

Global Challenges and Implementation of Sustainable Poverty Eradication Strategies Using Junior Secondary School Agricultural Science Curriculum as a Panacea in Nigeria

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Abstract

This paper explored global challenges and implementation of sustainable poverty eradication strategies using junior secondary school agricultural science curriculum as a panacea in Nigeria. The concepts of sustainable poverty eradication, agriculture as a means of poverty eradication in Nigeria, junior secondary school agricultural science curriculum and poverty eradication in Nigeria were discussed. The paper also discussed social responsibility role of junior secondary school agricultural science curriculum, steps for curriculum implementation to ensure sustainable poverty eradication. Furthermore, the paper turned to global challenges for implementation of sustainable poverty eradication strategies as well as possible ways to overcome global challenges hindering poverty eradication in Nigeria. The paper then recommended that the government should braze up for data base development and utilization in Nigeria, policy implementers of SDG programme should shun selfish living for patriotism, the leadership of anti-corruption bodies be selected based on proven track record etc.

Key words: *Poverty eradication, junior secondary school, agricultural science curriculum*

Introduction

Globalization is a concept that is coined from the term globe which literally represents the earth or world if applied to living things. Global as a term simply means something that is connected or has relationship with other parts of the earth or world. This may be perceived or interpreted to mean a chain linking the various parts of the world together to form a single whole. The globe seem to be encumbered with different kinds of challenges ranging from health insecurity/bioinsecurity, job insecurity, social insecurity, political insecurity, food insecurity, economic insecurity, etc these whole issues are negative situations that the globe and its part connected to it face.

The effects of the globe being whole is observable from the way an effect in one end of the earth automatically appears in another part of the globe immediately, even in terms of information transfer particularly with the advent of the information and communication technology (ICT), the attendant impact of the globe would continue on the inhabitants of the earth, some of which are negative and others positive and the global nature of our current world has brought a reliable type of government in practice as seen in Brazil, Kenya and other nations in the globe and the way the people govern themselves now seem to be much more inclusive, even with positive challenges, the acts of terrorism a negative challenge which was common in Iraq and Kuwait in the 1990s has also found its way into Nigeria, Niger, Chad, Mali, Somalia, Kenya etc to mention but a few. This insurgent act also has brought with it other negative impacts among which is hunger, job insecurity, displacement of people, health threat as well as poverty just to name a few too. Thereby affirming the statement of Amadioha and Akor

(2018) who divulged that the experiences of globalization effects is clear on cultures, politics, economies, finance, education, technologies etc.

In the past Africa was the recipient of most of the world's aids and other supports due to the vacuumed of natural and developmental challenges that it faced (UN, 2015). Today, the trend is changing as a greater part of the world's attention to negative challenges particularly in the area of food insecurity is more pronounced now in Asia and the Pacific continents than could be perceived in Africa even though Africa has not stop receiving aids completely, an indication that the symptoms and problems of poverty and hunger still rear its ugly head but that it is now in much more manageable measure as compared to what it was in the past and to what obtains now in Asia and the Pacific, all thanks the Millenium Development Goals (MDGs).

Policy makers and stakeholders in agriculture have been meeting and developing policies and implementation strategies that would build global sustainable productivity (UN, 2015) reported that policies were formulated for diversification in agriculture and for private investment in agriculture. However, it was important to determine some of the strategic approaches which was perceived as what would drive this sustainable advancement to include areas like: growth of rural infrastructure, research and development, technological advancement, functionality of markets and produce trading, cooperative development and value chain enhancement as well as institutional and human capacity building for a holistic sustainability.

For a thing to be sustainable it could mean that it has the capacity to stand the test of time. To be sustainable according (Emas, 2015) means to be relevant now and also in the future without undermining the future in question. The conception of the above idea may have been carefully presented to ensure a balance between what is happening now and what should take place in the future without any of these making the other to suffer, thus, sustainable poverty eradication is conceived as possible.

In the words of Gassiner, Harris and Mauseh (2019) poverty and hunger are the worst challenges that the era we are in is faced with. If the order of arrangement of the outlined challenges is something to go by, the researchers would be forced to claim that poverty has a higher negative implication when compared to hunger but of a truth it is poverty that actually begets hunger, because if a man does not have money he definitely would suffer hunger and possibly starvation. Poverty could be conceived as an outright or total lack of a means to meet ones need at a particular point in time. Though, often it is associated more with finance but in this case the meaning it carries should be idealized mostly from the contextual perspective. This may be the reason Surajo, Umar, Musa and Haruna (2018) disclosed that anyone and by inference a nation is poor in one area or the other at any point in time but that the difference between the extent of the poverty between them may be the prevalence of it in different areas of the person or nation's life.

Therefore, because this state of poverty leaves the bearer in a perplex situation, thus, the need to annihilate or eradicate becomes vital to be offered or the only solution to ensuring that poverty is overcome. It is only fair to say that any lasting solution be sought through approaches or strategies that have stood the test of time. And an example of such strategies that nations have used and still use in recent times usually as what they fall back to after straying from the path of economic abundance for a while has been agricultural production. Therefore, poverty eradication one could claim is possible using the junior secondary school agricultural science curriculum which is loaded with innovative and entrepreneurial skills content which when effectively implemented would enable younger people do agricultural production with better productivity and sustainability assurances and live above poverty index level. This is the reason for this study, global challenges and implementation of poverty eradication strategies using Junior Secondary School Agricultural Science curriculum as a panacea in Nigeria.

Concept of Sustainable Poverty Eradication

At the wake of the year 2000 the mantra of the millennium took over each and every discourse around the world tagged 'Millenium Development Goals (MDGs). Particularly in September 2000 there was a gathering of the whole world for a summit and for emphasis 189 countries took part in adopting the Millenium declaration of the United Nation (UN) while 147 countries signed the agreement through their heads of states immediately during the Millenium Summit. The goals set for achievement for the next 15 years, that is, from the year 2000 to the year 2015 were eight in number (Amadioha, 2017). But for Nigeria, it was later modified and captured as vision 2020 by the then president of the nation President Umaru Musa Yaradua.

The said eight (8) goals set by the United Nations for the world included: eradication of extreme poverty and hunger, to achieve universal primary education, promotion of gender equality and empower women, reduction of child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, ensure environmental sustainability and develop a global partnership for development. These goals were the main points and pursuits for at least a period of 15 years. However, there did not seem to be enough developmental approaches developed by a good number of the nations that signed the agreement, as most of them lagged behind in performance of their roles as government to their people. Again, in September, 2015, 193 country heads and representatives of countries met again after an assessment of the Millenium Development Goals (MDGs) considering its achievement and weaknesses decided to adopt a newly developed mantra 'Sustainable Development Goals' (SDGs) which was to be the pursuits of the world for the next 15 years, that is, from 2015-2030 (Fingler, Kharas, Bekhtiar, Brottrager and Hofer, 2018). The SDGs have 17 goals and the first of them all is eradication of poverty in all dimensions in all places. The intent is to check poverty completely, whether is at mild or at extreme level. The world explanation of extreme poverty is perceived as when people live on less than 1.90 dollars a day, an information obtained from the quantitative analysis of purchasing power parity prices Guaresma et al (2018). This conveys to mean that when people live above 2 dollars, they may not be said to be in extreme poverty but they are not rich either. But it is painful to know that some people live below 2 dollars, a state already conceive to represent extreme poverty since that amount of money would not even be able to provide the entire day's needs of a family or individuals, hence, the world has gone ahead through SDG number 1 to combat this hydra headed monster called poverty. What then is poverty eradication?

Poverty eradication may be a conception or thought on how to ensure that poverty and every indices related to it are eliminated from the day to day life of humans and society. United Nation (UN, n.d) rather described poverty as a concept depicted by signs of hunger and malnutrition, limited educational opportunity and other fundamental needs of man, social rejection and disparity, and exclusion and not being part of decision making for governance. All these factors seem to represent poverty or what would make a person to be referred to as poor. Thus, poverty eradication is a process of eliminating everything that represents poverty from the life of mankind and or society. Some of these factors have ethical, social, political and economic roots causes. Therefore, a holistic policy development and implementation strategies needs to be done and enforced tactically with lots of social inclusion strategies and awareness creation techniques which are convincing enough for the populace to trust the government to be able to bring them out of poverty.

Poverty eradication would consider accessibility to staple food components like in Nigeria for example to food items like garri, rice, yam, beans, fish, meat etc. When this happens a greater effect of the social deviation characteristics would have been well mended (Ekuruke, 2005). Though, the above statement may be like poverty alleviation but from poverty alleviation poverty eradication is perceived to be achievable. This means that when more steps are taken towards poverty reduction, then, poverty elimination becomes easy. The world is full of means

to full economic capacity development and attainment which only needs to be discovered, thus, wealth creation channels should be one of the ways to achieving the target at hand, innovative practices could lead to higher earning, entrepreneurship development should be introduced, return to agricultural production among others should form the foundation for poverty eradication (STAND S44C, 2020; Bradley, 2013).

Agriculture as a Means for Poverty Eradication in Nigeria

Agriculture in its simplest term is viewed as the cultivation of crops and rearing of animals for man's use. However, this may be perceived as the layman's understanding of agriculture as there is more to it than the above definition as alluded to by Jeremiah and Akor (2018) who see agriculture as the growing of crops, rearing of animals, processing them into finished products, distribution and marketing of the produce and products to the final consumer. Poverty and hunger are linked to either non-availability of purchasing power for agro-products or product or the inability of the individual to produce what either individuals household would need or consumer in given time. The duo of poverty and hunger are more or less the biggest challenges any man could face and considering that unavailability of food or the purchasing power for food cause both health and insecurity problems all around the world.

Gassner, Haris and Mausil (2019) agreed in their assertion above by attesting to the fact that food insecurity and under nutrition is a major difficulty that many parts of the world face or could face. And to compound this situation UN (2010) had reported that all other continents apart from Africa attained poverty reduction capacity year on year in 2010. This therefore confirms that the sub-saharan African states are still under the siege of poverty and hunger but worst of these two conditions is poverty considering that a person that is poor would never be able to think of farming for food since he cannot afford farm inputs not to reason of how much he/she would spend to buy food but may take to crime. However, agricultural production even in its smallest production unit has the capacity to defeat poverty. So the question would be how is this achievable?

The first thing would be to reiterate as earlier stated that poverty is being in a state of having little income or none at all, a conception that is in a wider ideology perceived as deprivation in its encompassing form including denial of productive resources. Hence, poverty is categorized into four distinct levels as relative poverty, absolute poverty, dollar poverty and subjective poverty. The issue here is not on the level or category of poverty but on how one can evade the pangs of poverty from pinning him down. This is coming on the idea of well researched documents which confirms that agriculture can create jobs, convert desert lands to an agricultural resource, introduce innovations in production practices as well as technology and information and communication technology to advance and increase production capacity (Luc, Kionel & Kuhl, 2006; Luc and Martin, 2018), and even further insight into how agriculture could reduce poverty particularly contextualized innovative practices but the researchers perspective is that if these measures could help increase productivity and reduce poverty, then further re-engineering them to eradicate poverty would be a possibility but only requiring an adjustment in practice and pursuit to obtain desired results. These measures may include.

1. **Agricultural Growth:** Agriculture is a field of human endeavour with great value chain component than known to man, hence, the productivity knows no bound except to the extent that the end user knows and could extract. Therefore, the degree to which poverty eradication is possible through agriculture would depend on how the poor (relative) are able to maximize the productivity and value addition capacity that agricultural production in any aspect could offer.
2. **The Poorest Benefit More:** The poorest in terms of literacy and finance would get more yield when they diversify in agriculture. Once they have the initial inputs to begin their

diversification capacity is usually high because they are ready to give in their all to anything that would delete poverty from their lives particularly because they do not have alternatives for earning a living. At times, they work so hard to the point that their subsequent or succeeding generations move up the social and economic status in life and the younger generation make sure they never return into poverty to the extent experienced by their fore parents.

3. Agriculture has higher comparative advantage unlike oil, agricultural production hold, comparative advantage over so many other sectors in that no matter how much food prices fall they maintain a good trend throughout decades and more often than not this trend is progressive instead of retrogressive, therefore, it is vital to say that agricultural production whether in crops or animals production, processing, distribution, or marketing of agro-products, gains are higher and it keeps going higher.
4. Higher edge over non-agricultural sector. The heterogeneous nature of the sector makes it unique in that it does have unlimited multi-sectoral edge. Its capacity to tackle poverty transcends that obtainable in so many other sectors. For instance, even at a time of lockdown that the nations of the world have just experienced agriculture is one of the sectors that did not go through total shutdown that so many other sectors of the economy saw. Thus, agriculture has edge in poverty eradication over the other sectors.
5. Lower financing required: Agricultural production most often particularly crop production and small stock animal rearing usually does not required large funds to begin since the infrastructural demands of agricultural production is lesser when compared with many other sectors, hence, little funding does the magic in agricultural production. With these considerations it becomes imperative that the people should be put in the know especially for the younger generation the junior secondary school students especially. Nonetheless with the advent of Universal Basic Education (UBE) that echoed the arrival of the 9-3-4 system of education, it is necessary to support the facts that the junior secondary school leavers need more attention because there is a probability that some of students may not be able to pay their way through senior secondary school, hence, may end their education here but if they are able learn agricultural production while going through junior secondary school through well implemented and procedural teaching by teachers with high capacity and competence then this young UBE school leavers would be equipped for the task of functioning adequately in the society as expected after school.

Junior Secondary School Agricultural Science Curriculum Implementation and Poverty Eradication in Nigeria

The Junior Secondary School agricultural science curriculum has dual role: General academic and vocational programme (Okorie, 2001, FRN, 2013) by general academics it has to do with providing learning opportunities and experiences for the learners such that they are able to participate in the learning process with keen interest and motivation and perhaps enthusiasm to learn, creating knowledge, acquisition of enhanced and usable skills and values for their advancement for living in the wider society. This also presents the fact that this type of education leaves the learners to be more responsible citizens than they were before this time. The educational pattern enhances the individual learner's socialization and civilization skills. On the other hand, the vocational aspect of the curriculum leaves the learners with observable practical skills that would better their functionality in a niche carved out by them for themselves based on need, interest, habits and the prevailing problem waiting for attention. Therefore, individual learners are given to 'learning by doing' a process of learning that is common with practical subjects and vocational learning process (Wordu & Akor, 2019). This means that for continuity and productivity to be a constant in the junior secondary school curriculum practice,

the following must either be improved upon or avoided completely: improvement of the training facilities, advancement in traditional practices to technological and innovative practices, adequate funding, security of the learning process and procedures, creation of knowledge etc.

Social responsibility of the Junior Secondary School Agricultural Science Curriculum

As earlier mentioned on the academic education function of the agricultural science curriculum, its implementation definitely has the following advantages for the learner and these include:

1. Permits full participation in social life and living.
2. Acquisition and development of skills.
3. Developing work habit.
4. Give opportunity for orientation into citizenship.
5. Development of leadership, business and industry competence.
6. Initiation into wealth creation competence.
7. Development of motor or psychomotor skills.
8. It is the first point of the initiation or linkage between occupation and science
9. Exposes individuals to knowledge on rights and obligations
10. Indoctrinate learners into fellowship and communal life of patriotism (Okorie, 2001; Wordu & Akor, 2019)

The outlined issues though bear more social concerns but some of the areas touched have affiliation with vocational, economic, psychological and philosophical output of any learning. Thus, agricultural science curriculum for junior secondary school is worth the effort inputted into its implementation.

Steps for Curriculum Implementation to Ensure Sustainable Poverty Eradication

For adequate productivity and output in the learners, the following suggestions may be necessary.

1. The current curriculum structure containing aspects as in food production, agronomy and forestry as well as basic economics and management practice should be maintained and if possible improved upon (Ogidi & Umar, 2017)
2. Curriculum implementation practice should pursue building socio-economic capacity in the learners (Ofoha, Uchegebu, Anyikwa & Nkemdirim, 2009)
3. Use of resource persons and technological support staff to build technical competence be utilized as may be available and required (AKor & Udeh, 2017.)
4. Teachers should plan their lessons to represent teaching/practical experience learning time in the ratio of 60% - 40% in to order to build a whole man.
5. There should be particular focus on youth development to guarantee a good future not just for the learners but also for the society (Akinwande, n.d.)
6. The implementation strategy for the curriculum should be globally minded, since the world of information and communication technology (ICT) has made the world a global village, therefore, the competitive capacity built into the learners should not just satisfy local needs but international needs as well (Igbokwe, 2015)
7. Teachers at this level of educational practice should be exposed to regular workshops, seminars and conferences where papers are presented on emerging trends and professional development.

Global Challenges for Implementation of Sustainable Poverty Eradication Strategies

There still exist global challenges that are faced by nations of the world as they push for the attainment of Sustainable Development Goals (SDGs). Some of them are:

1. Unsustainable patterns of production and consumption caused natural and artificial occurrences.
2. Imbalance in natural resource availability and utilization in the nations of the world.
3. Inequality in knowledge creation and application capacity among nations of the world (UN, 2015).
4. Lack of political will by governments to implement policies on SDGs as formulated (Singh, 2016).
5. Irregular evaluation and lack of commitment by field policy implementers.
6. Corruption and lack of moral, ethical fortrightness among staffers.
7. Lack of mechanism for carrying out appropriate checks and balances in activities (Asadullah, 2019).
8. Lack of well researched database for tracking prevailing situations.

Possible Ways to Overcome Global Challenges Hindering Poverty Eradication in Nigeria

There are techniques that can help Nigeria eradicate poverty in a sustainable manner but the required steps must be carried on to the latter. They are:

1. Development and use of governance style that is appropriate and suitable to the Nigerian people which puts into consideration the diversities among the people in the nation.
2. There should a total tracking of corrupt tendencies among the populace for the better and the anti-corruption agencies occupied by individuals with proven track record for reliability and integrity.
3. Development of knowledge gaining and application habit through smaller group-like arrangement for training the people.
4. Measurement and evaluation units should be created possibly in every ward of the various constituencies across the six (6) geopolitical zones of the nation.
5. Production and particularly agricultural production in Nigeria should be carried on based on comparative advantage of each area or ethnic-diversity and natural endowment.

Conclusion

The foregoing discourse has properly delved into issues of sustainable poverty eradication through the junior secondary school agricultural science curriculum in consideration that this level of schooling is the lowest level of the nation's educational undertaken, then, it is imperative that these individuals be empowered with functionality skills for life and living and to possibly help everyone of them in changing his/her present poverty status teaching and training by the effective implementation and maximization to benefit from the current reformed universal basic education curriculum in order for them to become producers and earners for life and living rather than consumer.

Recommendations

These are recommendations suggested for this research study:

1. Government should braze up to database development and utilization in Nigeria for poverty eradication.
2. Policy implementers of the SDGs should separate themselves from selfish personal acquisition to the greater us, Nigerians.
3. Selection of individuals to man corruption agencies should be for people of proven track record using antecedent record.
4. Junior Secondary School curriculum implementation should be more of practical, technical and social inclination than theoretical in delivering instructions.

5. Government should set regular assessment teams up to help her to fight against poverty.

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