

Green Growth and Sustainable Economic Development in Nigeria: Benefits and Challenges

Ann Ngozi Ike

*Department of Banking and
Finance, Federal Polytechnic Oko*

Abstract

The global recession has brought new attention to chronic structural flaws in current economic models and assumptions. As economies struggle to recover, many are taking a closer look at the broad concept of a "Green Growth," one that simultaneously promotes sustainability and economic development. Green growth is emerging as a new development trend in the World because the global economy is facing environmental and ecosystem risks. For developing economies like Nigeria, green growth is seen as an opportunity and an optimal choice to change the conventional economic growth model towards sustainable development. This paper examines the benefits and challenges of green growth as a tool for achieving sustainable economic development in Nigeria. It is a qualitative study carried out by collecting documents on the implementation of green growth internationally and in Nigeria, by conducting in-depth interviews with experts in this field. The research data is analyzed using qualitative content analysis as a method. The analysis applies SWOT analysis to identify both internal and external factors that impact to the process of greening the economy in Nigeria. As a result, the study identifies the characteristics of green growth policy, the role of green growth in addressing main challenges related to environmental issues, poverty reduction, social equity and sustainable development objectives. The study recommends the following policy implications to promote the realization of the Green Growth Strategy in Nigeria: raising awareness of green growth, improving the institutions and policies to promote green growth, accelerating economic restructuring, reforming economic growth model, and considering the priority sectors and localities to pilot green growth.

Keywords:

Brown growth,
Green Growth,
Sustainable
Development,
Energy Depletion,
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Corresponding Author:

Ann Ngozi Ike

Background of the study

Domestic support for green technologies undergoes techno-national debates as both developed and emerging economies invest in green industries (Barbier, 2016). The global economy in the period of struggling to overcome the economic, energy and food crises leading to the consideration of a new economic development model, the green economy to achieve the sustainable development objectives and minimize unexpected impacts on the environment. The race for green technologies implies that those domestic economies' opportunities to realize green growth are threatened by global competition.

The concept of green growth has arisen after the start of the global economic recession in 2008 (Barbier, 2013). Facing the global crises of economic recessions and climate change, international organizations and national governments are structuring policies to encourage investments in industrial activities that reduce adverse impacts to the environment (Erica, 2016). Establishing these industries can provide economic growth through the creation of new industries, markets, and associated jobs. Green growth stems from a rich background literature in environmental policy. The attraction of the term is that it is able to reconcile the priorities of sustaining natural capital whilst simultaneously creating endogenous economic growth opportunities (UNEP, 2011). This concept is perhaps best encapsulated in the organization of Economic Cooperation and Development's (OECD 2011) definition of green growth, which states: "Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this it must catalyze investment and innovation which will underpin sustained growth and give rise to new economic opportunities." The three key aspects of green growth according to OECD, 2011 are:

1. The need to sustainably preserve natural capital in the process of economic development.
2. That innovation (both technological and organizational) can be used to significantly decrease the impact on the environment.
3. Such innovation can provide long-run economic growth opportunities through improving production efficiencies, whilst creating new industries and markets in domestic economies.

Thus the survival of the modern business world can only be seen in drastic changes in the current way of doing business, by switching to the concepts of green growth and sustainable development. Through accepting the basic principles and messages of these concepts in everyday business activities, the enterprise achieves multiple uses and benefits, which is more than enough reason to continue to foster this new philosophy in the future trends of its business.

Nevertheless, even within environmental policy circles, green growth faces critiques. The first critique focuses on whether green technological innovation is a viable and sufficient solution in ensuring the sustainable management of environmental resources. These critiques stem from 'limits to growth' and 'strong sustainability' theories. Their main

underlying idea is that the global economy has exceeded the earth's ecological thresholds. Environmental policies are necessary to limit resource consumption and pollution – even if it imposes severe costs on economic growth. (Negin et al 2017, Morssy, 2012, Omilola, 2014). Though not necessarily a critique, literature on green growth focuses on the challenges on developing and deploying green technologies in the economy. These include the need to overcome market failures that do not account for the costs of pollution (particularly greenhouse gases); underinvestment in R&D in green innovation; techno-institutional lock-ins in fossil fuel-dependent economies; and various government failures that inhibit the organizational changes needed to invest and deploy green technologies (Barbier, 2016; Hallegatte et al., 2012; Smulders, 2014). These market and government failures indicate the obstacles within the domestic economy that prevent the realization of green growth. This paper is interested in examining the third premise of green growth that focuses on endogenous economic growth.

Statement of the Problem

Like any developing nation, Nigeria faces some challenges in its development stride and efforts to improve the quality of life of its citizens. The critical economic issues concern the need to foster sustainable rapid economic growth that will cater for the needs of its large population and the imperative for proper integration of its domestic economy into the world economy in the face of increasing globalization. Overcoming the challenges of poverty, fighting corruption, meeting the basic needs of the people, inadequate and inefficient infrastructure, development of human resources and capital for sustainable growth and equity, sustainability of the country's environmental resources for the benefit of present and future generations are critical social challenges, (GTF, 2015; IEA, 2013).

With the present recession and economic downturn in Nigeria, the need to move away from the quantitative gross domestic product form of growth to a qualitative green growth path become imperative even in the face of serious environmental challenges like environmental degradation, oil spillage, bad weather, shortage of food, water and energy, carbon emission and health related issues which occurs as a result of over dependence on mono-natural resource product and its exploitation being witnessed across the resource base area of the Southern part of the country (World Bank, 2010; Fay, 2012).

Although, growth in the Nigerian economy recovered to 0.8 percent in 2017 after a historic collapse in oil prices – exacerbated by falling oil production and inadequate policies. The recent rise in oil prices is supporting the recovery, but more needs to be done to reduce unemployment and address poverty, (IMF country focus, 2018).

Despite the positive development, the economic situation in Nigeria remains challenging. Inflation, especially of food prices, remains high. Vulnerabilities in the banking sector are rising. Low tax revenues are keeping the fiscal deficit high, leading to more government borrowing that is crowding out private sector activity. Distortions in foreign exchange markets are slowing efforts to attract longer-term investment and diversification of the economy, (IMF, 2018).

Nigeria quantitative economic progress has remained in daunting stage despite the endowed natural resources, leaving over 30% of its population in severe poverty and 62% below poverty line, having only 48% of its citizen access to electricity, 64% to water source and the resource areas (Niger-delta) with high benzo (a) pyrene concentration in the water, only 28% have access to improve sanitation, CO₂ emission of about 0.5 per capita metric tonnes, unemployment moving from 6.6% in 2014 to 10.4% in 2015 and annual deforestation on the average of 3% yearly (World Bank, 2015). The nation is therefore still characterized by low investment, especially in the real sector, unemployment and poor finance of the health sector, test run economic policies, over dependence on foreign goods, high consumption and real purchasing power remains a critical issue in the mind of policy maker, in which the only solution remains transition from brown growth to green growth.

Objectives of the Study

The study is aimed at analyzing the benefits and challenges of green growth in developing countries, with a particular focus on green growth in Nigeria. In order to address the research problem and meet the purpose of the study, the following research question is identified:

1. What does green growth mean in developing countries and how can it be applied in Nigeria?
2. To answer the above research question, there are some assumptions, hypotheses considered as follows:
3. What is green growth?
4. What is learnt from the implementation of green growth in developing countries?
5. What are the policy recommendations of green growth for Nigeria?

Review of literature

Conceptual Review

Green Growth

The OECD (2013) describes Green Growth, as an approach to economic growth that puts human development at the centre while ensuring that natural assets continue to provide the resources and environmental services to support sustainable development. Descriptions and explanations of the potential for Green Growth to address both economic development and environmental sustainability challenges argue that Green Growth is necessary to achieve sustainable development (World Bank, 2017). Green Growth is necessary and economically efficient to the future of developing countries, and it can lead to significant economic and social gains (OECD, 2013). A Green growth promotes a triple bottom line: sustaining and advancing economic, environmental and social well-being, (Manish and John, 2011). UNEP, 2011, define green growth as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In other words, it means that a green growth is a low carbon development, resource efficiency and inclusive society.

Brown Growth

According to The World Bank (2013), “brown growth describes economic development that relies heavily on fossil fuels and does not consider the negative side effects that production and consumption have on the environment”. This type of growth “sees economic progress only in numbers” (Dowarkasing, 2013). Brown growth is the prevailing economic growth model that focused on increasing GDP above all other goals. While this system has improved incomes and reduced poverty for hundreds of millions, it comes with significant and potentially irreversible social, environmental and economic costs. Poverty persists for as many as two and a half billion people, and the natural wealth of the planet is rapidly being drawn down, (Manish and John, 2011). In a recent global assessment, approximately 60 percent of the world's ecosystem services were found to be degraded or used unsustainably. The gap between the rich and poor is also increasing, income inequality (measured by the gap between the highest and lowest income earners) rose in more than two thirds of countries. The persistence of poverty and degradation of the environment can be traced to a series of market and institutional failures that make the prevailing economic model far less effective than it otherwise would be in advancing sustainable development goals.

These market and institutional failures are well known to economists, but little progress has been made to address them. For example, there are not sufficient mechanisms to ensure that polluters pay the full cost of their pollution. There are “missing markets” – meaning that markets do not systematically account for the inherent value of services provided by nature, like water filtration or coastal protection. A “market economy” alone cannot provide public goods, like efficient electricity, sanitation or public transportation. And economic policy is often shaped by those who wield power, with strong vested interests, and rarely captures the voice and perspectives of those most at risk. A Green growth attempts to remedy these problems through a variety of institutional reforms and regulatory, tax, and expenditure-based economic policies and tools, (Manish and John, 2011).

Sustainable Development

The goal of sustainable development was set in 1980 by the International Union for Conservation of Nature and Natural Resources (IUCN) so as to achieving sustainable development by protecting biological resources. The term sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet theirs (WCED, 1987). It is the “process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are in harmony, and enhance both current and future potential to meet human needs and aspirations.

In 1992, the United Nations Environment and Development Summit set out the Global Agenda for the 21st Century and sustainable development was defined as a development that satisfies the needs of the present generation without compromising the ability to meet the needs of future generations (Binh, 2016). In terms of principle, sustainable

development is the process of operating simultaneously three development areas: sustainable economic growth, prosperous society, equality, stability, diverse culture and the healthy environment and sustained resources. So far, the concept of sustainable development on an international level has been unified and the goal of achieving sustainable development has become the Millennium Goal.

Theoretical Review

Theoretically, the basis for green growth is rooted in correcting large scale market imperfection by maximizing output through the increased combination of capital, labour, technology and human capital. The neo-classicalist believed that output growth is enhanced when factors of production are increased in size. Capital in its state depreciates over time but a huge investment in it can increase productivity through improved technology, clean environment, improved health services and education (Jacobs, 2012). The main theory relating to this assertion was the simple Keynesian theory that in a slump, governments should maintain aggregate demand in the economy by adjusting lost private sector demand with public expenditure. This invariably will lead to multiplier effect which will increase income and employment growth. Such spending does not have to be on green growth technologies, but given the extent of the environmental opportunities available in going green, and the various benefits which include health and other green stimulus advantages. In a bid to fully key into green growth policies by the government, it will require replacing aging power stations or upgrading transmission lines with green technologies. However, the Keynesian stimulus would bring forward investment that would have been made in the future to the present, where it could both have a larger stimulatory effect and benefit from the cheaper labour, materials and financing costs available in a recession (Bowen et al., 2009). The need to ensure continuous use of natural and sustained environment calls for countries to consider the adoption of policies that can assist in maintaining natural reserves. The need to still maintain the natural resources of a country while trying to ensure development in the country resulted in the sustainable development theory.

Green growth supporters are of the view that the current economic growth being witnessed in many nations are no longer sustainable because of the global recession, waste of resources, low budgetary component to environmental conservation, but spending a huge amount to curb various hazards that occur after exploration as a result of poor management of natural resources. The adoption and transition to green growth remains cardinal in the agenda of many nations, even though the move is characterized with mixed feelings like job losses, dwindling labour market and immobility of workers which might come as a result of tight environmental policies and regulations which may either cause the total closure or relocation of industries resulting into trade conflicts (Bowen, 2012). The tenet of green growth is a way of advancing technologies and green industries through job creation, poverty reduction, increased social responsibility and improved environmental performance through access to clean water and energy.

Empirical Review

Reduction in poverty, improved wellbeing, tackling resources scarcity and climate change as a path to inclusive growth in developing nations was the center point of Hynes and Wang (2012), who analyzed the need, condition, and mechanism for green growth and the benefits that can be reaped in the policy. Kaggwa, 2013, wrote on South Africa green growth transition despite the mix challenges and opportunities, even in the face of the socio-economic problems affecting the nation, the policy maker still believed that maintaining green industries is a panacea to reducing unemployment and high carbon emission.

Green growth determinants and its forecast is another major issue for discussion because of the fact that its policy is technological and innovation based which is not really captured in the existing quantitative approach to economic growth, but You and Huang (2014), investigates the determinant of green growth and its future sustenance using the OECD conceptual framework to measure the green growth rates for 30 provinces spanning between 1998 and 2011. The dynamic panel model at provincial level revealed that China has experienced green growth, but at a slower rate during the sampled period and therefore believed that financing innovation through government spending can stimulate more benefit of green growth.

Morssy (2012) in a research carried out in Austria; believed that there should be a balance mechanism between the demand of consumers and the need to protect earthly resources through advance technology. He further saw green growth policy as an analytical and pure macroeconomic policy framework moving from archaic growth to a more sustainable new growth path while throwing a big weight behind innovation as a successful system framework for any country that desire green growth transition.

Besides the unpredictable climatic change which serve as a major impediments to green growth, harnessing the link between environment and economy is another issue of discuss in which Kazzi (2014), in a research conducted in Arab nations revealed that integrating economy and environment remains the key to overall growth through job creation, social equity and sustained natural environmental endowment which is a benefit derived from green growth strategy in Arab nations.

Also in line with this is the work of Smulders and Withagen (2012), who in an attempt to reveal lesson learnt from the green growth theory employed a dynamic general equilibrium and Ramsey model to link the interaction between economic growth and environmental issues and he believed that green growth is the only substitution through the use of endogenous technical change and a clean back-up technology. By extension, Smulders et al. (2014), believed that balancing longer term investment in sustaining environment can be spread through income to reduce poverty and that the green growth is basically built on technical change of initial resource depletion.

Uwazie (2015) analyzed the green growth and its implication on economic growth in Nigeria using a political economy approach to explain the core meaning of sustainable development in relation to environment, accessing selected few sectors to know if there exist economic benefit that could be witnessed than the present growth path if the transition takes place. The result revealed that a lot of benefit and opportunities are embedded if and only if Nigeria could integrate environmental policies with the present economic agenda.

There is limited literature pertaining to green growth in developing countries, this can be attributed to the absence of substantial formulation and implementation of policies on green growth strategies. Green growth strategies have been adopted in some countries like Brazil, Indonesia, China as the panacea towards addressing the issue of greenhouse emissions and other environmental threats posed as a result of the adoption of the non-renewable source of energy (Jupesta et al., 2011; Dudin et al., 2016; Akinyemi et al., 2017; Abdullah et al., 2017).

Policy measures of green growth

The transformation to green growth requires well-designed policy and full application of necessary policy measures. The following policy measures that have been introduced in publications of experts and international organizations (UNDESA, 2012), have been set out in Table 1 below including six groups of policy measures and indicated by: Internalizing; Incentivizing; Institutions; Investment; Information; and Inclusion.

Table 1: Type of policy measures of green growth

Policy group	Policy measures
Internality	1. Taxes, charges, fees, levies 2. Trade permit or certificate systems
Incentive	3. Investment incentives – low-interest loans; micro-financing; tax exemptions 4. Subsidies, feed-in tariffs and other direct support 5. Removing policy distortions and incentive policies 6. Finance – PPP, long-term guarantees, phased out support, removing barriers to FDI, administrative burden, credit guarantees
Institution	7. Regulations – norms, standards, labeling, prohibiting, fines and enforcement, mandatory targets 8. Rights and access rights law, including intellectual property rights 9. Accountability, transparency, enforcement, anti-corruption 10. Integrated planning, decision-making and resource management etc.
Investment	11. Sustainable public procurement 12. Investment in natural capital 13. Sustainable agriculture investment 14. Human capital investment– capacity building, training, skills 15. Infrastructure investment in– energy, water, transport, waste, ICT 16. Innovation investment in – R&D, deployment, information sharing
Information	17. Voluntary approaches – information provision, labeling, targets, agreements, educational initiatives 18. Measuring progress – green accounting, green targets and indicators, carbon inventories
Inclusion	19. Labour market policies – skills training, job assistance, income support and benefits 20. Social protection – unemployment insurance and pensions, cash transfers, compensation for price increases, health care

Source: United Nations for Sustainable Development, 2012

Benefits of Green Growth

The OECD outlined the benefits of green growth based on three dimensions including Economic, Environmental and Social components. Some main achievements of green growth in developing countries are:

Economic

1. Increase and more equitable distribution than GDP
2. Increased production of un-priced ecosystem services (or their reduction prevented)
3. Economic diversification
4. Innovation, access and uptake of green technologies, i.e. improved market confidence

Environmental

1. Increase of productivity and efficiency use of natural resources
2. Sustainable use of natural asset

3. Use of non-renewable natural capital leads to increase other typologies of capital
4. Alleviate unexpected impacts of environment and improve risk management

Social

1. Increase opportunities for human including income, quality of life, particularly for the poor
2. Create decent jobs for the poor
3. Foster social, human and knowledge capital
4. Alleviate inequality (*OECD, 2012*).

Research Methodology

Design of the Study

The research is designed as a qualitative approach. According to Natasha Mack et al. (2005), Qualitative research is particularly useful in collecting specific information about the values, opinions, behaviors, and social contexts of particular groups. There are various methods for collecting and analyzing qualitative data, such as: in-depth interviews, focus group, participant observation, direct observation, open-ended surveys and content analysis etc. Within this study, the author considers some of them relating to the topic.

Method of Data Collection

Document Collecting and Analysis

The study is going to use the document analysis method as a systematic approach for reviewing and considering materials, both printed and electronic documents (computer-based and Internet-transmitted form). According to Bowen (2009), document analysis is particularly well applied to qualitative case studies as in in-depth studies generating rich descriptions of a phenomenon, event, organization etc. In general, all types of document can be meaningful for the researcher in improving understanding, and finding out the contents related to the research problems.

Interviews

In order to get valuable and intensive data for the study, the interviews were conducted with some experts involving in green growth. They were asked for participating in the research. They included 5 interviewees, from public sector, working as policy makers, economists and researchers. Preparing for the interview, the interview themes and questions have been carefully designed to collect expected information for answering all research questions. Most of the questions are open-ended ones, following by probes, only a few closed questions so that both interviewer and interviewee felt free and flexible to interact. The interviews were all carried out in 2019 and in Nigeria. Some questions were sent to the interviewee via e-mail because of limited time of interviews. Depending on the time of interviewee, the interview took from one to two hours and all were noted carefully by the author. After each interview, the responds were shortly written and completed with key points, then categorized based on similar patterns, and numbered by the related questions or themes.

Method of Data Analysis

SWOT analysis

Applying qualitative methodology for the study in which the researcher is going to use SWOT analysis to determine the opportunities as well as challenges of Nigeria in transition from brown growth to green growth. From that determination, fostering strengths of Nigeria in the development of green growth and minimizing threats in the process of green growth and then considering some policy implications for Nigeria. The SWOT stands for Strength, Weakness, Opportunity and Threat, in which Strength and Weakness present internal factors of the problem/ organization while Opportunity and Threat present external of the problem/ organization. According to Val Renault (nd.), a SWOT analysis helps you define what are strengths and weaknesses of your organization, as well as further opportunities and threats. This improves and develops a comprehensive awareness of the situation in order to leading helpfully with both decision-making and strategic planning. The SWOT analysis was originally developed for business and industry, but it is quite useful in other work as well as in examining the strengths, weaknesses, opportunities and threats of Nigeria in pursuing a green growth. The SWOT analysis model is described in the table below.

Table2: SWOT Analysis

	Helpful to achieve the objective	Harmful to achieve the objective
Internal to the organization	Strength - attributes that are helpful to achieving the objective	Weaknesses - attributes that are harmful to achieving the objective
External to the organization	Opportunities - external conditions that are helpful to achieving the objective	Threats- external conditions which could do damage to the objective

To apply the SWOT analysis, some of the following questions are going to be examined for answering:

Strengths

What are the advantages of Nigeria in realization of green growth?

What are the potentials of Nigeria but other countries do not have?

What factors/sectors that can promote green growth in Nigeria?

Weaknesses

What Nigeria can improve?

What Nigeria should avoid?

What factors affect the transition into green growth in Nigeria?

Opportunities

What are the opportunities for green growth in Nigeria (Change in the model of economic development, change in technology and innovation and markets, change in the society, employment, lifestyle, consumption etc.)

What is the trend of development?

Threats

What obstacles is Nigeria facing in transition into green economy? (the demands on capital investment, innovation of science and technology, skilled human resource etc.)

What weaknesses are threats of Nigeria?

Data analysis process

The data analysis process is based on the process of Laurence. Kohn, (2013) SWOT analysis as follows:

Step 1. Familiarization with the data

Step 2. Construction of initial set of categories

Step 3. Refining and grouping together of categories

Step 4. Constant comparison – Content analysis

Step 5. New data collection Step

Step 6 Development of explanations

Step 7. Description of the findings

Step 1: Familiarization with the data

To get familiar with the data, a qualitative analysis often begins with the preparation of the data collection and a first reviewing of the transcripts from the interviews as well as the notes (Laurence. Kohn, 2013). For this step, all data – both printed and electronic forms are checked, logged in through reading all, skimming and scanning; checking the accuracy. Quality of measurement plays a major role in most social study. Data collecting process needs to ensure that they can contribute accuracy to help confirmation of the general quality of the analyses (Trochim, 2006).

Step 2: Building of initial set of categories

The following step is to read and re-read all the data for developing a deep understanding of the data so that an initial set of themes or set of categories is established or being coded text, or giving a label or a name; for instance: green growth definition, international experience, Nigeria green growth, etc. Some non-relevant data is omitted and opposite ones to themes or discussed contents are taken note (Trochim, 2006).

Step 3 to step 5: Refining and grouping together of categories

In this step, data categories are further selected and reduced by grouping together. In this step, content analysis and SWOT analysis are applied in order to realize some new categories and concepts arising from the data through constant comparing (Step 4), for example: low-carbon development, inclusive green growth, principles of green growth etc., so some new data is needed to collect new ideas or emerging insights from the analysis (Step 5).

Step 6: Development of explanations/theory construction

The next step is very important in defining new point of views, new problems or

something is different from analyzed and explored data about green growth and related issues. These determinations lead to the final step.

Step 7: Description of the findings

After six steps of analysis, the final step is very important to present and describe the results/findings obtained from the document analysis and interviews, including conclusions and recommendations for the study.

Results of SWOT analysis

This analysis is applied to clarify the strengths and weaknesses of Nigeria as internal factors and opportunities and threats as external factors affecting the transition to a green growth in Nigeria. Data is collected from documents and an in-depth interview has been applied in SWOT analysis to answer the questions determined in section 3 of each aspect of Nigeria in the SWOT analysis. The following results of the SWOT analysis are briefly summarized below as well as in the details:

Summary of SWOT analysis of green growth transition in Nigeria

Strengths

- Abundant natural capital
- Progressive socio-economic reform
- Stable political environment and society
- Abundant labor force
- Potential agriculture, forestry and fishery

Weakness

- Limited awareness of green growth
- Lack of policy measures
- Consistent legal system and policy
- Large share of brown growth
- Huge capital investment required

Opportunities

- Opportunity of transforming growth model
- International support
- Advanced technology transfer

Threats

- Need to further study
- Most severely affected by climate change
- Limited domestic resources Z+

Strengths

First, Nigeria has comparative advantages in terms of natural conditions and natural resources. Nigeria is located in the tropical region with potentials of solar energy, wind

energy and fast-growing organisms, which are opportunities for Nigeria to achieve green growth. (Tram, 2015), So, Nigeria has a lot of potential to develop green sectors such as agriculture, renewable energy and tourism etc.

Second, Nigeria's economy has continuously grown in recent years, creating an internal force for a new development trend; favorable legal environment, mechanisms and policies towards promoting "restructuring the economy associated with the new growth model" as a key task in the socio-economic development strategy. Furthermore, the labor force of Nigeria is in the period of "golden population" (Tram, 2015), with the tradition of hard working, simple living and harmony with the nature influencing of the Eastern cultural tradition and obtaining quickly science - technology and management skills to develop green human resource.

Third, the challenges of environmental problems, pollution and resource depletion have awakened leaders and people to support for the new development model, green growth, remove the "brown growth. Nigeria has been successful in achieving some Millennium Development Goals, particularly in the goal of poverty reduction (UNICEF, 2010). Moreover, Nigeria is improving the institution of the socialist-oriented market economy, towards a development for human being. These factors are put in a stable political environment, expanding international relations and intensively international integration which bring a good opportunity for the implementation of green growth policy.

Fourth, towards a green growth will receive a high consensus of society for the following reasons: (i) The environmental pollution and resource depletion during the recent time have affected the development of the country; (ii) Many sectors in the Nigeria's economy such as energy, water, industry, infrastructure, construction and urban transport, etc. have shown limitations forcing the government to restructure these sectors; (iii) After a period of development, people have been aware of the cost of the "brown growth model.

Fifth, In the case of food crisis, Nigeria has the potential to become a key country in the chain of food security for the World. This can be called "green power" of Nigeria in the future, building on the foundation of a modern economy with the high advantages in exporting products of agriculture, forestry and fishery in the World (Tram, 2015).

Weaknesses

First, the perception of what is a green growth is still very new and unconfirmed in government agencies, enterprises and communities in Nigeria. It requires studying and disseminating the concept of green growth more popularly. Furthermore, the process of moving from awareness to action, from the conventional habits, not friendly and harmonious with the nature of production and consumption to green ones also requires a certain period of time to adapt. Up to now, there is not any legal document and policies specifically mentioned the definition of green growth in Nigeria.

Second, Nigeria lacks policy measures to encourage enterprises and social community to involve in the transition to green growth, in which financial policy instruments supporting green growth have not been fully formed. The green tax system has not been fully implemented, the system of standards for green products, energy use in each sector have not been issued. Moreover, incentive policies for green and environmentally friendly investment projects have not been effectively implemented.

Third, the legal system and policies of Nigeria are not consistent with the green growth perspective. For example, the government determines to promote green growth but the subsidy for fossil fuel-based production and consumption still accounts for a quite large amount. According to the International Energy Agency (IEA, 2013), the subsidy for fossil fuel in Nigeria for the period 2007-2011 was around 3% of GDP (3.4% of GDP in 2011), higher than other countries, such as India (2.4%), Malaysia (2.6%) and Indonesia (2.5%), so foreign investors who operate in clean energy sector have not invested more in Nigeria

Fourth, green growth is associated with the use of renewable energy, low carbon, and investment in restoring ecosystems, livelihoods associated with environmental restoration while the technology of production in Nigeria is mostly old technology and consumes a large amount of energy, and the share of "brown" growth is a big contribution to the economy; environmental services, recycling industry are still weak. Therefore, the innovation of technology towards the green growth is a significant challenge, (IEA, 2013).

Fifth, mobilizing capital for the implementation of green growth is still difficult. Although, Nigeria has escaped from the threshold of poor countries, the national accumulation compared to developed countries is very low while according to Ministry of Planning and Investment, Nigeria needs 30 million USD to realize the Nigeria Green Growth Strategy (MPI, GIZ, 2017)

Opportunities

First, like other developing economies, green growth is an opportunity for Nigeria to transform into a new growth model that is friendly to the environment and promoting social equity. Furthermore, the difficulties and challenges of the economy in recent years are putting Nigeria in a high pressure of reforming and restructuring the economy and transforming the growth model towards efficiency and more sustainability.

Second, green growth is the trend of development in the World and the issues relating to climate change have received a great attention of the international community. Considering the green growth model, Nigeria can learn from the international experience and actively participate in international and regional agreements relating to green economy and sustainable development as well as the support and assistance of international organizations in the World to develop green growth and green investment policies as well as institutional reforms associated with green growth policies. It facilitates stakeholders including the state, enterprises and R&D organizations to coordinate, (Allen, & Clouth, 2012).

Third, Nigerian enterprises will benefit from international institutions that have been formed through international initiatives to promote green growth/green economy to receive technology transfer and business cooperation. In the field of FDI attraction, with more appropriate policies, foreign investors will promote high technology investment, contributing to improve the situation of science and technology and connecting with global green production network.

Threats

First, Nigeria is considered as one of the few countries that is most severely affected by climate change and vulnerability due to disaster increase, the country is the seventh most damaging country worldwide caused by climate change, (Allen, C., & Clouth, S. 2012).

Second, green growth still needs to further study by the international community and experts around the World, so the policy mechanism of green growth in Nigeria needs to complete. It is imperative to review the relevant policy mechanism and adjust it to suit the new development model towards green growth.

Third, green growth requires a considerable amount of financial resource to invest in technology improvements and green investment projects, while domestic resources are limited. Therefore, the implementation of green growth strategy cannot be based only on limited state budget, but must mobilize capital from the banking system, private sector, especially foreign investment with the support of international organizations, (Omilola, 2014).

It can be seen that the strengths and weaknesses of Nigeria as well as the opportunities and threats are the same in terms of quantity, opportunities and challenges intertwines. Identifying each aspect, both internal and external factors will help to make green growth policy more feasibly and reality by capturing opportunities, realizing strengths and weaknesses of pursuing a green growth in Nigeria.

Summary, Conclusion and Recommendation

Summary

Green growth is the growth of low carbon development, includes the efficient and sustainable use of resources, the maintenance of biodiversity and the restoration of ecosystems to improve the living conditions of people in the present generation as well as for the future generations. For developing countries like Nigeria, green growth should play a significant role in addressing the serious challenges to these economies, including reducing poverty and social inequity; minimizing the impact of damaging the environment and ecosystems; help them adapt and mitigate the impacts of climate change and natural disasters through the consideration of changing the economic growth model, reallocating public investment, developing green sectors, especially the renewable energy sector. In Nigeria, the concept of green growth though it is not quite new, should be considered and more clearly mentioned, especially in the action plan implementations as well as other green policies. This will directly contribute to raising

awareness, and the role of green growth not only within the community but also at the local governments and even the central agencies.

Conclusion

Green growth is usually associated with developed economies, but it is emerging in developing countries. Although the study of green growth policy in developing countries is not very new, it has significant meaning in the context of global socio-economic development that has significant impacts and poses challenges for developing economies today. Green growth is not only a new trend, but it is also an optimal choice for developing and emerging economies such as Nigeria. Therefore, the study of green growth in developing countries and focusing on green economy in Nigeria are interesting not only in theory but also in practice. In terms of theory, the study has contributed to clarify the concept of green growth, distinguish between the concept of green growth and related concepts such as green economy, sustainable development and brown economy. For Nigeria, the study has contributed to clarifying the concept of green growth and considered it as the way to achieve the goals of sustainable development.

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