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## Palm Tree Plantation as a Panacea for Poverty and Unemployment Reduction in South-Western Nigeria: A Review<sup>1</sup>

Nigeria as a nation is endowed with both human and natural resources. These resources are enough to solve multifarious challenges such as poverty and unemployment. Unfortunately, the issue of poverty and unemployment in the country receives insufficient attention instead of being the government's foremost priority in the recent time. Little attention is also paid to the exploration of palm tree plantation as a way forward for addressing the challenges of poverty and unemployment in the country. The present paper reviews literature that investigated palm tree plantation as a remedy to endemic or abject poverty and unemployment in the country. The conceptual framework is used to explore the significant impact of palm tree plantation on poverty and unemployment reduction in the country. The methodology of content analysis of relevant literature was applied. The research results indicated that there are potentials to be tapped in palm tree plantation as a solution to the prevalent poverty and unemployment in the South-western part of the country. The findings reiterated that palm tree plantation can make an essential contribution to the development of infrastructure such as roads, schools, and telecommunications among others. The paper revealed that there is a relationship between palm tree plantation and poverty and unemployment reduction in the South-Western Nigeria. However, the study also identifies the effect of palm cultivation, especially its impact on tropical rainforests. It is thereby suggested that palm tree plantation should be included as part of social intervention programmes. In addition, the government should constitute the Nigerian Palm Oil Board (NPOB) and initiate the Nigerian Palm Plantation Development Act (NPPA) in order to expand the agricultural investment in the country. It is further suggested that palm tree plantation should be used for infrastructural development, such as roads, schools, telecommunications etc. Lastly, Land Protect Act (LPA) should be effectively formulated and executed for safeguarding the socio-environment degradation emanating from palm tree plantation.

**Keywords:** Palm Tree, Plantation, Poverty, Unemployment, Land Protect Act (LPA), Nigerian Palm Plantation Development Act (NPPA), Infrastructural Development

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## Развитие пальмовых плантаций как решение проблем бедности и безработицы в юго-западной части Нигерии

*Нигерия богата как человеческими, так и природными ресурсами, которых достаточно для решения разнообразных проблем, таких как бедность и безработица. К сожалению, на данный момент проблемы бедности и безработицы не являются приоритетом правительства страны. Недостаточное внимание также уделяется развитию пальмовых плантаций, которые могут помочь решить эти проблемы. В настоящей статье представлен обзор литературы, рассматривающей пальмовые плантации как средство для решения проблемы повсеместной бедности и безработицы в стране. В статье приведена концептуальная структура для изучения влияния распространения пальмовых плантаций и проведен контент-анализ соответствующей литературы. Результаты исследования показали, что потенциал пальмовых плантаций можно использовать в качестве решения проблемы бедности и безработицы в юго-западной части страны. Создание подобных плантаций может положительно повлиять на развитие инфраструктуры — дорог, школ, телекоммуникаций и др. Также было отмечено влияние выращивания пальм на влажность тропических лесов. Предполагается, что стратегия развития пальмовых плантаций должна быть включена в программы социальной помощи. Кроме того, правительство должно учредить Совет по пальмовому маслу Нигерии и инициировать Закон о развитии нигерийских пальмовых плантаций, чтобы увеличить инвестиции в сельское хозяйство. Предлагается использовать потенциал развития пальмовых плантаций для создания необходимой инфраструктуры. Наконец, необходимо эффективно сформулировать и реализовать Закон о защите земель для предотвращения ухудшения социально-экономических условий вследствие высадки пальмовых деревьев.*

**Ключевые слова:** пальма, плантация, бедность, безработица, закон о защите земель, закон о развитии нигерийских пальмовых плантаций, развитие инфраструктуры

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### Introduction

Nigeria has a population of approximately 180 million with almost 500 ethnic groups, Hausa, Igbo and Yoruba being the major ethnicities in the country. There are six geo-political zones, namely: North West, North East, North Central, South East, South South and South West. Hence, there are six states in the South-western part of country namely: Lagos, Ogun, Oyo, Osun, Ondo and Ekiti. Undoubtedly, there are agricultural potentials in the aforementioned states of the South-western part of the country. Nonetheless, there are untapped agricultural potentialities, especially the region with fertile lands. In the contemporary time, high level of poverty and unemployment has become a concern for both developed and developing nations using agricultural investment in improving socio-economic condi-

tions of the citizens. There are many aspects of agriculture that can be explored to reduce poverty and unemployment. For instance, literature contends that cottage industries and natural rubber market contribute to rural livelihood in the country (Adeoye, Bhadmus, 2016; Burger, Smit, 1997). The rate of poverty and unemployment in African countries in general and Nigeria in particular cannot be over-emphasised (Idowu, Banwo, Akerele, 2011). Notably, Nigeria is also experiencing high rate of poverty and unemployment, which different social intervention programmes of the government such as Agriculture Credit Programme, Buhari Young Farmer Network among others have been trying to address.

More importantly, Nigeria as a nation is blessed with human and material resources and particularly, South-West is endowed with fertile land for

development of agricultural sector which can be developed to solve the problem of poverty and unemployment (Gibson, 2001). Consequentially, it can be used to foster and fast-track infrastructural development such as roads, schools and telecommunications among others. Despite this fact, the country is still having high rate of citizens who are experiencing abject poverty and high level of unemployment (Greeley, 1994). There are different socio-economic interventions by the federal government such as N-Power that directly or indirectly focus on addressing poverty and unemployment. Similarly, the government has provided small and medium enterprises (SMEs) as a strategy for addressing poverty and unemployment and consequently improving the sector of the economy in general (Pulka et al., 2017).

It is important to demonstrate that, in the 1950s before the discovery of oil, Nigeria had invested heavily in agriculture, including palm tree plantation. Nonetheless, with the discovery of oil, the country sabotaged the further exploration and expansion of agricultural potentials especially utilising beekeeping for reducing poverty of the country (Ojo, 2004). It is, however, unfortunate, since Asia has developed the palm tree plantation that consequently expanded the resources and revenues for the government. For instance, with massive investment in palm tree plantations in Asian countries such as Malaysia since 1960s and 1970s, this investment has been meaningful in providing means of livelihood to the citizens and consequently lead to rapid socio-economic development of the country (Corley, Lee, 1992).

However, little attention is paid to exploring the potentiality of palm tree plantation as a remedy for the rate of poverty and unemployment in the South West in particular and the country at large, despite the fact that various literature sources have acknowledged this. Nonetheless, there is a consistent under-estimation of the potential of palm tree plantation due to the fact that majority of unemployed youths are concerned about white collar jobs. The government has been trying to address the challenges through different intervention programmes and small and medium enterprises (Pulka et al., 2017), yet, there is still a gap in the existing body of knowledge especially in utilising palm tree plantation as an empowerment. As a result of this gap, the present paper attempts to offer the palm tree plantation as an alternative solution in addressing poverty and unemployment in the country. This research bridges the gap by painstakingly exploring palm tree plantation as a way of addressing the poverty and unemployment in South-Western Nigeria. Therefore,

this paper is divided into the following parts: conceptual framework; an overview of palm tree plantation; an overview of poverty and unemployment; palm tree plantation as a panacea for reduction of poverty and unemployment; environmental and social implications of palm tree plantation; conclusion and suggestions.

### Conceptual Framework

This section explains palm tree plantation as an aspect of agriculture through which endemic poverty can be drastically reduced. Indeed, this untapped agricultural potential can create employment opportunities and consequently reduce poverty in the country. The conceptual framework is discussed based on the existing literature that explicitly explored four sub-components namely: agricultural investment, palm tree plantation, poverty and unemployment. Each of these is explained in the subsequent paragraphs.

First, concerning agricultural investment, the agricultural expansion has been growing in Nigeria since few decades and the South-western part of the country has richest rainforest that can be used for an expansion of investment in agricultural sector ( Idowu, Banwo, Akerele, 2011). Studies have acknowledged investment in agriculture as a self-reliance enterprise and it through tapping the opportunities inherent in various aspects of agriculture such as palm tree plantation that make it self-reliant. This will assist in minimising the high rate of unemployment, poverty and hardship in the country (Olagunju et al., 2013). It is undeniable that this has been regarded as one of the most profitable agricultural businesses in different parts of the world and it is of the majority sources of revenue in countries like Malaysia and Indonesia because there is industrial policy and the palm oil industry (Gustafsson, 2007). Venturing into this agricultural investment can virtually address social and economic challenges of a particular society. Government has been supportive of agricultural investment whereby loans are being given to the farmers. However, practice training and support should be given by the government especially for making agriculture as an important aspect of social intervention programmes through which poverty and unemployment can be drastically reduced to minimal level as literature expounds (Adeoye, Bhadmus, 2016; Ajao, Oladimeji, 2013; Burger, Smit, 1997). Despite the fact that there is a growing interest in agricultural investment, less attention is paid to the exploitation of palm tree plantation especially in expanding generation of income in most developing economy such as Nigeria. Thus, with the com-

mitment of the government, citizens can be economically empowered through the investment in agricultural potentiality. For example, the federal government's programme tagged 'Buhari Young Farmer Network' and N-Power should be made effective and efficient in order to address poverty and unemployment. Hence, the use of modern mechanical equipment can maximise and multiply agricultural growth as literature contends (Haggblade, Hammer, Hazell, 1991).

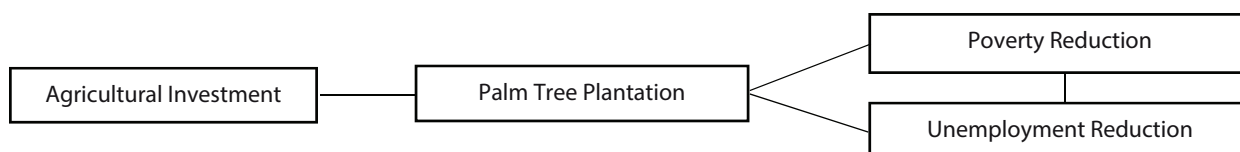
Second, palm tree plantation specifically is an integral part of agricultural investment. It is noteworthy to say that most people strongly believe that palm tree is meant for only consumption; however, literature posits that it can also be used for other purposes such as producing more oil as compared to other plants (Kiple, Ornelas, 2000). Nigeria can also revive palm plantation for better commercial activities especially for large-scale production for domestic and foreign demands or supply. The essence of palm tree plantation is that it can be used for vegetable oil which will be produced for international market (Obahiagbon, 2012). More recently, literature contends that it is used for biogas such as in the case of Asian countries like Malaysia (Corley, Lee, 1992) despite the fact that studies emphatically stressed on clearing the environment from the effect of carbon debt and it is regarded as having potential of jeopardising the climate (Danielsen et al., 2009; Fargione et al., 2008). Several studies have advocated for the diversification of economy in the country: exploration of the socio-economic advantages of palm tree plantation can lead to such diversification similarly to the potential of apiculture, as the art of beekeeping brings economic gains in the country (Ajao, Oladimeji, 2013). Studies have demonstrated that palm tree plantation can drastically reduce poverty among the teeming unemployed youths because it is considered instrumental for empowerment opportunity and self-reliance in most developing economy like Nigeria. There is an advantage in palm tree plantation and it is easy to indulge in the investment once land for the plantation is secured. More so, there is no need for taking care of the plantation on daily basis due to the fact that it is an industry that promotes sustainability of agriculture and can provide income to the investors (Haggblade, Hammer, Hazell, 1991). Undoubtedly, the large cultivation of land in rural areas can increase agricultural potentiality towards reduction of poverty in the rural areas. This is not an indication that inhabitants of urban areas do not partake in the exploitation of palm tree plantation as agricultural-based solution for reduction of poverty and unemployment.

Nonetheless, literature describes the substantial impact of oil palm plantation, addressing the control of negative effects of palm waste on the environment (Ojo et al., 2017).

Third, pertaining to poverty, there are multifarious social problems and poverty and unemployment are among fundamental social problems that need to be addressed in the country. Indeed, poverty is regarded as a pestilence or wave that affects all spheres of the victim's life (Mukherjee, Benson, 2003). Poverty and unemployment are complex phenomena that require serious attention especially by providing practical solution to it. However, the rate of poverty among rural dwellers is terrifying. Poverty is a hindrance that engenders individuals in attaining their potentials and fulfilling their aspiration. At the global level, as a result of the fact that Sustainable Development Goals (SDGs) had become global agenda of the United Nations (UN), addressing poverty becomes its core value that is being pursued. More specifically, eradication of extreme poverty and hunger especially by paying meticulous attention to the sustenance of people living below one dollar per day. In several occasions, World Bank has incessantly confirmed the high rate of poverty in developing countries like Nigeria. Countries including Nigeria strategically developed conceptual framework for the drastic reduction of poverty in the society. Despite the fact that Nigeria is endowed with both human and natural resources, the natural resources have not been judiciously utilised for the eradication of poverty in the country. Hence, labour productivity for the maximisation of productivity of palm plantation and technical efficiency can significantly minimise or reduce poverty (Ojo, 2004).

Fourth, the prevalence of unemployment is not limited to a particular nation or continent, it is overwhelming in both rural and urban areas in developed countries and the case of under-developing countries is even worse. Notably, unemployment is regarded as a situation where someone having capability or capacity is willing to work but unable to get job in order to get means of sustenance and consequently fulfil his needs and the needs of his family. However, the government's attempts to reduce unemployment remain ineffective because a number of citizens are still suffering and experiencing abject poverty as a result of unemployment. It is undoubted that Nigeria is endowed with multifarious resources that can be judiciously used in addressing joblessness.

Thereby, the government plays paramount roles in the service delivery towards enhancing the livelihood of citizens. Thus, policies and strat-



**Fig.** Conceptual Framework (sources: Olagunju et al., 2013; Ojo et al., 2017; Okolo et al., 2019)

egies for fostering the palm tree plantation are important for the actualisation of the nation's dream of socio-economic development. Since the country is having fertile land for cultivation of agricultural exploitation, its use for palm tree plantation is under-utilised despite the fact the studies have shown its importance for reducing poverty and unemployment in the country (Okolo et al., 2019; Olubanjo, 1998). It is the government that can encourage the citizens to pay significant attention to the palm tree plantation whereby it will not only be useful to rural inhabitants specifically in reducing poverty and unemployment but it will even foster passion for agricultural investment among the citizens (Oluwole, 1999). In summary, there are a number of factors inhibiting meaningful progress in addressing poverty and unemployment in the country: such factors as social injustice, inequality, lack of good leadership, corruption, embezzlement of public funds among others are contributing to the lack of judicious utilisation of the resources for reduction of poverty and unemployment among the citizens. In order to solve the foregoing problem and explore areas that can be tapped and developed to solve the social perplexity of poverty and unemployment (Olubanjo, 1998), it is necessary to analyse the agricultural potential especially investment in palm plantation in order to successfully feed the citizens that experience poverty and unemployment and consequently attain the overall economic growth with specific focus on the palm tree plantation in the country. Figure shows the conceptual framework of the presented study.

### An Overview of Palm Tree Plantation

This section presents an overview of palm tree plantation. There is a species of palm called *Elaeis guineensis* through which palm oil is being derived. It is commonly found in the West and South West. Contemporarily, this species is commonly found in many countries such as Indonesia, Central America, Cambodia, Sri-Lanka, Madagascar, Malaysia and different islands in the Indian (Dy Phon, 2000). Historically, more than five thousand years ago, West Africa had been using palm oil for different purposes which was discovered by the archaeologists (Idris et al., 2006). It should be reiterated that the species of the palm was taken to Egypt by Arab traders; it was affirmed

that French naturalist Michel Adanson was the first person to describe the palm seeds as literature expounds (Dy Phon, 2000; Idris et al., 2006). The benefit of palm oil tree has been confirmed: it can produce more oil as compared to other plants that can also produce oil, also, the palm fruit usually take between five and six months majorly from pollination to maturity.

In the modern time, there is a commercial planting material such as tenera palms or DxP hybrids. There are pre-nursery and nursery seedlings which need sunlight to grow. Pre-nursery must be given adequate water on daily basis for its proper germination while nursery seedlings should be given uninterrupted supply of water as well as topsoil (Azevedo et al., 2005). It is in this regard that studies posit that water significantly contributes to economic development (Saleth, 2002). It is noted that the seedlings at the nursery stage should be protected from insects and vertebrates because they are being considered as pests whereby the palm seedlings should be safeguarded against them (Paterson, 2007).

Apart from the foregoing, it should be mentioned that in order to start the development of oil palm, more importantly after land clearing, it is essential to establish leguminous cover plants. In so doing, it shall significantly improve structure of the soil and protect the plant from soil erosion. In addition, the establishment of leguminous cover plants will help the development of palm root and make the plants respond to the mineral fertiliser; crop nutrient is also important (Sapak et al., 2008). For instance, the uptake of the nutrient used to be in low stage in the first year drastically increases between first and third years especially when an attempt to harvest starts, which subsequently increase during the yields in the third to six years from the inception of planting even in the areas where there is no maximum rainfall. More so, it is noteworthy to say that there is nitrogen deficiency which is commonly ascribed with the conditions of majorly found in the water-logging as well as topsoil erosion (Wang et al., 2014).

In addition, there is a potassium deficiency specifically in the sandy soil that manifests in pale green spots of older leaves of the palm. Similarly, copper deficiency is associated with the crop especially manifesting on deep peat soil. It is as a result of the identified deficiencies that, whoever

wants to partake in the investment of palm plantation should be cognizance of healthy seedlings and it is important to avoid nutritional disorder in oil palm as literature asserts (Uexküll, Fairhurst, 1999). Although, multi-nutrient fertilisers are advisable source of nutrient to be used for seedlings of palm, maintenance of good fertiliser in responding to the high yield in older palms and selection of thinning ones are advisable (Sundram et al., 2003).

Furthermore, it is necessary to mention that Nigeria should learn from Malaysia, which has developed its palm tree plantation significantly. Prior to Second World War, Malaysia started the selection work where pollen was imported from Africa and there were crosses between DxT and DxP.<sup>1</sup> Literature acknowledges that segregation of fruit forms of crosses did in 1950s were not correct. Precisely, the study indicates that monitoring of the efficacy of controlled pollination was feasible (Paterson, 2007). Despite the fact that there have been challenges pertaining to trial seedling crosses in the past, specifically, in 2013, there was discovery of control of shell thickness especially by verifying the status of tenera (DxP).<sup>2</sup>

Onwards, Federal Land Development Authority (FELDA) is considered as the biggest oil palm planter in the world whereby it has 900,000 hectares of land in Indonesia and Malaysia respectively. Notably, FELDA was formed specifically when Land Development Act was enacted with prime focus on eradicating poverty. Each of the settlers on the land was given four hectares of land (i. e. 10 acres) whereby the land was meant for the plantation of oil palm or rubber and total of twenty years were given for the pay-off of the land. It should be reiterated that almost 76 % of the land under FELDA as of 2000 were used or meant for oil palms. Onwards, as of 2008, FELDA's programme empowered 112,635 households in Malaysia. Hence, the land bank by FELDA's plantation of oil palm planting carried 84 %<sup>3</sup>.

It should be inferred that the Nigerian government should learn from the achievement of Malaysia especially by initiating Nigerian Palm Plantation Development Act (NPPA) as an agricultural scheme to give vital support for oil palm cultivation in the country. For example, the government can secure land in 770 local governments

of the 36 states of the federation and allocate the land to every interested planter in the palm plantation. The planters of palm being allocated with land should be given a period of ten years to pay off for the land. The dividend of the programme can be shared among the participants in the programme. This system will help the rural development and consequently help in reducing the high level of poverty especially through the cultivation of yielding palm oil crops in the country.

### **Palm Tree Plantation as a Panacea for Reduction of Poverty and Unemployment**

The extent of abject poverty and high rate of unemployment are confirmed not only in the country only but also by the international community. It is not disagreeable the several studies have asserted that agricultural exploration is an important impetus for socio-economic emancipation, specifically, it can be instrumental in salvaging or rescuing citizens from abject poverty and unnecessary hunger. Undoubtedly, there is a growing interest in agricultural investment since few years and expectedly, the government provide stimulation in the form of funds and mechanical equipment which largely can contribute to the expansion of agricultural sector of the country. It is not undeniable that rural poverty has become foremost priority of the government and initiatives of several social intervention programmes remain herculean. In spite of the government efforts, there is still a high level of poverty. It is thereby vital for the government to diversity its approaches and strategies toward eradication of abject poverty among the citizen. It is necessary to say that one of the several strategies for the government's investment should be the development of palm tree plantation, ensuring the provision of services to the citizens in order to foster their sustenance or livelihood. This should be considered as part of agricultural products that can improve the livelihood of the citizens in particular and the economy of the country as a whole.

Since 2015 onwards, the current administration has been paying serious attention to exploration and rejuvenation of agricultural potentials in the country. This is important in order to attain self-sufficiency in food production and above all, to maximally reduce hunger and poverty among the citizens (Olubanjo, 1998). More significantly, development of palm tree plantation is an agricultural investment that can employ many of the unemployed youths in the country. However, provision of essential facilities such as funds, technological equipment or mechanisms among others are vital for the development of palm tree plan-

<sup>1</sup> Simeh, A., Tengku A. & Tengku M. A. (2001). The Case Study on the Malaysian Palm Oil Retrieved from: [www.unctad.org](http://www.unctad.org) (Date of access: 21.06.2020).

<sup>2</sup> Palm Oil World (2020). About the Malaysian Palm Oil Industry. Malaysian Palm Oil Board. Tropicos. Retrieved from: [www.palmoilworld.org](http://www.palmoilworld.org) (Date of access: 23.06.2020).

<sup>3</sup> Ibid.

tation in order to attain rural and urban development. In addition, catering for the welfares of the farmers and orientation towards the use of technological innovation are instrumental in the growth and development of palm tree plantation in the South West in particular and the entire country in general. The increase production of palm tree plantation will address poverty among the poor farmers and consequently contribute to gross revenues from palm tree plantation.

There are important factors to be taken into consideration while trying to invest in palm tree plantation, such as: employment wages, price of raw materials for agriculture, foreign exchange rate, etc. All the aforementioned factors are paramount for propelling the overall economic growth and development in the country. It should be specifically noted that Asia has been proactive in utilising palm tree plantation in providing drastic reduction of poverty and unemployment (Corley, Lee, 1992). Nevertheless, it is still evolving in the context of Nigeria towards judicious utilisation of this potential in solving the problem of endemic poverty among the citizens (Okolo et al., 2019). Literature acknowledges that palm oil mill specifically in one of the states in South-western part of the country (i. e. Osun State) has a great impact on poverty alleviation (Olagunju, 2013). Since farming and agriculture in general is growing, there is need for more attention on the plantation of palm trees. The government has been trying to boost economic development; however, there is a need to give priority to investment in plantation of palm trees because it is considered as a way of drastic reduction of poverty and unemployment.

#### **Empowerment Implication and Effects of Palm Tree Plantation**

There has been advocacy for women empowerment in the country, but there is less opportunities for women in the aspect of palm tree plantation despite the fact that literature states the need for women to partake in agriculture in order to contribute to the growth of economy. It has been recently mentioned by the International Monetary Fund (IMF) that if there are opportunities for accessing productive resources, especially, land and fertilisers, there are positive outputs to be expected from the agriculture in most developing countries such as Nigeria. Thus, it should be reiterated that women too can work at palm tree plantations as an attempt to drastically reduce poverty and unemployment among them.

With the support of the government, many people involved in the palm plantation can contribute meaningfully to the development of in-

frastructure especially roads, schools, telecommunications etc. in different parts of the country. Despite the fact that palm plantation plays significant role in the infrastructural development, there may be cases where the land conflict between the rural owners or the land users for palm plantation may ensue. Thus, it needs adequate clarity of terms for the use of the land in order to avoid misunderstanding.

It is undoubted that oil palm planation is an important economic prospect and its cultivation requires essential skills for its success, especially in terms of enhancing productivity of labour technical efficiency in food crop production (Ojo, 2004; Rosegrant, Svendsen, 1993; Sundram, Sambanthamurthi, Tan, 2003). Indeed, the active participation in the palm plantation in the country should be more organised in such a way that interested farmers and individuals should be allowed to participate in the scheme.

Furthermore, there is another serious effect of palm cultivation, namely, its impact on tropical rainforests, which are mostly cleared to pave way for the plantation of palm trees. As a result of this, the government needs an effective execution of law for protection of forest in the country and the law should take care of open burning of palm waste which can cause air pollution. In so doing, protection of the environment will be guaranteed.

Despite the fact that there are challenges associated with the palm plantation, there has been an increase in the demand for palm oil in the recent time, since it is useful for biofuel and can also be used for biogas which is considered as renewable fuel (Stevenson, 2006). For instance, some countries have reviewed their policies on biofuel in order to enhance their standards and ensure sustainability of the use of palm oil for many benefits (Reijnders, 2006). Nonetheless, critics posit that most companies, especially in vegetable oil economy, are engaged in roundtables on sustainable palm oil, which continue to cause environmental degradation. There is an attempt to consider the use of palm as biofuel as indeed pervasive in nature due to the fact that oil palm production is regarded as carbon balance, which undeniably causes damage to the natural environment which literature advocates for mill effluent by utilising anaerobic contact filter (Vijayaraghavan, Ahmad, 2006). For instance, environmental groups like Greenpeace assert that oil palm plantations caused deforestation, which is damaging to the climate as a result of its use for biofuel. Nevertheless, literature acknowledges negative consequences especially in terms of social and environmental impacts of palm plantations. This negative impact

undeniably outweighs the advantage; specifically, there is no indication of reduction with respect to the negative consequence in the recent time. It is as a result of this that literature has emphatically stressed on the diversification of resources for sustainable economic development in the country (Bassey, 2011). This can be achieved when an emphasis is given to non-farm incomes for reducing poverty (de Janvry, Sadoulet, Zhu, 2005). Hence, investment in palm tree plantation can significantly boost the economy of a nation (Page, 2018; Singh et al., 2013).

### Conclusion

This paper painstakingly explores the paramount significance of palm tree plantation as an impetus for solving the endemic of abject poverty and unemployment. Conceptual framework examines four major variables (agricultural investment, palm tree plantation, poverty & unemployment). More importantly, the paper also explicates on the practices of palm tree plantation from other nations such as Malaysia in order to have viable development strategy for palm plantation in fostering the overall socio-economic conditions of the citizens by solving the problem of abject poverty and unemployment. The central thesis of the paper regards palm plantation as an alternative solution to the existing social intervention programmes in order to address the challenge of poverty and unemployment among the teeming youth in the South-western part of the country in particular and Nigeria in general. Based on the central focus of the paper, the following suggestions are therefore made:

1. The palm plantation should be included into social intervention programmes of the government by giving financial support to the interested individuals engaging in the agricultural sector in order to drastically reduce the abject poverty and high rate of unemployment in accordance with core value of global agenda of United Nations in order to attain Sustainable Development Goals.

2. The government should constitute Nigerian Palm Oil Board (NPOB) whose primary responsible is to develop a framework for operation and practice of palm tree plantation especially by adapting strategies from successful countries like Malaysia.

3. The federal government should secure land in 770 local government areas across 36 states of the federation and allocate the land to palm tree planters for the period of ten years to pay off for the land.

4. The government should effectively enact and efficiently execute the Land Protection Act (LPA) for safeguarding the socio-environment degradation emanating from palm tree plantation.

5. The government should initiate the Nigerian Palm Plantation Development Act (NPPA), which will establish agricultural scheme for the cultivation of palm plantation in the country.

6. The government should send people abroad for training in order to become experts in palm tree plantation in the country.

7. Palm tree plantation should be used for infrastructural development such as roads, schools, telecommunications etc.

8. The government should target palm tree plantation for production of oil in substantial scale and for biofuel purpose as the international community canvases for it.

### Limitation and Description of Future Research

This paper tries to explore palm tree plantation by addressing the challenges of poverty and unemployment in Nigeria. The limitation of the paper is that it is a neither quantitative nor qualitative empirical research through which the data would be collected from the target respondents. However, the paper shows substantial contribution to theoretical exploration of the conceptualisation of the framework for addressing poverty and unemployment in the country through review of the paper. Apart from investment in palm tree plantation as an empowerment in addressing poverty and unemployment among the citizens, the future research can investigate effect of palm cultivation, specifically, how it affects the tropical rainforest in the South-western Nigeria. In addition, the multifarious benefits of palm tree such as its use for biofuel and biogas as being considered as renewable fuel can be examined in connection with socio-economic empowerment in the South West in particular and Nigeria in general.

### References

- Adeoye, I. A. & Bhadmus, H. B. (2016). Socio-economic contributions of cottage industries to rural livelihood in Nigeria. *Applied Tropical Agriculture*, 5, 128–133. Retrieved from: <https://www.semanticscholar.org/paper/Socio-Economic-Contributions-of-Cottage-Industries-Adeoye/3fc2c0063d422b53676504b609b8dd3e33996264> (Date of access: 23.06.2020).
- Ajao, A. M. & Oladimeji, Y. U. (2013). Assessment of contribution of apicultural practices to household income and poverty alleviation in Kwara State, Nigeria. *International Journal of Science and Nature*, 4(4), 687–698.



- Azevedo, J., Maccheroni Jr., W., Pereira, J. & Luiz de Araújo, W. (2000). Endophytic microorganisms: a review on insect control and recent advances on tropical plants. *Journal of Biotechnology*, 3(1), 40–65.
- Bassey, O. C. (2011). Resource Diversification for Sustainable Economic Development in Nigeria. *British Journal Humanity & Social Science*, 5(1), 33–46.
- Burger, K. & Smit, H. P. (1997). *The Natural Rubber Market: Review, Analysis, Policies and Outlook (1st ed.)*. Woodhead Publishing, 351. Retrieved from: <https://research.vu.nl/en/publications/the-natural-rubber-market-review-analysis-policies-and-outlook-2> (Date of access: 23.06.2020).
- Corley, R. H. V. & Lee, C. H. (1992). The physiological basis for genetic improvement of oil palm in Malaysia. *Euphytica*, 60(3), 179–184. DOI: 10.1007/BF00039396.
- Danielsen, F., Beukema, H., Burgess, N. D., Parish, F., Brühl, C. A., Donald, P. F., ... Fitzherbert, E. B. (2009). Biofuel Plantations on Forested Lands: Double Jeopardy for Biodiversity and Climate. *Conservation Biology*, 23(2), 348–358. DOI: 10.1111/j.1523-1739.2008.01096.x.
- de Janvry, A., Sadoulet, E. & Zhu, N. (2005). *The Role of Non-Farm Incomes in Reducing Rural Poverty and Inequality in China*. UC Berkeley: Department of Agricultural and Resource Economics. Retrieved from: <http://escholarship.org/uc/item/7ts2z766> (Date of access: 23.06.2020).
- Dy Phon, P. (2000). *Plantes utilisées au Cambodge 1e éd. [Plants used in Cambodia, 1st ed.]*. Chez l'auteur, 915. (In French)
- Fargione, J., Hill, J., Tilman, D., Polasky, S. & Hawthorne, P. (2008). Land Clearing and the Biofuel Carbon Debt. *Science*, 319(5867), 1235–1238. DOI: 10.1126/science.1152747
- Gibson, J. (2001). Measuring chronic poverty without a panel. *Journal of Development Economics*, 65(2), 243–266. DOI: 10.1016/S0304-3878(01)00136-5.
- Greeley, M. (1994). Measurement of Poverty and Poverty of Measurement. *IDS Bulletin*, 25(2), 50–58. DOI: 10.1111/j.1759-5436.1994.mp25002005.x.
- Gustafsson, F. (2007). *The visible palm: Market failures, industrial policy and the Malaysian palm oil industry*. Almqvist & Wiksell International. Retrieved from: [https://books.google.com/books/about/The\\_Visible\\_Palm.html?id=h-gUMNQAACAAJ](https://books.google.com/books/about/The_Visible_Palm.html?id=h-gUMNQAACAAJ) (Date of access: 23.06.2020).
- Haggblade, S., Hammer, J. & Hazell, P. (1991). Modeling Agricultural Growth Multipliers. *American Journal of Agricultural Economics*, 73(2), 361–374. DOI: 10.2307/1242720.
- Idowu, A. O., Banwo, A. & Akerele, E. O. (2011). Non-farm Activities and Poverty among Rural Farm Households in Yewa Division of Ogun State. *Journal of Social Sciences*, 26(3), 217–224. DOI: 10.1080/09718923.2011.11892899.
- Idris, A. S., Kushairi, D., Ariffin, D. & Basri, M. (2006). Technique for inoculation of oil palm germinated seeds with Ganoderma. *MPOB Infomation Series*, 314, 1–4.
- Kiple, K. F. & Ornelas, K. C. (Eds.). (2000). *The Cambridge World History of Food (1st ed.)*. Cambridge University Press. DOI: 10.1017/CHOL9780521402149.
- Mukherjee, S. & Benson, T. (2003). The Determinants of Poverty in Malawi, 1998. *World Development*, 31(2), 339–358. DOI: 10.1016/S0305-750X(02)00191-2.
- Obahiagbon, F. I. (2012). A Review: Aspects of the African Oil Palm (*Elaeis guineensis* jacq.) and the Implications of its Bioactives in Human Health. *American Journal of Biochemistry and Molecular Biology*, 2(3), 106–119. DOI: 10.3923/ajbmb.2012.106.119.
- Ojo, G. U., Offiong, R. A., Akhaine, S. O., Baiyewu-Teru, A. & Allen, F. (2017). *Oil palm plantations in forest landscapes: impacts, aspirations and ways forward in Nigeria*. Wageningen, the Netherlands: Tropenbos International, 66.
- Ojo, S. O. (2004). Improving labour productivity and technical efficiency in food crop production: A panacea for poverty reduction in Nigeria. *Journal of Food Agriculture & Environment*, 2(2), 227–231. Retrieved from: <https://agris.fao.org/agris-search/search.do?recordID=FI2007029276> (Date of access: 23.06.2020).
- Okolo, C. C., Okolo, E. C., Nnadi, A. L., Obikwelu, F. E., Obalum, S. E. & Igwe, C. A. (2019). The oil palm (*Elaeis guineensis* Jacq): nature's ecological endowment to eastern Nigeria. *Agro-Science*, 18(3), 48–57. DOI: 10.4314/as.v18i3.9.
- Olagunju F. I, Kolapo, A. J., Babatunde, R. O., Ogunniyi, L. T. & Fakayode, S. B. (2013). Palm Oil Mill Technology: Panacea For Alleviating Rural Poverty In\Nsouthwestern Nigeria. *International Journal of Agricultural Science and Research (IJASR)*, 3(1), 25–34. Retrieved from: [http://www.tjprc.org/view\\_archives.php?year=2013&jtype=2&id=50&details=archives](http://www.tjprc.org/view_archives.php?year=2013&jtype=2&id=50&details=archives) (Date of access: 23.06.2020).
- Olubanjo, O. O. (1998). Determinants of Poverty among Farmers in the Ijebu-North Local Government Area, Ogun State, Nigeria. *The Nigerian Rural Sociologist*, 29(1), 31–40.
- Oluwole, J. S. (1999). Completing farm children programme development through Agriculture Education in Nigeria. In: S. B. Williams, F. E. Ogbimi, A. J. Farinde (Eds.), *Farm Children and Agricultural Productivity in the 21st century* (pp. 1–6). Book of proceedings.
- Page, M. L. (2018, May 2). The real palm oil problem: it's not just in your food. *New Scientist*. Retrieved from: <https://www.newscientist.com/article/mg23831764-400-the-real-palm-oil-problem-its-not-just-in-your-food/> (Date of access: 23.06.2020).
- Paterson, R. R. M. (2007). Ganoderma disease of oil palm—A white rot perspective necessary for integrated control. *Crop Protection*, 26(9), 1369–1376. DOI: 10.1016/j.cropro.2006.11.009.

- Pulka, B. M., Ramli, A. Bin, & Bakar, M. S. (2017). Conceptual framework on small and medium enterprises in a turbulent environment. *Journal of Management Sciences*, 15(8), 26–48. Retrieved from: [https://saheljournalonline.org/testuploadc/Sahel\\_15\\_8\\_3.pdf%0Ahttps://www.researchgate.net/publication/325227006\\_Conceptual\\_Framework\\_on\\_Small\\_and\\_Medium\\_Scale\\_Enterprises\\_Performance\\_in\\_a\\_Turbulent\\_Environment](https://saheljournalonline.org/testuploadc/Sahel_15_8_3.pdf%0Ahttps://www.researchgate.net/publication/325227006_Conceptual_Framework_on_Small_and_Medium_Scale_Enterprises_Performance_in_a_Turbulent_Environment) (Date of access: 23.06.2020).
- Reijnders, L. (2006). Conditions for the sustainability of biomass based fuel use. *Energy Policy*, 34(7), 863–876. DOI: 10.1016/j.enpol.2004.09.001.
- Rosegrant, M. W. & Svendsen, M. (1993). Asian food production in the 1990s. Irrigation investment and management policy. *Food Policy*, 18(1), 13–32. DOI: 10.1016/0306-9192(93)90094-R.
- Saleth, R. M. (2002). The management of water resources: Introduction. In: R. M. Saleth (Ed.), *Water Resources and Economic Development (1st ed.)*. Edward Elgar.
- Sapak, Z., Meon, S. & Ahmad, Z. A. M. (2008). Effect of endophytic bacteria on growth and suppression of Ganoderma infection in oil palm. *International Journal of Agriculture and Biology*, 10(2), 127–132.
- Singh, R., Low, E. T. L., Ooi, L. C. L., Ong-Abdullah, M., Ting, N. C., Nagappan, J., ... Martienssen, R. A. (2013). The oil palm SHELL gene controls oil yield and encodes a homologue of Seedstick. *Nature*, 500(7462), 340–344. DOI: 10.1038/nature12356.
- Stevenson, T. (2006, December 22). Malaysia Targets Alternative Fuels Market. *The Daily Telegraph*. Retrieved from: <https://www.telegraph.co.uk/finance/2952784/Malaysia-targets-alternative-fuels-market.html> (Date of access: 23.06.2020)
- Sundram, K., Sambanthamurthi, R. & Tan, Y. A. (2003). Palm fruit chemistry and nutrition. *Asia Pacific Journal of Clinical Nutrition*, 12(3), 355–362.
- Vijayaraghavan, K. & Ahmad, D. (2006). Biohydrogen generation from palm oil mill effluent using anaerobic contact filter. *International Journal of Hydrogen Energy*, 31(10), 1284–1291. DOI: 10.1016/j.ijhydene.2005.12.002.
- von Uexküll, H. R. & Fairhurst, T. H. (1999). Some Nutritional Disorders in Oil Palm. *Better Crops International*, 13(1), 16–21.
- Wang, L., Waltenberger, B., Pferschy-Wenzig, E. M., Blunder, M., Liu, X., Malainer, C., ... Atanasov, A. G. (2014). Natural product agonists of peroxisome proliferator-activated receptor gamma (PPAR $\gamma$ ): A review. *Biochemical Pharmacology*, 92(1), 73–89. DOI: 10.1016/j.bcp.2014.07.018.

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