

# Nigeria Agricultural Policy Project Highlights

March 2018

Scholar Program 15

## CONFLICT BETWEEN HERDSMEN AND NIGERIAN FARMERS: LESSONS FROM THE USA

Ufedo Monday Shaibu  
Graduate Student at Kogi State University Anyigba, Nigeria

The livestock subsector in Nigeria has huge potential both as a source of animal protein for consumption and as a lucrative income generating enterprise. However, the ongoing clashes between herdsmen and farmers in Nigeria have become not only an issue of national concern but one of national security. Nigeria's current reality on this issue is neither new nor unique. It is a mere manifestation of a historical phenomenon experienced by developed nations such as the United Kingdom and the United States of America as well as a more recent occurrence in developing countries including Burkina Faso, Sudan, Mali, Cameroon Ghana, and Niger (Azeez et al., 2015; Abba and Usman, 2008).

The tragedy of the commons is an age-old economic theory by William Foster Lloyd which dates back to 1833. The theory explains how common resources will be overused when not properly regulated (Lloyd, 1833). The idea popularized in 1968, by an ecologist, Garrett Hardin, is actually playing out in Nigeria today. With an open grazing system, it is expected that each herdsman will try to keep as many cattle as possible on the commons (free grasses/feed from nature). This kind of arrangement he claimed, may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both the cattle and farmers well below the carrying capacity of the land (Garrett, 1968). Eventually, the day of reckoning arrives. At this point, the situation begins to degenerate, and the tragedy occurs. How? Well, as a rational being, each herdsman seeks to maximize his gain and would want to keep adding to his herd size, not minding the negative effect of additional overgrazing created by his animals. But this conclusion is typically reached by each and every rational herdsman as he pursues his own interest; particularly in a society that believes that some resources are actually free. Where not checked, this situation results in chaos. Hence, there is a tragedy which manifests in the ruin/depletion of

the commons; conflict of interest and bloodshed as cattle owners strive to secure new/additional grazing land.

The above scenario is an apt description of what is unfolding in Nigeria today; a country that still operates an open and unregulated grazing system in virtually all its States. I will briefly share thoughts I got from a trip to some livestock farms in Michigan with a Vet Doctor, Dr. Rod. These visits confirmed my position that Nigeria's situation is really not novel or unique, propelling me to explore the issue further.



RANGE LAND

I learned that the USA had a history of open range in various parts of the country. This is a system where cattle can roam freely regardless of land ownership. The open range system caused serious problems with overstocking. There was inefficiency in the US beef production system. Cattle were moved around by "cattlemen" or "cowboys" based on the location/availability of grass at any given time. However, in the 1850s, there was widespread introduction of cattle feed yards which marked the beginning of an innovation in the industry. This led to the enactment of "fence law"; fence law addressed issues of livestock (cattle inclusive) running at large and fences were required to keep them confined. Bared wires invented in the 1870s were very

helpful in this effort (Wilson et al., 1965). The current practice is that open government land is rented to only one producer who has the sole right to access that land. This provides an incentive to the producer to manage the land without overgrazing it.

The USA has over 100 million cattle and calves (beef and dairy) widely dispersed across the country. It is the world's largest beef producer and second largest exporter (USDA, 2017). The American cattle population is more than five times the 20 million cattle reported by the Nigerian Ministry of Agriculture and Rural Development for 2011. A unique feature of the cattle production in the USA that caught my attention is the grassland management and grazing system with range and pasture lands. Cattle are not allowed to graze in the "open". Pasture lands are diverse types of land where the primary vegetation produced are herbaceous plants and shrubs.



**PASTURE LAND**

To supplement the use of grazing, cattle farmers in the USA, with the help of special feeds and breeding programs continue to get more milk and beef. Cattle feeds are specially formulated with corn, soybean, alfalfa and other supplements. These crops are basically cultivated for this purpose around May – July and September/October. Also worth noting, is the mechanization of all farming operations, right from crop production to milking and other activities related to cattle rearing.

Despite the advantages of feedlots (cattle spend their last 4-6 months with thousands of others in feed yards, where they are fattened before being slaughtered) in shaping the US beef industry, there are some challenges with their use.

According to Martin (2015), feedlots concentrate animal waste and other hazardous substances that pollute the air and the water with their runoff. Finishing cattle in this way also consumes huge amounts of grain and water. He further showed that beef feedlots spread pollution for miles.



**FATTENED CATTLE IN A FEEDLOT**

Another important development in the USA livestock sector, which started in 2015 was the grass-fed beef industry. The USDA definition of grass fed beef requires that such animal must be on grass for its entire life and must be fed on grass, grass-based silage and hay, and other roughages. This method of raising cattle is less cost-effective than the system of fattening cattle on feedlots. Grass-fed beef in the USA are not usually sold in traditional markets. They are high priced branded products. Grass-fed cattle are of table size (go to slaughter) at between 18 and 24 months of age, against the 14 months for feedlot cattle.

In sum, what is usual in many parts of the USA or any developed country may be unusual in a developing country such as Nigeria. However, considering the vast expanse of land in Nigeria, cattle may not necessarily be confined or fenced. There is, however, an urgent need for alternative grazing opportunities which include dedication of lands for forage purposes and effective use of cover crops in a grazing system.

Plant species can be cultivated (pasture) in various parts of Nigeria and such lands can be considered as a type of cropland. Rangeland consists of natural grass or shrubs, not typically planted. Nigerian cattle can graze on pasture or rangelands. It should be noted that rangelands may not recover from uncontrolled and unregulated cattle

management, while pasture lands can be restored. Apart from its high profitability, a well-designed, coordinated, controlled and managed grazing system has a multiplier positive effect on agricultural productivity.



**GRASS-FED CATTLE**

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The author is an M.Sc. student at Kogi State University Anyigba, Nigeria. His supervisor is Mohammed Kebiru Ibrahim (Ph.D.) While at Michigan State University, Dr. Saweda Liverpool-Tasie provided guidance on his program and on this Highlight.

This work is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiative through the Nigeria Agricultural Policy Project, Associate Cooperative Agreement Number AJD-620-LA-15-00001. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

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Published by the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824.