J., & Osei, A. (Eds.). (2015). *Nutrition for Developing Countries*. Oxford: Oxford University Press.
- Kostelyanets, S. V. (2014). Sudan after the Split of the Country: Seeking to Resolve the Crisis. *Asia and Africa today*, 10, 31-35.
- Kostelyanets, S. V. (2016). Terrorism in Africa: Features, Trends and Prospects. *Paths to Peace and Security*, 2, 101-113. <https://doi.org/10.20542/2307-1494-2016-2-101-113>
- Morozenskaya, E. V. (Ed.). (2012). *Economic infrastructure of African countries*. The Institute for African Studies of the RAS.
- Sapuntsov, A. L. (2015). The role of international cooperation in improving the investment attractiveness of Africa. *Russian Foreign Economic Bulletin*, 6, 34-39.