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Policy Sustainability Issues: Case Study of Cassava Farmers in Ikorodu. Lagos, Nigeria

MEDINAT OLUWATOYIN ADETUNJI
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College of Social and Behavioral Sciences

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Medinat Oluwatoyin Adetunji

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Walden University
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Abstract

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by

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MSW, University of Ibadan, Ibadan, Oyo State, Nigeria 2001

BS, Lagos State Polytechnic, Lagos State, Nigeria 1986

Dissertation Submitted in Partial Fulfilment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration

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February 2022

Abstract

The inconsistency and lack of continuity of Nigeria's agricultural policies impact the cassava sector. Despite being the world's biggest producer, the country is yet to benefit from the advantage due to a lack of sustainable growth. The situation manifests in terms of low productivity, low production level, and poor income to the farmers. The purpose of this qualitative study was to investigate the experiences and perceptions of the cassava farmers on cassava policies and the effect on their income and livelihoods in the Ikorodu local government of Lagos State. This qualitative study adopted a case study research design using participatory development theory, which explains the nexus between the people's participation in a policy and sustainability of such policy. The opinions of 10 participants who were selected based on their involvement in Cassava production were sought through interviews. Data gathered from interviews with these 10 participants were triangulated with multiple data collection and documents. The two research questions were how the farmers described the policy instability and effects on their cassava business and the solutions for the cassava industry's sustainable development. Key results from the thematic analysis revealed seven themes as: volatility and uncertainty of the cassava business environment, inadequate support from the government, lack of local government participation in agricultural policies and policy inconsistency, planting of high yield cassava stems, promotion and commercialization of cassava crop, reformation of the cassava policy. This study outcome may promote positive social change by improving the livelihoods of cassava farmers and stakeholders and guide the policymakers to check policy instability in the cassava industry.

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Dedication

This dissertation is dedicated to God almighty, the one who made this possible. And to my family who gave me support all through, especially my husband who encouraged me a great deal in this journey. To my children, Damilola, Temilade, Omotoyosi, Wuraola, Sarah, and Ruth, I wish you all best in life and pray that you will grow to be strong and do greater exploits.

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Chapter 1: Introduction to the Study

Nigeria has a rapidly increasing population, which requires increased food production to ensure food security and revenue base to address the challenges of the socioeconomic needs of the population. The Nigeria Population Commission (NPC, 2017) projected that considering the current annual growth rate of 3.5%, the country's population is likely to hit 221 million people by the end of the year 2020. According to the NPC (2017), with the population growth rate, Nigeria is today ranked as the seventh most populated country globally, making it necessary to create policies for sustainable food production and other socioeconomic needs. The over-dependence on oil money as a significant source of revenue hurts employment creation and the country's sustainable development (Abiwon, 2017).

The vagaries of the significant industry players affect the global oil industry, and any upset in the industry creates shocks all around the world economy, including Nigeria. Before discovering oil, agriculture was the mainstay of Nigeria's economy and contributed to infrastructural and industrial growth. Agricultural produce such as cocoa, rubber, oil palm, cotton, and groundnuts were the major foreign exchange-earners. However, since discovering technologies that increased oil production in Nigeria in the early 1970s, Nigeria relegated agriculture to the background (Nwankpa, 2017).

The contribution of agriculture to the GDP went to its lowest ebb in the late 1970s, which jolted the government to realize that the country was gradually becoming import-dependent. Efforts were made by several governments subsequently to diversify the economy; but, these policies were altered by each successive political administration

(Amani et al., 2015). While the oil sector contributes more to the exports earnings, its contribution to the GDP and employment generation remained low, unlike agriculture, which contributes more to wealth and employment generation. In 2018, the total nonoil sector contributed 92.94% while the oil sector was 7.06% (NBS, 2019); in the nonoil sector, agriculture took a share of 26.15%. The oil industry generates higher revenue but lowers in its contribution to employment generation and the overall socioeconomic livelihoods of the people.

According to Iwuchukwu and Igbokwe (2012), policy instability contributes to the unsustainable development of the country's agricultural sector. The World Commission for Environment and Development (WCED, 1992) stated that environmental sustainability (agriculture sectors inclusive) implies the development that adequately meets the current population's needs without causing negative impacts on the future generation's efforts to meet their needs. Over the years, evidence revealed palpitations in agricultural policy and program; each political administration in Nigeria introduced its policies, contributing to inconsistent agricultural growth.

The programs such as the National Accelerated Food Production Program of 1972, with the objectives of improving farm efficiency in food crop production; Operation Feed the Nation of 1976, aimed at increasing food production via collective efforts by the general populace; the River Basin and Rural Development Program of 1976 aimed at tapping bodies of water for irrigation for all-year-round farming, enhanced fishery, and food production, and controlling erosion and floods in prone areas.

Other programs included the Green Revolution (1980) to ensure food security and industrial development through increased agricultural production and the Agricultural Development Project (ADP), piloted in 1985 to improve food production and the livelihoods of small-scale rural households and the National Fadama Development Programs I, II, and III (1993-1999, 2004, and 2005). The National Fadama Development Program II of 2004 aimed to increase the income of those involved in the National Fadama Development Program I. In this case, the policy instrument was the empowerment of communities (Ahmed & Phillip, 2010).

The cassava sector received a boost with the Roots and Tubers Expansion Program (RTEP), initiated in 2001 by the federal government of Nigeria with funding support by the International Fund for Agricultural Development (IFAD). The objective of RTEP was to increase root crops such as cassava, yam, cocoyam, and potatoes to attain food security and expand options for cheaper staple foods. Other objectives included the commercialization of root crops and improved farm income for better livelihoods and nutrition of rural farmers. The target was to reach 5.2 million smallholder farmers (Olusegun et al., 2015). The intervention of RTEP contributed to the rapid rise in cassava production and the strategic position of Nigeria as the largest producer in the world.

Following the RTEP was the Presidential Initiative on agricultural commodities, namely, cassava, rice, oil-palm, tree crops, fisheries, livestock, vegetables, and other tropical crops. The objective was to improve agricultural productivity among the essential agricultural products to enhance food security and industrial development. The more recent agricultural interventions included the National Special Program for Food Security

(2001–2006), which scaled up in 2007 to 2012, with the objective of enhancing low-cost technology for improved food production in a sustainable manner in order to ensure household food security, and the Agricultural Transformation Agenda (ATA) (2011–2015) aimed to scale up agriculture from the subsistence level to commercial agriculture.

Finally, the current agriculture policy is code-named 'Green Alternative, a plan for 2016–2020 (Iwuchukwu & Igbokwe, 2012). Sustainable development of agriculture coupled with the right policy environment is necessary to address problems of food insecurity and unemployment of a population as large as Nigeria's. The strategic position of Nigeria in the world's cassava production and the increased global demand for cassava starch, ethanol, and other cassava value-added products provides the potential to improve the nation's economy through the right policies formulation and strategic implementations.

Cassava is one of the main staple food crops in Nigeria. It is known to have great potential to enhance the country's economy because of the strategic position of Nigeria as the world's largest producer (FAO, 2016). It is for this reason that I focused on this industry in this study. According to the FAO (2015), cassava farming in Nigeria contributes to food security and raw materials for industrial purposes. Sustainability in the cassava industry thus remains fundamental in using cassava to achieve socioeconomic development. This shows the need for finding new opportunities to nurture the culture of sustainability, through policy stabilization, in cassava value chains. The new opportunities may arise through obtaining cassava farmers' and stakeholders' contributions based on the experiences of cassava farming as a subsector in agriculture.

I used the theoretical model of participatory development theory (PDT) to explore sustainable development in the agricultural sector. I applied a qualitative research approach to provide for the mechanism for understanding cassava farmers and stakeholders' experiences, attitudes, and practices; it created opportunity for enhanced knowledge level and information for the cassava farmers and industry stakeholders. As one of the main staple food crops in Nigeria, Cassava can enhance the country's economy; thus, the focus is on the cassava farmers in this study. The study findings served as a milestone in the Nigerian government's effort to utilize its opportunity of being in a suitable capacity as the largest producer of the crop globally (FAO, 2019). The opportunity shows the need to find new opportunities to nurture the culture of sustainability through policy stabilization in cassava farming by allowing and listening to farmers' experiences of cassava farming.

The study outcome provided detailed information regarding the stake of farmers in the economy and agricultural policy processes. The policymakers may also rely on the facts-based study findings to enhance the awareness with which farmers would be allowed and encouraged to take part in agricultural policy processes for decision-making. In order to enhance the outcome of the case study, I used the theoretical model of participatory development theory to explore the concept of sustainable development in the agricultural sector exhaustively. I used a case study approach to understand cassava farmers' actual experiences, attitudes, and practices. Using this approach, I enhanced knowledge levels and information for the cassava farmers and industry stakeholders involved in agricultural policy making. The subsequent section is the convincing

justification of the study based on policy instability as the vital perspective of understanding.

Problem Statement

The policy instability in the agricultural sector impedes the sector's potential to boost Nigeria's economy, especially in the cassava subsector, where Nigeria is the world's highest producer. This potential to boost the economy could have positioned Nigeria to play a more significant role in the global cassava trade (Otekunrin & Sawicka, 2019). The inability of Nigeria to take this leading role in the global cassava economy is likely due to the inconsistent growth of the sector because of instability in Nigerian agricultural policy formulation and implementation. Many stakeholders have constantly raised concerns over the issue of instability in agricultural growth, with specific reference to the cassava subsector, which impacts the farmers' businesses and the food security for the entire citizens negatively (Nwachukwu, 2017). It is pertinent to note that Nigeria produced 59 million metric tonnes (MT) of cassava in 2019, representing 20.4% of the total world production, and remains the largest producer. Next to Nigeria is Congo DR 31.5 million MT (10.83%); Thailand 30.9 million MT (10.61%); Indonesia 19 million MT (6.52%); and Brazil 18.8 million MT, which represented 6.47% (Otekunrin & Sawicka, 2019).

Table 1*Cassava Production by Country*

Country	Production (Tons)	Percentage Production
Nigeria	59,485,947 20.4	20.4
Congo, DR	31,596,046 10.83	10.83
Thailand	30,973,292 10.61	10.61
Indonesia	19,046,000	6.52
Brazil	18,876,410	6.47
Ghana	18,470,762	6.42
Angola	11,747,938	4.02
Cambodia	10, 577,812	3.61
Vietnam	10,267,568	3.57
Rest of the world	80,950,811	27.71
World	291,992,646	100

Note. From FAOSTAT Outlook (2018)

However, despite the strategic position of Nigeria as the leading world producer of cassava, the country does not earn the corresponding economic position and benefits in terms of foreign exchange earnings compared to other countries like Thailand, Vietnam, Cambodia, and Democratic Republic of Congo (DRC), amongst others. Thailand, which ranked second in the world production (10%), leads the world export of cassava starch, in 2018 earned a total value of \$1.19 billion of the total world value of \$2.19 billion; while Nigeria earned a meager \$1.25million, which represented 0.057% in the same year (RFA, 2019). Nigeria has not benefited from the economic advantage of the rising world demand for cassava products and the global market of cassava. There is increased demand for cassava-based products, such as ethanol, starch, high-quality cassava flour, and other gluten-free foods. The world uses of ethanol consist of fuel 68%, industry 21%, and beverage 11%. Records also showed that the United States and Brazil produced over

85% of the total world ethanol production, with 56% and 28% of production respectively. Countries such as China, Canada, Thailand, India, Argentina, and the European Union (EU) produced 14%, while the rest of the world produced 2% (RFA, 2019).

The United States uses corn for ethanol production, Brazil uses sugarcane based on their area of comparative advantage, and Nigeria could have tapped into cassava for ethanol production and export. Similarly, in the world production of flour and starch, Nigeria is also not a significant player despite being the largest producer of the commodity globally. Thailand, the second largest producer of cassava, currently holds over 80% of the world's export of cassava starch. The global cassava market for starch as of 2018 was \$40.53 billion, and with a projection of a 6.5% growth rate, the market may rise to \$66.84 billion by 2026 (FAOSTAT, 2019). There is also a rise in demand for cassava sweetener as a natural substitute for sugar in food, beverage, bread/confectionery, and carbonated drinks. Nigeria can join key players like Cargill, Tate & Lyle, and Agrana starch. However, the country cannot play any significant role in the cassava market because of many challenges militating against the subsector.

Table 2*World's Export of Cassava (000' Tons; Product weight of chips and pellets)*

	2014	2015	2016	2017
Total	19, 948	22,061	21,765	21,805
Flour and Starch	9,068	9,040	9,749	9,576
Thailand	7,919	7,657	8,446	8,290
Vietnam	788	1,011	1,055	1,048
Cambodia	29	56	64	146
Others	333	316	183	93
Chips and Pellets	10, 880	13,021	12,016	12,229
Thailand	6,927	7,458	6,411	6,661
Vietnam	2,995	3,687	3,241	3,200
Cambodia	808	1,805	2,182	2,230
Others	150	150	181	137

Note. From FAOSTAT Outlook 2018.

The sequence of agricultural policies and strategies depicts how the Nigerian agricultural sector has changed over the decades. The policies and programs implemented over the decades include the National Accelerated Agricultural Development Program inaugurated in the 1970s; Agricultural Development Program; National Fadama Program 1 and 2; Root and Tuber Expansion Program; Agricultural Transformation Agenda (2011–2015), the most current Green Alternative (2015-2021), and finally, the Anchor Borrowers Program (Abiwon, 2017).

Each of these programs by different political administrations showed the instability and lack of continuity in agricultural policies and implementation in Nigeria. Most policies are general to all subsectors of agriculture except a few specific

commodity-focused items, such as cassava. These were the presidential Initiative on cassava and the RTEP. However, while each program impacted increased production, there was no corresponding socioeconomic impact on the farmers and other stakeholders because of the lack of continuity of policies.

Different authors and organizations raised the problem of policy changes and inconsistent government interventions. Political administrations in Nigeria since the early 1970s have often put in place policies that never stood the test of time (Amani et al., 2015). Similarly, in the report of the World Bank Group (2014), concerns were raised on the problem of unsustainable agricultural development in Nigeria and were attributed to frequent policies reversal by every political regime that ascends to power after every four years of general elections. Frequently unexpected alterations in policing directives result in peculiar scenarios whereby the budget program/projects remain unattended at the expense of those with budget heads.

Stakeholders' participation and contribution to the policy process may ensure sustainability, transparency, and accountability, subsequently building sufficient confidence among potential investors in various agricultural development programs. The success of various development programs or projects is dependent on the relevant policy put in place because the absence of stable economic development policies tends to toss away both long and medium-term agricultural investments. In many of these instances, the cassava stakeholders had no idea of the new political regime's remedies to the agricultural issues. Hence, the phenomenon results in unsustainability, unpredictability, and instability of the sectoral policies and development. However, to understand the

inconsistency in the growth of the agricultural sector (cassava) and socioeconomic development at large, it is essential to explore the cassava farmers' experiences to have detailed information on the phenomenon.

The theory of participatory development (Chambers, 2001) is applicable to understanding this situation. Chambers (2001) stated that the contributions of the people whose businesses are directly affected by the policies are essential in ensuring the programs facilitated by such strategies become successful. Stability in growth could depend on the level of citizens' power (Arnstein, 1969). Sule et al. (2012) stated that the menace of agricultural policy instability is due to the failure of the Nigerian government to integrate farmers in relevant policymaking processes. From another point of view, the lack of a well-laid framework for farmers' participation in agricultural policy processes impedes every effort for sustainable agricultural development (Abiwon, 2017).

Though the current literature had acknowledged the necessity of stable policy, the experiences of the cassava farmers were my main focus in this case study, to depict how this relates to the participatory development as an independent model. In its entirety, the result of the study revealed the knowledge of the Ikorodu local government cassava farmers on the industry and its socioeconomic benefits. The knowledge includes policy processes, idea creation, authentication, actualization, and assessment.

The results of this study may help provide the positions of cassava farmers in Ikorodu local government and other stakeholders and proffer possible solutions in developing the cassava subsector and taking it to the global marketplace. The social change created by this study is the cassava farmers' move from subsistence agriculture

with small landholding to agriculture as a business for improving farmers' standard of living and attaining positive social change.

Purpose of the Study

The purpose of this qualitative case study was to explore the farmers' perceptions of the impact of sustainable policy in the cassava industry on socioeconomic livelihood and income related to the country's agricultural policy instability. I also explored farmers' perspectives on solutions for sustainable development of the sector to contribute to the diversification of Nigeria's economy. Being the largest producer of cassava, Nigeria has the comparative advantage to be a key player in the global market of cassava and its derivatives. The experiences of cassava farmers in the industry provided the needed information and recommendations for the formulation of new cassava subsector policies that aided the sustainable development of the subsector. The outcome of the exploration is to aid the design or facilitate the formulation of all-inclusive cassava policy and strategies. The right economic environment created increased productivity, lower cost of production, increased income, and a better standard of living.

Research Questions

Research Question 1 (RQ1): How do cassava farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income related to the policy instability and overall Nigeria's national economy?

Research Question 2 (RQ2): What solutions do cassava farmers prescribe for sustainable development to contribute to the diversification of Nigeria's economy?

Significance of the Study

This qualitative case study may contribute to social change by improving the understanding of farmers and other stakeholders about the formulation and implementation of agricultural policy and the market opportunities. Consequently, the study may impact the population at large regarding increased food production, higher productivity, and higher income, thereby contributing to food security, foreign exchange earnings, national security, national sovereignty, and overall economic development in the short and long term. There may be a better application of knowledge to the policy process and program planning and implementation.

The study may bridge the gap in knowledge of the state of cassava industry in Nigeria, the potential of the commodity to contribute to rural development, national economy, and socioeconomic wellbeing of the value chain actors, and participation of Nigeria in the global marketplace. This research may be used by policymakers in the future for protectionist agricultural policy formulation and implementation framework to attain the level of growth expected in the cassava industry.

Background

Cassava (*Manihot esculenta*) is the most important tropical root crop in Nigeria, and it is one of the significant sources of carbohydrates. Nigeria produced 20% of the entire world's production at 59 million MT in 2018 (Otekunrin & Sawicka, 2019). Despite this advantage, Nigeria does not rank among the top 10 exporters of

cassava in the world; while Nigeria's export value was \$1.1925 million in 2017, which is just 0.057% of the entire world's export, Egypt is among the world's 10 exporters with a value of \$20.7 million (Otekunrin & Sawicka, 2019).

The problem of the agricultural sector in Nigeria is policy instability and inconsistency, including the cassava subsector. The sector had experienced a few policy episodes, affecting its consistent growth and contribution to economic development. Before discovering oil, agriculture contributed about 60.96% to the country's GDP and over 70% of the proportion of total export (NBS 1990).

The discovery of oil in commercial quantities in the early 1970s was the departure point to the steady growth of the agricultural sector, and the attention on agriculture was consequently diverted (Abiwon, 2017). The neglect of the agricultural sector was due to the discovery of oil, despite the significant contribution to GDP. The sector's neglect triggered the downward trend in agricultural growth (Nwankpa, 2017) and a decline in food production and foreign exchange earnings. Between the 1970s and early 1980s, the total agricultural contribution to the GDP plummeted to 18.02%, while its contribution to foreign exchange earnings declined to 4.6% (Abiwon, 2017). The situation turned the country into a net food importer with supplies coming from different parts of the world.

Having realized the dwindling foreign reserve, and in an attempt to revive the sector, each political administration initiated new policies and programs instead of continuing, modifying, or improving the old programs. The policy changes consequently made the policy environment in agriculture unpredictable and discouraging to potential investors (World Bank Group, 2014). Within 4 decades, about 12 different

policies/programs were implemented by different governments, each different from the other.

The following are different agricultural policies and programs from the early 1970s to date: National Accelerated Food Production Program of (1972), Operation Feed the Nation (1976–1979), River Basin and Rural Development Program of 1976, Green Revolution of 1980, ADP, National Fadama Development Program I, II, and III (1993-1999), 2004, and 2005), Presidential Initiative on Cassava 1999-2007, National Fadama Development Program 1, RTEP (2001-2010), National Special Program for Food Security (2001-2006), Agricultural Transformation Agenda (2011-2015), Green Alternative (2016-2020) and the recent Anchor Borrowers' program. Amalu (2018) posited that poorly implemented and inconsistent agricultural policies result in the failures of many agricultural policies.

The situation of the cassava sector was indifferent to others except for the fact that the cassava industry has the natural potential to address socioeconomic issues of the nation. The crop can grow in harsh conditions, which made the crop known widely as a food security crop. Despite the poor conditions, general smallholder subsistence farming of cassava, Nigeria remains the largest producer globally, accounting for about 21% of the world production. The government policies contribute to the lack of consistent growth in the sector with economic consequences for the stakeholders, especially the farmers. The case study was to examine the cassava industry, the potential, and the policies as it affects the sustainable growth of the industry.

Theoretical Framework

I employed the theory of participatory development (PD; Chambers, 2001), which proposes that a participatory approach is a viable tool for development. It explains the relationship between stakeholders' participation and sustainable development. Chambers (2001) posited that the societal goal of development is most successful when critical stakeholders' adequate participation in the policy formulation involves policy formation, legitimization, adoption, implementation, and evaluation (Arnstein, 2007). Accordingly, the primary instrument for development is the participation of the stakeholders through the entire process of program planning of policies, which gives the people power to contribute to finding a solution to matters affecting them.

Participatory development theory is relevant to this study because it explains the importance of getting farmers engaged in the policy process on matters affecting them. This theory also provides the opportunity for generally agreeable solutions with a sense of ownership. Dogbe (as cited in Chambers, 2001) explained the philosophy behind the theory regarding an analogy of “climbing off the donkey,” one who rides a donkey does not know the ground is hot until one climbs off the donkey. Chambers (2001) further posited that implementers or initiators of programs must involve the target beneficiaries, the failure of which could mask the real problems from being solved or become unsuccessful. The indigenous and local knowledge of the environment helps in addressing the problems. The importance of participatory development theory is the application of a practical policy framework through the participation of stakeholders in the process and the resultant impact on transparency, accountability, and sustainable

development. The nature of the study is presented in the next section, followed by the research design, philosophical assumption, scope, delimitations, the significance of the study, and summary.

Nature of the Study

The main aim of the study was to have a better understanding of the issue of cassava policy instability, particularly in how it impacts farming activities, national revenue, food security, and above all, import substitution, foreign exchange earnings, and sustainable economic development. I employed a qualitative inquiry with a case study approach to investigate contemporary real-life situations or issues, and an in-depth explanation is required. The case study was adopted because of its exploratory nature and covered a small number of participants. In this study, the case qualitative design study helped capture the cassava farmers' experiences in the cassava industry, including their understanding and participation in agricultural programs and policies implemented.

The protocol for sampling was purposeful sampling, and a sample population of 10 participants was selected. The Nigeria Cassava Growers Association supported the participant's selection process through the state chapter of the government-recognized association. The criteria for the choice of participants include the following: landholding of a minimum of 2.5 hectares of land is known as commercial size (Apata et al., 2011). In addition, those who have participated or benefited in any five of the vital agricultural programs or projects initiated by the government of Nigeria, such as, Agricultural Development Program; the National Fadama Development Programs 1 & 11; Root and Tuber Expansion Program, and Agricultural Transformation Agenda.

Data collection was from 10 cassava farmers/participants through virtual interviews, field notes, discussion, Telephone calls, and emails. The interview protocol was developed systematically and approved by the Institutional Review Board (IRB) to ensure credibility and efficiency in collecting data, including getting informed consent (Eddles-Hirsch, 2015). The participants were to give as precise as they would give narrations on their experiences in the cassava industry, with specific reference to production, productivity, and the markets

Usually, the investigative element forms the basis of every qualitative study. It offers the researchers the opportunity to retrieve detailed information regarding the area of research directly from the individuals identified to have experience of the phenomenon under the investigation (Lewis, 2015). As a researcher, if the participants have given narrations of their experiences, the researcher may interrogate them further for more information about the study phenomenon. The findings of the researchers depict the view, lived experiences of the sampled participants. The design undoubtedly offers trusted responses to the research questions considering its moral exploratory nature, which allows the researchers to enjoy the flexibility with which they would prospect more profound into the primary responses given by the participants to ensure more detailed findings. It also allows for the textual explanation of the participants' experience about the study phenomenon.

By expectation, the selected farmers are supposed to speak about their experience and understanding during the interview freely. Apart from relying on years-long acquired personal knowledge and experiences of the cassava farming sector in Nigeria, proper

planning and preparation was a priority to avert any form of challenges that would thwart the interview's success. The study sample size was limited to only 12 to ensure efficiency and easiness when carrying out the interview.

Limitations

Some limitations are of concern in this case study. These limitations are time and resource-intensive because a researcher has no control over the time, whereas the participants would determine the time to spend with them. The time in some situations may either be too short or too much. Another limitation is that the findings may be difficult to generalize; in the case of this study, the researcher relied on information provided on the cassava industry, which may not depict the actual trend in the general agricultural domain. There is also the limitation of the sole reliance on information provided by the participants, which are their perceptions, and the participants can provide exaggerated opinions since people understand and interpret issues from different angles or points of view (Creswell, 2014 & Merriam, 2014).

Scope and Delimitations

The instability of Nigerian agricultural policy, amongst other problems, especially regarding cassava industry and the effect on the stakeholders, especially the farmers, form the primary problem statement of the study. The repeated policy transition following frequent changes in the political regime and administrations after every four years of elections has often rendered stakeholders, especially farmers, clueless of the new political government's interventions or measures. The continued occurrence of

inconsistency and unsustainability in the development of the agricultural sector in Nigeria (Abiwon, 2017).

The main aim of the study is to explore the experiences of cassava farmers of the industry concerning policy changes as they affect the income, livelihoods of the farmers, and the socioeconomic development of the country. Cassava farmers are the central focus of the study since they are the key stakeholders who grow cassava crops for food security and raw material for industrial purposes; the farmers are also the most affected by the various policy processes when it comes to the implementation. From the lens of participatory theory, Chamber (2001), the farmers' contribution to the policy process is an essential aspect of the study, citing the mutual coexistence between economic development and beneficiary participation in policy formulation.

The current study involved selecting the population for the study from the Ikorodu division of Lagos State. A total of 10 participants across the five key cassava growing communities of the division were purposefully selected. I restricted the study to Ikorodu because it is one of the significant cassava growing divisions in Lagos State and available resources to carry out the study. The greatest delimitation in the study was the selection of only 10 participants, as it would increase the efficiency in data collection and the accuracy of the information (Jameel et al., 2018). The criteria were participation of farmers in any of the five government agricultural programs and having landholding of a minimum of 2.5 hectares. The government recognized Nigeria Cassava Growers Association at the Ikorodu divisional level supported the selection process.

Definitions

Agricultural Development: The process that creates the conditions for the fulfillment of agricultural potential. Those conditions include the accumulation of knowledge and availability of technology as well as the allocation of inputs and output, (Laiglesia, 2006). It can also be viewed as the measure of growth in the agricultural sector with impact on the Gross Domestic product of the nation and the sustainability of the industry.

Agricultural Policy: Written rules or guidelines or principles in the agricultural sector for decision-making put together with the objective of achieving defined goals.

Development: The process of enlarging people's choices (UNDP, 1990-1). It consists of the removal of various types of "unfreedom" that leave people with little opportunity of exercising their reasoned agency. Development be defined also a process of expanding the real freedoms that people enjoy and the expansion of the 'capabilities' of persons to lead the kind of lives they value and have reason to value (Sen, 1999: xii 1 & 18).

Economic Development: Concerted actions by the community and policymakers to improve the standard of living of citizens and the economic health of a country.

Empowerment: - the process of enabling people to increase control over their lives, to gain control over factors and decisions that shape their lives, to increase their resources and qualities and to build capacities to gain access, partners, networks, a voice, in order to gain control (UNSDN, 2012).

Market Institution: Considered to embrace a wide range of organizations, including associations of farmers, traders, and others in the value chain, as well as cooperatives and government marketing agencies

NAIRA (N): Nigerian currency. N435 is equivalent of \$1 as at June, 2020.

Participation: Defined by the International Association for Public Participation (IAP2) as a means of involving those who are affected and will be affected by a policy or subject matter in decision making.

Policy Process: Policy process is ‘means of creating policy through interaction with people and the policy issue. It comprises six steps in a multi-stage cycle as follows: Problem Identification, Agenda setting, Policy Making, Budgeting, Implementation, Legitimization, and Evaluation (Arnstein, 2006).

Stakeholders: Defined in the context of World Bank–supported activities, are “those affected by the outcome—negatively or positively—or those who can affect the outcome of a proposed intervention” (Rietbergen-McCracken, 1998 pp.13-14). Stakeholders can include Borrowers (elected officials, line agency staff, local government officials, and so on), directly affected groups (including the poor and disadvantaged), indirectly affected groups (such as NGOs and private sector organizations) and the World Bank Management, staff and shareholders (Rietbergen-McCracken, 1998).

Sustainability: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (UN Documents, 2013).

Sustainable Development: -Defined by the World Commission for Environment and Development (WCED, 1987) is development that meets the need of the present without compromising the ability of the future generation to meet their needs.

Methodological Assumptions

There were some assumptions to realize the success of the study. These are as follows: the interviewees are objective and sincere in their responses to the interview questions. The following assumptions were that the participants meet the criteria for selection based on their experience and knowledge of the research topic. Lastly, the participants are assumed to have an interest in participating in the research study.

Summary

This chapter provided a complete overview of the entire research project, including the introduction to the study, the problem statement, the purpose of the study, the significance of the study, the background, and the theoretical framework. Other areas covered include the nature of the study, which is composed of a design paradigm, the scope of the study, limitations, scope and delimitations, the operational definitions, methodological assumptions, and finally, the summary and transition. The next chapter contains the literature relevant to this study concerning Nigeria and other countries.

Chapter 2: Literature Review

The agricultural policy instability in Nigeria was of concern to the industry stakeholders because of its impact on sustainable growth. The agricultural sector can boost Nigeria's economy significantly. The cassava subsector, where Nigeria is the world's highest producer, would have helped Nigeria play critical roles in the global economic trade and helped the nation diversify its economic base to boost food security. However, the inability of Nigeria to take this leading role in the global agricultural economy is likely due to the instability in Nigerian agricultural policy formulation and implementation. The problem has also resulted in the inability of the country to actively participate in the world trade of cassava and its derivatives.

The review and discussion of relevant empirical literature includes the Nigerian agricultural landscape, the Nigerian agricultural policies and programs, participatory policy and sustainable development in the cassava subsector in Nigeria, the cassava industry and its potentials, and the review of some agricultural intervention programs and policies. Despite the agrarian nature of Nigeria, including the natural endowments of suitable land, conducive climatic conditions, adequate human resources, and water, the intended efforts of government did not translate to food self-sufficiency (Nwankpa, 2017). The challenges of the agricultural sector in Nigeria are of concern to the government and critical stakeholders in the industry. Some authors attributed the failure to attain self-sufficiency to the discontinuity of policy and policy reversals, which does not allow for consolidated gains for growth (Abiwon, 2017). Sometimes, the issue of

cyclic glut in the industry was because of market unpredictability and other cross-cutting poor infrastructure and technology problems.

The problem of policy instability is one of the many identified and reported hindering the sustainable development of the Nigerian agricultural sector. The report of the World Bank study on agribusiness indicators revealed that agricultural policies in Nigeria are unstable, unpredictable, and non-rational (World Bank Group, 2014). In contrast, the sector has the potential for higher growth opportunities for economic development. Similarly, Diouf (2006), former director-general of the FAO, posited that standard features of African agriculture were inconsistent and lack of sustained policies, which mainly contributed to failing economies of the continent. Diouf posited that the main characteristics of agriculture in Africa were inconsistent policy, lack of sustained political will, unstable price and markets for agricultural produce and weak value addition, and poor infrastructural development, amongst others. These factors negatively impact the economies of developing nations, especially in Africa.

Many empirical studies revealed various factors that alluded to the failure to achieve sustainable growth of the sector, ranging from policy inconsistency and unpredictability, poor sector funding, poor policy implementation (Kingsley, 2018), weakness of the policies, amongst others. The significant effect was the input support system, the market systems, and the price competitiveness of agricultural commodities (Nwankpa, 2017; Richard, 2017).

Literature Search Strategy

I conducted the search of the literature through Google Scholar and Walden University Dissertations & Theses database, as well as the ProQuest Dissertations & Theses Global Database. I used the following search terms: *sustainability, sustainable development, public policy, theory of participatory development, participatory policy, agriculture, agricultural development, sustainable agriculture, rural development, and participatory policy.*

Theoretical Foundation

The development discourse in the last 4 decades concerning public policy implementation adopted the concept of participatory development. The theory that I used to guide this study was the theory of participatory development (Chambers, 2001; Dogbe, 1998). The theory explains the relationship between stakeholders' participation in the policy process and sustainable development. Participatory development theory posits that a societal development goal is often possible where critical stakeholders participate in the policy process (Chambers, 2001). According to Mansuri and Rao (2012), since the mid 1980s, governments in developing countries have tailored their rural and agricultural development strategies toward the participation of citizens in matters concerning their livelihood. With this position, the top to bottom strategy in development projects in developing countries sometimes may not conform to the community's needs because most government policy interventions fail to involve the beneficiaries and often fail to address the community needs.

Scholars in the field of agriculture are concerned with the problem of policy instability and the non-involvement of stakeholders. Manyong et al. (2013) posited that the involvement of farmers affected by policies is essential to the general acceptability and policy stability. The people concerned should be involved in the agricultural policy process because it addresses their priority needs and helps stabilize the agricultural sector's policy environment. The theory postulates that the basic instrument for development is the stakeholders' involvement in policy formulation and implementation.

The concept of participatory development expanded beyond just the involvement and engagement of people in the implementation of the development program. The expansion means that program implementers must involve the target beneficiaries. Their non-involvement may mask the real problems since they experience the problem and could express it and possibly proffer a solution. Chambers (2001) posited that gaps usually exist between the experts and the beneficiaries or the locals. The latter group does not find ownership in the intervention because of their non-involvement or non-participation in the whole process. Chambers stressed that only in the professional development of bureaucrats does one experience a top to bottom flow of information, which typically leads to specialization and isolationism. Specialization and isolationism can be problematic because of the predominant characteristic one-way flow of information that limits intellectual discussion and stakeholder contribution. According to Chambers, the strength, knowledge of the environment, and the beneficiaries' contributions catalyze achieving the goal of development.

Chambers (2001) concluded that stakeholders' participation in strategic policy planning or rapid rural needs assessment and other participatory techniques had become standard ways of investigating and solving problems rather than specialization, professionalism, and bureaucracy (Chambers, 1993). According to the above explanation on the stakeholders' participation, the development concept is not a rigid goal. However, it involves a continuous, flexible, and all engaging exchange of ideas, including the beneficiaries.

In the realm of agriculture, the participation of stakeholders, especially the farmers, is germane, given the role of stakeholders in agriculture and food security as an explanatory variable of policy instability. Ayoola and Ayoola (2016) strengthened this position by summarizing the issues in Nigeria's agricultural development lacking satisfactory stakeholder participation; this includes agricultural policy philosophy, agricultural policy governance, and policy instability or policy unsustainability. An example of participatory development efforts is the study of Kimenyi et al. (2014). Kimenyi et al. analyzed one community-driven development project in Nigeria's Niger Delta Region, carried out by the Akassa Development Foundation, co-funded by the Nigerian Institute of Social and Economic Research, AGI Partnerships Initiatives for the Niger Delta. In the quantitative study, the researcher identified and documented major hindrances to community development and economic growth in the Niger Delta, including the factors for the success of development programs in the region.

In the result of the study, a significant success factor was the involvement or participation of the community. Ninety-eight percent of respondents were aware of the

Akassa Development Foundation, and 56% revealed that they and their households were involved in the project. Also, 97% of the respondents said that there was significant participation of the community in the project management and its operations. Finally, 92% of the respondents confirmed that their degree of participation in the project was satisfactory and sufficient. Based on the result of the study, Kimenyi et al. (2014) advised on emphasis on the collective choice arrangement model or a participatory approach in the policy process as a recommendation to policymakers for future programs.

The practicality of participatory development in the study of Kimenyi et al. (2014) explained the significance of the shareholders' contribution and sense of ownership in projects and programs, hence the encouragement to protect and sustain such initiative. The constant change of government policy direction as a new administration raises concerns of ownership and the sustainability of the program because the farmers usually were not part of the initiation. The stakeholders sometimes lack a sense of ownership and commitment, which gives room for corruption and a lack of accountability. The cassava subsector of agriculture is equally affected by disruption in businesses and livelihoods.

The keynote in the theoretical foundation was that the power of stakeholders as participants in the policy process is potentially enormous. It can result in a better understanding of the underlining factors of policy instability and sustainability of the sector's growth. The cassava farmers in Nigeria may achieve more in their contribution to food security and sustainable growth of the sector due to the association's organizational structure at all levels. This qualitative study could help stakeholders, policymakers, and

government officials in Nigeria understand the knowledge gap of the participation of farmers in the agricultural policy process. It provided a better understanding of the policy environment and their roles in the process and implementation of programs, as well as a better view of the state of cassava industry in Nigeria from the context of policy issues and the impact on sustainable agricultural development of the industry, especially from the cassava farmers' experience. The entire literature review in the next part of this chapter includes different sections and themes: Nigerian Agricultural policies and Programs, the Overview of the Nigerian Cassava Sector, and participatory process and sustainable development issues. The topic of the study is aligned to the research questions, and the theoretical foundation.

Critics of Participatory Approach to Development

Despite the popularity of the participatory approach to development, there are criticisms of the strategy. Some schools of thought argued that the participation of the community in decision-making is a waste of time and resources that only the elites will consequently take over the process (Cooke, 2001). Some researchers posited that local beneficiaries rarely show interest in matters concerning their development, as they are accustomed to their basic lifestyle (Akua et al., 2011). There is also a view that participatory decision-making is like brainwashing to convince the participants of an idea (Cooke, 2001). Another opposing view by Chhotray (2004) posited that there are groups or social strata of people at the local level that prevents contributions of smaller groups in decision making while groups with a higher status control the program. Chotray further

stated that participatory exercise creates a sense of homogeneity, which is inaccurate, exposing the activity to the risk and unpopular decisions.

Irrespective of the criticism of the theory of participation, it is essential to recognize the overarching benefits to the people, especially the poor in the society; participation in the policy process or decision making is still regarded by many as a better option because of the collective agreement on the final choice or decision. Communities could have more sense of ownership in development programs because they are responsible for their choice. However, the experience of the people concerned in this study would help to establish the argument from the specificity of the cassava value chain. In a shared, interconnected world, stakeholder analysis is vital in decision making because there is rarely an issue that does not involve individuals, groups, organizations, and other civil society actors; hence, its concurrence with the empowered participatory governance theories (Okosun, 2017).

Literature Review Related to Key Variables and Concepts

In this section, literature on critical variables of participatory policy-making and sustainable agricultural development were used for better understanding. The themes I used in this literature review are agricultural development in Nigeria, agricultural policies, participation, policy process, and sustainable development. Below are the themes regarding the relationship between participatory policy process as key to sustainable agricultural development.

Sustainable development uses resources to meet humans' economic, social, and environmental needs while protecting the present and future generations (Michael, 2016).

Theoretical propositions and empirical studies have found a participatory approach in development programs to contribute to sustainable development (Ayinde et al, 2016; Chambers, 2016). The United Nations General Assembly in 2015 adopted the agenda for sustainable development to address the future of the world with 17 sustainable development goals. This aim was to lift over 800 million people out of poverty with \$1.25 earning per day and one in every nine people who still go to bed hungry. Sustainable Goals 1 and 2, eliminating poverty and attaining 'zero hunger by the year 2030 (United Nations, 2015), fit very well with the expected impacts of sustainable growth of the cassava sector in Nigeria.

A policy process is an interinstitutional activity involving a variety of institutional and non-institution-based actors interacting toward a common goal: government policy, that is, frameworks governing governmental action, legislation, and program and budget development (Michael, 2013). The policy-making process is the steps taken in the formulation of the policy after identifying the need for a policy (WHO, 2005).

Participation is the involvement and association by individuals or groups in the decision and implementation of activities. Community participation encourages interactions among people who share common problems and collectively choose to solve the problems or provide for their needs (Ofuoku, 2011). In the case of the cassava industry, the NCGA exists at all levels of government. There are the national, state, and local government levels. The cassava association is a community of stakeholders with a common interest. The theme participation policy process' can catalyse the attainment of sustainable development in the industry because stakeholders will uphold the ownership

and protection of policies and programs. Participation also involves consensus building, where the public engages, negotiates, and agrees on generally accepted decisions. Some reasons for participatory policy can be: (a) the need for the help of the public, (b) the need for the advice of the public, (c) the need for the buy-in of the public, and (d) the need for consensus building to prevent or address conflicts.

Where the people concerned or beneficiaries of the program are active, they come together to achieve the desired objective. Some advocates of participatory development established a relationship between participation and the empowerment process for disadvantaged groups in society, especially those without a voice to contribute. That participation influence enhances. Promote the role and contribution of the people in community development with impact on empowerment, accountability, transparency, and substantial social capital (Osmani, 2006).

Participatory Policy and Sustainable Development

The theory of participatory development postulated by Chambers (2001) established a significant correlation between the participation of the stakeholders or the concerned in the policy design and implementation and the sustainability of the program/policy. The correlation is from the notion that the deliberations could generate the stakeholders' problems and solutions because of the adequate knowledge of the environment. The collective adoption of the SDGs at the United Nations General Assembly in 2015 followed the same direction to address the world's future with 17 development goals. SDG 1 and 2 are eliminating poverty and attaining zero hunger by 2030 (United Nations, 2015).

Specifically, Goal 1 was to lift over 800 million people out of poverty, those who earn \$1.25 per day, and the second goal was to attain zero hunger by 2030. Chambers (2012) posited that participation helps build a knowledge base and the success of the development programs, while Michael (2013) supported the argument that a participatory diagnosis of problems is key to identifying and offering solutions. Participation of stakeholders in the development agenda encourages interpersonal and creative sharing of experiences and knowledge. It brings about new opinions, ideas, and inputs with personal knowledge.

The main crux of these arguments is a significant relationship between participatory policymaking and sustainable agricultural development (Manyong et al., 2013). That feasible development is not possible without the contribution and the participation of the people affected or the vulnerable in decision making and sourcing the solution to the problem (Avila et al., 2005). Getting people to participate in decisions concerning their livelihood can build positive and collective will to solve their collective problem. In Nigeria, the cassava association works together and usually more when the government provides some support for their common interest such as inputs and other fiscal policy support. They participate in government decisions, but the extent is unknown; hence, this research investigates the extent of the policy instability and sustainable growth of agriculture.

It is essential to consider some empirical studies to gain in-depth knowledge of how participation has played out in different programs and projects at both the community and the government levels. Demenongu et al. (2014) investigated the extent

of awareness and understanding of the level of participation of farmers in the policy process and the effect of government agricultural policies and reforms. Demenongu et al. adopted a quantitative research design with structured questionnaires administered among 110 respondents. The study revealed that farmers only participated in problem identification and implementation stages but were left out of other stages such as formulation, legitimization, and monitoring. The result also revealed that insufficient time available, inconsistent agricultural policies, poor extension services, and corruption in government were factors limiting the implementation and monitoring of policies in agriculture. In future policies, farmers should be fully involved, that is, at all stages, to enhance understanding and sustainability of the policies. Discontinuity of policies should be discouraged, especially when the policies are generally accepted and are thriving. This study on cassava farmers' experience will throw more light into their participation in policymaking and the resultant effect on their industry's policy stability and sustainability development.

Another empirical study by Ananga (2015) on stakeholder participation evaluated the role of community participation in a water project in Kisumu, Kenya. Ananga investigated the impact of community participation on the production and management of a water project, anchored on the theory of community participation. Ananga aimed to fill the gap of knowledge in theory by contributing to development efforts. Ananga studied four existing water projects established by an international NGO, Aid in Africa International, in conjunction with the four communities. There were three research questions in the study: (a) what is the relationship between community participation and

beneficiary satisfaction with the work of the water management committees in the four water projects?; (b) what are the contributions (positively or negatively) of community participants to the production of clean, potable water supplies in the informal settlements?; and (c) What are the participation-related factors affecting the performance of the schemes?

Ananga (2015) employed a mixed-methods approach to answer Questions 1 and 2 and a qualitative approach to answer Question 3. In the qualitative section, Ananga adopted interviews, focus group discussions, records, and observations. He concluded that community participation is a workable approach for water schemes and maintaining water quality. This study revealed the impact of participatory efforts on the sustainability of the water project. From similar community perspectives, an empirical study on participatory development strategy by Kimenyi et al. (2014) evaluated a community-driven development project in Nigeria's Niger Delta Region. The project was initiated by the Akassa Development Foundation, co-funded by the Nigerian Institute of Social and Economic Research, AGI, and Partnerships Initiatives for the Niger Delta.

The quantitative study identified and documented major hindrances to community development and economic growth in the Niger Delta, including the factors for the success of development programs in the region. The result identified the community's involvement in the design and implementation of the project as a success factor. 98% of respondents were aware of the Akassa Development Foundation, and 56% revealed that they and their households were involved in the project. Also, 97% of the respondents

confirmed that there was significant participation of the community in the project management and its operations.

Finally, 92% of the respondents confirmed that their degree of participation in the project was satisfactory and sufficient. The study's emphasis on the collective choice arrangement model or a participatory approach showed a successful participatory model of a program. This model result is different from the outcome of Obisesan's (2018) work, which is in line with Akua et al. (2011) on participatory development. That participation does not stand alone, but some other factors also influence participation. In the case of Nigerian farmers, the average age is 60 years, not highly educated but have broad experience to participate in decision making. However, the selection of sample participants will consider the point.

In the same vein of the participatory program and the effect on the program's sustainability, Obadire 2014, carried out the Index Analysis for Comprehensive Rural Development Program (CRDP) at Muyexe in Limpopo province, South Africa. A quantitative research design was applied, with 300 respondents. The study revealed that beneficiaries recorded increased food production; hence, they were food secured. Many of the pre CRDP interventions had collapsed or barely survived or majorly relied on government funding support. The condition had to do with the gaps of involving the stakeholders or non-role definitions. Involvement and identification of roles of key stakeholders was a success factor of multilevel projects such as CRDP. Culture and tribal control also influence the understanding of stakeholders, while the initial seed fund helped build the will of participation.

The power relation and management among the stakeholders in the projects equally established the importance of stakeholders in the design and implementation of programs. The ability to manage conflicts, execute programs, and create a sense of ownership helps build the program's sustainability. Through a quantitative study, the relationship between the participation of cassava farmers in agricultural programs and attainment of food security by Obisesan (2018). Obisesan investigated the nexus between cassava farmers' participation in the market and food security in the southwest region of Nigeria. Data were analysed using descriptive statistics and Thorbecke (FGT) indices and Tobit and logit regression models. The result showed that 61% of farmers that participated in the market were food insecure with an annual income of N20, 132.20. The result revealed a significant relationship between cassava farmers' participation in the market and their level of food security. However, participation in the market alone could not ensure food security for the sample population, but other factors influence it. That the level of participation of cassava farmers were factors of their educational level, the experience of farming, availability of transportation, age, market information, and membership of farmers' associations. In a community where the members are ready to participate in a program, other factors may prevent them, which will impact the attainment of the goal.

Food security also is dependent on factors such as degree of participation in the market, income, productivity of the farm, household size, gender, degree of access to finance, and market information. One could deduce that the factors that affected their market participation can be in the future study. The gap here is the generalization of the

farmers without categorization according to educational level. The following sections of this chapter comprised an overview of the agricultural policy environment in Nigeria and the critical concerns of the stakeholders in specific policy areas. The section also contains the agricultural policy issues, the cassava industry in Nigeria, including the potentials of the industry, and reviews of some policies and programs for better understanding of the reader better and justify this study.

Historical Perspective of Agricultural Policy and Programs in Nigeria

The agricultural history of Nigeria presented a good outlook in the early 1950s until the discovery of oil in commercial quantities in the mid-1970s, the point regarded as its departure point, which accounted for the policy neglect of the sector that triggered off a downward trend in the growth of the sector (Anyanwu et al., 2013). The effect of this neglect was a decline in food and cash crop production and agricultural foreign exchange earnings. Between the late 1970s and the early 1980s, the contribution of agriculture to total GDP plummeted to 18.02%, while agricultural export earnings went down to 4.60% (Otekunrin et al., 2017). As the situation became more severe in the early 1980s, successive governments rolled out made several efforts to revive the sector over the past four decades, and these are as follows:

- The National Accelerated Food Production Program of 1972. This program had the objective of farm efficiency in food crop production. The associated policy instruments were subsidy- and credit-adaptive research and demonstration.

- Operation Feed the Nation of 1976 had the objective of increasing food production. Its policy instrument was mass mobilization and awareness.
- The River Basin and Rural Development Program of 1976 aimed to tap bodies of water for irrigation and year-round farming, enhance fishery and food production, and control erosion and floods in prone areas.
- The Green Revolution of 1980. The civilian administration of President Sheu Shagari launched this program. It aimed to ensure food security and industrial development through increased agricultural production. The other objective was to increase food and fish production to attain self-sufficiency and supplies to export. The federal government program provided inputs for farmers, irrigation mechanisms, and financial aid with market access. The policy failed to achieve its objectives because of bureaucracy and slow implementation, and poor monitoring and evaluation to follow up on the program.
- The Agricultural Development Project (ADP) had its pilot in 1985. Its objectives were to improve food production and the livelihoods of small-scale rural households through enhanced technical and economic support. The agricultural development program aimed to scale up the government's efforts in the subsectors of agriculture and to use the training and visit system of extension services. The ADP to date remains the viable structure for reaching farmers at the grassroots (Akpan, Patrick, & John, 2012).

- The National Fadama Development Program I, II, and III (1993-1999, 2004, and 2005) had the objective of building on the positive records of the ADP, especially for year-round farming through irrigation, using water pumps and wash bores.
- The National Fadama Development Program II of 2004 aimed to increase beneficiaries' income of the National Fadama Development Program I. The policy instrument, in this case, was the empowerment of communities (Ahmed & Phillip, 2010).
- The Roots and Tubers Expansion Program (RTEP) by International Fund for Agricultural Development (IFAD) in collaboration with the Federal Government of Nigeria with credit to the tune of 23.05 million United States Dollars (Ibrahim and Onuk, 2010, p.26-27). The objectives were to increase the production and commercialization of root crops (cassava, yam, cocoyam, potatoes, amongst others). The RTEP intervention aimed to attain food security, expand options for cheaper staple foods, and improve farm income for better livelihoods and nutrition of rural farmers. The target was to reach 5.2 million smallholder farmers (Olusegun et al. 2015. p. 333). The intervention of RTEP, with Presidential Initiatives on cassava (1999-2007), contributed to the rapid rise in cassava production and Nigeria's strategic position as the largest producer globally.
- The National Special Program for Food Security (2001-2006), which the government scaled up in 2007. This program aimed to enhance low-cost

technology for improved food production in a sustainable manner to ensure household food security. According to Dauda and Ajayi (2009), the policy instruments in use for the program were credit, extension services, and external support through South-South cooperation.

- Agricultural Transformation Agenda (2011-2015). This program aimed to scale up agriculture from the subsistence level. The government adopted the value chain approach, which supported agriculture through the entire value chain from production to processing, to marketing and up to the table.
- The Green Alternative (2016-2020). The Green Alternative is the latest and ongoing policy of the present government, tagged as the Agriculture Promotion Policy. The green alternative focused on agriculture as a business, agriculture as key to long-term economic growth and security. The program's focus is food as a human right and adopting a value chain approach through crop prioritization and market orientation. It includes climate change and environmental sustainability, participation and inclusiveness, policy integrity, nutrition-sensitive agriculture, and linkages with other sectors. The green alternative is an ongoing policy, and it has not reached a point of evaluation.

The following section took a global look at the cassava industry in Nigeria and its potentials and dealt with major agricultural policy issues as it affects specifically the cassava subsector. These significant policy issues include production inputs,

landholding/tenure system, markets, market systems, price competitiveness, and agricultural inputs. Details are in the following paragraphs.

Nigeria Cassava Industry Outlook and its Potentials

Nigeria is the largest producer of cassava globally, but the country has yet to realize the economic gains of such a strategic position. In 2019, the FAO report indicated that the total world production of cassava was 291 million metric tons (MT; FOASTAT, 2019), and about 60.8% of this was grown in Africa. Nigeria remained the largest producer in the world, with 59.4 million metric tons (20.4% of the total world production), followed by the Democratic Republic of Congo (DRC) with 31.5 million metric tons (10.83%), Thailand with 30.9 million metric tons (10.61%), Indonesia at 19 million metric tons (6.52%). Brazil comes fifth with 18.8 million metric tons (6.47%) (FAOSTAT, 2019). Cassava (*Manihot esculenta*), known as the wonder crop because it is drought-tolerant, does well in poor soils and areas with uncertain rainfall patterns, unlike other crops. Cassava, also known as the ultimate future crop and 21st-century crop because of the prospects for both food and industrial uses; one of the cheapest sources of carbohydrates and for industrial purposes. Examples of cassava derivatives are native and modified starch, glucose syrup, cassava chips for livestock feeds, and high-quality cassava flour (HQCF), which substitutes wheat for bread and other confectioneries. The substitution has implications on the import bill on wheat of Nigeria and saves foreign exchange.

The potential of cassava as an economic crop cannot be over-emphasized due to its numerous uses and the growing global demand for food and other industrial

substitutes. Nnadozie et al. (2015) undertook the study on the 'Potential of cassava in the national economy of Nigeria. The author investigated the opportunities of the cassava industry for economic development. A quantitative research methodology was adopted using simple descriptive statistics analysis. The result revealed and enumerated the crop's potential in terms of diversification of the economy, job creation, increased income to farmers, and alleviation of poverty increased food security, and foreign exchange earnings.

Specifically, the empirical data analyzed showed that the cassava subsector could increase the income of 1.8 million farmers, generate jobs, increase value chains, increase rural income, and the nation's economy. Establishing market agencies and institutionalizing interventions for sustainability and national economic development forms part of the recommendations. The potential enumerated above could be attainable in a conducive environment for growth. In the case of the Nigeria cassava industry, the industry's potential is yet to be fully understood even by the government because most political leaders failed to recognize this and its long-term benefits as a means of global political-economic tool.

In the same vein, using the open system theory, Okosun (2017) examined the relationship between cassava production and the revival of the economy of Nigeria. A quantitative methodology was employed, using secondary data and application of content analysis. The result of the study indicated that cassava production contributed the highest in food production compared to other crops. Among the other six commodities examined, such as maize, rice, plantain, sweet potatoes, yam, and others, cassava ranked highest at

21%. He then recommended the following: that boosting cassava production could help in reviving the ailing economy of Nigeria, and the cassava sector can help to increase employment, the income of farmers, enhance food security and alleviate poverty. Also, cassava as a source of raw materials for industries could boost industrialization, that cassava sector could contribute to the attainment of food self-sufficiency, and cassava production and commercialization could be a good source of foreign exchange earnings and boost foreign reserves (Awerije, 2014).

These potentials of the Nigeria cassava industry to contribute to the nations' economy remained untapped, compared to other similar cassava-growing nations such as Thailand, Vietnam, and Brazil. Over 90% of cassava produced in Nigeria is food with little for export and other industrial uses. However, with the right policy environment, the cassava industry could match up with other cassava growing countries like Thailand, Indonesia, and Brazil, which have attained sustainable development of the cassava industry. Thailand recognized this potential and used the governments and private sector institutions to promote and sustain the industry. Thailand remains the largest exporter of cassava products and controls over 86% of the world's export of cassava starch, followed by Vietnam (FAO, 2018) with cassava chips/pellets. In 2018, the FAO Food Outlook publication reported that Thailand exported 8.2 million metric tons of cassava starch out of 9.5 million metric tons, and Nigeria exported less than 1% of the total export. The fact here is that over 90% of the cassava produce in Nigeria goes as traditional food such as Gari, fufu, and others. Only 10% is exported or processed into industrial products.

Wasurat and Krissana (2017) that stability in the industry due to inclusive and protectionist policies and the building of institutions to support the industry. The Nigeria cassava sector is, however, yet to build a sustainable economic base. The situation necessitated this study to investigate the experience of the cassava stakeholder farmers as it affects their businesses and the attainment of the socioeconomic potential and proffering solutions.

From the perspective of policy instability, the cassava industry in Nigeria should also be examined alongside some related literature to determine the effect of the policy instability issue. Nwankpa's (2017) work supported this argument that the constant policy changes affect the cassava sector in the form of what is generally known as a 'cyclic glut.' In such situations, farmers may plant extensively in a year which brings about a glut, and in the following year, they desist from planting the following year, hence the scarcity that follows. The cyclic glut and scarcity persisted over time. The industry could not attain its potential, primarily associated with political changes, with an impact on productivity, distortion in the market balance, and the sector's economy (Nwankpa, 2017). The governing style was that each successive administration often developed new ideas and initiatives on agriculture, sometimes leaving the key successful commodity/is out of the priority areas of intervention. The following sections contain the specific issues in the cassava subsector to better understand and justify the study.

Market Potential of Cassava

Despite the position of Nigeria as the world's largest producer of cassava, the country is yet to realize the whole economic gains of such a strategic position. In 2017,

the report showed that the total world production of cassava was 291 million metric tons (FOASTAT, 2019), and about 60.8% of this was grown in Africa. Nigeria alone produced 59.4 million metric tons (20.4% of the total world production), FAOSTAT (2019). The review of the potential of cassava in the national economy of Nigeria by Nnadozie et al. (2015) revealed that the cassava industry has the potential for creating 1.8 million jobs, ensuring food security, increasing farmers' income, foreign exchange earnings, amongst others. The position of Nigeria in the world production of cassava places her in a vantage position for benefiting from the global cassava value chain. Furthermore, other economic opportunities of cassava sector rise globally because of the demand for alternative sources of energy, fuel, livestock feeds, beverages, and import substitution drive of the government of Nigeria for wheat, food (especially for gluten-free diet), as well as other industrial uses (pharmaceutical, textile, beverage, and others).

Specific examples are cassava starch, flour, glucose syrup, ethanol, chips/pellets, and other food products. Starch is the world's most traded agricultural product among all the cassava derivatives because of its vast and ever-increasing demand for functional foods, including gluten intolerant population and industrial uses (RFA, 2019). According to the Fortune Business Insight Report of 2018, the cassava starch market alone was \$40.53 billion and projected to increase to 66.84 billion by 2026. In 2018, the FAO Food Outlook publication reported that Thailand's export value of cassava starch was \$1.19 billion, representing 54% of the world's total export value. In the same year, Nigeria, the largest producer of cassava, earned a relatively meagre \$1.25million, which represented 0.05%. The increasingly global and local demand for cassava presents Nigeria

opportunity to have a fair share of the global market for natural sweeteners, food, beverages, and confectioneries. The FAO reported the world export of cassava products, and it is evident that Nigeria has not played any significant part in this, as shown in the table below.

Table 3

World's Export of Cassava (000' Tons; Product weight of chips and pellets)

	2014	2015	2016	2017
TOTAL	19, 948	22,061	21,765	21,805
Flour and Starch	9,068	9,040	9,749	9,576
Thailand	7,919	7,657	8,446	8,290
Vietnam	788	1,011	1,055	1,048
Cambodia	29	56	64	146
Others	333	316	183	93
Chips and Pellets	10, 880	13,021	12,016	12,229
Thailand	6,927	7,458	6,411	6,661
Vietnam	2,995	3,687	3,241	3,200
Cambodia	808	1,805	2,182	2,230
Others	150	150	181	137

Note. From FAOSTAT Outlook 2018.

According to the Federal Ministry of Agriculture and Rural Development (FMARD, 2015), the demand for cassava products per annum in Nigeria ranged from livestock feeds 30,000 metric tons; cassava grits; high fructose syrup 45,000 metric tons; 150,000 metric tons for high-grade cassava starch for the food, pharmaceutical, paper industries, and others. For the high-quality cassava flour (HQCF), at a proposed 20% level of inclusion in bread and other confectioneries, Nigeria would have saved 127 billion and generated a demand of 5.2 million metric tons of raw cassava roots from the domestic market. These are some of the opportunities of the cassava industry for the

value chains of cassava, which can boost production, productivity, income, the rural economy, and the overall economy of the country (Nnadozie et al., 2015).

Government Direct Interventions on Cassava

Several direct and indirect attempts made in the past by different administrations to develop the cassava subsector included the 2001 Root and Tuber Expansion Program (RTEP), the presidential initiatives on cassava (2003-2007), the Cassava Transformation Program, under the umbrella Agricultural Transformation Agenda (ATA 2011-2015). The funding of the RTEP intervention in 2001 was by the International Fund for Agricultural Development (IFAD). The intervention raised the volume of cassava production in Nigeria and gave it prominence as a commercial crop. The increase in productivity per hectare ranged from 13.00 to 18.52 metric tons during this period and placed Nigeria in a strategic position as the largest producer of cassava in the world (FAO, 2013, Okoruwa et al., 2015). The evaluation of the program by Olusegun et al. (2015) was through the assessment of the ex-post impact of the RTEP in rural south-west Nigeria. The evaluation of the ex-post impact was on farmers' participation in RTEP, productivity, income, and poverty index in rural south-west Nigeria? A qualitative research design using Foster-Green-Thorbecke (FGT) poverty measure and propensity score matching techniques. The report of the study established the following: poverty incidence is higher by 23% among non-participants than the beneficiaries; the yield per hectare increased from 13 to 18 metric tonnes per ha; income per hectare increased from N39, 705 to N42, 133 (\$198 to \$211) and Poverty among the participants reduced by 5% to 20%.

Finally, the program increased roots and tuber crops production, increased productivity, increased income, and poverty reduction among the participant farmers. The sudden realization of these potentials generated interest among Nigerians, leading many to go back to farm. There was no consolidation in the intervention as the following program was in another section of the country. The discontinuity created a gap in measuring the effect of the intervention from general perspectives.

The subsequent intervention after RTEP was a program known as the Cassava Enterprise Development Program (CEDP), a project funded jointly by the USAID, the Shell Petroleum Development Company at a total of \$11.7 million and implemented by the International Institute of Tropical Agriculture (IITA) in collaboration with other research institutes such as National Root Crops Research Institute (NRCRI). The program was targeted at the Niger Delta region, focusing on increased productivity and incomes of over 120,000 farmer-beneficiaries and mitigating the impact of cassava mosaic disease from the eastern part of Africa toward the south-south region of Nigeria. The program helped in increasing the production/productivity as well as in the aspects of value addition. The limitation to generalizing the study result was the location specificity of the disease to a section of the country.

The Presidential Initiative followed the CEDP on Cassava by the government of Olusegun Obasanjo (1999-2007), where the policy of 10% inclusion of high-quality cassava flour in bread and other confectioneries had prominence. The policy was to open market opportunities for cassava, improve farmers' income and maintain sustainable growth of the sector. The presidential initiatives were highly popularised and promoted

on various media and sensitization programs. The evaluation of the program by Emmanuel et al. (2017) was the impact of the Presidential Cassava Initiative (PCI) on Cassava productivity in Nigeria: Implication for sustainable food supply and food security. Using the Production Theory, Emmanuel et al. (2017) adopted the quantitative research design using time series data of cassava production (1961-2013), land area for cassava, food production index, and food adequacy index.

The result revealed the following: that the mean difference in the output of cassava before and after the intervention was 27.5 million metric tonnes and was statistically significant at 1%; that the presidential initiative on cassava contributed significantly to the development of the cassava sector in Nigeria; there was an increase in the application of mechanization and use of fertilizer post PCI; the program had a positive impact on food production and PCI not only increased cassava production but also increased national food security that the program could be up-scaled to boost rural development; that future program to include an exit strategy for continuity and monitoring and evaluation. The gap in this study is the absence of the socioeconomic benefits of the initiatives among the beneficiaries. The study did not also indicate the involvement of the beneficiaries in the program planning. A qualitative study may further dwell into the pre and post-implementation socioeconomic status of the beneficiaries and their experience on participation in the program planning.

However, despite the advantages and the increased level of food security, the policy was discontinued for half of the era of the next administration of late President Sheu Yar'ardua, who virtually abandoned the idea until the next administration of

President Good Luck Jonathan 2011-2015 took over and revived the initiative. During this period, there was restored attention, funding support, and favorable fiscal policies on the cassava industry and other vital commodities. All the inputs encouraged private sector investment and import substitution, and alternative local content for wheat consumption. The federal government created a boost in the local production of cassava and provided support for other actors in value addition through the funding support of N10 billion (\$59.5 million). The fund was disbursed through the Bank of Industry, Bank of Agriculture, and other Institutions to support the key players in the industry, such as farmers, processors, and the master bakers. As extensive and result-focused as it was, the program did not live beyond the initiator because the achievements were not recognized and followed up.

As of 2015, there was a sharp rise in private sector investment mainly due to the awareness created of the embedded opportunities as a commercial crop, funding support, the derivatives, local markets, and the foreign exchange window. Some of the private sector investments that emerged were native and modified starch, high-quality cassava flour, cassava-based ethanol, food products. However, the administration of Mohamad Buhari truncated these interventions in 2015, especially the cassava subsector, as there was a noticeable lowering of the tempo of interest, while the hitherto promotion and government support were reversed (Nwankpa, 2017). Nwankpa (2017) further revealed the lack of monitoring of the beneficiaries, including the bakers, the processors, and farmers. Consequently, there was a reduction in attention on the sector, and the much-

enjoyed government policy support collapsed. The result of this study may help to reveal the experiences of cassava farmers in this regard.

Apart from the few established investments in the private sector (Psaltry International, Niji Foods, Eko Cassava, Flour Mills of Nigeria, amongst others), other upcoming players were discouraged because markets became unpredictable. The fluctuations in the markets and macro-economic policies affect the market-driven development of the cassava industry. The change in the ministry's leadership in 2015 caused a change in the policy direction on cassava, with a substantial gap in the sectoral performance. It was disheartening to some key players in the industry who hitherto regarded this as an excellent opportunity for investment. This qualitative study may provide the detailed experiences of the farmers for records and future policy planning of the government.

Agricultural Inputs Policy and Issues of Corruption

Poor access and affordability of the production inputs has consistently remained a problem of farmers, including the cassava farmers, due to the poor inputs procurement and distribution system driven majorly by the government. Corruption in the public system has become endemic. It manifests in the lack of financial discipline at different tiers of government, with public officials misappropriating, diverting, and embezzling public funds. This problem hinders development efforts at all levels and in different sectors of the economy. In the agricultural sector, the input policy system also paved the way for inefficiency and all forms of abuse. In the study carried out by Afolabi (2018) on the impact on fertilizer distribution policy and the productivity of peasant farmers in

Kwara state, there was a revelation on a corruption fraught input distribution system and diversion of the inputs. The government's subsidy provision benefited only the suppliers as the products were diverted to the neighboring countries and sold at exorbitant prices. In contrast, the subsidy reached only 11% of the farmers who were the subsidy's actual target beneficiaries (Afolabi,2018).

The same argument was made by Godson-Ibeji (2016) who posited that agricultural inputs, which are the primary and first commodity in the supply chains, became the main avenue of corruption in the system. Over time, the intervention of governments in subsidy, procurement, and distribution of fertilizers did not provide the suitable climate for the private sector play and liberalization of the business environment. The complaints from the local fertilizers producers and suppliers were that the subsidies distorted the regular market price, hence, became non-profitable for them. Godson-Ibeji (2016) stressed that the sector is fraught with inefficiencies, fraud, discrepancies, and embezzlement.

For instance, Adesina (2013) reported that his study on fertilizer distribution in Nigeria revealed that the inputs, like fertilizer, procured with public funds entered the country from one end and diverted to neighboring countries from the other end and sold at high prices. The practice makes the nation lose more to the fertilizer and inputs suppliers who gain from both ends. The practice creates a lack of or inadequate use of fertilizer within the country, which affects the productivity of cassava and the final production cost, with a negative impact on price competitiveness. Nigeria's average fertilizer consumption in 2016 was 5.5kg/ha, which was still far below the world average

of 141kg/ha (World Bank, 2016). The is advocacy for the liberalization of the inputs procurement and distribution to allow the markets forces to play. Until there is system liberalization, the industry will be at the wimps and caprices of the middlemen, to the detriment of the intended beneficiaries.

The loss in the fertilizer industry due to corruption and lack of transparency has been enormous. Nigeria lost about 776 billion naira to corruption in the fertilizer subsector between 1980 and 2010, about 26.35 billion naira annually (Adesina, 2014). The corruption brought hardships to farmers, including cassava farmers, impacting the low fertilizer use rate compared to the other industrialized nations. The corruption in the inputs procurement and distribution became a cause of concern to the government of President Goodluck Jonathan. So, initiated private sector-led policies on inputs which halted the government's procurement and distribution of fertilizers and paved the way for the private sector to drive the process (2011-2015) through the leadership in the Federal Ministry of Agriculture (2011-2015), Adesina. Some incentives and windows of credit from the commercial bank, which was difficult, were opened to the private sector. A risk-sharing arrangement backed the commercial banks through an innovation known as the Nigerian Incentive-Based Risk Sharing Agricultural Lending (NIRSAL; Adesina, 2014), which was a risk-sharing arrangement.

Between 2011 and 2015, the private sector-led the essential inputs supply to the farmers, with networks of local agro dealers that sold inputs at village levels. The government of Muhammadu Buhari discontinued the policy in 2015, and it was back to the old inefficient and corrupt inputs system (Nwankpa, 2017). The lack of easy access

and the high cost of these inputs contribute to the higher production cost and lack of competitiveness in the price of cassava and other agricultural commodities, thereby limiting Nigeria's opportunity in the global trade of cassava. The farmers found an easy way through traditional food production rather than other commercial purposes. This system helped and continues to support the development of the sector for the agricultural value chains.

Land Policy Issues in Agriculture/Cassava

Landholding policy is an area of interest in the sustainable development dialogue. The general fragmentations of agricultural land and prevalence of smallholder farmers hinder Nigeria's expansion and growth. According to Udoekanem et al. (2014), the land use Act of 1978 was enacted to unite and regulate land ownership, with the control resting on the State Governors. The Land Use Act proclaimed the power of control on the Governors on the use, ownership, and development of land and to issue land documents for 99 years lease. According to Udoekanem et al., the power vested in the state Governors limits the private sector's access to land and impedes the private sector-driven development of agriculture. The impediment and other problems, including bureaucracy and corruption in processing the land title documentation, encumbers its use as collateral for loans and other financial opportunities. Hence, farmers and other agricultural stakeholders could not easily access credit for the development or expansion of the businesses. To this end, the Act has become a hindrance to economic development where only 23.1% of the total households in Nigeria own land legally (Udoekanem et al., 2014).

The landholding of farmers is often a determinant of the volume of production and productivity. Even though the size of land should not be a factor of volume of production, but usually determined by the market situation of cassava and other competing commodities. Jerumeh et al. (2018) investigated the transition of farm size of cassava-based farmers in Nigeria, examining what influences changes in farm size by cassava-based farmers. The research questions were as follows: What were the factors that influenced farm size transition? What were the factors that influence land holding among cassava-based farmers in Nigeria? The researcher adopted a quantitative research design with secondary data from Living Standard Measurement Sources (LSMS) and Integrated Survey Agriculture (ISA) from 2015/2016. A total of 271 cassava-based farmer respondents were selected, using descriptive statistics, Markov chain process, and a random effect Poisson model for the analysis.

The result showed that out of the 271 respondents, 237 were small-scale farmers who produced in 2010/2011 and remained in business till 2015/2016, but only 8 and 4 farmers expanded to medium and large scale, respectively. Cassava-based farmers leaned toward small land holding for cassava and even, some medium or large scale also tend to shift to small landholding. Those cassava-based farmers prefer to remain small rather than upscaling their farm size without a market. More economically and development-oriented land and fiscal policies are necessary to allow for sustainable cassava industry development to meet the demand of the emerging markets with a value chain strategy to reduce post-harvest loss and remove cyclic gluts.

Technology Issues and Post-Harvest Losses in Cassava

Because of the highly perishable nature of cassava, the farmers tend to sell raw out of panic than adding value, hence, the choice to remain at small scale farmers. The cassava farmers face a challenge of poor access to technology, policy unpredictability, and value addition, hence, their skepticism in expanding their production capacity. This situation was due to the government's lack of attention on the cassava industry, poor technology, and rural infrastructure. The situation also contributes to the difficulty in transporting the bulky cassava roots from the farm to the processing centers. The deplorable state of rural roads and other infrastructures such as water, electricity, technology, and markets make value addition to cassava and movement to the market a challenge in the industry. Because the cassava roots must go through value addition within 24 to 48 hours after harvest, most times, the condition of the roads and the poor rural transport system hinders the action, hence the spoilage of the roots. The general state of Nigerian roads could derail even good policies because if the products fail to reach the market, the efforts become fruitless. The concern of the stakeholders is the impunity at which the policies change without consultations. The heads of affairs at the ministry concerned follow the initiatives and body language of the top leadership. The inconsistency of the policy usually harms the efforts to transform the sector because some of these factors remained unattended. The right economic environment for value chain development and markets policy for the sustainable growth of the sector like we have in Thailand's cassava industry can benefit Nigeria (Wasurat & Krissana, 2017).

Issue of Price Policy and Competitiveness

Lack of competitiveness is a critical economic issue that affects the sustainability of Nigerian agriculture, with specific reference to the cassava industry. Lack of competitiveness is one of the critical challenges in the cassava industry: the lack of price competitiveness, high cost of production, low productivity, lack of post-harvest technologies, and poor access to affordable production inputs. The fluctuation in the cost of production inputs is often associated with a continuous change in inputs procurement and distribution policies, which is tainted with corruption (Odo, 2015). From the perspectives of the international political economy, Nigeria must ensure a well-articulated, protectionist agricultural policy with a package of incentives to support the stakeholders and private sector investors in sustaining the gains of their efforts (Amalu, 2018). Many empirical studies relating to policy instability and participation of farmers in the policy process, as it relates to the global competitiveness of agricultural commodities, were carried out and will be relayed in the subsequent sections of this chapter.

From the global agricultural trade perspective, WTO trade policies have not favored developing nations. While the developing nations grapple with the high cost of agricultural commodities, including cassava, which made global market competition difficult, the farmers in the economically advanced nations enjoyed subsidies and other grants, thereby creating an unlevelled playing ground for all. For example, cassava starch is receiving more global demand because of the rising consumption of functional foods, rising gluten intolerant population, and substituting cassava starch in various cereals and snacks. Emeka et al. (2020) argued that the WTO and trade policies on some essential

agricultural commodities are unfavorable to the developing world, especially the West African subregion, because the trade policy only favored the highly industrialized countries. According to Emeka et al. (2020), this situation leads to the dumping of cheap goods into the sub-region. The agricultural policy outlook of the developing world with regards to global and local markets of agricultural produce needs review to allow a level playing ground. In this regard, the developing world, especially Sub-Saharan Africa, needs to examine the common issues and address them. One of such is the issue of infrastructure and inputs, which contribute to the cost of production and lack of global market competitiveness. A more protective policy is necessary for the macro-economic environment for improved local food production and self-sufficiency foreign exchange savings. There was also quality, standards, and tariffs unfavorable to the developing nations, especially the West African subregion.

Another study by Etuk et al. (2017) on the trade liberalization policy distorted the production pattern and marketing opportunities of the African agricultural commodities, including cassava. Etuk et al. also analyzed the trade liberalization policies on the agricultural output (1960-2014). That is, determining how the trade liberalization policies impact agricultural output (GDP) level during this period. The author expressed the openness of the global market as a result of trade liberalization policy allows for the influx of cheap products to the developing world to the detriment of their economies. A quantitative design was adopted with Time series data collected from Issues and publications of the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS). Use of descriptive statistics and inferential statistics with co-integration and error

correction models for the data analysis. The result showed the t_{cal} (4.5146) and t_{crit} (2.0484) at a 5% significance level.

The report says that the mean agricultural output before and after the liberalization policies differed; there was a significant difference in agricultural output between the two periods. The shift in the production level between these two periods explained that the developing world was better off before the era than after the era because the policy only did more damage to the economies of these nations than good. The damage was the openness in trade which gave rise to an unfavorable foreign exchange rate and consequential reduction in agricultural output in both the short and long run because of the influx of cheaper products. In the next section, I reviewed the agricultural landscape in Nigeria from the review of policies and programs of government over the past 4 decades.

Agricultural Policies and Programs Empirical Studies

The government's efforts in revamping the agricultural sector did not translate to economic advantage for the country. Each government administration tried to introduce different policies and programs without consideration for the merits of the former programs. These changes are evident from different empirical studies carried out to evaluate some of the programs. For example, Okunola (2016) analyzed some agricultural policies and programs of the government in Nigeria, using quantitative research design, with Times series and other secondary data. The analysis of data, using descriptive statistics, revealed that inconsistency in agricultural policies and programs remains a significant problem for the attainment of agricultural development and food security.

Another recent government intervention policy was the e-input distribution policy of the government of Jonathan (2011-2015), known as the e-wallet system, aimed to reduce corruption in the distribution of the inputs of the agricultural sector. Godson-Ibeji et al. (2016) assessed the effect of the e-wallet program of input distribution to farmers in Imo State. A qualitative research design was adopted with 180 farmers selected through the multistage sampling technique. Analysis of the data collected was descriptive statistics tools, frequency distribution, and percentages.

The study results showed the mean average age of participants as 45.5 years who cultivated rice, cocoyam, yam, cassava, vegetables, plantain, and maize, and all the beneficiaries had mobile phones. The result also showed that the beneficiaries had increased output (90%); swift accessibility to the following: improved and subsidized inputs 97.5%; seeds 80%; fertilizers 87.5%. Maize production increased by 67%, and there was renewed confidence in the government program, 67.5%, but only 10% of the beneficiaries increased their farm size. This study indicated that reducing corruptive tendencies in the input distribution impacted access to inputs, productivity, production volume, and income, hence the positive records. Again, the issue of policy instability played out when the new government came in in 2015 and reversed all the inputs system without looking at the system's merits. For instance, maize production decreased in 2020 to the extent that it met not the local demand. The low production volume was attributable to the global health pandemic of COVID-19, the local problem of terrorists, and the farmers-herders conflict, which scared many farmers from the farms. Recently, the federal government raised importing maize to meet the shortfall of food, poultry and

livestock feeds, and other industrial uses. The farmers are usually left in the cold because they seldom play any role in policymaking.

Lencucha et al. (2020) examined the relationship between government policy and agricultural production, namely, the types of government policies and programs that facilitate changes in agricultural production, crop substitution, and other off-farm areas. A quantitative research design was adopted, with mostly secondary data and some primary data from 103 articles used for the study. The analysis revealed that four factors shaped the government policy decision: economics 46%, political 10%, environmental 13%, and social 32%. However, education, inputs, price support, and finance impact the production of agricultural commodities, and policy changes affect inputs support which impacts agricultural production and productivity. In such a situation where economic issues formed the major policy decision according to this study, then there is a need for the government to provide the enabling environment for the private sector and the critical stakeholders for sustainable development of the sector.

In its drive for economic diversification, cassava stands a better change amongst others in the agricultural sector. Oluwafemi (2017), in a peer-reviewed article, affirmed that the lack of predictability of agricultural policies in Nigeria from succeeding governments affects the investment climate for agriculture. The study also established that despite the recent intervention of the Agricultural Transformation Agenda (ATA), which was regarded as a private sector-led initiative and executed to make an unprecedented change, Nigeria still imports food products, which dwindles foreign exchange earnings. From the food security point of view, inconsistency in policy and

governance contributed to the lack of attainment of self-sufficiency in food production compared to the country's potential in attaining food self-sufficiency.

Olusegun et al. (2015) assessed the ex-post impact of the Root and Tubers Expansion Program (RTEP) in rural south-west Nigeria in terms of the ex-post impact of farmers' participation in RTEP on the farmers; productivity, income, and poverty in rural south-west Nigeria. A qualitative research design using Foster-Green-Thorbecke (FGT) poverty measure and propensity score matching techniques were adopted. The study's report established that poverty incidence is higher by 23% among non-participants than the beneficiaries, yield per hectare increased from 13 to 18 metric tonnes per ha, income per hectare increased from N39, 705 to N42, 133 (\$198 to \$211). Poverty among the participants reduced from 20% to 5%.

Finally, the program increased roots and tuber crops production, increased productivity, increased income, and poverty reduction among the participant farmers. The development of the cassava industry in Nigeria remains constantly affected by a change in government and the consequent change in policy direction. Hence, if sustained, the success recorded in the RTEP could have led to more investment of the private sector and the country excelling in the global cassava value chain and exports.

The National Program for Food Security (NSPF S) was one of the major government programs to ensure household food security. This program was initiated in 2000 by the government of Olusegun Obasanjo. The first phase was funded solely by the federal government of Nigeria to the tune of \$45 million (2000-2006). The evaluation of the program by Ephraim & Arene (2015) aimed to identify, evaluate, and describe the

socioeconomic characteristics of the beneficiaries and non-beneficiaries. There were five research questions and are as follows: (a) what are the factors that influenced farmer's participation in the NSPFS?, (b) what is the net farm income of beneficiaries and non-beneficiaries before and after the program intervention?, (c) what are the socioeconomic characteristics of the project beneficiaries and non-beneficiaries?, (d) what is the impact on the income of NSPFS beneficiaries and nonbeneficiaries?, and (e) What are the identified problems or challenges encountered by the farmers that participated in the NSPFS program? Primary and secondary data were collected, including the NSPFS office, which served as a baseline. Use of Descriptive statistics, probit model, multiple regression, and double diff method. The result revealed that net income was significant at 1% with a t-value of 3.86 of beneficiaries; that there was a positive mean difference of about N243, 299. Socioeconomic characteristics influence the income and productivity of the respondents; that is, there was a significant difference between the socioeconomic characteristics of NSPFS program beneficiaries and the nonbeneficiaries. The NSPFS has a positive impact on the productivity, income, and net income of the beneficiaries. However, there were observations and challenges, including the fact that not all farmers participated in the program in the study area, inefficient input distribution, lack of adequate finance by the farmers. In addition, nonmembership and lack of trust in government programs caused the non-participation of some farmers. In addition, there was a need for more project broader outreach, future NSPFS intervention to expand to more smallholder farmers, and sensitization and awareness among the general farming population. Paradoxically, despite all these efforts, each administration had to face the

challenges of food insecurity, unemployment, and poor growth of the nation's industries. This same program was derailed and discontinued by the subsequent political administration, repeating the same phenomenon.

Speaking from failures of policies, in terms of the gaps in collaboration and non-inclusive development, the government at different levels failed to coordinate agricultural programs in such a way as to prevent duplication of programs and ensure the sustainability of such to attain the goals of food security and export. Iwuchukwu and Igbokwe (2012) reported that policies and programs failed because each successive administration did not follow through with most policies. The situation manifested in poor collaboration or synergy among the three tiers of government, poor policy implementation, duplication of programs, gaps between government or the policy implementers and the target beneficiaries.

However, this study is different from that of Iwuchukwu and Igbokwe. At the same time, Iwuchukwu and Igbokwe dwelt on the general agricultural policies, using a quantitative methodology; my study is a descriptive case study centered explicitly on the cassava industry. The participants were mainly cassava farmers in the Ikorodu Local government area of Lagos State. I also depend on the participants' perceptions to determine the result of the study. Nevertheless, the contributions of these authors connote that effective involvement of the stakeholders would have limited the ongoing changes in policy direction or brought them to be part of the change as and when necessary. A sustainable agricultural system coupled with the right policy environment, inclusive and

participatory decisions for the benefit of all stakeholders is germane to the socioeconomic development of the country.

The Issue of Policy Implementation

The issue of poor policy implementation as a factor militating against stability in government policies and programs has always been on the agenda of discussion in many fora. Most times, the government proffers good policies, but the implementation problem sometimes begins with the release of funds, inadequate funding, bureaucratic bottlenecks, and lack of understanding of the stakeholders. Kingsley (2018) viewed the sustainability of agriculture in Nigeria from the angle of poor implementation and failure of the Nigerian agricultural policies. Kingsley posited that, problems such as inconsistency in governance, corruption, resource-poor nature of farmers, poor access to finance, over-reliance on oil revenue, inconsistent agricultural policy formulation and implementation lead to poor policy implementation. The above points claim that a resource-poor farmer will not access the right inputs to achieve optimum agricultural production and productivity.

Corruption, unstable and unpredictability deny potential investors of the stable investment climate for agricultural business, with consequences on farmers' sustainable production, food security, income, and rural development. From a historical perspective, the drivers of agriculture in the 1950s and 1960s considered the critical infrastructure, technical knowledge, logistics, and all other cross-cutting issues to create a good economic environment for sustainable development. The right policies will lead toward

the development of the sector. During the era, agriculture was the mainstay of Nigeria's economy before discovering oil in commercial quantities.

The neglect of the sector resulted in many consequences, which are currently challenging to reverse. Nigeria lost some enviable positions in the world production of agricultural commodities, such as oil-palm, groundnuts, cocoa, and rubber, to another country. Such is the case with the cassava industry, where the potential of Nigeria as the largest producer of cassava remains untapped. At the same time, Thailand, which is trailing behind at number two, contributed over 84% of the world cassava products exported in 2017.

Wasurat and Krissana (2017) investigated the factors propelling stability in Thailand cassava industry in terms of production, the economy, and the environment. A qualitative research design was adopted, and the study covered two central cassava provinces of Thailand. An in-depth interview of actors and stakeholders in the value chain of cassava such as Tapioca trade association (TTA), cooperatives, financial institutions and government, farmers, processors of pellets, starch, chips, and extension officials., using both internal-external analyses. The report revealed that the success factors was the support by the consortium of Thai government, the Thai Tapioca Trade Association (TTTA), Thai agricultural finance institutions (Bank of Agriculture and Agricultural cooperatives (BAAC), cooperative groups, provided the backstopping of funds, technology, and information for the farmers. The BAAC provided cheap loans to farmers; the TTTA provided the backup to the processors to market cassava and cassava products. In addition, the industry is structured around the actors in the value and supply

chain with role specificity. Sales of the products were by choice of economic gain and nearness to the market, unlike the large-scale processors with less choice in terms of quality.

The challenges reported in the Thai cassava sector were both internal and external. For example, drought was the main threat to the industry, but the Thai policy on the local content of cassava products affected the Thai cassava exports. The majority of the cassava products from Thai go to China (about 90% of the Thai cassava export). According to the authors, despite the challenges, Thailand showed better performances in production and productivity, even being the world's 2nd producer of cassava. Again, the level of stability of the Thai cassava industry largely depends on the commodity's economic advantage.

The Role of States in Policy Implementation

States' involvement in providing guidance and a conducive environment to economic development is another factor in sustainable development dialogue. The direction and standards of policy directly impact the economy, including the agricultural sector of the economy. In Nigeria, agriculture is on the concurrent legislative list, which spelled out the roles of the three tiers of government. The federal government faces with policy and funding of agriculture. These roles could also be at the sub-national level in concurrence. However, the federal government often championed agricultural programs and projects, even though the implementation is at a state or local level. Agricultural funding is majorly from the federal government. This has indirectly transferred the concurrent funding of agriculture to the federal government, the domineering role of the

federal government in driving the sector. Despite the situation, agricultural funding is still meager than the Malabo declaration of 10% of budgetary allocation agreed upon by the African leaders in 2003; Nigeria has consistently allocated less than 3% to agriculture (Oloba and Amusa, 2019).

On the state's role in agricultural policy implementation, funding of agriculture by the government in Nigeria was driven by several factors. In a qualitative study by Olufunbiyi and Mogue (2016), the result was that agricultural funding is controlled only by the governors and seldom at the local government level. However, the role of other actors such as farmers, directors of agriculture, commissioners, and legislators at the local government level was limited. The authors argued that this arrangement has implications on the utilization, prioritization of programs and spending, and effective implementation of programs/policies. In addition, the study established that politicians regard the investment in agriculture in terms of personal economic gains rather than social advantage (Olufunbiyi & Mogue, 2016). They only see their roles in fund allocation as significant and the benefits that come to them, but they never consider the impact on the livelihood and welfare of the locals.

The study on budgetary allocation to agriculture and the neglect of the sector by the farmers by Oloba and Amusa (2019) explained the relationship between agricultural funding, the neglect of the sector by farmers, and food security status in Ekiti State, Nigeria. The quantitative research design was used, with time series secondary data and simple descriptive statistics analysis. The result established that the annual funding of agriculture stood at 2.6 %, which is far below the agreed Malabo declaration of 10%

budget to agriculture. That agricultural funding had been meager. In contrast, there is a significant relationship between agricultural funding and the neglect of the agricultural sector, with a negative consequence on food security. The general agricultural sustainable growth is essential for the cassava subsector because of the potential of the subsector to diversify the country's economic base and improve the general socioeconomic livelihoods of the people. This idea may benefit Nigeria, the largest producer globally, and could attain growth as Thailand and other cassava industry nations.

Summary and Transition

From the literature reviewed, there was a problem of instability in the growth of agriculture in Nigeria, with specific reference to the cassava subsector with socioeconomic implications. Several factors were responsible, from the context of policy instability, corruption in the public system, poor program implementation, and the poor level of stakeholders' participation. The theoretical lens of participation explains the relationship between the peoples' participation in the policy process and the sustainability of the policy. The first part of the review dwelt on introducing the Nigerian agricultural problem, followed by the Theoretical foundation, including the review of the critical variables. The overview of the agricultural policies and programs in Nigeria, including key specific policy issues. Then, some empirical studies on review of some policies and programs.

The following section was the outlook of the Nigerian cassava subsector and its issues, such as the market potentials, problems of policy issues of inputs, price/competitiveness, market, land tenure, and the corruption in the sector. Finally, the

last section consists of participation related to sustainable agricultural development in Nigeria and other parts of the world. The gap is the lack of understanding of cassava farmers' experience of their participation in agricultural policy decisions with regards to the stability of the policy environment of the subsector. I investigated the experience of the cassava farmers in agricultural policy through qualitative data gathering and analysis. I explored the experience of cassava farmers in the Ikorodu local government area in the agricultural policy process, the industry's sustainability, and the potential socioeconomic benefits. In Chapter 3, the details of the methodology for the study show the outline and details of the data collection, analysis design, and process.

Chapter 3: Methodology and Research Design

Introduction

The purpose of this study was to explore and understand the perceptions of cassava farmers in policy process and stability and the impact on their socioeconomic livelihoods. The study addressed their level of participation and propose possible solutions to the phenomenon of instability in the agricultural policy process in Nigeria. The result showed the state of cassava industry from the context of farmers' participation in the policy process and the impact on sustainable agricultural development. It may contribute to the body of knowledge of agricultural policy making and participatory development. The result showed the background for conducive policy environment for a steady and consistent growth of the agricultural sector. As the researcher and research instrument, I held high ethical standards, minimized personal bias, and followed procedures to demonstrate trustworthiness. This chapter contains a description of the population, the sample selection process, sample size, saturation, coding, and other elements of the study design.

Research Design and Rationale

The study was a qualitative, descriptive case study approach to capture the perceptions of cassava farmers. A case study is described as investigation of trends in organization, community, business, and investigating trends and for explaining an organization, entity, business, condition, or location (Yin, 2018). It is in-depth exploration of a real-world perceptions of a phenomenon or a situation. It also involves deep knowledge in terms of data sourcing and analysis of data (Andrea & Rochell, 2016).

Case study can either be qualitative or quantitative, however, for the purpose of this study, qualitative approach was adopted. Qualitative research is suitable when there is a need for a detailed understanding of a problem and a need for detailed interviewee responses. The following were the research questions:

RQ1: How do cassava farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income as it relates to the policy instability and the overall Nigeria's national economy?

RQ2: What solutions do cassava farmers prescribe for sustainable development to contribute to the diversification of Nigeria's economy?

Role of the Researcher

I identified the population and locations, the sample, prepared interview questions, and communicated with and obtained informed consent from the participants. Other activities included conducting the interviews, collecting data, coding, analyzing data, and presentation of the findings, results, and recommendations. In this descriptive case study, I was the research instrument in the process of data collection. I made initial contact with the participants by telephone to inform them of the study and discuss the follow-up actions that led to the interviews. I collected data and conducted interviews with courtesy, respect, and ensured a good interactive environment that encouraged participants to provide their perceptions freely. I used the following steps:

First, I introduced and discussed the study with the participants, administer the informed consent form to the participants to obtain their buy-in to take part in the study. I also took into consideration other ethical issues such as confidentiality and protection of

participants' information during the research process. I ensured I was not in any way related to any of the participants. The farmers were informed regarding the freedom to express themselves without fear or favor and to withdraw their participation at any time during the data collection process if they so wish.

I used bracketing, as defined by Tufford and Newman (2012), to set aside my personal perceptions, biases, and all predetermined ideas which may taint the study process. This was to ensure the participants feel comfortable and free to give objective responses to the interview questions and to enable me carry out the interview with objectivity. I positioned myself to acquire knowledge from the entire process. I explored all means of building confidence and trust as advocated by Babbie, 2007 to enable me obtain honest, sincere, and detailed objective responses, and I treated the participants with respect and courtesy. Because the goal was to explore the perceptions of the cassava farmers in Ikorodu local government, I did not have any direct relationship with the participants and did not influence the outcome of this study. I neither supervised the participants nor served as their boss. The interviews took place in the farmers' environments, independent of any external influence. The participants chose a convenient, suitable, and comfortable time to conduct the interview. I ensured credibility, transferability, and confirmability to increase the trustworthiness of the study.

Ethical Considerations for the Research

The ethical considerations included obtaining full consent of the participants, confidentiality, and protection of their privacy, according to the Walden IRB protocol. The integrity of the study was important, and I avoided the ambiguity of the objectives of

the research and deceptive information. I ensured the protection of the participants and obtained approval for the use of information collected from them. According to the Walden IRB protocol, ethical considerations include confidentiality, integrity, bracketing, and approval to use the information collected from the participants.

I sought for approval from the Walden University IRB and presented the informed consent form to the participants before the collection of data began. The approval number is #05-28-21-0267803. The informed consent form served to engage participants and to obtain their buy-in before collecting data. The content of the form included confidentiality of their information and a point of note to the participants of their freedom to participate or withdraw from participation at any stage of the interview. The participants were also free to respond, or not, to any question of which they were not sure. Participants' information is secured, and personal information were removed from the survey and interview notes. The data collected will remain on a flash drive in a lock box for 10 years, before its destruction. There were no anticipated conflicts of interest or power differentials between the researcher and participants in the study.

Methodology

I adopted of the descriptive case study research design based on its appropriateness for this study, because it addresses the research questions due to its uniqueness in concept and approach as well as the competence of the researcher. I sought the use of this methodology to investigative perceptions of the cassava farmers in Ikorodu local government of Lagos State about their sustainability of the cassava industry with respect to policy instability and participation in Nigeria agricultural policy process as it

affects their socioeconomic development. The descriptive case study research design gave wider opportunities to understand issues from the perceptions of the participants. As Yin, 2018 advocates, the data provide descriptions, interpretations, and reach conclusions on the study result.

Participants Selection Logic

The scope of this descriptive case study covered the Ikorodu local government, which is one of the 20 local government areas of Lagos State. The selection logic for the participants followed the qualitative research standard protocol. Due to the fact that qualitative study design does not require a large number of participants (Creswell, 2018), unlike the quantitative study design, I selected 10 participants from the study area. The choice of this number of participants based on the definition of Clearly et al. 2014 is to allow for in-depth data gathering that discourages thinning out the information across a larger size of participants and still reach the saturation point.

Sampling Strategy

The sampling strategy process involved using stratified purposive sampling (SPS). According to Jameel et al. (2018), SPS is a subjective or selective sampling technique whereby the researcher uses their judgment to choose units of a population to participate in a study, dividing the larger population into units to allow for the target category to be reached. Stratified purposive sampling is acceptable in qualitative research that involves obtaining specific information from a segment of society on their perceptions of the phenomenon. With the use of SPS, the local government was divided

into five, and two cassava farmers were selected from each of them, making a total of 10 participants, which Jameel et al. described as a good representation of the study area.

The choice of the sample population was based on the following criteria: that the participants should be cassava farmers with over 20 years of experience in the field of agriculture, their ability to respond to questions, and their participation in any five of government agricultural programs (National Accelerated Food Production Program, Operation Feed the Nation, Green Revolution, Agricultural Development Project, the National Fadama Development Program, Root and Tuber Expansion Program, Presidential Initiatives, the National Special Program for Food Security, and the Agricultural Transformation Agenda). In collaboration with the state chapter of the Nigerian Cassava Growers Association (NCGA), the 10 farmers were selected, using its data base for selection. The association is under the umbrella body of the All-Farmers Association of Nigeria (AFAN), which is the national umbrella body of farmers in Nigeria, recognized by the Federal Ministry of Agriculture and Rural Development. A recruitment strategy was put in place based on the sampling technique and the sample size of the study. This involved placing invitation fliers on the associations' bulletin board for participation in the study. To accept and recruit participants, I contacted the association headquarters for their support in the selection of the 10 participants.

Data Collection Instruments and Sources

In this descriptive case study, I was the main instrument of data collection for the study. Other instruments included the following: interview questions, an audio recording device, and recording sheets for writing and taking notes. Data sources were face-to-face

interviews and documents (agricultural policies, organization records, and country statistics amongst others). The interview question was the instrument I developed to align with the research questions, tailoring it to gather data from participants' responses to address the problem of study. The interview questions were in semi-structured or open-ended format (Appendix D). I used the interview questions to address the Walden standards and received approval to conduct interviews. The interview protocol is a form designed to map out the interview questions with enough space in between to record the responses from participants (Jacob & Furgerson, 2012).

Data Collection

In this descriptive case study, I was the main instrument of data collection for the study, and I used sources such as the interview questions, an audio recording device, and recording sheets for writing and taking notes. I carried out the data collection process personally. I prepared open-ended and semi-structured interview questions anchored on the main research questions. I employed two sources of data collection for this qualitative case study. This included semi structured interviews and documents in form of records, policy, country statistics, census amongst others.

Interview

Interviewing was the main data collection method that I used. Interviewing is one of the descriptive case study data collection methods (Yin, 2018). Interviewing is used when there is need to have in-depth information about a topic with respects to the participants' perception and their willingness to divulge information to the researcher. The first data collection instrument for the case study was face-to-face /virtual

semistructured interview procedure which took place at different times according to each participant's preference. The open-ended and semi structured interview questions for the study was developed to adequately elicit respondent's opinion about the impacts of sustainable agricultural policy on their livelihood and the economy. To respond to both research questions, I developed six and five interview questions, respectively.

An example of an interview question for RQ1 was, "what are your perceptions about agricultural policies in Nigeria and its impact on general agricultural development?" An example for RQ2 is, "tell me what you think can be done to curb the incessant agricultural policy changes?" The developed interview questions were verified and approved by my chair as appropriate to respond to the study's goal (Appendix D).

Before conducting the interview, approval of Walden's IRB was obtained, and I sent both the introduction to the study (Appendix A) and the informed consent form to participants. The informed consent form included details of the topic and the confidentiality of the information to be provided by the participants to be specified. This was followed by the main data collection procedures. I recorded data in different forms, such as manual writing and on audio tapes for transcription. The data collection took 1 hour or more as agreed by the participants. Time was extended as required by some of the participant to accommodate the interview questions.

I informed the participants that a repeat session may be necessary, but it could take place through telephone calls, Zoom, or Skype if necessary and on different days for each participant. The next interview date would be communicated to them, through telephone call. For a clean exit, I debriefed the informant on the entire process and topic

and discussed the transcript of the interview for their approval and validation before I used the data.

Documents

Another source of data collection is document review, which was obtained from government agencies, ministries, and parastatals, including the private sector and individual. Information to be obtained comprises of agricultural policies, production and national records, organization records, and country statistics amongst others.

Data Analysis Plan

Data analysis plan is a roadmap of how I organized and analyze my data. My analytic strategy was to develop a case description because I conducted a descriptive case study in this qualitative research. The strategy helped to achieve three objectives: to answer the two research questions, to focus specifically on the questions, and to understand and objectively report answers to the research questions. In the process of data analysis, I used analytical and logical reasoning to gain information from the data; this helped me to find meaning in my data so that the derived knowledge could be used to make informed decisions. I used thematic analysis method. The thematic method is used when discovering, analyzing, classifying, labelling, and reporting themes of data (Nowell et al., 2017). This method helps to boost the reliability and trustworthiness of a research work. The thematic method is made up of six steps and these are: (a) transcription of narrative data: in conducting the analysis, I filed the notes according to each research question; that is, each transcript note contained the responses of the participants and was transcribed into themes as they relate to the specific research questions; (b) generation of

initial codes: coding was done using Nvivo software, that is, to organize the data into codes and themes before presenting them in a text format (Mahajan, 2018); (c) initial search for themes: the next stage was reading and rereading of the themes to allow for deeper understanding and for identifying possible errors; and (d) reviewing/reexamining themes.

After reading and rereading the themes, I developed significant statements and group them into larger meaningful units or themes and cluster themes. The themes or cluster themes was suitable for creating the “what” regarding the perceptions of participants of the phenomenon. This is a textual description of the data. I translated this to mean what happened, Defining and naming themes: The next step was to produce the structural description, which is how the event occurred regarding the location and the context in which the participants perceived the situation. Writing of the report of the study: The full description of both the structural and the textural reports reflected the essence of the study that integrates both the what and the how to conclude.

I ensured the dependability or reliability of the study by taking detailed field notes, collecting data from multiple sources, and using an audio recorder. I transcribed the audio interviews, to capture every important point and by using multiple data-coding instruments to ensure the stability of responses (Creswell, 2018).

Issues of Trustworthiness

Trustworthiness is very important in qualitative research and was taken seriously by the researcher because trustworthiness establishes a correlation between the result of the research and the data collected. Trustworthiness helps to ensure the credibility of the

research and the acceptability. The researcher must ensure trustworthiness from the beginning of a study to the end, which involves connecting the topic of the study to the research questions, the data generated, and the result of the study.

As a researcher, I ensured credibility or internal validity by using the right instruments, spending adequate time in the field to collect data, having an adequate sample size and saturation, using multiple sources for the collection of data or triangulation, reading, and rereading the themes. Others included ensuring security and proper recording of coded data, having the results peer reviewed, ensuring there is a free and efficient flow of information among the team workers, and engaging external auditing for an objective review and independent opinion of the result (Creswell, 2009).

I ensured transferability (external validity) by obtaining detailed data and comprehensive information and by selecting the right and an adequate number of participants uniformly represented across the population area. I presented the entire study, which contained adequate and clear information to allow readers to learn from the study and be able to apply it elsewhere for further study. In addressing the issue of content validity, I ensured the instruments are the same for every participant and that any change made on any one instrument was equally done on all. To establish dependability of qualitative research, I used triangulation with multiple sessions of data collection and corroborate findings two or more times to establish consistency of the findings within the same method (Creswell, 1998). I was responsible for any alteration or changes in the process and how it affects the research result.

Confirmability, on the other hand, is the act of determining the objectivity of the research with its unique characteristics to allow others to confirm. I ensured confirmability by obtaining detailed information on the process for other readers to fully comprehend the process and to adopt such for further studies. I sought approval from the Walden University IRB and presented the informed consent form (Appendix B) to the participants before the collection of data began. The informed consent form serves to engage participants and to obtain their buy-in before collecting data. The content of the form included information on the participants' freedom to participate or withdraw from participation at any stage of the interview and the confidentiality of their information. That the participants were also free to respond, or not, to any question that they were not sure. Participant information would be secured, and personal information removed from the survey and interview notes. The data collected would remain on a flash drive in a lock box for ten years; after which it would be destroyed. There were no anticipated conflicts of interest or power differentials between the researcher and participants in the study.

Summary

This chapter presented a description of the qualitative research design and descriptive case study methodology selected for this. I also explained the appropriateness of, and the justification for, the research design selected and the methodology regarding the arguments, sampling techniques, ethical guidelines, the role of researcher, interview questions, data collection guidelines, confidentiality of participants, and interview protocol. The chapter included other aspects of the study, such as instrumentation; data

collection procedures and analysis; and issues of trustworthiness, confirmability, and transferability.

Chapter 4: Results

Introduction

The instability in the agricultural sector policy in Nigeria hinders the potential of the cassava subsector to contribute to the sustainable growth of the cassava industry. Nigeria has the comparative advantage of being the largest producer of the commodity in the world, with 20% of the total world production (Otekunrin & Sawicka 2019) and this strategic position, if properly harnessed would have projected and placed the country in the rightful stead in the world trade of cassava products (Otekunrin & Sawicka 2019).

The situation of Nigeria's inability to play a role in global cassava economy may be due to inconsistency in the growth of the sector as a result of instability in formulation and implementation of policy and other factors as might be determined from the study. The purpose of this qualitative case study was to explore the perceptions of the farmers on the impact of sustainable policy in the cassava industry on socioeconomic livelihood and income of cassava farmers in Ikorodu, Lagos state as it relates to the agricultural policy instability in the country. The research questions were:

RQ1: How do cassava farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income as it relates to the policy instability and the overall Nigeria's national economy?

RQ2: What solutions do cassava farmers prescribed for sustainable development to contribute to the diversification of Nigeria's economy?

In Chapter 4, I discuss research setting, demographics, data collection, data analysis, evidence of trustworthiness, study results, and summary. The study was a

qualitative, descriptive case study. A case study is used when investigating the trends and in-depth understanding a community, business, organization, entity, condition or location (Yin, 2018).

Research Setting

I selected 10 participants from the study area. I chose this number of participants for in-depth data gathering, according to Clearly et al (2014), to discourage thinning out the information across a larger size of participants and possibly to reach the saturation point. The choice of the sample population was based on the following criteria: that the participants are cassava farmers, with over 20 years of experience in the field of agriculture, their ability to respond to questions, as well as their participation in any five of government agricultural programs (National Accelerated Food Production Program, Operation Feed the Nation, Green Revolution, Agricultural Development Project, the National Fadama Development Program, Root and Tuber Expansion Program, Presidential Initiatives, the National Special Program for Food Security, and the Agricultural Transformation Agenda). I selected 10 cassava farmers in Ikorodu local government from the cassava farmers' population in the local government. I adopted stratified and purposeful sampling technique, whereby the local government was divided into five. I selected two cassava farmers from each of the five divisions. I conducted a face-to-face interview with semi-structured questions to collect the data.

Demographics

These demographics provide data about the participants in the semi-structured interview conducted in this study, showing the distribution of the population (in this case,

cassava farmers in Ikorodu, Nigeria) years of experience, their locations, and land ownership in hectares in an accessible graphical format

Table 4

Demographics of Participants: Semistructured Interview

Participants	Years of Experience	Location	Land Hectares
PP1	30	Lagos	2.6
PP2	26	Lagos	2.6
PP3	26	Lagos	2.6
PP4	27	Lagos	2.5
PP5	27	Lagos	2.5
PP6	30	Lagos	2.5
PP7	26	Lagos	2.5
PP8	26	Lagos	2.6
PP9	26	Lagos	2.6
PP10	26	Lagos	2.6

Note: A Hectare is unit area of land 10,000sq2 meters or 100x100m
Overview of Data Collection

Chen et al. (2019) identified several dimensions for data collection, which include: data collection system and quality assurance, the data collection skill or competence, communication skills, and attitude toward the data collection process. The other dimensions are information systems by technological support, integration of different data collection systems and device, and data collection environment (Chen et al, 2019). In this descriptive case study, I was the main instrument of data collection. Other sources included the following: interview questions, an audio recording device, and recording sheets for writing and taking notes. I carried out the data collection process personally. I prepared open-ended and semi structured interview questions anchored on the main research questions. I employed two sources of data collection for this qualitative case

study, they were semi-structured interviews, and documents in form of records of policy, country statistics, and census records. Interviewing was the main data collection method I used. Interviewing is one of the descriptive case study data collection methods according to Yin (2018), through which a researcher obtains an in-depth information about a topic with respect to the participants' perceptions and their willingness to divulge information to the researcher.

Overview of Data Analysis

I used data analysis plan as a roadmap to systematize and analyze my data. My analytic strategy was to develop a case description because I conducted a descriptive case study in this qualitative research. The strategy addresses three objectives: to answer the two research questions, to focus specifically on the questions, and to understand and objectively report answers to the research questions. In the process of data analysis, I used analytical and logical reasoning to gain information from the data. I used the information from the data to find meaning so that the derived knowledge would be used to make informed decisions. I used the thematic analysis method, according to Nowell et al. 2017 to discover, analyze, classify, label, and reporting themes of data. This method addresses the reliability and trustworthiness of a research work.

The thematic method is made up of six steps. The first step was the transcription of narrative data. I produced the transcripts and the field notes and read through about 12 times to familiarize myself with the data, while taking initial points. I filled the notes according to each research question; that is, each transcript note contained the responses of the participants in conducting the analysis. The second step was the generation of

initial codes. After reading and rereading the transcripts, I used colored pen to highlight various areas in the text in form of phrases and sentences which I regarded as codes. For example, “we do not produce at commercial scale because there is no off-takers.” I noted the “we do not produce at commercial scale” and “lack of market” as my initial codes. These were examples of initial codes I generated.

I reviewed the transcripts more than 12 times on Interview 1 and did same for all the interviews. The initial codes I obtained were over 102 all through the process of using red pen to cycle around the meanings. I also used the NVivo software, as suggested by Lochmiller (2021) and Mahajan (2018) to classify, sort, and examine similarities in the data. I uploaded the transcript for each participant into the NVivo software which provided the initial codes, and I began to see collection of words in each of the interview questions by participants. This collection of codes was collated into groups which I translated into themes. The third step was the initial search for themes. Theme is broader in length than the initial codes and are more explanatory, there are no longer phrases or single words. I looked for similarities of meanings of the codes and put them together into themes.

At this stage I gathered up to 15 themes, which were also read and reread up to eight times to allow for deeper understanding and for identifying possible errors. The themes eventually emerged when I had set a threshold for 100% representation. The themes that eventually emerged were those that all the 10 participants implied or mentioned a statement that related to such theme (Table 5). I found out that some themes had the same meaning or had similar messages, hence, I reduced the initial themes into

seven main themes. The fourth step was reviewing/re-examining themes. In the fifth step, I read and read the themes, after which I developed significant statements from the themes. In the final, sixth step, I grouped the themes into larger meaningful units or combined themes and clusters of seven. All participants used English to respond during the interview, though English language is their secondary language. Yoruba language is the predominant language in Lagos where the data collection took place.

Table 5*Emerged Themes and Number of Occurrence*

Themes	Number of Occurrence	Percentage of Occurrence
Volatility and Unpredictability of the Cassava Business Environment	10	100%
Lack Of Government Support for High Production Volume Leading to Income Loss	10	100%
Lack of Local Government Participation in Agricultural Policies and Policy Inconsistency	10	100%
Poor Access to High Yielding Cassava Stems.	10	100%
Provision of adequate Support for Research and Development on High Yielding Cassava Stems and Products.	10	100%
Promotion and Commercialization of Cassava Crop	10	100%
Reformation of Agricultural Policy on cassava	10	100%

Evidence of Trustworthiness

As a researcher, I ensured credibility or internal validity by using the right instruments, spending adequate time in the field to collect data, having an adequate sample size and saturation, using multiple sources for the collection of data or triangulation, reading, and rereading the themes. Other activities I engaged in included ensuring security and proper recording of coded data, having the results peer reviewed, ensuring there is a free and efficient flow of information among the team workers, and engaging external auditing for an objective review and independent opinion of the result (Creswell, 2009).

I ensured transferability (external validity) by obtaining detailed data and comprehensive information and by selecting the right and an adequate number of participants uniformly represented across the population area. I presented the entire study, which contained adequate and clear information to allow readers to learn from the study and be able to apply it elsewhere for further study. In addressing the issue of content validity, I ensured the instruments were the same for every participant and that any change made on any one instrument was equally done on all.

To establish dependability of qualitative research, according to Creswell (1998), I used triangulation with multiple sessions of data collection and corroborate findings two or more times to establish consistency of the findings within the same method was responsible for any alteration or changes in the process and how it affects the research result. Confirmability is the act of determining the objectivity of the research with its unique characteristics to allow others to confirm (Lincoln & Guba, 1988). I ensured

confirmability by obtaining detailed information on the process for other readers to fully comprehend the process and to adopt such for further studies.

Study Results

The result of the study is presented here, and it consists of the outcome of the data collection, analysis and generation of themes and statements. After the interview, I produced the transcripts which I read and reread up to 12 times for better understanding. I generated codes manually by highlighting the common words or phrases and I also used the Nvivo software to generate the initial codes. These codes were afterwards merged to generate initial themes of 15 in number. After reading and reviewing, seven themes finally emerged from this study. For RQ1, four themes emerged, while for RQ2, three themes emerged. The first four themes were as follows: Volatility and Unpredictability of the Cassava Business Environment; Lack of Government Support for High Production Volume Leading to Income Loss; Lack of Local Government Participation in Agricultural Policies and Policy Inconsistency; Poor access to high. The three other themes from RQ2 were as follows: provision of adequate support for research and development on high yielding cassava stems and products; promotion and commercialization of cassava crop, and reformation of agricultural policy on cassava.

Table 6*Summary of Results*

Research Question	Data Collection Methods	Emergent Themes
RQ1 How does cassava Farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income as it relates to the policy instability and the overall Nigeria's national economy?	semi structured Interview Document review of policy Country statistics	Volatility and Unpredictability of the Cassava Business Environment Lack of Government Support for High Production Volume Leading to Income Loss. Lack of Local Government Participation in Agricultural Policies and Policy Inconsistency Poor Access to High Yielding Cassava Stems.
RQ 2 What solutions do cassava farmers prescribed for sustainable development to contribute to the diversification of Nigeria's economy?	semi structured Interview Document review of policy Country statistics	Provision of adequate Support for Research and Development on High Yielding Cassava Stems and Products. Promotion, and Commercialization of Cassava Crop Reformation of agricultural <u>policy on cassava</u>

The central RQ1 was: How does cassava farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income as it relates to the policy instability and the overall Nigeria's national economy? Four themes emerged which presented the issues as expressed by the participants in their responses to the interview questions.

Theme 1: Volatility and Unpredictability of the Cassava Business Environment

The first theme that emerged from semi structured interview, and document review was Volatility and Unpredictability of the business environment. This denotes that there is instability in the industry which hinders the investors' confidence. The issue of volatility and uncertainty of the agricultural business environment was also discussed in the World Bank report (2014), which stated that the agricultural policy environment remained unstable and unpredictable and discourage potential investors and players in the industry. Ten participants representing 100% described the impact of sustainable agricultural policy on their socioeconomic livelihood and income as volatile, uncertain, complex and ambiguous situation. For instance, PP1 mentioned that

Income is unpredictable due to uncertain policies on socioeconomic livelihood

The government policies are not in our favor; government sometimes do open borders between countries and another time decides to close the border. These inconsistencies make income, investment, and farming become difficult for us to predict the outcome during the harvesting seasons.

PP6 affirmed “uncertainty in government decision making across the three tiers of government at times make the local government rules to be in conflict with the states or federal government.”

The opinion was supported by PP3 who stated that

The economic uncertainty has also affected farm produce to be expensive, resulting to low income as a result of low sales; the economic situation is such that in the last harvest season, the rate of inflation in the country made lots of people not to have the purchasing power for most items that was produced from the farm; cost is high resulting from high transportation, we farmers use to transport our produce to the market. The price of fuel from increased by 100% which affected the cost of production for farmers. When such cost is push to the final consumers of the farm produce, the consumers took to alternative consumptions that are less expensive. This uncertain and complex situation in the country is becoming concern in the farming world for us.

The same concern was raised by PP9 said, “I am confronted with uncertain harvest season because government policies could affect price of farm produce, which could affect revenue.” PP4 also supported the point, that “the complex and volatile policies on agriculture had made their income very unstable.” PP5 gave affirmation to the fact that “policies are volatile and uncertain for farmers in Nigeria, especially those whose scope is at subsistent level.” From different perspective, PP2 expressed concern about the current insecurity in the country as it affects the agricultural sector, PP2 stated

Insecurity in farms these days' influence decisions to spending longer hours in the farm which has affected income level. Farming had become a complex activity, because the fun we use to derive is having our children and friends to support our farming activities has reduced. These days we are more afraid while in the farm with workers as farmers are target of insecurity in the entire nation. The fight between the farmers and the herdsmen in some part of the country has become a fight extended to other parts of the country, making farmers all over Nigeria targets to bandits; this issue of insecurity has become volatile, and complex.

This opinion was supported by PP7, stated "farming used to be lucrative, but insurgency in Nigeria which results into conflict between herders and farmers has resulted to farmers reducing farm cultivation." PP8 stated, "farm practice becomes complex when government support is inadequate." Modern life is a volatile, uncertain, complex, and ambiguous world (Sharma & Sharma, 2019). In describing how volatile and uncertain environment could affect the activities of farmers, Sharma and Sharma further concluded that people have started living in the world of quick and instant gratification where the consumerism of everything has changed perspectives, expectations and needs, although some needs are real and others are created by effective marketing.

Theme 2: Lack of Government Support for High Production Volume Leading to Income Loss

The second theme that emerged was inadequate support from government for increased production and productivity of cassava. The theme depicted the poor support

from the government to accelerate the production volume and productivity. This also may have impact on the competitiveness and market of the product. Ten participants representing 100% described the impact of poor government support for sustainable agricultural growth and impact on their socioeconomic livelihood and income. described government support as “nonexistence” and PP3 buttressed this “our income is not guaranteed as no policy is directed to assist the peasant farmers.”

PP5 narrated “some experiences are the lack of government support which has affected the ability to expand income generation and ability to seek loan from a bank.” In the same perception, PP4 responded in affirmation that “policies keep changing with new government and no sustainability in government policies to support the activities of farmers.” In buttressing the point above, PP1 stated as follows:

Nothing to write home about, but government should make policy on land use decree and agricultural practices, but the government have left that for farmers to worry. The government do not have policy on for peasant farmers; no policy for smallholder farmers. The government do not mop up the excess of production during the harvest time to save for time of scarcity. In fact, no support on off-taking of surplus production and no sustainable policy on markets.

In relation to this, PP2 expressed the problem of distances to available market in the neighbouring state. He stated that “we tried to sell our cassava to a major cassava processor in Ososa, Ijebu but the problem of government traffic officers, extortion of money and other taxes prevented us from taking our

products again, because the profit is gone. 'PP6 indicated "the inability to mop-up excess products in harvest season and use in other season has made farmers loss income as they sell their products to avoid wasted." PP7 expressed "the lack of processing and storage facility makes farmers eat their produce without storage."

This concern was supported by PP8 who said, "inability to mop-up create excess at period of plenty and create scarcity and period of need." Still on the same point, PP9 said, "there is gap created due to inadequate processing facilities and attitude." PP10 also affirmed "lack of mop-up facility for farmers is a significant challenge to resolve for the farmers." The issue of cyclic glut in the cassava industry was also argued by Otekunrin and Sawicka (2019), as a major hinderance to the instability in the growth of the industry.

Musah-Surugu et al. (2018) revealed that in parts of some developing countries such as Ghana, Bangladesh, Thailand, Philippines, and Pakistan, weather-based insurance is gradually being adopted, thus providing an opportunity to bridge adaptation financing gaps. A similar system is existing in Nigeria known as the Nigeria Incentive-based Risk Sharing Agricultural Lending (NIRSAL), but it did not directly provide opportunity for small scale farmers, especially cassava farmers. The vitality of private sector investment in adaptation finance might have influenced to propose that microinsurance schemes should be promoted across vulnerable regions. This is yet to be experienced by Nigerian farmers.

Theme 3: Lack of Local Government Participation in Agricultural Policies and Policy Inconsistency

The third theme that emerged from semi structured interview and document review was lack of local government participation in agricultural policies. The theme explained the participatory theory (Chambers, 2001) as it relates to sustainable development whereby the people are involved in issues or problems concerning them. The theme also explained the issue of policy inconsistency or instability which affects their productivity and income. Participatory policy process is the main issue raised by the participants with regards to the local government and cassava farmers, the absence of which contributed to the instability in the growth of the sector and the rural economy.

All 10 participants representing 100% described the lack of local government participation in agricultural policies and policy changes in the cassava industry as it affects their businesses. Eighty percent of the participants lamented the constant change of policies in the agricultural sector as a result of each political change. In support of this point, PP5 and PP6 described the local government as the host of agricultural production, should play a major role in policy formation but the formulation has always been usually top-bottom and not bottom-up participatory style.

To buttress this concern, PP3 mentioned, “what we have is non interest from the local government, which is that the main agricultural policies usually come from the federal government and local government are usually not associated.” For instance, PP1 stated, “cassava farmers in the community only benefited during the regime of the Presidential Initiative on cassava (2000-2007) and the Agricultural Transformation Agenda.” This is

why PP2 felt “local government should participate more or take the leadership position in agricultural policies, as farming is mostly practiced within the local government.”

PP7 explained

Since most times the farmers find it difficult to follow these policies critically, there is possibility that the policies could be monitored by the local government for effectiveness if they had been part of formulation, what we have currently is that the local government do not care about what happen to local farmers, because they are also not funded.

PP9 mentioned “the local government impact is not felt for local farmers when their farm land was to be taken away by local chief and kings.”

In support of this, PP2 stated “when the government wanted to take this land some time ago after having been here for over 30 years, the local government did little to help, until we took the matter to the court of law, even now, we are still in court.” PP8 stated, “local government should brace up support for farmers so as to have superior income for their labor.” The perception was supported by PP10 who said, “with support from the local government, the farm practice could be better and the level of participation could help improve the current situation.” This is because, according to, PP4 “yes, income from cassava production has picked up, there is increase in income from cassava production due to cassava uses in the policy, however, changes in local government over the years made these policies eroded which also affects the farmers.”

Salpina (2021) explained that the increasing interest in the protection of the agricultural landscape as a category of heritage can be observed both in the growing number of

globally recognized agricultural landscapes and in the development of new legal and institutional tools for their protection. However, the multifunctionality of agriculture, involving the multiplicity of interests and actors, engenders the questions of how and who manages the heritage agricultural landscapes at the local level (Salpina, 2021).

From the perspectives of policy instability, the cassava industry in Nigeria has also been affected (Nwankpa, 2017). The industry experienced the incessant changes in policy, which created periods of scarcity and plenty referred to as ‘cyclic glut’ which had toll on the sustainable development of the subsector. According to Nwankpa (2017), due to lack of predictability of markets, cassava production and market is distorted, and create imbalance in the economy of the sector. Government must therefore take participatory approach to policy formulation and monitoring in order to address critical needs of farmers and the stakeholders for sustainability and for the industry to attain its potential.

Theme 4: Poor Access to High Yielding Cassava Stems

The fourth theme was poor access to high-yielding cassava stems. Most of the participants believed cultivation of high yield cassava stems would result to sustainable practice for farming, competitiveness and increase income for the farmers. Countries that have achieved great advantage on agricultural commodities by getting improved genetic planting materials into the hands of farmers which helped to build comparative advantage and competitiveness for the commodities. For instance, PP1 explained, “planting of high yield cassava stems could bring the solution for sustainability in Nigeria.” PP9 and PP10 spoke in affirmation “high yield cassava stems to be introduced in Lagos, Nigeria.”

However, poor access to high yielding cassava stems is preventing sustainability in Lagos as farmers do not have access to high yield stems. This perception was supported by PP7 when the participant stated, “Nigeria could become a major exporter of cassava with high yield cassava stem.” PP8 indicated, “high yield cassava stem will also guarantee high production, increased income, and increased in happiness to farmers.” For instance, PP2 stated, “government should assist to improve the research and development in bringing in high yield cassava stems which could be purchased at affordable prices for local farmers.” PP3 however, stated, “not all cassava species are rewarding to the farmers,” hence, PP4’s concern “the farmers’ inability to get a high yield of cassava often restrict farmers to stick to the species available and plant same low yield cassava year in and year out.” PP5 supported this concern indicating, “this has really reduced the interest in farming for most farmers, since the importation of high yield of cassava are not guarantee.”

PP6 stated, “high yield cassava stems are what the farmers continually require to contribute their quota to the national growth and make agriculture sustainable and also make it a prestigious career for the youth who sometimes sees farmers as people who are poor and neglected in the society.” PP10, mentioned “high yield cassava stems are what is required in the cassava farming in Nigeria, as solution to product diversification.” Plant breeding is an important factor contributing to the increased crop productivity and diversity, giving farmers access to genetically improved cultivars that yield more, have better resistance to biotic and abiotic stresses, and meet consumer expectations (Eriksson et al., 2018). Several studies confirm the high return on investment and the economic,

social, and environmental benefits of plant breeding (Eriksson et al., 2018). For developed countries, about 50% of yield progress is usually attributed to breeding progress (Eriksson et al., 2018). In answering RQ2, three themes emerged which seemed to profess possible solutions to sustainable development in the cassava industry.

Theme 5: Provision of Adequate Support for Research and Development on High Yielding Cassava Stems and Products

The fifth theme that emerged therefore was adequate support for research and development which is expected to address issues of improved planting materials and enhance productivity and improved income to the farmers. The issue of poor support to research and development was raised by many of the participants. This was linked to the importance of having access high yielding, disease resistant varieties of cassava. The importance of this cannot be overemphasized because of the imperative for competitive edge in the market of the commodity. I read through the transcript many times in each interview question to identify common codes. All 10 participants which represented 100% made statement that led to this theme. PP1 indicated that “adequate support for research and development is the solution cassava farmers prescribed for sustainable development to contribute to the diversification of Nigeria’s economy.”

PP5 emphasized the “need for a research and development in the agricultural sector in Nigeria for the promotion of cassava production.” PP6 mentioned “adequate research and development for agriculture is what farmers require in Nigeria to help in research of the best way to farm.” This point was supported by PP2 as “inadequate support for research and development has hampered the cassava planting process; we the

farmers have used the same planting materials for many decades, resulting to same results. An improvement of the products for planting will give a higher yield.” In corroborating the point further, PP3 stated,

The same kind of cassava stick that we were handed over is the same we still plant today. The only way we use it is for fufu, gari, cassava by-products for eating. None of our client uses our product for further production of items which has made the patronage very local and low. The existence of further research into the usefulness of cassava will help the industry to grow and also contribute to national development.

PP4 mentioned, “research and development are required for cassava products to do well in Nigeria. Currently, there is zero research.” Still on the same point, PP9 stated, “agriculture will have a great increase with research and development in place.” PP10 stated “all farmers need is a research and development that will convert that ineffective method to optimize their practices.” PP7 described “a farmer in Nigeria is someone who based farming activities on trial and error.” PP8 advised, “the government to invest in dedicated research and development to boost the food production in Nigeria and in Africa in general.”

Developing and spreading new technology is widely considered to be essential for increasing the productivity, sustainability and resilience of small-scale farming systems (Glover et al., 2018). Formal research is only one of multiple sources of new and improved technology (Glover et al., 2018).

Theme 6: Promotion and Commercialization of Cassava Crop

The sixth theme that emerged from semi structured interview, and documents studied was the promotion and commercialization of cassava as an industrial crop in Nigeria as a means of sustainable development of the sector. This is because the market driven demand for the cassava industry is important, a market driven demand is key to sustainability of the growth of the cassava industry; the introduction of new by products and market opportunities could be a driver for sustainable production, improved productivity and higher income for the farmers.

Markets and right policies to create the enabling environment for growth. Ten Participants representing 100% attributed the lack of sustainable development of the cassava industry in the local government to absence of the market for commercial off take. The low level of cassava production or lack of expansion of the smallholder farmers are due to the absence of commercial cassava processing industries in the local government. There should be policy to promote and support private sector investment in cassava processing due to its huge investment outlay, because of poor access to credit facility nor government support in that regard.

PP1 mentioned, “cassava is currently produced at subsistent level by most farmers in Lagos Nigeria. But making cassava an industrial crop would create the interest in many farmers to be involved in the farming process.” The point was attested by PP3 who stated, “despite my effort to produce cassava at industrial level, the fact that its use is limited, makes lots of the produce goes wasted.” PP7 stated, “cassava should be use for

production of other products which will encourage industrialist to support farmers and purchase farm produce in bulk.”

Again, PP2 stated, “once cassava production is made an export product, more farmers will be willing to be involved in the production of cassava so as to benefit from the opportunities it will create in terms of income and better livelihoods.” On this point, PP4 said, “there is need to have cassava included among the industrial products in Nigeria.” In support of the above argument PP5 stated, “industrializing, and commercializing cassava will make both young and old to practice agriculture more in Nigeria.” PP10 mentioned that “Nigeria could feed Africa if cassava production is commercialized by government.”

PP9 stated, “commercializing cassava production will attract foreign direct investment in cassava production.” PP6 stated, “commercialize cassava production by introducing some incentives and support to farmers.” This pronouncement may provide the desired interest required to drive the market for cassava producers, and on the effective utilization of available land, PP8 stated, “promote cassava production by government and see how the lands can be effectively utilize for agricultural purposes.”

The strategic and fundamental importance of food to human existence makes it an essential component of national planning that nations seek to attain and preserve (Agbaeze et al., 2020). In this regard, the government’s desire to meet the food needs of her citizens through food production is initiated through policies and processes that would enhance national development particularly in the real sectors of the economy (Agbaeze et al., 2020).

The participants commented on government agricultural support and inclusiveness, that is, all 10 participants representing 100% responded that encouraging public-private partnership (PPP) in cassava production was the solution prescribed for sustainable development to contribute to the diversification of Nigeria's economy. PP1 said, "nongovernmental and other development organizations should be invited to participate in developing the production of cassava in Nigeria." PP2 mentioned, "the inclusion and incentivization of private organization to invest into the large-scale production of cassava in Nigeria to encourage local farmers."

On the private sector inclusiveness, PP4 mentioned that "public-private partnership is what organization do to grow and expand their frontiers." PP3 stated, "to produce cassava in large scale in Nigeria will involve private sectors participation, such as a PPP." In addition, PP9 stated, "inclusiveness of everyone in cassava production could place Nigeria to be the highest exporter of cassava." PP6 stated, "government support, inclusion and sustainability of policy would create cassava production a world project." PP7 stated, "every citizen in Nigeria should be invited and encouraged to farm and get government support." PP5 stated, "PPP arrangement is required for growing cassava farming in Nigeria."

On the issue of support from the government, PP8 said, "government support is not always financial but tax holiday, grants, and tax reduction are some measures governments could use to support cassava farming." The above argument was also supported by PP10 as stated, "government agricultural support could also mean training farmer free or through bonus system."

PPP is a mechanism whereby the public sector; government and other governmental entities, in order to provide the infrastructure services such as water, transportation, health, education, utilizes the capacity of the private sector cooperatives, private companies, charities, and nongovernmental organizations, including knowledge, experience, and financial resources (Tabrizi et al., 2020). In PPP, a contract would be concluded and signed between the public and private sector to share the risk, responsibility and benefits, and to synchronize resources and expertise of both sectors in providing infrastructure services (Tabrizi et al., 2020).

Theme 7: Agricultural Policy Reforms and Fiscal Policies

The seventh theme that emerged was agricultural policy reforms and fiscal policies. The point raised here was in respect of right policy environment for the cassava industry to have its rightful place in the global market of cassava, included protectionist policies and fiscal measures for the private sector investors and stakeholders, as well in the diversification of the nation's economy. The theme emerged after all the 10 participants mentioned from their interview a sentence to support this theme. PP1 responded, "adequate support for agricultural policy reform is the solution cassava farmers prescribed for sustainable development to contribute to the diversification of Nigeria's economy." PP2 and PP5 posited that government is required to provide suitable policy and reforms for cassava products to do adequately cultivated in Nigeria. Supporting the opinion, PP6 mentioned, "government should place a priority on the development of cassava in Nigeria," and PP10 mentioned, "government policy on cassava production should be on priority list for government."

On this note, PP7 suggested, “there should be over-hauling of the sector with special concern on cassava production in Nigeria.” PP9 stated, “when people benefit from agriculture practices, more people will be attracted to cassava plating, thereby reducing unemployment.” PP3 mentioned, “agricultural policies should be protective and provide training by government or NGO,” and PP4 opined that, “government budget for agriculture should be adequately implemented.” The point which was buttressed by PP8 “government should take the lead role in cassava production.” Developing and spreading new technology is widely considered to be essential for increasing the productivity, sustainability and resilience of small-scale farming systems (Glover et al., 2018).

Summary

In Chapter 4, I addressed the demographics, research setting, overview of data collection, data analysis, evidence of trustworthiness, and the description of the themes. Data resulted from 10 participants from the study area. Seven themes were developed from the data gathered, these includes Volatility and Unpredictability of the Cassava Business Environment, Lack of adequate market (Medium or large-scale processors) to mop up of high production volume Leading to Income Loss; Lack of Local Government Participation in Agricultural Policies and Policy Inconsistency; Poor Access to High Yielding Cassava Stems; Provision of adequate Support for Research and Development on High Yielding Cassava Stems and Products; Promotion, and Commercialization of Cassava Crop in Nigeria, and Reformation of agricultural policy on cassava. Chapter 5 contains the interpretation of findings, limitation of the study, recommendations, implications to positive social change, and conclusion.

Chapter 5: Discussion, Conclusion, and Recommendation

The primary purpose of this study was to understand the issue of cassava policy instability in Nigeria, particularly how it impacts farming activities, national revenue, food security, import substitution, foreign exchange earnings, and sustainable economic development. Cassava, one of the main staple food crops in Nigeria, is perceived to have great potential to enhance the country's economy. Therefore, the strategic position of Nigeria as the world's largest producer (FAO, 2016) prompted the focus on the cassava industry in this study. According to the FAO (2015), cassava farming in Nigeria contributes to food security and raw materials for industrial purposes. Sustainability in the cassava industry thus remains fundamental in using cassava to achieve socioeconomic development. The policy instability in the agricultural sector impedes the sector's potentials to boost Nigeria's economy, significantly, the cassava subsector where Nigeria is the world's highest producer. If properly harnessed, this potential to boost the economy would have made Nigeria play a more significant role in the global cassava trade (Otekunrin & Sawicka 2019).

The inability of Nigeria to take this leading role in the global economy is likely due to the inconsistent growth of the sector because of instability in Nigerian agricultural policy formulation and implementation. Due to the challenges, Nigeria is not in active participation in the world trade of cassava and its derivatives. However, this study addressed the myriad challenges in the policy formulation and implementation within the agricultural sector in Nigeria and explored the issues concerning the research problem.

Therefore, in order to address the research problem, I developed two research questions this way:

RQ1: How do cassava farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income related to the policy instability and overall Nigeria's national economy?

RQ2: What solutions do cassava farmers prescribe for sustainable development to contribute to the diversification of Nigeria's economy?

In response to the above research questions, this study provides a qualitative methodology using a case study approach to investigate contemporary real-life situations or issues requiring in-depth explanation. I chose a case study approach due to its exploratory nature that covers a small number of participants. I used a case study to capture the experiences of cassava farmers in the cassava industry, including their understanding and participation in agricultural programs and policies implemented. I applied purposive sampling, and a sample population of 10 participants. The selection process was in conjunction with the state chapter of the government recognized association, the Nigeria Cassava Growers Association. The criteria for the choice of participants, according to Apata et al (2011), include the following: landholding of a minimum of 2.5 hectares of land, which is known to be a commercial size. In addition, a participant must have participated or benefited in any five of the vital agricultural programs or projects initiated by the government of Nigeria, such as the Agricultural Development Program; the National Fadama Development Programs 1 and 5 of the vital agricultural programs or projects initiated by the government of Nigeria, such as the

Agricultural Development Program; the National Fadama Development Programs 1 and 11; Root and Tuber Expansion Program, and Agricultural Transformation Agenda. Data collection was from 10 cassava farmers/participants through virtual interviews, field notes, discussion, telephone calls, and emails. I systematically developed and submitted the interview protocol as suggested by Eddles-Hirsch (2015), and received approval from the Walden IRB. I sought for the Walden IRB approval so as to ensure credibility and efficiency in collecting data, including getting informed consent. The study addresses the farmers' experience concerning the cassava industry policy and the effect on the industry's sustainable development. The purpose of Chapter 5 is to refresh the reader's understanding of the findings or results as stated in Chapter 4 of this research. The main sections of Chapter 5 are Discussion, Conclusion, and Recommendation.

In Chapter 4, I explained the result of the interviews collated. Chapter 5 contains the discussion of the results, the conclusion, the recommendations for future studies and the implications for social change. The literature of Nwankpa (2017) I reviewed indicated the effect of the policy instability and poor government support on sustainable agricultural development. The purpose for investigating the problem from the perspectives of cassava farmers in Ikorodu local government in Lagos state was to get real time, correct and firsthand information from the participant population. The findings of the study showed that the cassava industry in Ikorodu local government lacked sustainable growth. The factors responsible for the situation include: volatility and unpredictability of the cassava business environment, lack of adequate market (medium or large-scale processors) to buy the surplus production volume leading to income loss;

lack of local government participation in agricultural policies/ policy inconsistency and poor access to high yielding cassava stems.

The emerged themes matched the participants' attested four factors in their various responses to the research questions. I also deduced that all the factors have linkage with the absence of the cassava processing industry in the local government, which contributed to the poor state of the cassava sector in the local government area. In the response to RQ2, the participants expressed their suggestions on the possible solutions to the problems per the following themes: Provision of adequate support for research and development on high yielding cassava stems and products; promotion, and commercialization of cassava crop in Nigeria, and reformation of agricultural policy on cassava.

Interpretation of Findings

The participants' information provides a nexus between the government support with stable policies and sustainable growth of the cassava sector, including the rural income. The factors contributed to the absence of private sector participation in the cassava industry in the local government. Otekunrin and Sawicka (2020) addressed the existing gap in the participation of cassava stakeholders, especially the farmers, in the policy formulation of agriculture in Nigeria, with specific reference to the cassava subsector.

A total of seven themes emerged in responding to the research questions for the study. The participants' response to RQ1 produced four emergent themes. The participants relayed their experiences in the cassava industry and the problems

encountered over decades of cassava business endeavors. These were captured in four thematic as presented below:

Volatility and Unpredictability of the Cassava Business Environment

The participants revealed that the government intervention's lack of consistency and predictability hindered farmers' production and capabilities. The volatility of the cassava business environment creates cyclic glut, usually brought about by market fluctuations and price distortions. Accordingly, this volatility and unpredictability contributed to the lack of sustainable development of the cassava sector. In addition, participants stated that each political administration's incessant change in government policies distorted existing working cassava business environment. The cyclic glut occurs when there is price fluctuation due to policy changes and the farmers unable to plant the following season, losing capital. The participants claimed that the problem of unpredictability, unexpected policy change or newly introduced program, which were deviation from the existing rule, are avoidable if the stakeholders have been part of policy making.

Abiwon (2017) corroborated the problem of policy instability by stating that the agricultural sector in Nigeria struggles to contribute to economic development because of policy discontinuity by successive political administrations, policy neglect, and distractions in the sectoral financial goals. Abiwon further stated that the absence of a well-articulated framework for the farmers' involvement in the agricultural policy process hinders the sustainable development of Nigeria's agricultural sector. The theory of citizen's participation also supported by Arnstein (1969). Arnstein argued that stability

in growth is dependent on citizen's power. Sule et al. (2012) stated that the poor involvement of the farmers by policymakers is traced to the problem of agricultural policy instability. The participation of the cassava farmers in policy process concerning their businesses could revitalize the Ikorodu local government's cassava industry and address the problems related to government support.

Lack of Government Support for High Production Volume Leading to Income Loss

The participants expressed the lack of support to cassava production, which resulted in the low yield as being experienced in the entire local government. The cassava farmers described the low volume of production compared to the cost of production, making the business unprofitable. The participants raised the issue of poor government support for land, markets and infrastructure for promoting their businesses. The PP2 narrated that, farmers produced poorly, and tried to sell in the neighbouring state but at a loss; that led to their abandonment of the venture. The other aspect raised was the poor access to land and grabbing of their current land, to which the government is yet to resolve. Due to increasing urbanization and population upsurge, agricultural landholding experienced a constant threat. It is therefore imperative to improve farmers' access to higher-yielding cassava varieties. The adoption of improved varieties may increase output per unit area instead of increasing volume by land area. PP2 explained that the land owners from which the government acquired the land 30 years ago wanted to take the land back. The case was in court, and they did not receive the expected support from the government at all levels.

The issue of access and ownership of land was also linked to access to credit for the cassava industry development. All the farmers related this to lack of land titles which reduced their ability to access credit, and hindered growth. Government needs to consider adequate support for agriculture by addressing the problem of access to credit so as to achieve sustainable development. The demand and supply are usually triggered by the existence of a functional cassava processing industry. The absence of the cassava industry hinders commercial production or the expansion of the cassava smallholder farmers.

Lack of Local Government Participation in Agricultural Policy Formation and Policy Consistency

Under this theme, the participants expressed the issue of poor local government and farmers' participation in agricultural policy formulation and implementation as a bottleneck to the sustainable development of the cassava sector. The participants established that the policy environment was not inclusive to promote and support private sector investment in cassava processing.

The involvement of the local government and the farmers as the producers in the first stratum of the cassava value chain is very vital. Many of the problems experienced by the farmers could be addressed, by formulating the right policies for intervention (Chambers, 2001). The local government's facilitation of cassava processing facilities will create the demand pull for cassava roots according to the law of demand and supply to feed the industries. However, if the local government and farmers who are stakeholders are involved in policy formulation, there would be advantage in terms of

accessibility, affordability, quality of service, accountability, value for money, and impact of local commerce and industry (Ndevu & Muller, 2018).

As the closest government to the farmers, policies that do not involve local government may likely not achieve the set objective. Communities can propose a project or a solution to a specific problem that fits into their local condition as typically understood by them, other than the top-bottom approach, which could be easily monitored and evaluated (An, 2020).

Poor Access to High Yielding Cassava Stems

On this theme, I found out that the participants did not have access to improved planting materials, which formed part of the limitations they experienced in terms of low productivity and high cost of production compared to their yield and lack of competitiveness. The responses of the participants all pointed to the fact that access to high-yielding cassava stems is one of the possible solutions cassava farmers' challenges.

The capacity to promote sustainable cassava production and create wealth is proven across developed world, whereby producers have access to improved genetic materials that are high yielding and make the countries more competitive in terms production cost (Deladem et al., 2020). In the case of Nigeria, the competitiveness of the cassava industry in the global market is a factor that needs to be enhanced. Government support is inadequate for the right quality and quantity of the cassava roots to meet the standards in the global market place.

I also gathered that promotion of different uses of cassava such as cassava starch, high-quality cassava flour, cassava chips as livestock feeds, gari, fufu were inadequate in

the local government. These were the by-products of cassava developed by organs of government and the research institutes the NRCRI, FIIRO, IITA, and other partner research institutes, but yet to be promoted in the local government.

RQ2 produced three emergent themes from the participants' responses. The participants relayed their experiences in the cassava industry and made suggestions on possible solutions to the problems encountered over decades of cassava business endeavors. These were captured in three thematic areas as presented below.

Provision of Adequate Support for Research and Development on High Yielding Cassava Stems

The participants all suggested that if there is adequate attention on research and development, the sector could achieve a significant transformation. The participants further explained that improved agricultural productivity is key to the economic development of the farmers and the rural economy. Planting of high-yielding improved cassava stems is regarded as one of the solutions for transformation of the sector which can contribute to the diversification of Nigeria's economy. The participants suggested that government should make resources available for more research and development for the cassava as an economic crop.

China, for example, in just 3 decades, transformed a structured market system built by innovation in agriculture with investment in high yielding commodities, investment in genetic research and in large scale farming. These all contributed to the self-sufficiency of China in local products and reduction in overdependency on imported farm/food produce (Zhou et al., 2017).

Improved seeds, including cassava stems, play a pivotal role in increasing agricultural productivity, improving farmers' income and livelihoods, and global food security (Almekinders et al., 2019). However, there have been significant advances in the development of improved seeds over the last decades, their scaling into widespread use has been lacking (Almekinders et al., 2019). The cassava industry has been supported more in the last few decades by the IITA and the NRCRI. through the development of improved and disease resistant varieties of cassava, including product specific varieties but poor access by the farmers. It is vital that the government provides access to improved varieties of cassava and promote the commodity's alternative uses. With the potential of cassava production in Ikorodu local government, improved access to high yielding, disease-resistant varieties of cassava may provide an opportunity to diversify the rural economy and improve farmers' income.

Promotion and Commercialization of Cassava Crop

The importance of promotion and commercialization of cassava was one of the suggestions made by the participants as a factor to contribute to the improvement of the cassava industry in the local government. For the commercialization of cassava crop, the participants suggested the need for the local government to facilitate the establishment of cassava processing industry in the local government. This will create demand-driven production and commercialization of the commodity.

The private sector investment is the driver of economies. For instance, the presence of such cassava industries in Oyo State, which hosted cassava processing factories such as Psaltry International, Niji Foods, Nito Concepts, Nigerian Flour Mills,

Al ham and others propelled the commercialization of cassava production in the state and the adjoining communities (Mufutau, 2018). The situation in Oyo State created a higher demand for cassava roots and hiked the price which was an advantage to the farmers in the areas. Apart from these few established investments in the private sector, some other upcoming players were discouraged because of unpredictability of the markets.

The cassava farmers in Ikorodu local government have no such opportunities for improved income and better welfare because of the absence of off-takers or markets for the cassava roots as in Oyo State. At the same time, Lagos is a strategic location for the needs or exportation of the products because it hosts the country's major sea ports. In a study by Mufutau (2018), it was established that in Lagos state, the farmers make more profit selling to the industries than selling in the open market, but the cassava industry is not available within the local government.

The efforts of past administration to entrench a policy of 10% cassava flour inclusion in bread as a means of creating market opportunities failed because of policy instability. Processing cassava into different by-products will create a sustainable market in the cassava value chain.

Reformation of Agricultural Policy on Cassava

The participants expressed the need for policy reforms as possible solutions to sustainable development of the cassava sector and the diversification of Nigeria's economy. I found out that the key policy issues were market, land, incentives for private sector and access to credit. On the land subject, the review of the Land Use Act of 1978 could help address the problem of the general characteristic of small landholding by

farmers. The current situation is a fragmented landholding without title, coupled with the bureaucratic bottleneck of obtaining land title for access to credit. Farmers and other agricultural stakeholders could not easily access credit for development or expansion of the businesses. The act has become a hindrance to rural and socioeconomic development where only 23.1% of the total households in Nigeria own land legally (Udoekanem et al. 2014).

On this same theme, PP1 and PP2 explained the plan for the revocation of their land after 30 years of use. The participants stated that the government's support on solving the problem was not encouraging and the case was still in court. According to Rusenga (2019), the reform on the land use will help promote large-scale agricultural production and private sector investment. The reform may contribute to economic boom through strategic partnerships and share equity schemes, thereby enforcing large-scale production, a vital feature of the agribusiness model.

The market policy review is also crucial in the drive for development of the cassava industry. The market is critical to reaching the global marketplace (Table 2). The fluctuations in the markets and macro-economic policies affect the market-driven development of the cassava industry. Nigeria needs a package of incentives and protectionist agricultural policy to back up major industry players, stakeholders and private sector investors for the sustainable cassava industry development (Amalu, 2018).

According to Oso (2020), introduction of fiscal policy incentives in the cassava industry may help to enhance investment, performance, and transfer of technology that are key to market opportunities for cassava in terms of quality and standards, as well as

competitiveness. The private sector participation arrangement brings together stakeholders with diverse goals, resources and skills in an informal or formal voluntary partnership toward improving market efficiency and the general management of the identified sector (Deladem et al., 2020). The Ikorodu local government may witness the rising of private sector players where the policy environment is right and will create the kind of markets required to boost cassava production in the local government and its environs and improve rural income, socioeconomic livelihoods of the people and the overall national economy.

Theoretical Implication

The study adopted Chambers' (2001) theory of participatory development, which states that sustainable development is achievable if the people are involved in planning a program. The theory emphasizes the participation of the people in a community, group, or organization for accountability, transparency, and sustainability. Manyong (2013) concluded that excluding the farmers affected by policies prevents general acceptability and policy stability. According to the participants, policy reversals are preventable if there are stakeholders, especially the cassava farmers.

Chambers' (2001) theory of participatory development is relevant in this study because it creates the practical nexus between participation and sustainable development of the cassava industry in the Ikorodu local government. Chambers' theory explains the relationship between a societies' developmental goals and the role of the critical stakeholders in the policy process. The participants narrated that they are usually left out of the decision-making to address their problems due to the usual top-bottom approach.

In the case of the Ikorodu local government, the participants stated that the change in cassava policy of the Presidential Initiatives on Cassava and the Agricultural Transformation Agenda led to the significant glut and loss on each of the policy episodes. However, a community can address the problem through continuous, flexible, and all involving interactions and sharing of ideas with beneficiaries.

Limitations of the Study

One of the limitations to the study was the fact that the study cannot be generalized because the scope was limited to Ikorodu local government area of Lagos State and not entire Nigeria. The second limitation was the adoption of purposive sampling and the sample size I selected among the cassava farmers in Ikorodu local government was very significant as a qualitative study. However, to address the limitation, I established dependability by triangulation through multiple data collection sessions. I corroborated findings two or more times to verify the consistency of the findings within the same method (Creswell, 2014).

Recommendation for Further Study

I investigated the policy instability on the sustainable cassava development in Ikorodu local government in Lagos State. The study will be helpful to the stakeholders in the cassava industry, policymakers and the academia. I recommend that future studies extend to other local governments and regions of Nigeria, to have a broader scope, understanding of the problem and solutions. I would have loved to expand the scope of the study to cover the entire south-western states but for inadequate funds and the logistics issues. The findings and recommendations may help policymakers make

decisions participatory policy making and inclusive development of the cassava sector in the local government and the country. Inclusive policymaking may help in reducing the unpredictability experienced in the industry. And help place the country in the rightful place in the global cassava market and diversify the nation's economy.

Recommendations for Practice

Government should involve cassava farmers in formulation of policies in a participatory manner, that is, collaborative, support, advocacy, and decision making. Cassava farmers should collaborate with federal, state, and local government in agricultural practices to optimize outcomes. The participation of the stakeholders corroborates the theory of participatory development as postulated by Chambers (2001). Only the concerned understands the problem and possibly suggest solutions to such problem. In a situation where policies cascade down from the top, it may not achieve the government's goal of such intervention. In the case of cassava, where Nigeria has a comparative advantage, inclusive policies are essential for sustainable production and global competitiveness.

Recommendation for Facilitation of Cassava Industry in the Local Government

The absence of local medium or large-scale cassava industry in the local government hinders the sustainable production of cassava. The cassava farmers remain mostly at small scale subsistence level because the market for the cassava remains low level. According to all the participants, the absence of demand and supply linkage reduced their cassava production to subsistence or small-scale level, while some manage to cultivate mixed cropping for family consumption. Large-scale cassava processing in

other states or neighboring communities triggered the demand for cassava roots, leading to the expansion of cassava production and productivity.

The presence of Psaltry International cassava starch factory, Niji Foods and others in Iseyin area of Oyo state created a significant demand for cassava in the immediate and close environment and improved the socioeconomic growth of the cassava farmers. Hence, there is steady increase in cassava production in Iseyin areas of Oyo State (Olayiwola, 2015).

The local demand for cassava, according to the FMARD (2015) was stated as follows: the demand for livestock feeds market in Nigeria was 30,000 metric tons per annum of cassava grits, high fructose syrup demand was 45,000 metric tons, while the opportunity is available for 150,000 metric tons of high-grade cassava starch by food, pharmaceutical, paper industries, and others. In 2015, the FMARD revealed that inclusion of 20% high quality cassava flour, in bread and other confectioneries, would create a foreign exchange savings of 127 billion and generate a demand of 5.2 million metric tons of raw cassava roots from the domestic market. There will be positive effect on the cassava farmers and their socioeconomic livelihoods, where cassava processing industries exists in the Ikorodu local government.

Recommendation for the Promotion of Research and Development

The government should increase funding and other resources for research and development to deploy more improved technologies and best practices for cassava productivity and cassava economy. These includes improved seeds, fertilizers, mechanization for commercial farming and optimization of results. If Nigeria could be

No 1 in the world despite the small-scale production, the country is yet to maximize her potential. Improved and disease resistant varieties of cassava should not be on-shelf but the government should put strategies to improve farmers' access. The system should also include promoting the new uses of the cassava products, including cassava starch, glucose syrup, cassava chips, high-quality cassava flour, amongst others which are currently attracting global demand. This recommendation is grounded on theme five, as described in Chapter 4.

Implications for Positive Social Change

The study has implications on the desired social change for the stakeholders in the cassava industry, especially the farmers, the academia and the governments at both national and sub-national levels. The study's findings could help to strengthen the issues of government support and incentives for private sector investment in the cassava industry, which is very important. The cassava industry could create a demand-driven market for the cassava roots and improve the socioeconomic livelihood of the farmers. The farmers' inclusion in policymaking and understanding of their roles could enhance their knowledge in policy formulation. The inclusion of farmers in policymaking may help eradicate the constant change of policy experienced hitherto by the stakeholders in the cassava industry. Finally, I hope the study has contributed to the knowledge on the cassava industry in the Ikorodu local government and perhaps Nigeria at large. It may add to the current level of understanding of the policy situation and level of participation of the stakeholders in the agricultural policy making of the governments at all levels, the students of economics and agriculture, the academia and development organizations.

Conclusions

The purpose of the study was to investigate how agricultural policy instability contributes to the lack of sustainable growth in the cassava industry in Ikorodu local government. Participatory development theory was adopted for the study, which established the relationship between participation of stakeholders in matters concerning them and the sustainability of interventions. In the same vein, the ladder of citizens' participation (Arnstein, 1969) could be linked to participatory development theory where farmers' level of participation could attain that of citizen's power.

The suggestions made by the participants are crucial to attaining the objective of sustainable growth of the cassava industry in the Ikorodu local government. The participants' recommendations include the need for government support for improved access to high yielding and disease resistant varieties policy reforms on access to markets, land and land ownership. Other recommendations include incentives for private sector investment in cassava in the local government and increased funding and support for research and development. I equally agree on the suggestions brought by the participants in Ikorodu local government and the social change desired.

Finally, the local government can maximize the economic opportunity in the cassava production, with the human resources and the nearness to the country's commercial nerve center, Lagos and close to the sea port. The local government could be an economic window for the state through the cassava industry.

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Appendix A: Study Introduction

I am generating data as a PhD candidate at the Walden University, USA, for the research on Policy Sustainability Issues: Case Study of Cassava Farmers in Ikorodu. Lagos, Nigeria.

The study is intended to investigate the perceptions of farmers on policy sustainability issues in the cassava industry. Your nomination and choice were because you are a cassava farmer and have years of experience, having witnessed many policy regimes. You were not chosen based on any recommendation, but by purposive sampling and meeting the criteria, that is, it could have been someone else.

Kindly allow us therefore to ask you a few questions, and we will keep your responses confidential. We will also keep your personal details secure, without sharing them with anyone.

This interview should not exceed 30 minutes.

Date:

Commencement Time:

Interview end Time

Appendix B: Research and Interview Questions Matrix

Research Questions	Interview Questions
How do Farmers describe the impacts of sustainable agricultural policy on their socioeconomic livelihood and income as it relates to the policy instability and the overall Nigeria's national economy?	Tell me what you understand about agricultural policy.
	What are your perceptions about agricultural policies in Nigeria and its impact on general agricultural development?
	In specific terms, tell me how changes in agricultural policy affects your cassava production.
	Describe how agricultural policy changes affects your income?
	Tell me how you think the agricultural policy changes affect the cassava industry in Nigeria?
	Tell me what you can recall as the most important impact you have perceived in agricultural policy changes?
What solutions do farmers prescribe for sustainable development to contribute to the diversification of Nigeria's economy?	Tell me what you think can be done to curb the incessant agricultural policy changes?
	Tell me what you see as the role of farmers in agricultural policy making.
	How do you think farmers can contribute to agricultural policy making?
	Tell me how you think the economy of the country can be diversified.
	Do you have a suggestion on how to create a sustainable development of the cassava industry?

Appendix C: Flyer for Interview

Announcement! Announcement!! Announcement!!!

PARTICIPANTS NEEDED: for a qualitative study on investigating the sustainability Issues on Cassava industry in Nigeria.



The researcher is a doctoral student at Walden University and is seeking for volunteer participants to provide their perceptions on the topic through

The Participants?

Must be a cassava farmer in Ikorodu LG

Must be above 18 years

Must have participated in any 5 agricultural programs

Must speak English

Flexible dates and time for the interview, it may take one or two sessions.