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Revitalization of Livestock Industries: A critic of the National Livestock Agenda

Dr. Junaidu A. Maina Chairman Danwaire Farms Ltd junaidumaina@gmail.com **Pastoralism** is the main livestock production system in Sub-Saharan Africa (SSA) where pastoralists live in arid and semi-arid zones. Pastoral herds move along moisture gradient (in dry areas during rains, in humid areas during dry season) exploiting seasonal availability of pasture, accessing crop residue, fallow land and open range to produce beef and milk with some level of efficiency:

- >Movement a very successful strategy in coping with uncertainties.
- >Along designated stock routes (burtali) with rest points (hurumi).
- Historically law abiding; paid cattle tax (Jangali) for state protection because of;
 - big mobile capital (cattle) and comparatively vulnerable because alone with animals
 - > Decline in local adm & laissez-faire attitude of the justice system has led to self-help



Contextual Background

Although Beef consumption is low;

➤2 kilos per capita but 6 kilos for countries with similar incomes

milk and dairy product imports worth US\$ 1.3 billion

≻50% of animals slaughtered coming from ECOWAS and

Insurgency in North East & banditry in North West (zones with highest livestock numbers)

≻and beef on prohibition list.

All thanks pastoralism with its low cost of production;

✓ no shortage or dramatic increase in price of beef: average of 1,800/kg

 Livestock also significantly contributing to rural livelihood, creation of employment along the value chain, provision of manure and draught power
 How do pastoralists provide these services with such level of efficiency without Government subsidy unlike crop farmers?



Contextual background

Nigeria has a lot of roughage; land mass of 92.3m ha, 70.8m ha of agricultural area with 34m ha under cultivation:

- e,g annual maize production stands at 11-12m tons producing over 50m tons of crop residue alone. Recent research has in fact shown that
- 86% of cereal biomass is made of materials not eaten by humans.(Anne Mottel et al 2017)
- ➢ Forage from fallow land, open range and non-arable land

This is what Ruminants (Cattle19.5m, 41.5m sheep and 72.5m goats) convert to meat and milk with some efficiency.

However to access these roughage animals must move. Regrettably this movement which is central to pastoralism is now the main cause of crisis in the livestock industries.



Contextual background

In Nigeria;

- Vet. Service has made cattle stay year round in every part of the country thus a profitable and lucrative business.
- Biggest market in ECOWAS; a major incentives livestock products (beef, milk, eggs, poultry and pork) most valued agricultural products globally.
- > 90% of National herd is under pastoralists/small-scale producers (SSPs),
- Increase in pop & urbanization increase demand for protein=increase in animal prod.
 Pastoralism has success stories in Africa.
- ✓ Ethiopia landmass of 110m ha (Nigeria 92.4m ha) has 60m cattle, 3times the cattle pop:
 ➢ one of the fastest growing economy in Africa with livestock production covering 40% of agricultural output and contributing 13-16% of the total GDP.
- So pastoralism not unfit to warrant abolishment but has challenges.
- Th4 key to the revitalization of livestock industry is addressing the poor productivity and lack of market orientation of SSPs to enable them provide stable supply of livestock products to the nation and consequently made adequate incomes for their households

For revitalization; small-scale producers is it; but how?



LIVESTOCK RESEARCH



Ranching

Ranching in Nigeria; all intensive or enclosed livestock production systems.

- I. Ranching. A very large area of rangeland is enclosed and the livestock migrate freely within its boundaries, finding their own food.
- II. Intensive livestock production. The animals are kept in paddocks, and graze partly on natural pasture, partly on intensive feedstock.
- III. Zero grazing. The animals are kept in stalls and fed entirely on purchased feeds. They are subject to intensive veterinary care, and often given dietary supplements to enable them to fatten quickly.

None are practised anywhere in Sub-Saharan Africa except in parts of Ethiopia, Kenya and South Africa (Roger Blench 2017).

Nigeria First Livestock Development Project (1974-1983) promoted parastatal and private ranches. The project was a failure (FLDP ICR):

- i. large expanse of land is required
- ii. heavy capital investments in infrastructure involved
- iii. low economic returns due to inappropriate marketing system
- iv. lack of local expertise in establishment and management ranches.

But why ranching now?

Anyone who has never made a mistake has never tried anything new. Albert Einstein



What has changed in the livestock industry?

Success of commercial poultry under enclosed intensive system thro: public-private partnership

Commercial poultry is underpinned by:

- ✓ High-yielding breeds
- ✓ Commercial feeds from increased maize and soybean production.
- ✓ Vaccines and quality veterinary healthcare and extension services
- ✓ Consolidated Bank financing
- ✓ Intensive commercial and free-range poultry in harmony within one ecosystem.
- ✓ Big internal market
- ✓ Cooperative Federation: Poultry Association of Nigeria (PAN) at National and States level actively lobbying and acting as interest and pressure group

The poultry industry is worth N10tln, largest in Africa

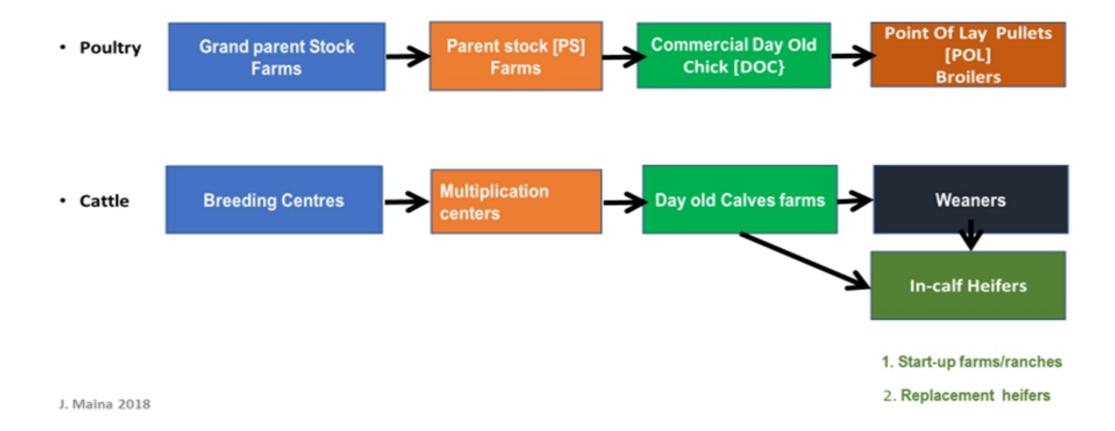
The strategic recommendation for the revitalization of livestock industries is the adaptation of lessons learnt & contextual understanding of commercial poultry



Commercial poultry flow chart

How to adapt; Production charts

Specialized Farms & Enterprises





Ranching is most suited for areas with low and poor rainfall

- Dairy and Zero grazing are suited everywhere more appropriate in areas with high cereal production and with municipal services.
 - ✓ Intensive production systems are critical for the production of commercial breeding stock similar to Day-old-Chicks (DOC) & Point-of-Lay pullets.
 - ✓ Establishment of National Herd Register
 - ✓ Crossbreeding with selected exotic breeds and long-term selection for creation of National breeds.

Areas for special interventions

While recognising that states have different comparative advantages, the following key areas are identified for special interventions:

- ✓ Access to land: the 1978 land Use Act sections 5 and 6 specify 500 ha and 5000 ha for agriculture and grazing respectively. The 1965 Grazing Reserves Law (valid in 19 Northern States) has provision for legal land acquisition. Title to land will encourage SSPs settle and investment in infrastructure.
- ✓ National breeding policy: to provide policy guidance on selection for development of National breeds and crossbreeding with exotic breeds
- ✓ Genetic improvement: production of quality breeding stock for both dairy and beef (dairy cows are bred specifically to produce milk in large quantities while beef cattle are bred to rapidly produce meat). These can be produced in commercial ranches under cow/calf production, in dairy farms and private farms and made available to SSPs.
- ✓ Cereal production: increased cereal production is necessary for livestock feeds. Current level of maize production is insufficient for human and the poultry industry. According to FAO, 33% of Global Land is under cultivation for animal feeds.

Areas for special interventions

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- Commercial pasture production: promotion of commercial pasture production. States with good rainfall distribution, to produce grasses and legumes for anima feeds.
- ✓ Capacity building: minding producers' knowledge gaps in areas of productivity, the ability to translate research, in education and social skills for effective participation in decision-making and policy formulation on critical issues concerning land tenure, healthcare (including zoonoses), women's rights and governance in general. Lack of these skill preclude small-scale producers from stable market participation. Thro education and extension services.
- ✓ Commercial banks financing: Banks have developed competencies in poultry value chain can easily understand the dynamics and process flow of other value chains identifying critical risks areas. Banks to be encourage to fully participate in meat & milk Value chain
- ✓ Structured market: existing livestock markets should be developed for bulk purchase, traceability and animal welfare. States & LGAs to invest in livestock markets developments
- ✓ Research and special skills: funding of research and address the dearth in critical skills such Range Management Science, Farm management, modern husbandry & Vet. practice
- Enabling environment by Government; comprehensive policy with timeline for livestock development, evidence-based advocacy and lobby to counter the current negative narrative on animal production and stakeholders.



Implementation plan

Long distance cross-border and interstates transhumance is now impracticable even under the ECOWAS transhumance protocol due to security challenges but short distance and intrastate transhumance will occur.

To revitalize the industry special intervention should made to these producers:

1. **Transhumant Pastoralists**; 415 identified grazing reserves covering a total of 4.3m ha (19 Northern States) exist. States to select & develop some for communal use in dry and at peak of farming seasons but charge grazing fees. Also grant land titles to encouraged sedentarization as start-up ranchers or agro-pastoralists.

Start-up ranchers (models):

1. Small Ranches;25-50 heads of cattle=Land 50ha2. Intermediary Ranches;51-100 heads of cattle=Land 150ha3. Medium Ranches;101-250 heads of cattle=Land 300ha4. Large Ranches;300 -500 heads of cattle=Land 500ha5. Commercial Ranches1000 cattle plus=Land 500ha

Government should provide ranch starter packages in the form of special financing and beneficiaries must sign up;

- ✓ To Animal Identification System (AIM)
- ✓ Enrolment into National Herd Register
- ✓ Register with Anchor Growers Programme
- ✓ Procurement livestock Insurance
- ✓ Enrolment on Ranchers' capacity Building Scheme;

Implementation plan

2. Agro-pastoralists; progressively transhumant pastoralists are settling in all states of the Federation as agro-pastoralists. Agro-pastoralists negotiated for land and settled in many communities. Clusters of agro-pastoralists exist in many Southern states at Iseyin-Igangan, Oyo State, in Adada-Nkpologu-Adani-Iggah axis in Enugu State, in Awgu-Nkanu-Abakaliki axis in Ebonyi State and other places. Many animals in the herd of agro-pastoralists belong to individuals in the local communities. Federal and State Governments to provide incentives and enabling environment.

3. Peri-urban farms: these are unique variants of enclosed livestock production systems. Peri-urban farms are privately owned mixed farms of indigenous and crossbred cattle that sprang up in the periphery of many urban cities starting from the 1970s and flourished. They were dissipated by cattle rustling that started in 2012. Federal and State Governments to restore security, provide subsidized insurance, access to finance, smart technologies and premium markets for their products

Implementation plan

4. Feedlots and Smallholder Fatteners; medium size feedlots operations and smallholder fattening schemes using indigenous cattle provide quality animals for slaughter exist in many major cities. These producers should be trained on how to source for quality animals and adapt technologies to improve weight gains and finishing. Federal and State Governments assist in accessing funds and access to premium markets for their products

5. Silvopastoralism; the practice of integrating trees, forage, and the grazing of domesticated animals in a mutually beneficial way. Silvopastoralism belongs to a group of practices known as agroforestry. Federal and State Governments should encourage Silvopastoralism to reduce ungoverned spaces which are security risk hotspots





The revitalization of the livestock industries requires systems approach and engagement of small-scale livestock producers to create a critical mass. The catalyst for this is the establishment of large, medium ranches and dairy farms to produce weaners, in-calf heifers and young breeding bulls for new start-up farms and genetic upgrading of indigenous animals. Understanding of the socio-economics of pastoralism as a major livestock system, addressing small-scale producers' knowledge gaps in modern livestock husbandry are also essential. Government must provide the enabling environment of security, policy consistency, structured market and promote synergistic participation of all stakeholders in the lucrative livestock businesses.

But most importantly Federal and State Governments most urgently counter the current very negative narrative on pastoralists and the simplistic notion that ranching alone can resolve herders farmers conflicts.

"It always seems impossible, until it's done" – **Nelson Mandela**

