UDMA Journal of Politics and International Affairs
(FUJOPIA)

The Political Economy of Cows: A Call for Modern Innovative Approach to Cattle Breeding in Nigeria

[1]Didymus Tamen PhD

Abstract

This paper discusses the political and economic dynamics of the cattle industry in Nigeria with the aim of projecting the need for the adoption of modern innovative approaches to cattle rearing in the country. The paper is informed by the pervasive and escalating conflict between herdsmen and crop farmers in the Nigeria which has led to the loss of lives and property across the country. The paper is anchored on Karl Marx's Theory of Dialectical Materialism which is basically an approach to the study of society. The paper relied on the analysis of extant literature and contends that many factors such as increasing human population and activities, desert encroachment which is a consequence of climate change and insecurity are responsible for the conflict between herdsmen and farmers in Nigeria. The paper therefore points out the need to embrace modern cattle breading methods such as ranching in order to minimize conflict between cattle herders and crop farmers. It also argues that the adoption of modern cattle breading methods would not only enhance the quality and quantity of the meat and milk, it would also promote sedentary life among cattle herders and grant them access facilities like education, health and other services. It is therefore recommended in the paper that the government should exude more commitment towards modernizing the Nigerian cattle industry.

Key Words: Political Economy, Cattle Industry, Innovative, Modern

Introduction

There is the need to bear in mind the basic precursors to the environmental chances driven by human activities towards resource exploitation. These environmental changes, prominent among them, are climate change and biodiversity loss; of particular interest are the changes that affect ecosystem services brought about by wildlife over exploitation. Recently, climate change has altered rainfall pattern with attendant delays in rain onset and heavy downfalls with consequence of flooding and other environmental impacts. These incidences have caused a huge loss in human lives, agriculture and economies.

The usual pastoral life common among the Fulani in Nigeria is not spared by climate change. The pastoral Fulani known to keep ruminants as the source of their life and the sustenance of their livestock depend on forest provision of trees, grasses, space and water. However, it is also clear that climate change, biodiversity loss through agricultural expansion and infrastructural development and other needs have also impacted on vegetable resources upon which the livestock depends. In the course of these pastoral activities of looking for green pastures, Nigeria and other sub-saharan African countries, has recorded a

1 Department of Political Science
University of Mkar, Mkar – Benue State
Lead Author: tamendidymus@gmail.com

number of clashes between the nomadic Fulani and farmers with loss of lives and aconitum economic loss (Abubakar, 2021).

Thus, many developed and developing countries have for the past decades considered livestock keeping as a commercial venture and switched to the modern ways of ranching that is more environmentally friendly and of high economic returns. In this approach, the livestock are improved through genetics for more profitable products of milk, organic fertilizer, meat etc. Nowadays, improved livestock gives more products than the local unimproved breeds. In modern practices, the nutritional and other resources needed by the livestock are also provided in situ through pasture growth and development, water provision and veterinary services. The nomads would also be in one place and this makes it possible for the provision of social amenities like schools, health centers, security out fits etc to the nomadic communities.

This paper interrogates the political and economic interplay of cattle rearing which can be properly harnessed through ranching. The major objective of this paper is to call for modern innovative approach to cattle breeding and useful lessons on cattle transformation in the modern world. In addressing these concerns, the paper draws insights from the Marxist Dialectical Materialism approach in the study of society, which laid emphasis on the dynamic of nature of reality that life is full of change – that change is inevitable in all societies.

Theoretical Framework

Karl Marx's Dialectical Materialism (Marx, 1977), has been adopted as the theoretical framework and basic approach to the study of society in this paper. Dialectics can be defined as a theory of the union of opposite. Any opposing position has a linkage, a union. The important of dialectical materialism in understanding the society is that, it laid emphasis on the dynamic nature of reality – that life is full of change. That change is inevitable in all societies. However, the most important nature of this philosophy is that which emphasis perpetual change in all aspect of life.

There are three laws of dialectics (Engels, 1975). The first is the law of transformation of quantity into quality. It is the dialectical form of change that transforms quantity to quality. That this process of change is continuous until a quality that is better than the original emerges hence, change leads perfection. This law essentially underlines the need for continuous improvements in Nigeria's cattle industry as new challenges continue to emerge.

The second law is the law of unity of opposite, which emphasis the contradictory name of reality. It is double faced – the positive and negative sides of phenomenon are related to each other (good or bad, big or small).

The third law of dialectics is known as the negation of negation. It means that the process of change creates a new thing with the old losing out- quantity becomes quality. Therefore, the contradiction of a phenomenon is expected to negate the former.

We can therefore conclude that the main issue deriving from dialectics is that nothing exists in isolation. Secondly, one is called upon to study things in terms of change. Finally, according to dialectics, contradictions are typical of nature and society. The most important aspect of dialectical materialism is that it must be understood by linking people and society to material issues, economy in particular. That is linking the material to the economic needs, since economic needs are the essentials of man. Since the cattle industry constitutes an important aspect of the Nigeria's material reproduction and cannot be isolated from the economy, the theory is found relevant by this study.

The Nature and Character of Cattle Rearing in Nigeria

The cattle industry constitutes an important sector of the Hausa and Fulani economy. Its economic development is fostered mainly through the activities of indigenous cattle dealers and herders in response to improved market opportunities. The needs of the cattle basically determine the size and the distribution of Fulani settlement and also influence the nature of the relationships which is obtained between them and other ethnic groups. Cattle ownership is a symbol of group solidarity within the plural society and its cohesion transcend both kinship and clanship organization (Yusuf, 2001).

The pastoral Fulani who lives in diapered homesteads throughout the country side looks to the markets not only as important social centers but also as a means of trade. The women sell their milk and butter. The men apart from gathering necessary information on grazing condition for animal bargains some beasts for house hold needs or for fulfilling necessary requirements for social engagements (Stenning, 1959). Apart from meeting the demand for local consumption, export services of live cattle also form part of the business of the Fulani herders. This began the movement of cattle from the north to the south for trade. According to Clapperton (1829), livestock were driven across the river Niger in great numbers to the coast.

The insecurity at the time compelled them to live near walled villages which restricted the movement of cattle. Herds were concentrated at a walled – clan –village located at intervals from five to fifteen kilometers from each other. Cattle grazed on the edge of the bush near the village, and the pastoralists tolerated the unfavourable conditions of pasturage not because there was a shortage of grass and water but because the herdsmen were afraid to take their cattle far from the village (Okedisi, 1973).

The coming of the British Colonialism modified the pattern of the pastoral Fulani. The relative peace and security which followed the British occupation encouraged the pastoral Fulani to move out of their fortified and overcrowded villages to the grazing areas which were formerly denied them. Another major change was in relation to cattle ownership. Before, the pastoral Fulani were allowed to own slaves which encouraged the ownership of large herds of animals. But, with the British occupation, the slaves were emancipated and slave traffic was suppressed. Such a policy put the pastoralists in a difficult economic position due to shortage of labour (Yusuf, 2001).

This led to the modification of cattle rearing in the Emirates. Thus, many of the pastoralists with large herds choose to move away from their traditional villages and took to nomadic life rather than to stay and be impoverished by lack of labour. Still other herd owners with fewer cattle were obliged to stay near their traditional village. Since their herds were not large enough to support members of their households they began to farm, gaining only a fraction of their subsistence from their cattle. In this context, the cattle raisers in the Emirate fall into two main categories- the settled cattle raisers and the nomads.

There were significant changes in the pattern of life of the pastoral Fulani following the establishment of the British administration and the start of cattle trade. The relative peace and security encouraged the development of established orbits of transhumance (seasonal movement of cattle). Although, factors such as expansion of farmlands and population had influenced the widening of orbits; the annual movements were characterized by some periodic regularity. According to Okediji (1973), these rhythmic movements are said to be governed by moon and, in a calendar year, the annual treks consisted of five periods.

The movements commences with the wet season which begins in early July and ends in September. Soon after the commencement of the rains, the pastoralists would leave the dry season grazing grounds and would move in a northerly direction to the wet season quarters,. In most cases no cattle can be found on tilled land or southern zones where risks of tse-tse flies could be very high. The wet season is followed by the hot season after the rains, from October to December. During the period, cattle are moved southwards by slow stages, the object being to take advantage of stubble grazing on forms after the crops are harvested. Some forms of social relations seem to guide the pattern of stubble grazing.

According to Okediji (1973), fields belonging to herdsmen of district or villages with whom attachments had been formed were first visited and thereby supplied with manure. Afterwards, the herders would disperse to other farms. The third period is the harmattan season which lasts from December to February. The trek to the dry season grazing areas continues, and keeping the cattle on the farmlands is often practiced. But, as the grazing condition deteriorates pastoralists will abandon the possibility of gaining an income from maturing and will give priority to seeking out the best pasture.

The harmattan season is followed by the hot season in March to April. By this time of the hot season most cattle-owners chooses their grazing areas in the vicinity of rivers where watering facilities are available. They generally remain there until the rains commences. At this season, grass and water are very short and the condition is further complicated by the fires often started by farmers, bowmen seeking game and honey seekers. The result of these have been to increase upland erosion, in addition to hundred of pasture land destroys precisely when they are urgently needed.

The last period is the stormy season of May and June. Stormy shower is followed by fresh grass shoots. Herds will start to seek fodder beyond the river valleys north wards. This is the time of the greatest mobility because any local shower will cause a change on the route. This period is characterized by the greatest dispersal of cattle throughout the northern region.

Transhumance has a significant influence on the social life of the pastoral Fulani. It is characteristic for the cattle raising Fulani that clans forms the most closely organized group, but with the subsequent changes and facilitates for constant movement recent generations have broken those ties. It is also observed that pastoral Fulani no longer laid stress on acknowledging the aristocracy of their clans, but on the immediate group with which they are associated. For instance, individual lineage groups belonging to different Fulani clans who decided to stay in a certain grazing area would acknowledge the headman of the settled groups of the district by paying taxes and by presenting gifts. The headmen in turn would honor the leader of all the groups. The new social relative of the pastoral Fulani is an adjustment for defending their grazing rights against intruding herdsmen.

Another important development is the increasing importance of village economic organization. In the traditional seasonal movements the pastoral Fulani never owned and are rarely responsible for, or never had exclusive rights to, specific forms of use of any orbits. Fiscal considerations dominated administrative policy towards the pastoral Fulani and the collection of the cattle tax required some modifications so as to make the procedure to pastoral Fulani society.

There is abroad identity of interest under the new conditions. According to Okediji (1973), under the old system, the pastoral Fulani were crowded together for security reasons and no particular authority was established over the areas of seasonal movements. However, the new system for administrative purposes allows

the transhumant orbits to be under the control of heads of hamlets, villages and districts. This change is significant since it meant the pastoral Fulani were subjected to the heads of the areas where they grazed. This change, which was recognized and accepted by the pastoral Fulani, enhanced their status among the entire population.

Ranching as a Panacea to Improve the Political Economy of Cows

Everything in a cow is wealth. The beef, the hide and skins, as well as the milk, even the dung helps the world`s effort in achieving carbon development (Abdullahi, 2021). Pastoralism is a very productive activity to the economies of many countries including New Zealand, Argentina, Turkey, Australia, China and most of central Europe. In Africa, according to Marafa (2021), the contribution of pastoralism to GDP represents 10 percent in Mali, Ethiopia and about 8 percent in Uganda. In the nutshell, pastoralist contributes between 44 percent of the GDP in African countries. In Uruguay beef export earned the country $1.1billion revenue in 2019, and hence the slogan "small country, big beef"

Nigeria has the largest cattle population in sub-Saharan Africa with 16 or 20 million cows. Yet it is the largest importer of milk in the sub-Saharan region, spending 50 billion annually because its own cattle population cannot produce beyond 11.5 percent of the total daily products needed (Abdullahi, 2021). This is as a result of stressful roaming of cattle. Research has shown that cattle force- marched for the thousands of kilometers through hostile and inhospitable territories would have lost much of their fat and muscles by the time they arrived at their destinations. This is coupled with our ground level in terms of supply of modern dairy products, animal healthcare, fodder systems, marketing arrangement and training of herders and farmers to counter huge demand deficit of milk in Nigeria. Also, knowledge and practice of disease control mechanism and feed supplement among wandering Fulani pastoralists is lacking.

Nigeria cattle as it is left to trek day in day out, come rain come shine losing weight, and the lost is compounded to translate into all the other valuable end products of cow such as beef, milk, horn, hides, manure and blood. This great trekking cows are subjected to in Nigeria leaves them under-productive and under-valued. As a cow treks miserably that long, it loses nutrients and energy needed to grow much healthier and fresher (Abdullahi, 2021).

This is compounded by human-inflicted cruelty that makes it difficult for Nigerian cow to yield to the highest level of its economic productivity. For instance, little does an ordinary cattle "wandering" Fulani boy know about modern veterinary services to grow sturdy plum cows that can rub shoulder with the demand for beef. Thus, only the creation and systematic reform of livestock sector, according to Abdullahi (2021) "especially the questionable pastoral system we can make a cow a cow an important testable and exportable economic commodity".

Be that as it may, ranching is the panacea to improve cows economy, since cattle- rearing has since undergone several Copernican Revolution in other parts of the world that have transcended fetishes and primordial superstitions especially in Uruguay, Argentina and Brazil. Thus, ranches are dedicated farms areas that focus on cattle rearing. The farm sits on a large land and has a system to provide water to the cows. The mission is to see healthy cows, producing more milk than those farmers moving from more to place.

Under ranching, necessary machinery will be instilled in a modern way thereby creating centers of milk collection in the country, while mechanized grass farming will be initiated and developed for the supply of the needed grasses, healthier and cheaper for hay making industries in Nigeria. This will also lead to food security and nutrition is assuredly secured; millions of

jobs will be attracted and foreign exchange of Nigeria will skyrocket, thereby boosting the economy. With our cattle population agric business in fodder will make our youth rich and self-employed.

In a scenario like this, processing industries for the livestock products can easily spring up, while revenue from these economic activities can be easily realized by government. Equally, localizing these technologies would further bring more opportunities in job creation. In general, and more importantly, the pastoral nomads can be integrated into larger sustainable Nigerian communities with reciprocal contributions to national development.

In developing a model ranch for adoption which is to provide a sustainable means of livestock keeping in Nigeria, we need to look at pasture development based on agro forestry and agro-pastoral practices. This approach will further save the floral and faunal biodiversity which is constantly affected by habitat disturbance (Yusuf 2001). There is also the need for genetic improvement of the local livestock with a view to profitable animal and dairy products which include water provision for growing pasture and for their usage, and more affordable local housing scheme to meet their needs when they settle in one place.

Again, because of the consequences of the use of firewood in climate change through deforestation, biogas technology (from animal excreta) can be developed as a means of energy source for domestic use by the Fulani. Cow dung for instance, provides the best biogas source that can provide heat and electricity. After the biogas production, the slurry is an excellent organic fertilizer free of weeds to improve pasture growth (Abubakar; 2001).

Therefore, ranching will improve the Nigerian Fulani`s life which in my opinion is a "good laboratory" in which it commonly showcases the two "extremes" of life separated by 'traditional belief, practices and prestige" which includes an extreme of resources that can bring better life and accomplishment and an extreme association and underdevelopment. The entire nomadic life is business-based and an improved model and new innovations can help the country get maximum profit in their product marketing. Among the goals envisaged in the livestock development plan is that the country should have a viable livestock sector which is modern, using improved and highly productive livestock breeds to ensure increase in our GDP.

Useful Lessons on Cattle Transformation in the Post Modern World

The livestock sector is globally dynamic. It is evolving in response to rapidly increasing demands for livestock products. Livestock systems have both positive and negative serial equity and economic growth (World Bank, 2009). Livestock is one of the fastest growing agricultural sectors in developing countries. This growth is driven by human population growth, urbanization and increasing incomes. Therefore Nigeria can learn useful lessons on cattle transformation in the following ways.

a. Breeding and Genetics

Domestic and the use of conventional livestock breeding techniques have been largely responsible for the increases in the yield of livestock products that have been observed over recent decades. At the same time, considerable changes in the composition of livestock products have occurred. Demand for livestock products have been met by a combination of conventional techniques, such as breed substitution, cross breeding and within-breed selection. The rates of genetic change have increased in recent decades in most species in most species in developed countries for estimating the genetic merit of animals, with wider use of technologies such as artificial insemination. Also, breed substitution or crossing can result in rapid improvements in cattle productivity, such as products quality, increasing animal welfare, diseases resistance

and reducing environmental impact. Again, new tools of molecular genetics have been adopted which have far-reaching impacts on livestock and livestock production.

Therefore, if livestock are to continue to contribute to improving livelihoods and meeting market demands in Nigeria, the preservation of farm animal genetic resources will be critical in helping livestock adapt to climate change and changes that may occur in the systems such as disease prevalence and security (FAO 2007).

b. Animal Nutrition

The nutritional needs of farm animals with respect to energy, protein, minerals and vitamins have long been known and adopted, and these have been refined in recent times. Various requirements determination system exist in different countries for ruminants and not-ruminants, which were originally designed to process to nutritional and productive consequences of different feeds for the animal once intake was known. However, a considerable body of work exists associated with the dynamics of digestion, and feed intake and animal performance can now be predicted in many livestock species with high accuracy. Advance in genomics, proteomics and metabolic will continue to contribute to the field of animal nutrition and predictions relating to growth and development (Dumas et al 2008).

Much research has been carried out to improve the quality and availability feed resources, including work on sown forages, forage conservation, the use of multi-purpose trees, fibrous crop residues and strategic implementation. There are also prospects for using novel feeds from various sources to provide alternative sources of protein and energy, such as plantation crop and various industrial by products. Given the prevalence of mixed top-livestock systems in many parts of the world, closer integration of crops and livestock in such system can give rise to increased productivity and increased in soil fertility. In such systems, small holders use crops for multiple purposes (food and feed), and crop breeding programmes are now well established that are targeting stover quality as well as grain yield in crops such as maize, sorghum, millet and groundnuts.

c. Socio - Cultural Modifiers

Social and cultural divers of change are having profound effects on livestock systems in particular places. Livestock have multiple roles in human society. They contribute substantially and directly to food security and to human health. For poor and under-nourished people, particularly children, the addition if most amounts of livestock products to their diets can have substantial benefits for physical and mental health (Neumann et al 2003). Livestock generate income by providing both food and non food products the house hold can sell in formal and non-formal markets. Non-food such as wool hides and skins are imported sources of income. They provide nutrients in the form of manure, a key resource particularly for the mixed systems of sub-Saharan African. It also serves as financial instruments, by providing an instrument of liquidity and insurance.

In addition to their food security, human health, economic and environmental roles, livestock have important social and cultural roles, social relationship are partly defined in relation to livestock, and the size of a household`s livestock holding may, confer considerable social importance on it. The sharing of livestock with others is often a means to create or strengthen social relationships, through their use as dowry or bride price. Social and cultural changes are likewise taking place elsewhere. In European agriculture, there is already emphasis on, and economic support for the production of ecosystems goods and services, and this will undoubtedly increase in the future. In the uplands of the United Kingdom, recent social changes have seen increasing demand for leisure

provision and access to rural areas. At the same time, there are increasing pressures on the social functions and networks associated with the additional farming systems of these areas, which have cultural heritage value and considerable potential to supply the public goods that society is likely to demand in the future (Burton et al .2005).

d. Ethical Concerns as a Driver of Change

Ethical concerns may play an increasing role in affecting the induction and consumption of livestock products. Recent high – profile calls to flock to the banner of global vegetarian, backed by exaggerated aims of livestock's role in anthropogenic global green house gas emissions, serve mostly to highlight the need for rigorous analysis and credible numbers that can help inform public debate about these issues. Science has already had a considerable impact on some ethical issues. Research into animal behaviour has provided evidence of animals' motivations and their mental capacities, which by extension provides strong support for the notion of animal sentience (Lawrence, 2009). Recently, European government strategies are tending to move away from legislation as the major mechanism for fostering animal welfare improvements to a greater concentration on collective action on behalf of all parties with interests in animal welfare, including consumers (Lawrence, 2008).

Conclusion

The increased demand for livestock products, driven largely by human population growth, income and urbanization calls for adaption of new techniques in cattle breeding generally. This need is even more pressing in Nigeria where increasing pressure on farmlands and grazing areas had triggered conflict between cattle herders and sedentary farmers. Globally, increases in livestock productivity in recent times have been driven mostly by animal science and technology, and scientific and technological developments in breeding, nutrition and animal health which will continue to contribute to increasing potential production and future efficiency and genetic gains.

In this regard, it is argued in this paper that the adoption of modern innovative approaches towards livestock production can be beneficial in many ways. These include, the management of herders' farmers' conflict, enhanced meat and milk output from the livestock sector. Indeed, livestock products could be heavily moderated by socio-economic factors such as ranching, human health concerns and changing socio cultural values. Therefore, experts suggested five cattle production systems in order to improve the political economy of cattle breeding.

Recommendations

Arising from the challenges faced by the cattle industry in Nigeria, the following recommendations are considered relevant in improving the political economy of cattle breeding in Nigeria:-

a. The States in Nigeria should grant land titles to encourage sedentarization as start-up ranches or agro-pastoralists under start-up ranchers' models. The development of commercial pasture production for states that have good rainfall and vegetation should also be encouraged.

b. Government should increase efforts at restoring security, subsidizing improved cattle breeds, access to finance and insurance, smart technologies and premium markets for cattle and cattle products. Access to funds plays an important in cattle rearing especially where the establishment of ranches is involved. Therefore, commercial banks and other financial agencies should be encouraged by the government to finance the cattle industry.

c. Medium sized feedlots operations and small holders fattening scheme using indigenous cattle should be provided to produce quality

animals. They should be trained on how to source for quality animals and adapt technologies to improve weight gains and finishing.

d. Government should encourage Silvo pastoralism to reduce ungoverned spaces which constitute security risks. Silvo pastoralism which belongs to a group of practices known as afro- forestry is the practice of integrating trees, forage, and grazing of domesticated animals in a mutually beneficial way.

e. Existing livestock markets should be developed for bulk purpose, traceability and animal welfare. Government needs to fund research to address the dearth in critical skills such as range management as well as a comprehensive policy with time line for livestock development, evidence-based advocacy and lobby to counter the current negative narrative on animal production.

f. Specialized high tech farms for artificial insemination and embryo transfers for production of in calf heifers, breeding bulls and semen should be encouraged by government and the private sector. The cross-breeding of some cattle with selected exotic breeds and long-term selection for creation of natural breeds should also be given increased attention.

References

Abubakar, B. Y. (2021), "as we set for pastoral Fulani Ranching". (*Daily Trust*, Wednesday. March, 2021) P.14.

Abdullahli, M.S. (2021), "Political Economy of cows" (*Daily Trust*, Monday, Feb.)

Adebayo, A. G (1991), "of man and cattle: A consideration of the traditions of origin of pastoral Fulani of Nigeria (in *History in Africa*, 18, 1-12).

Ahamed- Gamgum, W.A. (2018), "Herdsmen and famers' conflict in Nigeria: Another dimension of security. (*Journal of Public Administration and Science Welfare Research*, 3(1), 35-62.

Awototkun, k. et al (2020), "Conflicts and the Retrogression of Sustainable Development: The Political Economy of Herders-Farmers' conflicts in Nigeria (*Journal of Humanities and Social Science Reviews*, eISSN: 23a56518, vol. 8 No. 1), PP 624-633

Clapperson, H. (1829), *Journal of Second Expedition into the interior of Africa from Bight of Benin to Soccatoo* (London: John Murry)PP.

Ducrotoy, M. J; et al (2018), "Patterns of passage into protected areas: Drivers and out comers of Fulani immigration, settlement and integration into the Kachia Grazing Reserve, northwest Nigeria" Pastoralism: Research, Policy and Practice, (1), 1-16.

Engels, F. (1975), Anti-Duhring; Moscow: Progress Publishers.

Marafa; L. (2021), "Herdsmen: The Fulani pastoralists" (*Daily Trust*, Tuesday, July 6, 2021) P.12

Marx, K. (1977), *A contribution to the critique of political economy*, Moscow: Progress Publishers.

Munir F. M. (2021), "The Pastoralism paradigm in Nigeria" (*Daily Trust*, Wednesday, June 2, 2021) p.12

Okediji, F. A. B. (1973), "The cattle industry in Northern Nigeria, 1900-1939 (*African Studies program*, Indiana University, Bloomington).

Stenning; D. T. (1959), *Savannah Nomads* (London: Oxford University Press), PP. 102-103

Yusuf, V. A. (2021), "livestock crisis: expert suggests five cattle production systems for Nigeria" (*Daily Trust*, Thursday, 8th July) P.21