

# REPATRIATING AND DEVELOPMENT TO RURALITY (VILLAGE) 'GLOCAL AGRARIAN' AND BIO-DIGITALIZATION IN AGRICULTURE

## Article History

Received May 25, 2023

Revised September 05, 2023

Accepted September 15, 2023

Available Online September

**T.A ADEBAYO.Ph.D\*<sup>1</sup>**

Faculty of Agriculture, Ajayi Crowther University Oyo, Nigeria.

\*Corresponding author: e-mail: vc@acu.edu.ng

---

## Introduction

Given the way the world system is constituted, unevenness in the application of the development paradigm lies at the heart of the Agrarian crises. The global agricultural system concentrates in a few so-called "breadbasket" and this is replicated at the local level. This 'breadbasket approach' comes with an inherent damage to the diverse farming systems and landscapes in the global North and South.

The time has come to ditch the 'breadbasket approach' and to revive diversity and food sovereignty as paradigm both for development and entrepreneurship in our agricultural strategy. The breadbasket approach is the methodology of dependency, and it makes the whole system vulnerable to disruption once a crisis emerges in the locus of supply, say in Northern Nigeria in West Africa or in Ukraine. What is needed at this moment are the strategies for overcoming this particular form of 'dependency illusion' According to Teriba (2022)

'We cannot run away from the fact that development is a multi-dimensional process which must be founded basically on a country own capabilities and domestic resource base; such that whatever foreign assistance is available in the pursuit of the objective is nothing but supplementary'

This then in a nutshell, should be the mandate of the Ministry of Agriculture and rural Development in most developing countries and should guide the curricula of Agriculture in schools and universities. The selevation of rural areas from dependency and undevelopment.

Development should be repatriated to the rural areas, and to ensure this we need to become what McMichael calls 'rural activists' activists for the entrenchment of what can be referred to as 'developmental entrepreneurialism' in the villages. In Nigeria for example, there are many villages. There is always some place each of us refers to as 'my village' or my country home in most advanced nations. This paper looks at the village and country home syndrome in the variety of places whether in Africa, Asia, or the North or Southern Hemisphere.

What is the condition in those places we call home, our village? What has happened to the farming systems in those places? Do they enjoy food sovereignty? Have they not become dependent on food import? When the produce cash crop, is it not on the old colonial pattern of sacrificing food sovereignty in order to cultivate exports that are dependent on the whims of an external market from which profits are derived by middlemen and multinational corporations that have no investment in the village beyond appropriating the surplus produced by the village farmers? The villages, which are agrarian communities, by and large, have become vulnerable to famine.

Their condition is the ultimate measure of development ranking. In most of these places, the hunger in the towns and cities, the poor healthcare provision, the lack of infrastructural development, the collapse of the educational sector, the brain drain etc. all derive from the deliberate policies of immiseration that has from colonial times characterized the conditions of life in the vital social

formation that forms the basis of the existence as a nation-the village. This research focuses more on Nigeria.

As a practicing farmer and a scholar, my piloting the Nigeria agricultural landscape will be applied. At the heart of the Agricultural Transformation Agenda (ATA) of the Nigerian Government in particular, is 'the idea that agriculture should be a business rather than a development activity and that efforts to grow the sector require strategic direction rather than the pursuit of piecemeal, disconnected projects.

This is a programme for agricultural development lauded for its rigour but which obviously has suffered from the fate of all the programme. As diagnosed by Teriba(2022) 'far too often, in underdeveloped countries, development problems are diagnosed and expatiated upon *ad nauseam* but nothing concrete gets done about them in the end'.

The role of agricultural scholars lies in training and reproducing the critical mass of 'rural activities' to work for the entrenchment of the double paradigm of business and development in our villages, starting with reversing the effects of the 'breadbasket' approach through the rediscovery and revamping of diverse farming systems to meet contemporary challenges. The curriculum across the educational system is of key importance, the programme of training these rural activities, imbuing them with the requisite sociological vision in their research forays, ensuring that agribusiness becomes oriented towards profitmaking for the farmers in the villages as opposed to the enduring colonial pattern whereby the village, the locus of agricultural production, remains a backward place while development takes place elsewhere.

### **Nigeria As a Case Study**

Every village in Nigeria should be a breadbasket for itself and for others, that should be able to sustain itself and provide sustenance for others food-wise, even as Ukraine, under Russian invasion, continues to provide nutritional sustenance for countries across the globe, making profits

for itself in such a moment of severe crisis. Crises in the global order provide opportunities for those who are positioned to harness them. In time past, Nigeria has benefited from such periods of crises, particularly the oil booms of the mid-1970 and the early 1990s occasioned by crises in the Middle East.

The world finds itself in a moment of great crises where Nigeria could have profited from windfalls coming from demands for oil and agricultural products. But the opposite is the reality.

Nigeria has limited oil reserves according to recent reports from oil producing countries due to oil theft, mismanagement and huge corruption in its polity.

This menace has created a gap in the production and supply chain of all commodities because of self-reliance on mono products from crude oil sales. In the case of food, Nigeria's supply to the rest of the world is insignificant; this trend, if not confronted with aggressive policies may lead to famine. However, research studies have shown that huge neglect, poverty, wars, brain drains often times may drive poor nations and their governments to look inward when aids provided by developed nations have seized or reduced by donors.

Moments of crises are opportunities nonetheless. The soaring rise in food prices presents us with opportunities for stepping out researches into the food products available in different farming communities on the basis of which each community can be turned into its own breadbasket, and a breadbasket to neighboring and far-flung communities. Nigeria's diverse cultures too deserve investigation especially in the light of the current situation where predictable seasonal flooding poses a threat to farming practices organized around the rainy season.

Researches in the direction of sustainable, ecologically responsible agricultural practices, our researches in the direction of profitable agribusiness, should be motivated by

a vision of working to create villages that are centres of excellence. Unlike the philosophy underlying that ATA

Agriculture should be business and a development activity in villages. Curriculum in the tertiary institutions of Agriculture should be driven by this vision.

### **Prospects of the Agricultural Sector in Nigeria**

The prospects of agricultural sector in Nigeria were aimed at the development of the nation generally through the provision of adequate food and techniques of production. In this regard, Nigerian governments have taken various measures since independence to upgrade agricultural production. As a result, they have devoted several chapters in their national development plans, explaining the different policies to achieve higher production in agriculture. Some of the steps are highlighted as follows:

*Encouragement of Agricultural Research:* The various governments in Nigeria have accorded high priority to agricultural research in a bid to boost the productivity of the farmer through introduction of improved and high yielding crop varieties and the replacement of the hoes and cutlass culture with modern technique. The Central Bank of Nigeria (CBN) Annual Report and Statement of Accounts 1990 - 1995 is a case in point. Government activities in this research are concentrated in the establishment of research institutions across the country as well as the encouragement of agricultural research in Nigerian Universities. Some of the prominent research centres include the Umudike, in the southern part of Nigeria Research Station which specializes in root crops such as yam, cassava and cocoyam. The Jos Research Station in the Central Part of Nigeria which deals in Potatoes; the Moor Plantation Research Station in Ibadan South West, which deals in Maize, Rice, and the Samara centre of the North East concentrates on wheat, millet and sorghum. Others include the Cocoa, Research Institute in Ibadan, South West, the Nigerian Institute for Oil Palm Research (NIFOR) in Benin and the International Institute

of Tropical Agriculture Ibadan which is a joint venture between Nigeria and some foreign interests. In the Second National Development plan, agricultural research accounted for over 9.7 million Naira or 15.7 percent of the total federal capital expenditure of N61.7 million (Udoka, 1992)

*Agricultural Input:* The procurement of inputs for distribution to farmers has been a major pre occupation of the Government both at the national and state levels. Up till 1985, the procurement and distribution of inputs to farmers have been the sole responsibilities of the government. These inputs include farm machinery for land preparation, seeds and seedlings, fertilizers, herbicides, pesticides, sprayers, veterinary drugs and vaccines, feed concentrates etc. These inputs were distributed to farmers at subsidized rate. (Aleguuno and Ukpong, 1992).

*Direct Government Production Policies:* Various Governments in Nigeria in response to the increasing demand for food, established food production companies during the third plan period. These included the National Grain Production Company, the National Root Crop Production Company, The National Accelerated Food Production Programme (NAFPP) and the integrated Agricultural Rural Development Pilot Programme (ADP). While the first two were concerned with the production of grain and root crops respectively across the country, the last two were more or less concerned with the supply of necessary inputs to meet the growing needs of farmers for seeds, fertilizers, agricultural implements, storage and credit facilities. In addition, the ADP was to be involved in socio-economic activities such as rural road construction, dam construction, water supply, livestock production etc. The aim of the scheme was to provide improved services in the form of an integrated package to existing small-holds, farming communities with the objective of increasing their productivity, raising their incomes and bringing overall socio-economic development to the rural

areas. By 1990, the ADP had operated seven projects located in Funtua (Kaduna State), Gusau (Zamfara), Anyangba (Benue State), Lafia (Plateau State), Bida (Niger State) and Ilorin (Kwara State) which catered for about 632 thousand farming families (Ojo, 1991). Another major effort at direct agricultural production by the government comes with establishment of River Basin Development Authorities across the country. The concept of river basin development as a tool for agricultural transformation was introduced in 1970. In 1973, the Sokoto - Rima and the Chad Basin Development Authorities were established bringing the total to eleven. In 1984, the number of river basin development authorities in the country was increased from 11 to 18, following the decentralization of their operations on a state basis. The authorities were established with the specific objectives of assisting the State Government in the implementation of rural development programmes in the following ways:

- (1) Large scale mechanized clearing and cultivation of land for farmers,
- (2) Construction of small dams and bore holes for rural water supplies and clearing of federal roads for the evacuation of produce etc.
- (3) Agricultural Infrastructure: Agricultural infrastructure consists of activities such as irrigation, soil conservation, land use survey, agricultural research, manpower training and storage and marketing. Doubtless agricultural development in Nigeria is hampered by lack of adequate infrastructural facilities such as water, good roads, electricity, storage and marketing facilities. The high priority given to infrastructural development in the agricultural sector is evidenced in the huge budgetary allocation to the sub-sector under the 3rd and 4th National Development Plans. In the third plan period, a total of 428.8 million naira was allocated for agriculture infrastructure while in the 4<sup>th</sup> plan the sub-sector gulped a total of N455.1 million thus represented of this' soil

conservation consumed a total capital rate of £4290.3 and 14212.0 million in the third and fourth plans respectively. Efforts have been stepped up to arrest the menace of soil erosion and desert encroachment through intensive tree planting campaigns. The construction of rural roads for easy evacuation of agricultural products to the marketing centres has also occupied the attention of both the Federal and State governments in Nigeria. In 1986, the Directorate of Food, Roads and Rural Infrastructure (DFRRI) was established to serve as a catalyst in providing rural infrastructure as a step toward agricultural expansion and development in Nigeria (Helleiner, 1976).

*Public Campaign Agricultural Programmes:* These include the Operation Feed the Nation of the 1990's era, the Green Revolution launched by the political government in the 1980's the school to land programme introduced by the Rivers State government and the Graduate Farming Scheme of the Lagos State Government and the Operation Food First of the Babangida administration. The Operation Feed the Nation was established in 1975 with the objectives of mobilizing the nation towards sufficiency in food production, encouraging the section of the population which relied on buying food to grow its own food and encouraging balanced nutrition and thereby producing a healthy nation. Apart from exhortation and publicity designed to get the people to produce more food, government's contribution to the programme included the provision of essential input to farmers at subsidized rates including fertilizers, fishing inputs and livestock feeds. In 1978, a total of over 703,000 tonnes of fertilizers were distributed to farmers at 50 percent subsidy which over 350,000 broilers, 82,500 Layers, 1.5million eggs and 21,500 tonnes of grain were sold in various parts of the country; (Lugard, 1991)

*Agricultural Mechanization:* Agricultural mechanization is an important component of agricultural policy in Nigeria. Mixed feelings have however been expressed on

the efficiency of agricultural mechanization in bringing about the desired transformation to the agricultural sector and greater output. Advocates for mechanization as a strategy for agricultural expansion point to the saving in time and labour gained and the increased productivity of the farmer as a result of the application of modern mechanized technique of production. Temporary and Grist (1958) has warned that “it is of the utmost importance that efforts to introduce mechanization of peasant farming to the tropics should not be attempted until its implications on the social habits of the people have been completely appraised, and not before practical trials of machines and organisation have been made on sufficiently large scale to provide the necessary technical, economic and social experience.

### **The ‘Glocal’ Agrarian Crises**

Agriculture is the art and science of cultivating the soil, growing crops, and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world’s food and fabrics. Cotton, wool, and leather are all agricultural products. Agriculture also provides wood for construction and paper products.

Agrarian means relating to the ownership and use of land, especially farmland, or relating to the part of a society or economy that is concerned with agriculture. We live in a hungry world that gets hungrier by the second. Zaharia et al (2020). observe that ‘one of the primary concerns of global agriculture over the coming decades should be to provide sufficient food to sustain increasing human population. For us in Nigeria, the picture is more dire, as we seem to have advanced ahead of much of the rest of the world and not being able to feed ourselves anymore. Shenton writing in 1986 had this to say

Today Nigeria, like much of the rest of the African continent, faces a grave socioeconomic crisis. Central to this crisis is the near-collapse of

the Agrarian sector in Nigeria and indeed in Africa. Once major exporters of agricultural commodities to the world. Nigerian like many other African, have now become unable to produce enough food to feed themselves adequately. Once heralded as the developmental ‘engine of growth’. The Agrarian sector has now become the single most important fetter to the further progress of the Nigerian economy

The situation after almost four decades, is of course worrisome. Things did come to a head when in 2016 Nigeria wrested from India the unenviable title of being the ‘poverty capital’ of the world, a position which we were reported to have relinquished back to India some decades ago. But lest that we should make anybody heave a sigh of relief, we must remind ourselves that the World Bank document *Poverty and shared prosperity 2022* notes that in 2020 during which year, according to the Bank, Nigeria ‘had relatively mild economic shocks’ it was yet able to ‘contribute less to the global increase in extreme poverty, about three million.

This dry statistical fact is overwhelming, in one year alone, a year of ‘relatively mild economic shocks’ three million additional Nigerians were consigned to poverty. We do not have at the moment the statistics for the years after 2020, but we can extrapolate quite easily that the trend would have sustained itself at least; indeed, we can predict an exponential increase, given the terrible shocks that the Nigerian economy has suffered in the interval, the latest of these terrible shocks being the tragic fiasco of naira scarcity in the first quarter of 2023

But it is the whole world that is now hungry for food, or potentially hungry for food. just as the Covid-19 pandemic has served as rude evidence of our living in a ‘Global Village’ other recent debacle of geopolitical have revealed the flatness of the world, in terms of the critical challenges

that threaten human wellbeing, in fact, human existence, in the twenty-first century.

All of these challenges exacerbate the global Agrarian crises. The Boko haram or Fulani herdsmen crisis for instance, is a food crisis for the whole of Nigeria as many scholars have recited thus.

The crises in the Northern part of Nigeria have also affected the supply of food items such as vegetables, beans, yams, groundnuts, potatoes, carrots, onions and beef to the southern states of Nigeria, although these southern states are not also engaged in the production of food, there is not enough to meet their food needs. They have over the years relied on imports and additional supplies from the north to augment supply and their daily food intake. The insurgency has drastically reduced food production in the northern states with the multiplier effect being a reduction in the number of trucks conveying food from the north to the southern markets and beyond. As a result, there has been food insecurity not only in the northern states of Nigeria but also in the Southern states and other parts of Africa, such as Chad that have traditionally relied on food from northern Nigeria for survival. Food insecurity is therefore not limited to the north-eastern region of Nigeria.

By the 'Glocal' theory simply 'the intertwined function of the global and the local' the way the local and the global have implications for each other, how the Russian invasion of Ukraine affects the price of bread globally. We find ourselves in a particular ironic situation that the war in Ukraine should create an opportunity for agricultural profit not for us but for Ukraine. Or what else are we to make of the report in January this year that 'Nigeria signed the Grains from Ukraine' project, which is slated to take effect in February 2023 and would see Nigeria receiving the grain

imports from the war-torn eastern European country. Nigeria is a country without food sovereignty. This is precisely the characteristic of the Glocal Agrarian crises. The erosion of food sovereignty in the global south identified as such, we must agree with McMichael to acknowledge the turbulent moment that has direct relevance to critical Agrarian analysis and solidarities with rural activities.

According To Various World Bank Reports (2019-2022) on Global Sustainability of Agriculture one way to view an unstable moment is a shakedown, consolidating emergent and powerful trends in the 'old' to enable its makeover into something apparently completely different, such as the so-called 'Fourth Industrial Revolution.' Yanis Varoufakis (2023) views this as the shift of value extraction from markets to digital platforms, like Facebook and Amazon, 'which no longer operate like oligopolistic firms, but rather like private fiefdoms or estates' (Citation2021), forming 'a new cloud-based ruling class. There are various conversations going on about bio-digitalization and how it will affect digital agriculture.

### **Bio-Digitization Movement**

Fraser (2019) discussed bio-digitalization as an ongoing process of consolidation, and refers to it as 'agriculture without farmers,' where 'data is the new soil and went further to explain the food regime frontiers that encompasses a global land space subject to standardized digital abstractions – where 'valorization of digital data and the devaluation of existing farmer knowledge often occur in tandem.' Fairbairn and Kish (2022) opined the Corporatized digital infrastructure, expanded digital financial and advisory services, and further ecological damage are all risks associated with AgriTech digitalization schemes.

Another way may be seeing the first time (the 'old'/former) as tragedy, with the second time (the 'new'/now) as farce. Notably, the previous 2007–2008 food crisis, unresolved,

has reappeared now as a profound global food crisis (GRAIN Citation2022). The 2008 High Level Conference on World Food Security in Rome responded at that time by deflecting new attention to the small farmer populations across the world, given persisting failure by international agencies to acknowledge and protect their existence, and productive capacities. But with a market-based mindset, the solution was to expand contract farming – not redirection of farm subsidies and reinstatement of price supports, which disappeared in the early 1990s as privatization and agribusiness hubris took over.

The World Bank declared in its 2008 World Development Report: ‘it is time to place agriculture afresh at the centre of the development agenda,’ where it would be ‘led by private entrepreneurs in extensive value chains linking producers to consumers,’ with the expectation that the private sector would drive ‘the organization of value chains that bring the market to small holders and commercial farms’ (World Bank Citation2007, 1, 7). This vision of improving productivity, farmer incomes and rural development, centered on ‘smallholder’ farming, proceeded to chain small-scale farmers to value relations centered on corporate Agro-input suppliers, processors and retailers geared to privileging external consumer, over local, markets (McMichael Citation2013b). As the International Planning Committee for Food Sovereignty (IPC) declared at the 2008 summit:

The serious and urgent food and climate crises are being used by political and economic elites as opportunities to entrench corporate control of world agriculture and the ecological commons. At a time when chronic hunger, dispossession of food providers and workers, commodity and land speculation, and global warming are on the rise, governments, multilateral agencies and financial institutions are offering proposals that will only deepen these crises through more dangerous

versions of policies that originally triggered the current situation .... Only food sovereignty can offer long-term, sustainable, equitable and just solutions to the urgent food and climate crises.

This statement fore-shadowed the rising concentration of agribusiness/financial power in global systems of production and circulation, rendered fragile by virus and war, and expressed in the recent moment of food inflation and intensifying food insecurities, in consequence of the alternative path not taken. At the time, market rule remained ascendant, including public protection of financial interests. Here, the World Bank (Citation2014, Citation2019) and the IMF played a ‘pivotal role’ in enabling the financialization of agriculture and commodity futures speculation via financial deregulation. This was the period of ‘the new land enclosures’ (White et al. Citation2013), continuing the opposition to universal small-producer subsidies for stable domestic food supplies.

### **Recommendation and Conclusion**

Agriculture in the academia has grown monumentally over the years, but no matter the rate and extent of growth, scientist in our different fields and subfields pursue interest that are never far removed from one another. our commitment to improving agricultural practices by way of research, pedagogy and community intervention. The labour of agricultural production in our society is done by rural people but our rural areas are impoverished, marginalized spaces within a country marginalized in the global context. Thus, our rural areas bear a double burden of marginality. This is an obvious injustice in this situation. The call for people to become rural activists, promoting a new idea of agricultural profit-making which centres on the village, is a call for a new rural sociology. It is this rural sociology that may form a basis for the transformation of our society. The retrenchment of the rural areas, their relative isolation from the development gone wrong in our unplanned, tumultuous, dilapidated cities, may be a good

thing in the end if a new rural sociological approach is out into practice in our villages, turning around their tales of abandonment and desertion such that a paradigm of sustenance and sustainability is brought to fruition in these places. The Nigeria ‘Japa’ syndrome about migration which is the desertion of Nigeria for so-called greener pastures in the West is but a continuation of a desperate flight that started with the abandonment of our villages. We will be building the Nigeria of our dreams when a fresh start can be made and enterprising youth may seek opportunities for putting their energies and ideas to use.

## References

- Alegieuno, J. and Ukpong, G. E (1992) National Agricultural Information Management System Meeting the Data Requirements of Special Institutions. *Mimeograph* CBN, Lagos.
- Allan Savory (1994), Will We Be Able to Sustain Civilization? *Population And Environment*, 16:2, 139
- Chinedu Okafor (2023) Nigeria set to receive grain imports from Ukraine.
- Fairbairn, Madeleine, and Zenia Kish. 2022. “‘A Poverty of Data?’ Exporting the Digital Revolution to Farmers in the Global South.” In *The Nature of Data. Infrastructures, Environments, Politics*, edited by Jenny Goldstein, and Eric Nost, 211–219. Lincoln: University of Nebraska Press. [Crossref], [Google Scholar]
- Fraser, Alistair (2019). “Land Grab/Data Grab: Precision Agriculture and Its New Horizons.” *The Journal of Peasant Studies* 46 (5): 893–912
- GRAIN. 2022. “Lurching from Food Crisis to Food Crisis.” Accessed July 8. <https://grain.org/e/6862>. [Google Scholar]
- Henry Kam Kah (2017) ‘Boko Haram Is Losing, But So is Food Production’: Conflict and Food Insecurity in Nigeria and Cameroon, *African Development*, 42:3, 182-3.
- Helleiner, E. K. (1976) *Peasant Agriculture, Government and Economics Growth in Nigeria*. Homewood, Illinois P. 109.
- International Bank for Reconstruction and Development (2022) *Poverty and Shared Prosperity 2022* Washington DC: World Bank Group, 5
- Ioana Zaharia, Constantin Zaharia and Nicole Tudorescu (2009), The Importance of Social and Institutional Factors for Facilitating and Achieving Sustainable Agriculture. *Geopolitics, History and International Relations* 1:2, 179-180
- Lugard (1991), *Journal of Education*, University of Cross River State, Uyo. Pp. 99.
- Philip McMichael (2023) Critical Agrarian Studies and Crises of The World-Historical Present. *Journal of Peasant Studies*, 50:2, 732
- Richard Downie and Jonathan Eigege (2016) Sound Policy, Uneven Performance: Assessing Nigeria’s Agricultural Strategy, *Center for Strategic and International Studies*, 1-2
- Richard T. Rodriguez (2008) Glocal matters: A response to Jose Limon, *America Literary History*, 20:1/2, 183.
- Robert W. Shenton (1986) *The Development of Capitalism in Northern Nigeria*. Toronto: University of Toronto Press, xii
- Thomas L. Friedman (2005) *The world is Flat: a brief history of the twenty-first century*, New York: Picador
- Victor Oluwole (2022) Nigeria is no longer the poverty capital of the world.
- International Bank for Reconstruction and Development (2022) *Poverty and Shared Prosperity 2022* Washington DC: World Bank Group, 5
- McMichael, Philip. 2013b. “Value-Chain Agriculture and Debt Relations: Contradictory Outcomes.” *Third World Quarterly* 34 (4): 671–690.
- Teriba O. (1980) Illusions and Social Behaviour, *Inaugural Lecture* Delivered at The University of Ibadan, 9<sup>th</sup> March, 1978, Ibadan: Ibadan University Press, 25
- Ojo, M. O and Palme, E. (1991) An Appraisal of the Role of the Public Sector in Agricultural finance in Nigeria.