

## 1. INTRODUCTION

This Plan was articulated from the recommendations and outcome of the National Conference on the Transformation of the Nigerian Livestock Industry held in Abuja. 11-15 September 2017. The Report of the Conference forms Part II of the Plan for details and Record of Proceedings. The National Conference examined the array of issues that have stifled the growth and modernization of the industry especially in the ruminants (Cattle, Sheep and Goats). The challenges of population growth, urbanization, economic growth experienced in Nigeria and the more recent security challenges have now provided another opportunity to initiate a turnaround of the system for the better

The transformation vis a vis modernization of Nigeria's livestock industry will entail a paradigm shift from a predominantly traditionally informal uncoordinated to a more systematized industry. This has to be done for the industry to be able to compete with other sectors of the economy for investment, human resources and market for its produce. The last element is very important considering that even live animals for slaughter are being imported into Nigeria not to talk of the imported milk and other animal products, despite the national herd size,

The Plan provides the framework and roadmap for systematic transformation of the livestock production system. It identified the strategic policy and programme areas that need to be addressed for the recommendations of the Conference to be actualized. To ensure policy consistency, these are aligned to the policy thrusts of the APP (2016-2020). The Plan also provides a matrix of expected outputs to be achieved within a suggested 10-year period (2018 to 2027) for a start. On-going programmes to be achieve the outputs have been identified and included in the Plan. But, these are by no means exhaustive and would continue to be reviewed as new ones are designed and agreements reached with partners, investors and other stakeholders. As the APP would be due for review and update in 2021, the National Livestock Development Plan would then be more fully aligned to a longer-term Agricultural and National Development Plan over the SDG horizon of 2030. Since the main focus of the National Conference on the Transformation of the Nigerian Livestock Industry was on the pastoral production system, the Plan therefore also focused on the ruminant livestock principally cattle, sheep and goats.

It was clear from the recommendations of the Conference that transforming the livestock industry will involve and require inputs from institutions outside the FMARD as there're many cross cutting issues along the value chains the responsibilities of which are not under the FMARD. Similarly, as agriculture is on the concurrent list of the constitution, responsibilities have to be properly devolved and appropriately taken at the federal, state, local government with stakeholder and community participation. This is especially crucial in matters of access to land, maintenance of peace and conflict resolution, and empowering women and youth to actively contribute to the growth of the industry. Consequently, it is envisaged that the Plan will take-off in the 13 Pioneer Ranch States that have pledged 5,000ha each for the transformation.

The Honourable Minister of agriculture and Rural Development (HMARD) therefore would need the support of his colleagues at the federal as well as political and resource commitment at the state and local government levels. The success of the transformation needs the support and commitment of all the stakeholders.

The success of the transformation and systematic change will depend on the efficiency of the implementation of this plan. The intervention programmes will have to be implemented professionally with some level of urgency. To achieve this the HMARD might have to create a special Ranch Development Implementation Committee to assist the FMARD..

Also, the extent of the systemic change envisaged under this plan will depend on the level of investment made in its implementation. At the onset, the Federal Government will have to take the lead, as the first phase of the plan will be at least 80% developmental. Since the Plan's commencement cannot be captured under the FMARD's 2018 budget, its take-off funding is expected to be accommodated under the Federal Government's Special Intervention Programme and private equity.

## **2. CRITICAL STRATEGIC INTERVENTIONS AND RANCH MODELS**

From the experiences shared at the Conference and the Pre-Conference Dialogue, Ranching cannot be embarked upon in a specialized manner of say Beef, Dairy, Mutton without allowing time for the system to be adopted first and nurtured to maturity. This is because,

i) the required infrastructure is not in place to support the specialization, ii) the commodity value chain has many weak links that need to be strengthened, iii) the principal actors at the production end do not have the required knowledge and skills for specialized livestock production system, iv) the productivity of breeds of the livestock is low for economically viable and profitable ventures to be built upon them in specialized production system, v) the initial capital outlay for specialized commodity ranching will be much beyond the capacity of the majority of the predominant livestock owners, vi) there is no commercial livestock feed and fodder production system robust enough to cater for the needs of the ruminant livestock; and of related importance, vii) current majority owners of livestock do not have statutory rights to access to land to cater for the livestock and feed production (*pasture and fodder crop*) needs of their stock.

It is therefore critical that five major factors be given top priority as they are the pillars that hold the value chain especially from the production end. These are: the land, the animals, their feed, their productivity and access to finance along the value chain of the livestock industry. Next in importance is provision of infrastructure and support services. This Plan considers these as the catalytic areas of intervention to stimulate the change. Therefore, they need to be addressed immediately in order to set the Ranching Agenda on a solid foundation.

### **2.1 Land Allocation**

The pivot for successful ranching and other forms of intensive livestock production

systems is access to land. It is therefore paramount to give it the priority it deserves in the design of, and location of the proposed ranches. In that light therefore, particular attention needs to be paid in implementing the strategy for Output 4 of the matrix i.e. “Carry out land survey, inventory and allocation of land for ranch development in the 13 states and of 141 gazetted Grazing Reserves and Users to determine status for sustainable development” As competition for land for grazing, farming and other economic activities has been the backbone of the socio-economic challenges of the livestock industry, priority should be given to a rationalized allocation of land to cater for the livestock needs and its other industry support requirements. Each model in the 5000ha ranch designated area, land should therefore be allocated in the following proportion;

- a) 3450 ha dedicated to livestock production,
- b) 1000ha dedicated to commercial rain fed/irrigated fodder and pasture production,
- c) 500 ha dedicated to commercial rain fed/irrigated grains production for livestock feeds, and
- d) 50 ha dedicated to setting up processing and service facilities.

The latter (d) should accommodate *water supply systems (dams, boreholes etc.)*, milk collection centres or small scale processing plants, mini abattoir, one-stop input supply centres, service delivery outfits, conventional and nomadic schools, cooperative offices, healthcare facilities, retail shops and outlets, hubs for security outfits etc. Since not all the 5000ha would be contiguous, a good mix in locating different components (livestock, pasture, crop farm, processing and service centres) over a wide area of may be 20 to 30km radius or more would be good for integration with the farming systems.

Once this system is found to be appropriate in the 13 pioneer states, it can be replicated in other states and grazing reserve areas that need to be converted to “Ranching Zones” in the future.

## 2.2. Ranch Size Models

Strategy and Output (3 of the Matrix) for the “Formation and registration of livestock owners into productive alliance, cooperatives or clusters along family or clan lines to facilitate access to land and support for ranching should take cognizance of herd size holdings and locations within a “Ranching Zone”. At the initial stage, it is expected that milk will be a very important product that can drive the transformation. Since present production system is predominantly geared towards multi-commodity (beef, dairy and replacement stock), creation of milk processing and sales outlet will provide the required market link and stimulate technology adoption, husbandry and management changes leading to commercial; orientation. In turn, innovations in the areas of selection, breed improvement, feed supplementation etc. will be adopted that should result in changes in the herd structure and more profitability. Then the Ranchers will see the opportunities abound in the transformation leading to investment and gradual specialization into the different commodities (i.e. Dairying, Feedlot etc.).

Since there is a wide range of herd size amongst existing producers, it is proposed that land allocation be made to enable herd owners to maintain productive animals, grow some crops, pasture and purchase additional feeds and supplements. The land allocated will not be enough for year round grazing without development. Therefore, the smaller the herd size the more efficient the land can be utilized. This should provide incentive for investment into the land development and commercial management of the herds. The focus is therefore on promoting high productivity of the animal per unit of land.

There are new approaches to determining Carrying Capacity (CC) of rangelands that take account of not only the vegetation and biomass production, but the sustainability of the soil condition (i.e. level of degradation) along with the economic goals of the livestock producer. But in Nigeria, there's paucity of information on the productivity of the open rangelands even by the classical Range Condition and Trend (RC&T) model based on vegetative cover and biomass production. Consequently, it is difficult to objectively determine the carrying capacity of the grazing reserves and determine what would be the optimal stocking rates for sustainable utilization. However, location specific assessments conducted across the grazing reserves and the biomass production and carrying capacities determined showed wide variation depending on the extent of grazing in the reserves. These have ranged between 1.67ha/TLU for year round grazing and 3.23ha/TLU when the reserve is used for only dry season grazing. In order to accommodate as many herds as possible and encourage technology adoption, pasture production and efficient use of the land, an allocation of 1ha/head for small herds and 1.7ha/head for bigger herds is proposed. This was adopted mindful of the fact that access to crop residue grazing and some form of supplementary feeding is done by herd owners

Hence the 34500ha to be dedicated for the livestock production would be expected to carry 20,294 heads per year subject to variation due to ecological location and its impact on biomass production, access to supplementary feeding and management practices.

It is expected that increased pasture and fodder production will continue to improve the carrying capacity under ranching condition. From 213kgDM/ha yield on unimproved grazing lands, the ranch owners would be re-oriented to establish pastures that will yield at least 5MT/ha within 3 years of establishment. This can be achieved in phases with projected increase in pasture production and expected improvement in CC,

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|----------|---|
| Phase 1  | From 213kg/ha open range pasture to 1.5tonne/ha of sown pasture yield should raise the CC by at least 100% to 40,588 heads on the 34,500ha (1TLU/ha.  |
| Phase I  | Raise pasture production to 3tonnes/ha should raise the CC by another 80% (32,470) to 73,058 heads.   |
| Phase II | Raise pasture production to 5tonnes /ha and CC by 50% (36,529) to 109,587 heads.  |
| Note     | between phases I and II it is expected that productivity in terms of faster growth rate, higher conception rate and increased milk yield will be more |

important that actual number growth. With improvement in nutrition, selection based on milk yield and growth would be introduced leading to breed improvement and change in herd structure based on animal performance

On this premise therefore, the following 4 categories are suggested for the commencement of the land allocation in the “Ranch Zone”

1. Clusters of small holders having 25-50 heads of cattle on 50ha land each
2. Clusters of intermediate holders having 51-100heads of cattle on 150ha land each
3. Medium holders 101-250 heads on 300 ha
4. Large scale 300 and above heads on 500ha

The projection here is that each cluster ranch would be able to establish pasture on the land allocated gradually from the present less than 1ton/ha of the open range to 5tons/ha or more in order to sustain the stock. This is a paradigm shift the capacity for which will have to be built amongst the current traditional producers expected to adopt ranching.

### **2.3. Pasture and Fodder Production**

Similarly, commercial pasture and fodder producers need to be supported to emerge as part of the “Ranching Zone” complex. These can however be located anywhere the entrepreneur can profitably operate since the products would eventually have to be transported to the users. For the commencement and nurturing of the transformation, these should be encouraged to be set up within the “Zone” with the allocated (500ha) land as suggested in 1.1.2 above. This is a vital component. Considering the low carrying capacity of our grazing lands, the stocking density under 2.2 above would be greatly limited by herd size, herd-off-take and growth over the years. Hence, the need to build an alternative and supplementary source of feeds to replace the transhumance in search of feed and water. Since the animals will not be taken to the feed, the feed has to be brought to the animals.

Entrepreneurs and cooperatives can also be supported to develop pasture on a communal land or grazing reserve to expand the pasture and fodder production base. Opportunities therefore abound for private pasture and fodder producers to acquire land within or outside grazing reserves to commercially produce baled hay, pasture seeds and/or charge livestock owners grazing fees for use of the pasture for a specified period. This can accommodate the needs of transhumant and/or agro-pastoralists that split their herds for off-season grazing. This is an area for states with comparative advantage for pasture production to exploit and use the opportunity for youth employment and wealth creation.

### **2.4 Priority Breed Improvement**

One of the main limiting factors that stifled the growth of the livestock industry in Nigeria has been the low productivity of the indigenous breeds. Their feed efficiency

and milk yield are low and growth rate is slow compared to exotic breeds. Hence their productivity has not been high and economical enough to attract the capital investment needed for intensive production for either dairy or beef.

From the research-based categorization of the 10 indigenous cattle breeds in Nigeria, the Bunaji (White Fulani) and Sokoto Gudali have been described to be suitable for both beef and dairy production. Although Sokoto Gudali tend to be found more towards, the North West part of Nigeria, the breed along with the Bunaji, dominate most herds found across the country. Therefore, a breed improvement programme should be developed with these two breeds for a start.

Although the two breeds have shown good response in increased milk yield, fast growth and reproductive capacity in response to good feeding and husbandry, the productivity has not been good enough for commercial dairy or beef ranching. Consequently, almost all commercial dairy farms in Nigeria have resorted to crossing the Bunaji and Sokoto Gudali with Holstein Friesian/Jersey. There have also been limited attempts and success in commercial beef feedlots to warrant purposeful cross breeding. But at research level and government farms and LIBCs, Bunaji and Sokoto Gudali have been crossed with Brahman, Simmental and others with improved performance in better average daily weight gains, earlier maturity to slaughter. However dam selection had to be done very well to reduce dystocia losses due to large foetal size.

Some of the challenges experienced with crossbred dairy cattle included low resistance to diseases notable amongst which has been tick borne diseases including attacks that destroy the udder. Tick bites also made the animals more prone to *Dermatophilosis* (Kirchi) with its attendant loss in milk production. This susceptibility becomes more pronounced above 50% crossing. Commercial farmers therefore learnt from experience to stop at 50% level of cross breeding to reduce the risk of these attacks and high cost of medication and housing.

Compounded by limited success to artificial insemination, these summarized challenges therefore limit the adoption of cross breeding by the traditional livestock producers.

However, as all these challenges have management solutions that can be more easily deployed in ranch than in transhumant system, breed improvement through selection and crossbreeding should be embarked upon. This is the only way to have animals that can be raised profitably. Otherwise, with low feed efficiency, low milk yield and slow growth rate, ranchers will not be able to recoup their feed cost whether as pasture or concentrates.

Therefore, a Breed Improvement Programme focussing on these two indigenous breeds should be embarked upon both through selection and cross breeding. To build on the existing experience and national expertise, government should;

- i. Engage interested partners with records of success in other countries based on existing regulations (pending the completion of the Nigeria Livestock Breeding Policy), to work with Nigeria counterparts to design a national breeding scheme. The scheme should be targeted at improving within breed performance to maximize exploitation of indigenous genetic pool.

- ii. Design a cross breeding scheme across breeds in Nigeria with a view to develop a “National Breed”
- iii. Design a cross breeding scheme with exotic semen of Brahman on Sokoto Gudali and Holstein Friesian/Jersey on the Bunaji taking account of the experiences summarized above
- iv. To facilitate this, facilitate the establishment of AI and breed multiplication centres using existing state LIBCs as hubs for PPP arrangement to accelerate the breed improvement programme.
- v. Finalize and adopt the Nigeria Livestock Breeding Policy.

## **2.5. Access to Finance**

Unlike crop production, livestock enterprises have a long gestation period and most of the products are perishable with short shelf life unless processed. These two factors have made financiers and investment managers reluctant and often shy away from granting loans and financial support for livestock enterprises. This is compounded by the fact that financial institutions often do not have the human resource capacity to assess financial viability of livestock related business proposals. Therefore sound financial policy is needed to support the implementation of the Plan. Essentially, there is the need to create an ecosystem for effective win-win public-private collaboration, coordination and investment in livestock subsector; instigate increased participation by SMEs in raising livestock for commercial purposes across multiple value chains to increase production; improve availability and affordability of meat products towards improving nutrition at all levels especially women and children. Some of the crucial interventions needed include;

- i. Government should re-structure the sub-sector and provide the required policy support, alternative funding windows at lower commercial interest rate and an enabling business environment.
- ii. Design pro-poor policy for access to finance to ensure all-inclusive growth of the rural communities leading to poverty reductions mindful of gender mainstreaming.
- iii. Development of a comprehensive value-chain development plan at the level of every value-chain node where activities are carried in a coordinated manner and ensure that all value-chain actors collaborate and synergize to achieve results
- iv. Government should engage with CBN and adopt an Anchor Borrower Scheme approach to support small-holder livestock farmers using a Specialized Cooperative Model.
- v. Credit and Loan conditions should be relaxed to enable more livestock farmers and other operatives at the different levels of the value chains to have access to credit windows provided by Government and support financial institutions.
- vi. Producer Associations in the Livestock sub-sector to re-organize and be better positioned to access Government credit support facilities.

## 2.6 Infrastructure and Support Services

Location and size of the Cluster Ranches (2.2) in relation to land allocation (2.1) would in turn influence the development of infrastructure and deployment of services. Some policy and regulatory mechanisms that are important in modernizing the system (such as extension, breeding policy, skills and management capacity building etc) can only be meaningfully implemented if the herd owners can be reached. The Ranches can also only survive as economic ventures if operators have access to market for purchase of and sales of off-takes and processing of products, and the enterprises are supported by relevant legislations and regulatory mechanisms. Therefore, implementation of other strategies detailed in section 3 below and in the matrix (section 4) should take cognizance of their unique and institutional requirements for success. Implementation Programmes and Projects would therefore be designed appropriately as geographical location, size of operations and other socio-economic factors would differ from state to state. Hence, lead outputs and activities expected to have catalytic effect in the transformation are prioritized to commence within the first year of the Plan (2018).

## 2.7. Rancher Starter Package

To qualify for the land allocation, a herd owner would agree to be a participant to the Ranching Scheme and be willing to pledge an equity in the ranch development.

It is proposed that a Starter Package be provided to assist start up ranchers in following crucial areas:

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|--|--|
| i. Land Clearing and demarcation   | Direct Government Intervention                               |
| ii. Support Access to inputs pasture seeds, fertilizer and other inputs                | Link to Private Sector Input Suppliers and Service Providers |
| iii. Access to the services of Agro-Rangers  | Direct Government Intervention                               |
| iv. Animal Healthcare  | Link to Animal Health Care Service Providers                 |
| v. Registration with Market led Anchor Growers Programme                               |  |
| vi. Access to Livestock Insurance  |  |
| vii. Enrolment on National Herd Register with appropriate Animal Identification System |  |
| viii. Automatic Enrolment on Ranchers' capacity Building Scheme                        |  |

### Basic Ranch Requirement

Land: Access to be based on determined eligibility criteria of animal ownership or capital for full ranch establishment

Water Access: Pragmatic approach in adopting wind mill/solar power driven boreholes and deep wells and small earth dams, runoff rainwater harvesting structures

Pasture: Nigeria will explore and adopt intensive pasture production technologies that will be adaptable to the agro-ecological niches of the country.

Security: Arrangement for deployment and maintenance of the services of Agro-



Rangers and other security outfits.

With the above strategy in mind, a model herd structure and estimated value is shown in the table below with estimated requirement provisional indicative budget for take-off. Some of the costs would vary greatly depending on location, infrastructure available and choice of materials. For example the pasture establishment was estimated using metal poles, wire mesh, seeds, fertilizer and labour. This would be greatly lowered if wooden poles are used etc. Also, if there's a watering point (e.g, dam) within the vicinity of the ranch, there would not be an immediate need to sink a borehole. A location appropriate pragmatic approach is therefore suggested.

Model herd Structure, and estimated basic take-off requirement for starting a ranch.

<b>1</b>	<b>Model Herd Size and Structure</b>	<b>No.</b>	<b>Unit Cost ₦</b>	<b>Total ₦</b>
i.	Dry and Lactating Cows	25	200,000	5,000,000
ii	Heifers and Young Bulls	10	150,000	1,500,000
iii	Breeding Bulls	2	320,000	640,000
iv	Castrate Bulls	5	300,000	1,500,000
v	Calves (heifers and Bull)	8	80,000	640,000
vi	Sheep and Goats	15	12,000	180,000
	Total Estimated Value of Herd	65		9,460,000
<b>2</b>	<b>Basic Take-off requirement</b>			
i	Pasture Establishment	10ha	300,000	3,000,000
ii	Housing and Kraal		1,000,000	1,000,000
iii	Health Pack		150,000	150,000
iv	Supplementary Feed		200,000	100,000
v	Water Supply (Bore hole)	1	1,300,000	1,300,000
vi	Insurance Cover TBD			
vii	Labor (Family Contribution) TBD			
viii	Contingency 10% TBD			

	Total for Take-Off Requirement			5,550,000
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### **3. OTHER STRATEGIC ACTION FOCUS AREAS TO IMPLEMENT CONFERENCE RECOMMENDATIONS**

#### **3.1. To raise productivity of livestock**

- a) Put in place regulations and supporting guidelines to discourage land fragmentation through registration system where access to use and transfer is guaranteed.
- b) Support land cadastralization to enhance livestock development
- c) Promote land titles registration to facilitate easy access, use, transfer and financial services
- d) Promote land and soil fertility improvement and management practices to sustain long-term support for livestock production taking cognizance of ecological differences and climate change factors.
- e) Undertake targeted and intensive research and campaigns to promote fast growth and high milk yielding breeds of cattle, sheep and goats to ensure profitability of livestock farming
- f) Finalize and adopt National Livestock Breeding Policy with necessary regulations for implementation
- g) Establish a nationally accepted standard and criteria for selection within species and between breeds.
- h) Embark on breed improvement across indigenous species.
- i) Promote the establishment and growth of Cattle and other species colonies across suitable ecological zones for comparative advantage.
- j) Promote Animal Identification Management System (AIMs).

#### **3.2 To enhance pasture and livestock feeds production**

- a) Develop mechanism for private sector investment for commercial pasture and fodder production. Opportunities abound on private pasture and fodder producers to acquire land within or outside grazing reserves to commercially produce baled hay, pasture seeds and/or charge grazing fees. This can accommodate the needs of transhumant and/or agro-pastoralists that split their herds for dry season grazing.
- b) Promote cultivation of grains for livestock feeds to farmers
- c) Promote commercial irrigated pasture.
- d) Support feed millers to increase production of concentrates and compounded rations
- e) Support production of livestock feeds from grains, industrial by-products of oilseeds (cotton/ground cakes), cereals (wheat offal, dry brewers gains) and sugar (molasses) factories.

#### **3.3. To enhance competitiveness of commercial livestock production and ranching**

- a. Encourage the establishment of commercial cow-calf operators to provide quality breeding stock for both dairy and beef start-up farms, breed genetic improvement and feedlots.
- b. Promote cluster, cooperatives, co-ownership, family, clan, contract, lease and collective commercial approaches to enhance technology update and

mechanization in the livestock industry for economies of scale and profitability

- c. Promote the adoption of ranching (beef and dairy as well as sheep and goats) by existing transhumant livestock owners and “non-Fulani” entrepreneurs engage in high level value chain production to enhance competition and efficiency
- d. Support existing and new entrepreneurs in the input and service delivery for ranching. This will open wide opportunities for supplies and skills development and job creation especially for the youths and gender mainstreaming.
- e. Promote the adoption of commercially viable and competitive breed or species specialization practices to take ecological advantage of the different zones of Nigeria,
- f. Continue to promote the profitability and advantages of investments in the livestock industry.
- g. Develop small, medium and large scale commercial ranch models with feasibility studies on viability and profitability for adoption by entrepreneurs especially to attract youth participation into the industry.
- h. Mount sustained awareness campaign and mobilization for traditional producers to adopt ranching

#### **3.4. To decentralize responsibilities with commensurate authority through review of legal and regulatory mandates**

- a) Build consensus among principal stakeholders on contentious issues of land, taxes, extension services as they pertain to livestock production between Federal, States and Local Governments and define roles of traditional rulers and communities.
- b) Develop relevant regulations and guidelines pursuant to ranch development, management and community responsibilities.
- c) Support reforms and development of integrated livestock disease control system with public private sector partnership
- d) Finalize the commercialization and mechanism for private sector leadership in the production of vaccines and other biologics for livestock diseases.
- e) Review the legal framework, regulations and guidelines to provide incentives and encourage the private sector, Community Based Organizations, etc in development and management of ranches and grazing reserves in Nigeria
- f) Support legislation for livestock products grading, food safety and animals identification system for traceability

#### **3.5. To develop service-oriented public institutions**

- a) Support private sector service providers to more efficiently respond to the needs of the livestock industry along the value chains
- b) Develop and maintain quality standards in all services
- c) Institutionalize public transparency and accountability of public Institutions in regulations, operation and service delivery functions of the livestock sector
- d) Develop and Retain critical mass of staff through improved employment

- e) packages for regulatory and operation agencies
- e) Promote closer collaboration among the FG, SGs, LGCs and Communities in discharging their mandates to support the livestock industry.
- f) Streamline the functions and operations of the institutions involved in Regulation, Operation and Service delivery of the livestock industry to remove duplications and overlaps especially at the three tiers of government (federal, state and LGA) and within each tier
- g) Provide coordination mechanism for them to promote efficiency and diligence
- h) Create a platform for review, feedback and decision making in their operations with stakeholders

### **3.6. To provide cost-effective, demand-driven livestock support services**

- a) Government should continue to make investment in infrastructure development that supports livestock production and its commodity value chains.
- b) Engage states and local governments to enhance provision of rural basic infrastructure for the development of ranches.
- c) Simplify the decision making mechanism to promote investments that will facilitate access to land, water and supportive infrastructure for establishment of ranches and livestock farms.
- d) Encourage PPP and cooperatives ownership in the provision of abattoirs, milk processing plants, cold chain stores, refrigerated vans etc for efficient linkage of the value chain.
- e) Provide incentives to entrepreneurs to engage in input supply services for the growth of the livestock industry and the transformation.
- f) Enhance proper market linkages and provide incentives to entrepreneurs to engage in live animals and livestock products transportation.
- g) Review and refine the existing guidelines on the establishment and management of grazing reserves to ensure more community participation and understanding of the win-win opportunities between the communities and the ranch owners.
- h) Promote the provision of infrastructure in key regional livestock markets for security, banking system, animal identification, record keeping, disease surveillance and animal welfare.

### **3.7. To develop required human resource capacities**

- a) Develop and maintain the critical human resource for research and development for the growth of the livestock industry especially in areas of range sciences and ranch management and economics
- b) Upgrade and expand the R&D facilities to lead in the generation of responsive innovations to support the dynamics of livestock commodity value chains
- c) Strengthen the institutional capacities of relevant organizations/agencies for effective and efficient service provisions
- d) Promote technology adoption amongst the actors at the different value chain level of the livestock commodities (beef, dairy, lamb, poultry, hides and skins, manure etc)
- e) Put in place mechanism for quality assurances and quality control.

- f) Support research agenda on environment, bio-diversity and resource conservation in the livestock industry
- g) Support local production of machinery and ranch equipment, tools and related technologies for the markets
- h) Create a mechanism for partnership development with tertiary and technical institutions to promote tailored manpower development to support the ranching transformation.

### **3.8. To enhance the effectiveness of Research and Development and Technology Transfer**

- a) Initiate the review of the Act establishing NAPRI with a view to “Unbundle” the Institute into livestock commodity focused research institutes.
- b) Organize the conduct of a national livestock census
- c) Finalize and adapt an electronic livestock identification system
- d) Undertake Curriculum review in Federal and States’ Colleges of Agriculture to introduce Range and Ranch management courses for technical manpower development.
- e) Universities of agriculture to introduce Range and Ranch Management degree course
- f) Initiate the creation of National herd Register for each species of livestock
- g) Promote Ranching and intensive livestock production system in consonance with environmental sustainability
- h) Consider climate change, terrain and ecological features in the design, operation and management of ranches especially with respect to impacts on downstream ecology in dams, rivers and drainages.
- i) Ensure the existence of technically sound feasibility studies that account for environmental and social impact assessment especially in the design of large scale ranches and dairy farms.

### **3.9. To enhance security, socio-economic and cultural inclusion**

- a) Strengthen community participation in maintenance of security through dialogue, trust and confidence building. The use and deployment of “Agro Rangers” should involve the community leaders in addition to the security operatives.
- b) Mainstream gender issues in all aspects of livestock development taking cognizance of areas of comparative advantage of each group without prejudice to cultural milieus. Promote equitable land tenure reform, especially with respect to accessibility to land and water for livestock production by women and other vulnerable groups
- c) Empower the women and vulnerable groups to have legal capacity to protect their interests in the livestock industry.
- d) Strengthen participation of vulnerable groups with better access to natural resources and equal voices for effective management

### **3.10. To promote specialization along the different livestock commodity value chains**

- a) Embark on capacity building of operators of the different segments along the Value Chains of the different livestock commodities (beef, dairy, lamb,

- hides and skills, manure etc)
- b) Promote and support targeted interventions like soft loan to strengthen identified gaps along the value chains.
- c) Monitor and regulate the quality and standardization of products and services provided by the operators of the different segments along the value chains

**3.11. To enhance funding mechanisms and Effective stakeholder participation**

- a) Establish appropriate funding mechanism for public support to livestock development, research and establishment of ranches.
- b) Prioritize sustainable funding based on strategic importance/apparent opportunities around targeted schemes,
- c) Attract donor financing to strengthen institutions and support human resources capacity development and skills acquisition in the various areas of the livestock industry
- d) Increase direct budgetary allocation to MDAs responsible for the development and management of livestock development programmes
- e) Provision of credit facilities to smallholders investors to promote enterprises at the various level and across the different livestock value chains
- f) Strengthen the Bank of Agriculture and Bank of Industry catalytic roles in financing the livestock industry
- g) Revise and strengthen the mechanism of multi-tier funding of livestock development programmes and projects involving FG, SGs, LGCs, beneficiaries and Communities.

#### 4. IMPLEMENTATION PLAN MATRIX

NATIONAL LIVESTOCK DEVELOPMENT PLAN 2018 - 2027 IMPLEMENTATION PLAN MATRIX																
Outcome: By 2027 Nigeria would have at least 40% of its cattle managed under Ranching System																
	Outputs	Period of Implementation										Programmes and Activities		Responsible		
		201_		Year 202_								On-going	Proposed	Institutions	Partners	
		8	9	0	1	2	3	4	5	6	7					
1	Intensive advocacy communication and awareness created to educate Pastoralists on the financial and socio-economic benefits of modern animal production practices.	X	X	X			X	X					1. Effective engagement of pastoralists and other regular users of grazing reserves  2. Production of monthly disease reports Development of Effective Communications materials to promote ranching livestock production system	1. Increase awareness and sensitization of Pastoralists on the benefits of modern animal production practices  2. Social Mobilization of both herders and communities hosting new ranchers of mutual benefits. 3. Increase multi-level policy advocacy on ranching across MDA and at state level	Dept. of Animal Husb. Services (DAHS) Dept. of Vet and Pest Control (DV&PCS) NOA,NCNE FMARD, FMI, Media Outlets, States and LGAs	FAO, AU-IBAR NVRI States Agencies Dev Partners NGOs APESS

2	Cross border and regional collaboration strengthened to regulate conduct of cross border livestock movement, pastoralism/transhumance and stem small arms trafficking	X	X	X	X	X	X	X	X	X	X	<p>1. Provision of elevated security posts in established pasture plots in 8 states namely: Adamawa, Gombe, Bauchi, Borno, Oyo, Katsina, Zamfara, Plateau</p> <p>2. Provision of Quarantine services at borders</p> <p>3. Intensifying dialogue with regional governments on ECOWAS Protocol on Transhumance</p>	<p>1. Strengthening of regional bi-literal collaborations</p> <p>2. Involving State, LGA and Community Committees for security vigilance.</p> <p>3. Collaboration with regional programmes on cross-border transhumance.</p> <p>4. Strengthen community participation in maintenance of security through dialogue, trust and confidence building.</p> <p>Training of Agro-rangers, pastoralists vigilantes by NSCDC</p>	<p>Nigeria Quarantine Service FMARD, MFA, Fed Ministry of Interior, Defense</p>	<p>Custom, Police ECOWAS FAO</p> <p>EU, WB, AU, Swedish Cooperati on</p>
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3	Formation and registration of livestock owners into productive alliance, cooperatives or clusters along family or clan lines conducted to facilitate access to land and support for ranching.	X	X	X		X	X			X		<p>1. Increase awareness of cattle, sheep and goat farmers on importance of group, cooperative and cluster formation along livestock commodity value chains.</p> <p>2. Consultations with Cattle Breeders, Farmer Associations and organizations leadership</p>	<p>1. Registration and profiling pastoralists and transhumant livestock keepers in and out of grazing reserves along family or clan lines leading to formation of productive alliance,</p> <p>2. Profiling of sedentary herdsmen, other regular users and animals in the grazing reserves using value chain approach.</p> <p>3. Identification and registering of formed groups and cooperatives as Pioneer Ranchers in the 13 states that allocated the land for Ranching.</p>	<p>DAHS, Department of Cooperative, State Ministries of Agriculture, Cooperatives . LGAs, Traditional Rulers and Community Leaders.</p>	<p>MACBAN, CORET, APSS, LCCM NGOs FC_WAMCO ARLA</p> <p>Other Associations, Development Partners,</p>
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4	Land survey, inventory and allocation of land for ranch development in the 13 states and of 141 gazetted Grazing Reserves and Users carried out to facilitate take off of Pioneer Ranches.	X	X	X			X			X	<p>1. Inventory of facilities in 21 of the 141 grazing reserves</p> <p>2. Development of 50 hectares of pasture in 9 out of the 13 /states that provided 5,000ha for ranching.</p>	<p>1. Support provided to select Pioneer Ranchers in the 13 states so that at least two operational ranches take off in each of the 13 states by 2019</p> <p>2. Provide Rancher Starter Package and targeted interventions like soft loan to facilitate establishment and consolidation.</p> <p>3. Survey of stock routes linking 21 of 141 grazing reserves. Dry and Wet season vegetation and regular user survey in 21 of 141 grazing reserves.</p> <p>4. Carry out users survey of all identified 415 grazing reserves in Nigeria</p>	<p>DAHS, DV&amp; PCS Office of the Surveyor –General of the Federation Dept of Agric Land and Climate Change Managemen t Services State Government s States and LGAs to provide enabling rural infrastructure, extension etc.</p>	<p>States’ Ministries of Land, Survey, Agriculture Traditional and Community Leaders</p>
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5.	Appropriate regulations and guidelines pursuant to ranch development, management and community responsibilities developed and adopted by stakeholders.		X	X	X	X				X				1. Existing guidelines on establishment and management of grazing reserves as the working document.	2. Development of SOP for ranch development. Engagement of user communities on ranching 2. SOP to address issues of environmental impact amongst other factors	DAHS NIAS	FMEEnv
6.	States and Local Governments engaged by FMARD for firm commitments to provide rural basic infrastructure for the development of ranches.	X	X	X	X	X	X	X	X	X	X		1. Conclude dialogue and agreements with states that have already demarcated 5,000ha for ranches on the the infrastructure they'll provide to facilitate establishment and sustenance of the ranches	1. Implement agreements for the provision of infrastructure to service the ranches.	FMARD States and LGAs	Developm ent Partners	
7.	Capacity of the Pioneer Ranchers and new entrants built to acquire skills in ranch livestock husbandry, management		X	X	X	X	X	X	X	X	X			2. Capacity enhancement of pioneer ranchers on holistic land and livestock	DAHS Federal Colleges of Agric and Animal	MACBAN,	

	including record keeping and financial management.															management, rotational grazing and natural regeneration management of vegetation. 3. Upgrade the facilities at the Kachia Grazing Reserve Training Centre and affiliate it to College of Animal Science (ABU). Replicate the Centre in other Zones	Husbandry		
8.	A clear plan for commercial pasture production and utilization developed	X	X					X	X							1. Development of a draft plan for commercial pasture production and utilization 2. Pilot irrigated pasture development and pastures seed multiplication at Paikon kore grazing reserve, FCT. 3. Distribution of improved pasture seeds, tillers and cuttings to	1. Finalize plan with fodder and pasture production modules properly costed for adoption by entrepreneurs and full participation of the private sector actors. 2. Develop mechanism for private sector investment for commercial pasture	DAHS NAPRI NVRI Private Pasture producers DAHS CBN BoA	Commercial Banks Donor and Technical partners

												private concerns	and fodder production. Pasture and fodder production to be supported under government agricultural financing support scheme such as Anchor-Growers Scheme and NIRSAL		
9.	Cultivation of grains energy and protein source (e.g. soybean) for livestock feeds promoted to and adopted by arable crop farmers		X		X	X	X	X	X	X	X		<ol style="list-style-type: none"> <li>1. Development of pasture grade grains for fodder along value chain structure.</li> <li>2. Introduce varieties of grains more suitable for livestock feeds and promote same for adoption and commercial production by arable crop farmers.</li> <li>3. Promote the adoption and use of silage and hydroponic grass</li> </ol>	DAHS, FDAE, NIAS	MACBAN, DFID, IFIF



10.	National Livestock Breeding Policy finalized and adopted with necessary regulations for implementation to guide breed improvement and conservation of genetic resources in the country.	X	X	X									Draft National Animal Breeding Policy ready for stakeholders' validation meeting.	<ol style="list-style-type: none"> <li>1. Undertake final consultations and validation of the Policy.</li> <li>2. Policy ratified and endorsed by FEC for implementation.</li> <li>3. Establish National Herd Register for all livestock species to facilitate, controlled breeding, livestock health programmes and traceability</li> <li>4. Identify and register service providers for the maintenance, updating and sharing the data and information</li> <li>5. Provision of technical support to indigenous and modern breeding systems</li> <li>6. Conduct feasibility study to identify livestock</li> </ol>	<p>DAHS ABGN NIAS NSAP VCN NVMA</p>	<p>Livestock Producers, Meat and Milk Processor s, retailers and consumer NGOs</p>
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11.	Targeted and intensive research and campaigns undertaken to promote fast growth and high milk yielding breeds of cattle, sheep and goats to ensure profitability of livestock farming			X	X	X	X	X					<p>1. National programme on adaptability and selection for growth and high milk yield across species for improved profitability under ranching.</p> <p>2. Promote the adoption of commercially viable and competitive breed or species specialization practices to take ecological advantage of the different zones of Nigeria,</p>	DAHS, DV&PCS	NAPRI, NACGRAB, NABDA, MACBAN, SHEGOFAN, NASHGODAN
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12.	Livestock Census conducted along with standardized animal identification and management system and databank.		X	X								<p>1. Collaboration with NAERLS on livestock survey.</p> <p>2. Collaboration with service providers to introduce livestock identification and traceability system</p> <p>3. Conduct feasibility study to establish the prevalence of major Transboundary Animal Diseases (TADS) and Zoonotic diseases.</p>	<p>1. Resource Mobilization to conduct National Livestock Census and establishment of animal identification management system.</p> <p>2. Establish an effective disease recording system and database to service as a hub for livestock diseases epidemiology for efficient animal disease traceability</p> <p>3. Provision of technical support to design diseases control strategies for effective identification and traceability systems</p>	DAHS & DV&PCS	<p>NAERLS MTN/NTA /FRCN NBS FAO, NBS, WB, NPC FAO AU-IBAR</p>
13.	Comprehensive Animal Health Service Delivery System established.	X	X	X								<p>1. Joint national animal disease control programmes between the 3 tiers of govt (Federal, States &amp; LGA).</p>	<p>1. Establishment of more primary animal health centres nationwide to provide</p>	Federal, States & LGA NVRI, DV&PCS VTHs	<p>FAO, AU-IBAR, PANVAC USAID</p>

												<p>2. Supervision, monitoring and development of SOPs for establishment and running of private veterinary clinics, hospitals and other animal health facilities</p> <p>3. One Health collaborative programme adopted in Nigeria</p> <p>4. Promotion of “Sanitary Mandate” allowing private veterinarians to provide all required services.</p> <p>5. Joint national animal disease control between 3 tiers of government.</p>	<p>affordable animal health care service delivery to the grassroots</p> <p>2. Establish functional mobile diagnostic laboratories and ensure quality control of drugs/vaccine production and administration</p> <p>3. Register and license Ethno veterinary practitioners to provide livestock healthcare services</p> <p>4. Streamline functions and responsibilities of Animal Health Service Delivery along policy, regulation and monitoring</p>		
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14.	NVRI Production of vaccines and other biologicals for livestock diseases and diagnostic services be fully commercialized.	X	X	X								1. Registration of commercial vaccines production outfit with CAC	1. Support the replacement of obsolete equipment at NVRI to ensure quality assurance of vaccine production	FMARD National Veterinary Research Institute (NVRI)	Pan African Vaccine Company (PANVAC)
15.	Standards for livestock commodities and livestock production inputs enforced.		X	X			X	X		X	X	1. Promote standardization of procedures, inputs and products in line with global best practices to facilitate national and international trade	1. Ensure adoption of the protocol and enforcement of regulations binding on the protocol. 2. Public and Private sector sensitization on standard global best practices Promote 3. Establishment of disease-free compartments in States with comparative advantage in line with OIE guidelines on compartmentalisation for export of animal products 4. Identification and risk assessment of	DV&PCS & DAHS	NAFDAC, SON and NAQS

																6 new disease free zones and compartments					5. Establishment of the disease free production compartments	
16.	Nutrition and Food Safety policy and strategy implemented.		X	X	X											1. Passage of Food Safety Legislation 2. Nutrition in Agriculture Strategy finalized 3. Agricultural Nutrition policy reviewed 4. Promotion of aflasafe products	1. Disaggregation of hunger and malnutrition indices in rural families engaged in livestock production. 2. Promote proper and balanced dieting using their conventional household foods	NCNE NAERLS FRCN Media Outfits NVRI, DV&PCS VTHs		FAO GAIN UNICEF		
17.	Commercialization model for milk and meat production that builds on utilizing the existing system of production developed and adopted.		X	X	X	X	X	X								1. Scoping of on-going PPP models involving small scale milk producers linked to milk processors.	1. Engage Consultants to develop an economically viable small holder dairy scheme using moderate equipment requiring small capital investment for CBN to support.	FMARD		CBN		

															2. Assess viability and possible adoption of mini abattoirs models linked slaughter animals supply.		
18.	A PPP funding mechanism created to facilitate better access to finance by entrepreneurs along the livestock value chain.		X	X	X				X		1. Speedily conclude the restructuring of the Bank of Agriculture to position it to provide more efficient and effective financial support services especially as it pertains to the livestock sector.	2. Assess viability and possible adoption of mini abattoirs models linked slaughter animals supply.	1. Leverage these funds to strengthen the Bank of Agriculture and Bank of Industry catalytic roles in financing the livestock industry 2. Work with BoA to develop appropriate financing windows suitable for livestock enterprises taking account of their unique risks and investment gestation periods. The package can be adopted by commercial banks. 3. Create a forum for BoA and BOI anchored by CBN to fashion investment	FMARD BoA Commercial Banks	CBN		

															support synergy along livestock commodity value chains. As BoA supports primary production, Bol interventions support processing (milk, abattoirs etc), value addition, logistics services (cold chains, refrigerated vans etc 4. Develop Rural Financing capability of financial institutions. 5. Consider establishing tariffs on imported livestock products along other measure to contribute to the PPP funds		
19.	Capacity of Financial and Insurance institutions on Livestock Value Chain structure built to facilitate access to finance and	X	X	X					X	X					1. Engage CBN and other regulatory bodies to prevail on financial and insurance	FMARD CBN NAICOM	NICON NDIC

	insurance															institutions to build the required human resource capacity to effectively service the livestock industry.		
20.	Agricultural Insurance policies reviewed to accommodate more private insurance companies provide services to the livestock sector		X	X				X	X							1.Assess the factors militating against active insurance companies support to the livestock industry. 2. Appropriate regulatory agencies to address the factors to enable more companies provide service and support to the livestock industry	FMARD CBN NAICOM	NICON
21.	Processing and market development along livestock value chain nodes promoted.	X	X	X				X	X						1. Engagement of livestock product processors on global best processing. 4. Establishment of milk collection centres in collaboration with partners 3. Rehabilitations of abattoirs and slaughter	1. Promote concessioning of milk processing centres and abattoirs in states under PPP, 2. Encourage PPP and cooperatives ownership in the provision of	FMARD FC-WAMCO L&Z States	Other Milk and meat Processors BoA Bol



											houses. 4. Capacity building programme for abattoir workers and processors	abattoirs, milk collection centres, milk processing plants, cold chain stores, refrigerated vans etc for efficient linkage of the value chain 3. Develop cooperatives ownership in management of abattoirs, milk collection centres, milk processing plants, cold chain stores, refrigerated vans etc under PPP arrangement for efficient linkage of the value chain.		
22	Heavy investment to revitalize the agricultural extension system with emphasis on livestock made to promote technology adoption amongst the actors at the different value chain.	X	X	X				X	X		1. Development of a livestock extension policy 2. Training of extension workers under the N-power programme	1. Intensify government investment in recruiting, training and deploying livestock extension workers to drive the ranching policy.	FMARD NIAS NSAP VCN NVMA NAERLS NAPRI State ADPs	Sasakawa JICA GIZ

23.	Capacity of the relevant Departments of the FMARD and States' MOA built to ensure proper articulation of Programmes and Projects to achieve the outputs of the Plan.		X	X								<p>1. Capacity building of animal scientists in the states and federal through mandatory professional education by NIAS</p> <p>2. Compulsory Continuing Education for all registered professional cadres</p>	<p>1. Capacity building of Animal Science professionals and other staff on forage production, processing and preservation</p> <p>2. Awareness creation on the livestock transformation policy across the states</p> <p>3. Capacity building on forage production and range management</p>	<p>FMARDDAH S</p> <p>DAHS</p>	<p>States MOA</p> <p>DVPCS &amp; States MOA</p>
24.	The National Animal Production Research Institute (NAPRI) restructured into livestock commodity focused research institutes.	X	X	X								<p>1. Initiate internal memo on the rationale of restructuring NAPRI</p> <p>2. Draft the amendment Bill for the consideration of NASS</p>	<p>1. Consult with the National Assembly to review the Act establishing NAPRI with a view to "Unbundle" the Institute into livestock commodity focused research institutes.</p> <p>2. Identify relevant number and nature of institutes that should be created</p>	<p>FMARD FMJ</p>	<p>NASS</p>

													out of NAPRI..		
25.	A Federal Ministry of Animal Resources established to articulate focused policy raise the profile of the Livestock Industry, increase focus, and promote national and international business as obtained in many countries.			X	X								1. Draft appropriate memo for the consideration of FEC and HE the President in consultation with the OHSF	FMARD, Federal Executive Council OHSF	
26.	Curriculum of the Federal and States’ Colleges of Agriculture reviewed to introduce Range and Ranch management courses for technical manpower development		X	X	X	X							1. Undertake wide consultations with stakeholder at all levels of livestock commodities value chains to identify the skills gaps that need to be filled by the Colleges to effectively service ranch operators	FMARD,	NUC, NABTEB NIAS NVC
27.	Range and Ranch Management degree courses and specialized livestock extension introduced in e the		X	X	X	X	X						1. Consult and engage the Universities of Agriculture to introduce the	FMARD	NUC NIAS NVC

	Universities of Agriculture																	relevant courses to service ranch operators.		
28.	Standards for livestock commodities and livestock production inputs enforced.	X	X			X	X		X	X			1. Promote standardization of procedures, inputs and products in line with global best practices to facilitate national and international trade	1. Ensure adoption of the protocol and enforcement of regulations binding on the protocol. 2. Public and Private sector sensitization on standard global best practices Promote Establishment of disease-free compartments in States with comparative advantage in line with OIE guidelines on compartmentalisation for export of animal products Identification and risk assessment of 6 new disease free zones and compartments Establishment of		DV&PCS & DAHS		NAFDAC, SON and NAQS		

													the disease free production compartments			
29.	Existing and new entrepreneurs in the input and service delivery supported to for ranching. This will open wide opportunities for supplies and skills development and job creation especially for the youths.		X	X	X	X	X	X					1. Provide enabling environment for private sector led input supply of genetically improved pasture seeds/cuttings/tillers, support for water and irrigation facilities, capacity development on range management.	2. Identify and implement appropriate incentives for entrepreneurs engage in livestock industry targeted input supply	FMARD BoA BoI Commercial Banks DAHS, DV & PCS, Universities of Agriculture	
30.	Proper market infrastructure and linkages strengthen.	X	X	X	X	X	X	X	X	X	X		1. Capacity building of existing marketers and transporters at community levels in states on best global practices in livestock commodity marketing. 2. Sensitization of emerging market and transport operators on best global practices in livestock commodity marketing and animal welfare. 3. Provision of water, loading ramps, record keeping, Banking	1. Establishment of National livestock commodity market corporations	FMARD FMTI	, SON, NAFDAC

													facilities etc			
31.	Gender issues are mainstreamed in all aspects of livestock development taking cognizance of areas of comparative advantage of each group without prejudice to cultural milieus.	X	X	X	X	X	X	X	X	X	X	X	<ol style="list-style-type: none"> <li>1. Youth Empowerment in Agricultural Programme.</li> <li>2. Capacity enhancement of youth on commercial pasture production.</li> <li>3. Capacity enhancement of women in homestead improved Napier grass production.</li> </ol>	<ol style="list-style-type: none"> <li>1. Promote equitable land tenure reform, especially with respect to accessibility to land and water for livestock production by women and other vulnerable groups.</li> <li>2. Empower the women and vulnerable groups to have legal capacity to protect their interests in the livestock industry</li> <li>3. Capacity enhancement of women in homestead improved Napier grass production.</li> </ol>	FMARD DAHS	FM Labor NDE ILO

32.	Quality and standardization of products and services provided by the operators of the different segments along the value chain are monitored and regulated			X	X	X	X	X	X	X	X	1. Production and distribution of Minimum operating Procedures (MOPs) on animal feeds Regulatory procedures for meat hygiene, meat inspection etc	2. Re-introduce and re-vitalize meat inspection at abattoir and market levels and as well milk and other food inspection mechanisms.	NIAS	NAFDAC, SON
33.	Direct budgetary allocation to MDAs responsible for the development and management of livestock development programmes is increased			X	X	X	X	X	X	X	X		1. Implementation of the Maputo declaration of 10% annual National budget to agriculture 2. Revise and strengthen the mechanism of multi-tier funding of 3. Agree on shared responsibilities for public funding of the livestock industry between the three tiers of government livestock development programmes and projects involving FG, SGs, LGCs,	FEC, NASS FG, SGs, LGCs	NGOs, DPs

													beneficiaries and Communities		
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## **PART II**

# **Outcome Report of the National Conference on the Transformation of the Nigerian Livestock Industry**

### **PREAMBLE: Pre-Conference Policy Dialogue**

Following the launch and implementation of the Agricultural Promotion Policy (APP) 2016-2020 tagged “The Green Alternative” with the objective of economic diversification, achieving self-sufficiency in food production, value addition, employment generation, wealth creation amongst others. The APP noted the constraint of animal production to amongst other factors by “the cattle value chain has become a security problem. Today, the cattle value chain relies on a network of nomadic herdsmen with cattle entering a brief fattening system before slaughter and processing. That supply chain however is both inefficient and a high security risk as roaming cattle increasingly is a source of friction between land owners and herdsmen”. ....*Therefore* “In order to protect all parties, a key shift is necessary i.e. retain cattle in ranches. Thus, what is required is for the creation of a more formal ranching system that will use better processes and inputs to extract higher value from in the form of dairy, meat, and leather.” The Honourable Minister of Agriculture and Rural Development (HMARD), pursued the government policy drive of transforming the livestock sector to address the precarious situation of low productivity, and in particular the farmer/pastoralists clashes that have become national with serious security implications of losses of lives and properties. The underlying policy thrust is to modernize the industry, phase out the predominant pastoral system overtime by transforming the production system from the extensive open range grazing system to a more controlled intensive and semi-intensive system through the establishment of livestock ranches. Policies that facilitate establishment of commercial ranches for cattle and reduces risk of clashes between nomads and farmers

As the “Ranching” initiative stimulated debate and plethora of pro and con opinions, the FMARD supported by the FAO therefore organized a Policy Dialogue on Transformation of Grazing Reserves to Ranches 19 - 20 April 2017 at Bafra International Hotel, 11 Yakubu Avenue, Off Alkali Road, Kaduna. There were representations from State Commissioners of Agriculture, relevant MDAs, Traditional producers, Producers under Ranching, Academic / Research Institutes & Regulatory bodies, Marketers, Non-Governmental Organization (NGOs), Subject Matter Specialists, Media Representative.

The Dialogue Recognized nine areas that need to be addressed the major 3 of which were:

1. Over the years, there have been genuine attempts to introduce Ranching in Nigeria’s livestock production system by both the public (Federal: e.g. Fashola, Adada, Manchok and State: e.g. Darazo, Kachia, Kankara) and private (e.g. Bauchi Meat Co.), under PPP(e.g. Mokwa Ranch) etc. These were not successful due to several economic, technical and managerial reasons.
2. Principally, the experiences of Ranch operators in Nigeria have indicated that there is very weak functional linkage on the livestock value chain enterprises especially at the marketing and consumer ends. Hence earlier attempts failed and current operators have to engage in horizontal backward and forward

integration on the value chain. This makes specialization very difficult, overstretches their resources and become burdened with ancillary (*but necessary*) technical, financial and access to market responsibilities.

3. Transiting from traditional pastoral system to a predominantly ranching livestock production system therefore will take time. Depending on the size and species, it will take on the average, 3 to 4 years with good management to establish a ranch that will mature in 6-7 years and become fully established and profitable in about 10 years.

The Dialogue made seven major recommendations which the HMARD accepted. He however directed that, to ensure success of all the recommendations, “organizing a National Conference on the transformation of the livestock Industry...” be given priority as its outcome will guide the other seven recommendations two of which include

- i. Development of a 10 year National Livestock Development Plan that would be implemented with clear affirmative roles of stakeholders with a primary focus of being private sector oriented for long term sustainability. Government at all levels would only be playing the role of public good enablers.
- ii. Promote the adoption of ranching by the traditional livestock producers as a more economical and sustainable livestock production system. Since they already have their livestock, the group should be given priority support of the policy.

The Summary Report presented to the HMARD is attached as Appendix I Consequently, Part II of this Plan Report is of the Outcome of the National Conference on the Transformation of the Nigerian Livestock Industry held at the International Conference Centre, Garki. Abuja. 11-15 September 2017. It contains the summary of the presentations made by the experts and outcome recommendations of the deliberations in the different thematic areas addressed during the conference. The full version of the presentations are attached as Annexes (4 – 19)

## **1.0 EXECUTIVE SUMMARY**

The livestock industry in Nigeria has been bedeviled with slow growth due to low productivity of herds as a result of insufficient and poor quality feed, droughts, diseases, low genetic resources, and long neglect of the industry, poor funding, and policy inconsistency. In addition, alarming rate of diminishing available arable and grazing lands, blocked stock routes, competition for land through urbanization, crop intensification, climate change, and conflicts have reduced traditional grazing land giving impetus for movement of animals. The mobile pastoral/agro-pastoralists control the larger proportion of ruminant animal population that cannot meet the animal protein needs of the ever increasing population. Consequently the country depends to a large extent on importation of poultry products, beef and dairy to meet the domestic demand of its populace currently growing at 2-3% and may rise to 200 million in 2022.

Despite the neglect, livestock sub sector is growing at a rate of 12.7 % higher than agricultural growth rate of 6.8 percent. With increasing prospects along the value

chains, livestock subsector provides job opportunities for increasing and varied population stabilizes farm households by acting as cash buffer especially for women and youth and as hedge against inflation. However, to meet the challenge of contributing to the diversification of the economy, the livestock sub sector needs gradual but significant transformation towards intensification and modernization to meet domestic and export needs in line with the Agricultural Promotion Policy of the Government.

This conference employed participatory approach to explicate four thematic areas in four sessions:

- i. Access to Land and Land Tenure Security;
- ii. Infrastructure, Inputs and Management Strategies for Sustainable Livestock Development;
- iii. Access to Finance and Market;
- iv. Advocacy, Mobilization and Human Resource Development.

Each session was further broken down into different papers addressing a thematic area followed by a moderated panel discussion. The sessions reviewed challenges of the present extensive systems of production and proffered short and medium term recommendations on the way forward. The core issue of transiting to private sector led intensification and modern methods of production, processing and marketing, in line with global practices was considered in all the sessions.

Some of the short term recommendations include the immediate engagement and education of Pastoralists on the benefits of modern animal husbandry practices and support for formation of cooperatives or clusters along family or clan lines to access land for ranching; Capacity building and Support for Pastoralists to engage in alternative means of livelihood; Development of a clear plan for commercial pasture production and utilization of the 5000 hectares of land each provided by thirteen (13) State Governments for Intensive/Semi intensive Livestock Production; Development of an all-inclusive, government supported and private sector led 10 year National Ranch Development Plan; Completion of the National Livestock Breeding Policy document to guide breed improvement and conservation of genetic resources in the country etc.

In the medium/long term, some of the recommendations include: the need to carry out land survey and inventory of 141 gazetted Grazing Reserves and Users to determine status for sustainable development; Restructuring of the Bank of Agriculture and provision of required policy support and alternative funding windows at single digit interest rates; Strengthening of cross border livestock trade and regional collaboration to stem influx of small arms into the country; Conduct of Livestock Census and adoption of a centralized animal identification system to facilitate herd registration, breeding and health programmes as well as traceability; Establishment of disease-free compartments in States based on their comparative advantage in line with the Performance, Vision and Strategy (PVS) of veterinary

services to enhance export of animal products; Unbundle NAPRI into species and value chain related institutes like the crop sector to respond to the need for more appropriate technologies to drive livestock transformation

This is with a view to repositioning the Livestock Sector to better contribute to diversification of the national economy, create wealth and reduce export burden due to huge imports of livestock products.

## **2.0 CONFERENCE OBJECTIVES**

This conference was convened to:

- i. appraise the present pastoral livestock production system and its effects on productivity and production.
- ii. assess the impact of incessant farmers/pastoralists conflicts arising from this system on the National economy and recommend strategies for mitigation.
- iii. identify acceptable modalities for sedentarization of nomadic herdsmen and transformation of the extensive pastoral system to ranching
- iv. Make recommendations on policy for government supported private sector led transformation of the livestock industry along the value chain.

## **3.0 PARTICIPANTS**

The conference was attended by a wide range of stakeholder's including research and academic institutions, representatives of livestock pastoral organizations, private ranchers, NGOs, farmer organizations, industry players along different levels of the value chain, high level representation from the Nigerian government, policy makers, professionals, (Annex 1)

## **4.0 METHODOLOGY**

The Conference was structured to achieve the primary objective of appraising, assessing and making cogent recommendations for government's consideration and implementation. In that wise, the technical sessions were structured to ensure maximum interaction and audience participation. Hence, experts made Presentations on their topics and each session was wrapped up with a Panel Discussion that came out with the recommendations for the issues discussed during the session. The speakers drawn from industry, academic and professional experts, provided facts topical analysis, deep insights and perspectives on the subjects. These stimulated intense audience participation that guided the recommendations made at the end of each thematic session

The Technical Sessions were facilitated by Sahel Capital's Associate Partner, Nathalie Ebo.

## 5.0 OPENING CEREMONY

The conference commenced with the welcome speech of the Conference host Minister of Federal Capital Territory (FCT)) represented by the Permanent Secretary. He welcomed the dignitaries, speakers, special guests, stakeholders and other participants to the FCT for the Conference. He highlighted the efforts of FCT Administration directed at lifting the practice of livestock farming alongside other interventions expected to be rollout in the nearest future. Some of the interventions included: the cattle tracking system being implemented to discourage rustling, complete ban of unauthorized sale of meat outside the abattoirs, cleaning up of the abattoirs, and promotion of agro-allied skills acquisition by Abuja Environmental .Protection Board. (AEPB); 960 residents of FCT have already been trained in various agro-allied areas.

### 5.1 Goodwill Messages

Other goodwill messages were delivered by governors (or their representatives) present, most of which essentially highlighted an overview of livestock practice in their respective states, the current challenges faced and ongoing interventions to tackle some of these challenges as well as other future endeavours. Summary of goodwill messages are presented below:

**Kebbi State:** The only Governor personally present, His Excellency, Senator Abubakar Atiku Bagudu, first-off, identified the livestock practice and industry with a lot of potential. He emphasized the need for the government to support herdsmen to adopt ranching. He particularly drew attention to the need to create better funding schemes to support the livestock industry. He concluded by emphasizing the need to imbibe efficient livestock practices to boost production in this sphere significantly.

**Benue State:** the Deputy Governor (Engr. Benson Abounu) highlighted some of the recent interventions ongoing in the state. He mentioned the provision of land to Fulani herdsmen in the state for the development of modern ranches to curtail uncoordinated open grazing practices. Another intervention he stated was the sending of ten (10) Animal Care personnel to Ireland for intensive training on AI practices.

**Ebonyi State:** the Deputy Governor (Dr. Eric Kelechi Igwe), highlighted recent interventions in the area of livestock production which the State Government is currently embarking upon to facilitate the transformation of the livestock industry in the state. He mentioned the provision of grazing paths for nomadic practices across the state. He also spoke on the efforts made towards eliminating the use of juveniles to lead herds while grazing across the state.

**Chairman of the Senate Committee on Agriculture** (Senator Abdullahi Adamu) expressed his satisfaction regarding the attention FMARD is giving to livestock. He agreed to the need for the government to support the Fulani herdsmen and assist the Livestock industry. He concluded by thanking the FMARD for giving the

herdsmen a significant recognition at the conference.

**Chairman of House of Representative Committee on Agriculture** (Hon. Monguno) began by stating the paradigm shift in making agriculture as a whole the mainstay. He also commended the Minister for bringing livestock industry to the front burner. He stated activities in the House of Representatives relating to the Grazing Reserve Bill, adding that the bill has passed second reading. He reaffirmed that the House of Representative will continue to collaborate with the executive on the livestock industry transformation.

**Dangote Group:** Executive Director, Stakeholder Relations and Corporate Communications of (Mansur Ahmed) started by delivering greetings from the Chief Executive Officer of the, Alhaji Aliko Dangote. He spoke on the demand emanating from the shortage of production in the livestock industry. He iterated the inescapable need for the livestock industry to embrace modern approaches and best practices. He rounded off by hinting on the Group's 5 year plan to invest in the Dairy Development arm of Livestock industry. He stated that Dangote Group will be investing \$4.6billion in the domestic Agriculture sector over the next 5 years and about \$800million will be channeled into Dairy farming.

## 5.2 Keynote Speech

The Honourable Minister of Agriculture and Rural Development convener of the conference, Chief Audu Innocent Ogbeh, presented the keynote speech in his capacity as the Honourable Minister and the opening address representing the Vice-President, Professor Yemi Osinbajo. The Minister began by providing statistics to a broader and deeper understanding of the core challenges the sector faced and the ripple-effect impact on lives and properties. He drew comparisons of Nigeria's livestock industry low performance to that of Brazil, Botswana, Netherlands and Australia to show the need for systematic change. He highlighted the various government interventions already in the pipeline, some of which included discussions with the World Bank and African Development Bank to secure necessary funding, the provision of 5,000ha of land in each of 13 states of the federation for grazing purpose, among others. He concluded by enlightening the audience on current interventions by the FG in this respect which included the Agro-rangers (paramilitary trained by the ministry of interiors to be deployed across farmland (livestock farmers specifically) at no cost to the farmers, Agro-insurance cover to livestock farmers among others. The Minister wrapped up by making a public presentation of an innovative milking machine from Brazil to the management of Friesland WAMCO requesting them to replicate and promote the machine to small scale dairy farmers under their outreach programme. *Full text of the HMARD the keynote speech in and the opening address are is in Annex 2a and 2b respectively*

## 6.0 TECHNICAL SESSIONS AND PAPERS PRESENTED

The Permanent Secretary of the Federal Ministry of Agriculture and Rural

Development, Dr. Bukar Hassan kick started the technical sessions with a presentation on the **Specific Objectives** and **Expected Outcome** of the conference. He drew the attention of the Conferees that Nigeria as a nation is at a crossroads regarding the future of sustainable livestock development, internal security crisis hinged on communal conflicts stemming from ineffective management of common resources with resultant huge human and material losses, rural and human development constraints occasioned by poor or absent support infrastructure as well as inefficient communication, conflict prevention resolution mechanisms, distorted, dysfunctional and largely informal markets, inappropriate or nonexistent insurance and credit facilities etc

He outlined the expected outcome to be “a comprehensive and coherent blueprint for a sustainable development of the livestock subsector made up of actionable points for implementation”. The implementation guideline should address the key constraints in the thematic areas of:

1. Access to land and land tenure security for sustainable livestock development
2. Supportive infrastructure and inputs for sustainable livestock development
3. Access to appropriate finance, insurance and functional markets for sustainable livestock development
4. Sustainable advocacy and human resource mobilization for livestock development

The conference addressed the four thematic areas in four technical sessions. Each session was conducted by expert paper presenters addressing a topical area followed by a moderated panel discussion and contributions from participants. The experts drawn from industry, academic and professionals provided relevant information and data, deep insights that stimulated intense audience participation and resulted in recommendations at the end of each session. Details of the Conference Programme is shown in Annex 3.

## **7.0 SUMMARY OF PRESENTATIONS AND RECOMMENDATIONS**

### **7.1 Session One: Access to Land and Land Tenure Security**

Chairman: Gen. Martin Luther Agwai (Rtd.)

7.1.1 Title 1: Farmer-Pastoralist Conflicts and its Implications on Internal Security. *Major-General Babagana Monguno, National Security Adviser. (Full Presentation in Annex 4)*

Conflict is an indispensable result of the interaction between people across the globe. The root cause of most conflicts is related to either power dynamics or the control of resources. In Nigeria, the competition between farmers and pastoralists for these scarce land and water resources as well as cattle rustling have often led to violent conflicts which in turn have the propensity to undermine the internal security of the state. The paper elucidated other causes of pastoralists and farmers conflicts



in Nigeria to include effects of climate change, population growth and urbanization, shrinking of the Lake Chad Basin, inadequate land tenure policies, inappropriate government development policies, political and socio-economic marginalization of the pastoralists. Some of the consequential conflicts which have led to displacement of people, loss of lives and destruction of properties, food insecurity, proliferation of small arms and light weapons, huge cost of reconstruction and provision of essential services not only undermine internal security, but by extension livestock development in the country. The presenter recommended the following to forestall the trend:

- i. Ranching should be encouraged alongside development of the existing Grazing Reserves
- ii. Clear and regular demarcation of grazing and stock routes
- iii. Formation of statutory State Conflict Management Committees at community, local state and federal levels should be facilitated.
- iv. Communications, campaigns, public enlightenment for peaceful co-existence to be continued
- v. Perpetrators of conflict should be prosecuted to serve as deterrent to others.

7.1.2 Title 2: Review of Land Tenure System, Grazing Reserve Laws and Mainstreaming Gender Issues on access to Land for Livestock Production. *Barr. Abdulhameed Ibrahim, Attorney General of Gombe State. (Full Presentation in Annex 5)*

The Land Use Act 1978 is a federal enactment which vested the management of land to State Governors and Local Government Chairmen. Of particular interest to Livestock sub-sector is Section 6(2) of the Land Use Act that says no single Customary Right of Occupancy shall be granted in respect of an area of Land in excess of 500 hectares if granted for grazing purposes, except with the consent of the Governor. The Governor is to administer the land for the use and common benefit of all Nigerians thus going by this provision, no one is discriminated and the issue of gender has been mainstreamed in land administration. Furthermore, every Nigerian is entitled to access land and land for grazing purposes is also covered by Section 6(2) of the Act.

Specifically, the first grazing reserves Law was enacted by the Northern Nigerian government in 1965 under a Constitution that is different from the current Nigerian Constitution and applies only to the 19 Northern States of the country. Similarly, stock routes are not recognized by law. Stock routes only exist by tradition or convention of Communities. Thus where Stock Routes do not exist, it is difficult for livestock to freely move to and from the Grazing Reserves. The presenter further stressed that that over the years, herders have utilized public Land for the purposes of grazing as against land for ranching which is private land to be held by individuals or groups and that sudden abolishment of open grazing would amount to injustice. In view of the above, the following recommendations were made:

- i. Ranching and extensive grazing should be allowed to co-exist.
- ii. Authorities should put less emphasis on rights and genuine application of

justice in every dealing

- iii. The State Governors should be encouraged to make regulations under Section 46(2) of the Land Use Act specifying methods of application for any license or permit for land to be granted.
- iv. Explore the Constitution amendment to excise Grazing Reserves and Stock Routes from the concurrent legislative list to exclusive list. This step would make it a Federal matter for the purposes of removing the chaos in this all important Sector of the Nigerian economy.
- v. Federal Government should take deliberate steps to discourage restriction of freedom of Movement of any Nigerian.

7.1.3 Title 3: Current Status of Grazing Reserves, Emerging Issues and the way forward for Ranching. *Mr. J.T. Taiwo, Director, Department of Animal Husbandry Services, FMARD. (Full Presentation in Annex 6)*

Currently there are 415 Grazing Reserves out of which 141 have been gazetted in twenty one (21) States and FCT; 13,260km of primary stock routes have been retraced, demarcated and documented; there are ongoing Government intervention in human and infrastructural development in selected grazing reserves; and deliberate development of irrigated pasture to ensure all year round availability of pasture in selected GRs as well as sensitization and education of pastoralists on the benefits of modern animal husbandry practices. Memorandum from the States seem to support transition into ranching for improved productivity and sustenance but highlighted the economic, technical, managerial challenges as well as the long period required for development of ranches. Other recommendations include:

- i. Ranching should be Private sector led void of policy somersault to ensure sustainability and growth.
- ii. Pastoralists should be further sensitized on the benefits of ranching and supported to form cooperatives or clusters along family or clan lines to assure aggregate number of animals that can be supported to economically transit from the traditional system to Ranching.
- iii. An all-inclusive Government supported and private sector led 10 year National Ranch Development Plan should be developed and carefully implemented with the required political will.

7.1.4 Title 4: Conflicts Resolution in Livestock Production. *Mr. Tog Gang, Mercy Corps (Full Presentation in Annex 7)*

The presenter opined that farmer pastoralist conflict is not only based on competition and access to natural resources but also on deeply embedded tensions over identity issues as well as breakdown of the social contract between people and their government and the collapse of trust between communities. Some of the challenges militating against conflict resolution include bureaucratic impediments which provide disincentives for more effective and coordinated action. In addition, core drivers and causes of the farmer pastoralist conflict are often perceived to be “too political” and so a reluctance to address the causes and implement key points

of action. Where action is taken, it is typically reactive and short term rather than preventive and sustained. To effectively address the issue of conflict, the presenter recommended:

- i. Sustained Investment in security, economic growth and justice for all citizens
- ii. Promotion of locally owned and led solutions and identification of partnerships where possible
- iii. Invest in inclusive, equitable economic growth
- iv. Sustained engagement with traditional silos to address the systemic challenges of conflict given the generational nature of the conflict.
- v. Support for inclusive accountable politics, institutions and reconciliation strategies.

## **7.2 Session Two: Infrastructure, Inputs and Management Strategies for Sustainable Livestock Development.** Chairman: Dr. Malami Buwai (Fmr. Minister of Agriculture)

7.2.1 Title 1: Overview of Livestock Production Systems in Nigeria: Options for change and Sustainability. *Dr. Junaidu Maina (Full Presentation in Annex 8)*

This paper reviewed past initiatives and antecedents of government managed interventions aimed at intensive livestock development including development of grazing reserves and posit that majority of the efforts either failed or produced limited and unsustainable results. The presenter further explicated that previous Livestock Projects were designed either as stand-alone to complement the pastoral production system and not to modernize it; Cattle Breed Improvement Programmes were poorly designed and managed; past genuine attempts to introduce ranching and other intensive livestock production systems were not successful due to economic, technical and managerial reasons. The paper cautioned that to successfully transit to modern production systems, knowledge and expertise in range management, animal production, animal health management, economics, and business management are imperative. In addition traditional livestock owners who own most of the national herd in most cases do not have recognized title to land or have limited access to grazing lands and finance and might be unable or unwilling to adopt new technologies. The following recommendations were provided:

- i. Ranching and other intensive production systems should not be seen as total replacement of grazing reserves but an integral complementary part of a whole system
- ii. Standardization of animals and commodities for correct pricing regime should be encouraged.
- iii. Humane transportation and handling system for live animals (animal welfare) and products should be promoted.
- iv. The National Livestock Breeding Policy should be finalized to guide breed improvement and conservation of genetic resources in the country.
- v. Support the private sector initiative of electronic tagging as a means of livestock identification which will facilitate herd registration, breeding programs and traceability.

- vi. Encourage the formation of cooperatives by small scale producers to access premium milk, meat and leather markets.

7.2.2 Title 2: Provision of Infrastructure: The Roles of Government and Private Sector in Sustainable Livestock Development. *Prof. Umezuruike Opara Linus, Expert on Value Chain Infrastructure. (Full Presentation in Annex 9)*

It is essential to think globally and act locally if we desire to transform the livestock industry in Nigeria. The Livestock industry is at low ebb because the industry is dominated by millions of low productive subsistent and nomadic/pastoral farmers with low technological inputs and general poor management as well as rising tension and conflicts among communities resulting in rising imports to meet demand. However we need to focus on opportunities rather than problems within the context of existing potentials. The presenter recommended:

- i. Creation of a Ministry of Animal Resources to raise the profile of the livestock industry, increase focus, promotion of national and international business like in other climes.
- ii. Provision of infrastructure for modern livestock production should be focused such that science and technology drives productivity.
- iii. Some of the required basic infrastructural needs are in transport, power, farm structure and amenities, information and communications, research and innovation and post-harvest technology.
- iv. Promotion of Public-Private partnerships to achieve infrastructural development that will sustain development and adopt integrated value chain approaches to livestock transformation
- v. Development of a functional and innovative Livestock Information Management System to support networking, linkages, planning and decision making

7.2.3 Title 3: Pasture and Feed Resource Development and Management, *Prof. M.S. Kallah, Fmr. Director, NAPRI/ABU Zaria. (Full Presentation in Annex 10)*

Ruminants constitute the largest proportion of animal biomass of the Nigerian livestock industry and more than 90% of the animals come from mobile pastoral production system. The pastoral system is presently facing challenges (feed scarcity and security) that impact negatively on its stability and sustainability. However the alternative system of intensive production in a closed niche that is settlement in the form of ranching, dairy, beef or mixed farming is predicated on adequate provision of feed and water supply in the production environment. Unfortunately, neither the pastoralist nor the mixed farmers have adopted the culture of sown pasture production even though they are aware of the value of forages in livestock feeding systems and no appreciable Government investment has been made in this area over long period of time. To address the aforementioned challenges, the presenter presented the following recommendations:

- i. Institutionalization of commercial pasture production and utilization management strategies complete with inventory, monitoring and evaluation

- mechanism to ensure sustainable intensive livestock development programs.
- ii. Empowerment of relevant institutions to make available feed production inputs, machinery/equipment and technical know-how to promote pasture feed production at all levels. Establishment and strengthening Livestock extension support services to promote the incorporation of pasture production into farming systems
  - iii. Investment in training of livestock professionals on pasture production and management
  - iv. Support regulation and control on number of animals to be allowed to graze on Grazing Reserves and also on quality and standard of local feed production.
  - v. Universities of Agriculture, Cooperate bodies and individuals should be encouraged to cultivate pasture farms for business.

7.2.4 Title 4: Breed Improvement and Development for Sustainable Livestock Enterprise. *Prof. A.A. Voh, Agricultural Research Council of Nigeria. (Full Presentation in Annex 11)*

The paper commended the transformation initiate which it calls a new policy direction to produce a paradigm shift that is transition from non-market to market oriented livestock enterprises. The presenter however informs that the new direction would mean more responsibilities and responsible livestock enterprise development. The presentation focused on research as the bedrock for a sustainable animal enterprise with emphasis on the importance of animal breeding to the overall success of the livestock transformation initiative. Some of the challenges facing livestock research in Nigeria include the brain-drain syndrome (exodus of Nigerian Scientists to foreign countries in search of greener pasture), Noncommercial value for basic research results, rising cost of conducting research and decline in research funding in to Livestock sub-sector. The paper enumerated the development of indigenous breeds of livestock and Poultry like Shika Brown as some of the successes recorded despite low funding and decried the lethargy on the part of Government to encourage researchers to do more. The following were recommended:

- i. There is the need to finalize the National Animal Breeding Policy as approved by NCA and the engagement of a Working Group to develop annual Breeding Strategies for Nigeria.
- ii. Government should unbundle NAPRI to become more Breed and specie specific and better positioned to deliver on Animal Production Research.
- iii. Breeding efforts should be supported with Programmes and Projects to make desired impact.

7.2.5 Title 5: Animal Health Care Delivery Systems for Sustainable Livestock Development.

*Dr. Ibrahim Gashash Ahmed. (Full Presentation in Annex 12)*

Factors affecting animal production include Breed/Genetic of Animals, Land, Feed and Water however an intensive commercial livestock sector will create new

challenges related to breed specialization, feed, confinement, and food safety, even more so when we target export of livestock and livestock products thus bringing new AH challenges. Some of the challenges of Animal Health Services delivery include ineffective policies and legal frameworks, limited technical capabilities, inadequate human and physical resources, inadequate research, technology, knowledge and information management, weak coordination, harmonization, collaboration and partnerships as well as

low investment in animal health systems. Despite this, Animal Health Services with international support have recorded successes in some areas including eradication of Rinderpest, development of Epidemio-surveillance and Laboratory networks; Successfully controlled HPAI in 2008; implemented the Drug revolving scheme with funds provided by SLDP and PTF; developed PPR National control and eradication strategy; FMD Progressive control pathway (global) adopted as well as stability of tenure of technical officers. In other to sustain the gains recorded, the following recommendations were made:

- i. Review of Training Curricula of Animal Health workers/ Veterinarians as new trends in the commercial Livestock Industry will bring new challenges which will require modern approaches.
- ii. Animal Health Services should be supported to mitigate the challenges associated with Intensification such as risks of animal diseases
- iii. Review and update of Legislation governing AH services and encourage private sector led investment in AH service provision
- iv. The need to reassess PVS and implement its recommendations

### **Panelist Discussion (Sessions 1 and 2)**

#### **Summary of Discussions/Recommendations**

- i. Ranching should be encouraged for adoption by livestock producers along side use of existing grazing reserves.
- ii. Ranching is a capital intensive business enterprise that should be private sector led. Government however should provide the enabling environment to make this happen.
- iii. There is an urgent need to conduct a livestock census.
- iv. A clear plan should be developed to utilize the 5,000 hectares of land donated by 13 States for the purpose of ranching.
- v. Collaborations among professionals in the Livestock Industry should be improved in order to transform the livestock industry in Nigeria.
- vi. Government should support research in livestock and capacity building of livestock officers to meet the needs of transformation.

### **7.3 Session Three: Access to Finance & Market**

Chairman: Bello Yakasai

7.3.1 Title 1: The roles of government and private sector in financing livestock value chain development, *Lois Sankey, Diamond Bank. (Full Presentation in Annex 13)*  
Livestock sector contributes 6-8% of the GDP and about 25% of the Agricultural GDP

thus is an important Agricultural business requiring dedicated focus. Nigerian livestock producers are largely small holders who use them in a variety of ways that extend far beyond income generation. Sadly, typical livestock value chains are disconnected, rudimentary, unregulated, inefficient husbandry and health services with high employment-creating potentials. Furthermore, the delivery of livestock products are mainly through, unsanitary and informal channels and presents high opportunities for market development. Therefore if we must transform the livestock subsector, we must create an ecosystem for effective win-win public-private collaboration, coordination and investment in livestock subsector; instigate increased participation by SMEs in raising livestock for commercial purposes across multiple value chains to increase production; improve availability and affordability of meat products towards improving nutrition at all levels especially women and children. To achieve these goals, the presenter recommended:

- vii. Government should re-structure the sub-sector and provide the required policy support, alternative funding windows at lower commercial interest rate and an enabling business environment.
- viii. Development of a comprehensive value-chain development plan at the level of every value-chain node where activities are carried in a coordinated manner and ensure that all value-chain actors collaborate and synergize to achieve results
- ix. Government should engage with CBN and adopt an Anchor Borrower Scheme approach to support small-holder livestock farmers using a Specialized Cooperative Model.
- x. Loan conditions should be relaxed to enable more livestock farmers have access to credit windows provided by Government and support
- xi. Producer Associations in the Livestock sub-sector to re-organize and be better positioned to access Government credit support facilities.

### 7.3.2 Title 2: Effective insurance policy for sustainable livestock development, *Folasade Joseph, Managing Director, NAIC. (Full Presentation in Annex 14)*

Insurance is a risk transfer mechanism whereby the individual or the business enterprise can shift some of the uncertainties of life to others in return for a usually small amount called premium. Insurance works as pooling of resources from so many sources to settle a few that suffer adversity. It is therefore a veritable tool for safeguarding investments from total collapse and outright bankruptcy. A formal insurance policy can remove the perpetual apprehension of financial loss resulting in exposure to risk. An additional strength to the formal insurance aspect is that it is backed by another arrangement termed reinsurance. Livestock enterprises are faced with production risk; price or market risk; financial risk; institutional risk; and human or personal risk. The Nigerian Agricultural Insurance Corporation (NAIC) insures risks on Livestock projects under two broad categories of subsidized and non-subsidized (commercial). The Corporation currently has about 14 livestock policies. Some of these are Cattle, Piggery, Poultry, Sheep, Goats, Fishery, Dogs, Horses and zoo animals. In addition, the Corporation has policies that cover farm

structure and investment like buildings, machinery and equipment against fire, windstorm, lightning, etc. The risks militating against viable and sustainable livestock farming necessitate the need for insurance intervention in the endeavour, if it is to be profitable and sustainable. To sustain this intervention, the following recommendations were made:

- i. Government need to sensitize local Livestock farmers on the importance of having insurance cover for their animals
- ii. Government should put in place a robust Insurance system.
- iii. Agricultural Insurance should be liberalized (deregulated) to accommodate more private Insurance Companies.
- iv. NAIC and BOA should be strengthened to perform their roles especially sensitization and awareness raising of farmers on the importance of risk mitigation and encourage greater investment in the livestock subsector.

7.3.3 Title 3: The Nigerian Dairy Development Program - A processor led approach to Dairy development, *Nathalie Ebo, Associate Partner, Sahel Capital Partners and Advisory Limited. (Full Presentation in Annex 15)*

The Nigerian dairy market is dominated by imported milk produced from reconstituted milk powder. As of 2014 demand for dairy in Nigeria was estimated at 1.7 million tons of milk with an estimated 5% satisfied by local production while the balance was imported. The productivity of smallholder dairy suppliers in Nigeria has remained very low, due to several constraints including: Limited access to land and inputs; Disconnect of Smallholder Milk Suppliers from the Formal Processing Industry; and Low milk yields. The Nigerian Dairy Development Programme using the processor led approach is currently intervening in the Dairy industry by Supporting women-centered dairy development and entrepreneurship; Improving the health and milk production potential of target cattle herds; Strengthening technical support services and promoting access to appropriate inputs and technologies; Improving nutrition through increase in income held in women's care and increased consumption of nutrient-rich foods. The successes recorded so far by the programme indicate that sustainable transformation would be achieved in the livestock industry if concerted focus is placed on distinct livestock commodities and along the value chain. The presenter recommended:

- i. Government should train personnel adequately on AI
- ii. Encouragement of Public Private Partnerships and Government provision of required infrastructure.
- iii. Comprehensive and regular training programmes on dairy operations including feed and fodder production.
- iv. Artificial Insemination should be well coordinated and intensified.
- v. Necessary tools and equipment should be provided for trained personnel to carry out AI successfully.

#### **7.4 Session Four: Advocacy, Mobilization and Human Resource Development**

Chairman: Prof. Bashir H. Usman



7.4.1 Title 1: Effective Formal and Non Formal Education in Transiting from Extensive to Intensive Livestock Production System, *Prof. Gidado Tahir, University of Abuja. (Full Presentation in Annex 16)*

Our focus in this new paradigm should be non-formal education for key stakeholders including the pastoralist and not informal education being proposed. Transformation of the Livestock Industry would require different educational strategies to mitigate effect of transition and address the needs of Pastoralists within the context of intensive system. It would be a waste of time and resources to reinvent the wheel since the existing national system is in order. It is the schooling model which has limited access that should be addressed. The current schooling model tend to favour sedentary population and marginalize pastoralist communities in the drawing up of curriculum framework thus denying the mobile population access to education. The challenge is that the Herdsmen don't agree with the policy makers that mobility or extensive system of livestock is archaic. Another challenge is that by the constitution of Nigeria, basic education belongs to the Local Government so when nomads move, teachers can't move with them. The present Nomadic Education system in Nigeria is not modeled for mobile population and so incapable of delivering the schooling model for the nomads. The following is therefore recommended as way forward:

- i. Both mobile and sedentary pastoral communities must be engaged as far as education is concerned and policy makers should approach the process of transition with open mind and kind heart.
- ii. Formal and non-formal schooling with an inclination towards intensive livestock production should be incorporated into the curriculum frameworks and pedagogy.
- iii. Non-formal education packaged along the new policy thrust should be the fundamental educational strategy for intensive livestock production.
- iv. A variety of program options can be developed in order to address the multitude of issues and challenges in the process of transition to intensive mode of livestock production amongst the pastoralists in Nigeria.

7.4.2 Title 2: Effective Extension System for Sustainable Livestock Development In Nigeria, *Sulaiman U. Tsauri NAERLS/ABU Zaria. (Full Presentation in Annex 17)*

Livestock subsector has suffered neglect over the years including in the area of extension services which has more focus on crops when compared with crops and other subsectors. While there are many agencies targeting focused areas in the Agricultural sector, livestock has very few agencies and where they exist they are usually lumped and largely inefficient. The dominant livestock production system is characterized by Nomadism which makes extension services almost impossible. It is also impossible to develop effective extension services without a strong research base just like a strong research system without an effective extension service is improbable, and may lead to inefficiency. The extension systems in practice which includes Unified Agricultural Extension System (UAES); Training and Visit (T&V);

Farmer Field Schools (FFS); and Innovative Platforms are unable to address the nomadic production system. However if properly addressed to sedentary audiences and target populations, livestock extension would provide the relevant and proven innovations and technologies to livestock farmers; interactive fora between research, policy makers and the farmers; focus and strongly reorient the livestock farmer towards intensification and guide farmer in taking decisions. Some agencies, institutions and schemes of government like LPU, NLPD, LIBC, Livestock Training Schools, Artificial Insemination programmes, etc were very supportive and provided livestock extension services however, they naturally passed away in the Nigerian context like other development programmes with no tangible impact! Going forward the presenter recommended the following:

- i. Livestock extension should be used as a vehicle for change and employed to negotiate and facilitate change with the pastoralists for effective transition.
- ii. Livestock extension services should be strengthened and decentralize to the states, local government and the private sector
- iii. Livestock Commodity Cooperatives should be supported and encouraged and a comprehensive knowledge base in Livestock production, processing and markets should be developed.
- iv. A full-fledged Livestock Development Ministry should be established to focus mainly on Animal Resources as is the case in other countries
- v. Recruit more qualified livestock extension personnel staff.
- vi. Establish functional field and mobile diagnostic laboratories and ensure quality control on drugs/vaccines production and administration.
- vii. Develop a full knowledge-based livestock development and market system

7.4.3 Title 3: Socio-Cultural Sensitization Campaign as a tool for Effective Nomadic Education System and Ranch Development, *Dr. Nafisat Dahiru Mohammed OON PhD represented by Danjuma D. Jise, Lecturer, Dept. of Geography, NDA. (Full Presentation in Annex 18)*

Nigeria is a multi-cultural and multi-religious nation and it is in our collective interest that we focus on our areas of unification rather than division. The Fulani's high mobility and peasantry, ways of life are complex. Complex, because of changes with their geographical location and surrounding circumstances at the material time. So to have a fair grasp of their behaviour vis-à-vis that of their cattle, requires a comprehensive look into their composition and, or, make up. Presently those whose major preoccupation is cattle rearing in Nigeria, are the Fulani ethnic stock. And, so, anytime a community comes under attack, especially a farming community, the immediate group that comes under suspicion is the Fulani ethnic group. Violence in Nigeria is widespread and happens across the country. This is largely due to the fact that the political class has ignored the rural areas and conflicts usually spring up from this, hitherto calm neglected rural areas. It is paramount as we canvass for transformation in the livestock industry with emphasis on sedentary form of livestock production that we highlight the challenges that must be addressed for us to move forward. These include: The exclusive approach of governance which is the

bane of our national unity; The structural gaps and loose focus of governance in addressing very important issues have brought about the crisis we find today; Occupational pursuits of Nigerians take place in the urban areas because these are the centres that provide opportunities for the skilled. Consequently, the presenter recommended:

- i. A gradual process of ranch-development with a corresponding decline in the practice of open grazing;
- ii. Peace-building and reconciliation programs and projects to precede ranching development
- iii. Establish a peace fund for the sole object of Ranch development due to its capital intensive nature. By the same token provide for the involvement of donor agencies, investors and spirited individuals to part take in a PPP arrangement
- iv. Carry out a special census of pastoralists and isolate foreign nationals from citizens with the object of repatriating the former
- v. Need for a strong system of resilience and a safety net right from the onset;
- vi. Establishment of a Truth and Reconciliation Commission (TRC) specifically between pastoralists and farmers to among other things, ensure collective bargaining to enlist the consent of the people and host communities where such ranches will be created as their moral support and relationship cannot be waved off or ignored.
- vii. NCNE should be used as framework for ranch development
- viii. Need to tinker with multilateral agreements and protocols that are contrary to the banning of foreign herdsmen and if necessary, quit its signatory for now;

7.4.4 Title 4: Role of Institutions in the Development of Relevant Manpower and Technologies in Sustainable Livestock Production, *Prof. I. F. Adu RAS, FAS, FNIAS. President, Nigerian Institute of Animal Science. (Full Presentation in Annex 19)*

The primacy of Agriculture and the Livestock Subsector as an integral component of national economy and there is huge opportunity for Livestock business using the value chain approach. However capacity of drivers of the value chain must be developed to meet the challenges of the contemporary world in terms of meeting global best practices in production, processing and marketing. Government policies recognize the need for human resources development and technology advancement but would require to do the following for improvement and sustainability:

- i. Need to increase focus on collective professional achievement as against focus on individual professional achievements particularly in the Livestock subsector;
- ii. Support Curriculum and Programme Structure Review
- iii. Strengthen Research and Development; Collaboration, Partnership and Linkages;
- iv. Promote Synergies between Universities of Agriculture (UAs) , Faculties of Agriculture (FoA)
- v. Universities of Agriculture, Faculties of Agriculture should be absorbed by

## FMARD

- vi. FMARD should create a special desk for UAs in the Ministry for effective coordination and collaboration.

### Panelist Discussion (Sessions 3 and 4)

#### Discussions/Recommendations:

- i. Nigeria has adequate land for development of Ranches. The 141 gazetted grazing reserves could be used to initiate the transformation starting with the 13 states that have demarcated the 5000ha.
- ii. Total reclamation of grazing and stock routes will be difficult considering the infrastructural development over the years..
- iii. There is a big imbalance in public sector support between crop and animal production in Nigeria. The bulk of budget provision goes to crops sub-sector
- iv. Indigenous technology in the control of diseases and herbs and animal production and multiplication should be encouraged.
- v. Settlement, sedentarization and ranching are all possible with government commitment and adequate funding.
- vi. The different categories of livestock herders (nomadic, pastoral, transhumant, agro-pastoral etc) should be properly identified and provisions made to address how the transformation accommodates each
- vii. The Fulani herdsmen and other relevant stakeholders should be involved in the implementation of the communiqué after the conference.
- viii. Education of the pastoralists (Nomads) key to development and transformation of the Livestock Industry.
- ix. Livestock Census is central to planning and should be conducted soonest. Aerial survey and remote sensing technologies can be adopted for efficiency and cost.
- x. Livestock identification is critical for a proper breeding programme as well as to limit uncontrolled border passages, cattle theft/rustling
- xi. The Bank of Agriculture (BOA) is undergoing restructuring. 30% of the shares would be sold to farmers with adequate quota for the livestock farmers..
- xii. The National Animal Production Research Institute (NAPRI) should be “Unbundled” into species and value chain related institutes to respond to the need for more appropriate technologies and manpower to drive livestock transformation
- xiii. The FG should explore external funding windows to design a counterpart arrangement with States, LGs and communities or cooperative groups of pastoralists and create enabling environment for PPP arrangements, donor/IFIs, development partners/financial institutions in order to entrench ranch practices as proposed in the new thinking

## **8.0 OVERAL CONFERENCE ACTIONABLE RECOMMENDATIONS**

### **8.1 Short term (6months -1 year)**

1. Collaborate with States to engage and educate of Pastoralists on the benefits of modern animal husbandry practices and support for formation of cooperatives or clusters along family or clan lines to access land for ranching.
2. Build the Capacity of the relevant Departments of Animal Production and Livestock Services of the FMARD and States' MOA to ensure proper articulation of Programmes and Projects for the success of the Transformation policy.
3. Build capacity and Support Pastoralists to understand the need for Ranching and engagement in complementary means of livelihood that goes with sedentirization.
4. Development of a clear plan for commercial pasture production and utilization lease of the 5000 hectares of land each provided given by thirteen (13) State Governments to Private Ranchers, Cooperatives and other interested investors for Intensive/Semi intensive Livestock Production;
5. Development of an all-inclusive, government supported and private sector led 10 year National Ranch Development Plan.
6. Finalize National Livestock Breeding Policy to guide breed improvement and conservation of genetic resources in the country.
7. Engagement with CBN to adopt an anchor borrowers' scheme approach to support small-holder Dairy farmers to upscale milk production, processing and marketing and reduce import burden.
8. Promote Ethno Veterinary Medicine to complement Animal Health Service Delivery
9. Promote standardization of procedures, inputs and products in line with global best practices to facilitate national and international trade
10. Promote processing and market development along livestock value chain nodes.
11. Build capacity of Financial and Insurance institutions on Livestock Value Chain structure to facilitate access to finance and insurance.
12. Support Curriculum and Programme Structure Review in selected Federal and State Colleges of Agriculture to train Range and Ranch Management Technologists
13. Strengthen and commercialize Livestock Extension and Advisory Services
14. Unbundle NAPRI into species and value chain related institutes like the crop sector to respond to the need for more appropriate technologies to drive livestock transformation

### **8.2 Medium Term (1-5yrs)**

1. Carry out land survey, inventory and allocation of land for ranch development in the 13 states and of 141 gazetted Grazing Reserves and Users to determine

- status for sustainable development
2. Support provided to select Pioneer Ranchers in the 13 states so that at least two operational ranches are established in each of the 13 states.
  3. Restructure the Bank of Agriculture and provide the required policy support and alternative funding windows at single digit interest rates.
  4. Strengthen cross border livestock trade and regional collaboration to stem influx of small arms into the country.
  5. Carry out Livestock Census and adopt centralized animal identification system to facilitate herd registration, breeding and health programmes and traceability.
  6. Establish disease-free compartments in States with comparative advantage in line with the Performance, Vision and Strategy (PVS) of veterinary services to enhance export of animal products.
  7. Animal Health Service Delivery should be rationalized between Policy, Regulation and monitoring for the Public Sector and Clinical/other ambulatory services for the private sector.
  8. Establish functional mobile diagnostic laboratories and ensure quality control of drugs/vaccine production and administration.
  9. Establish a Ministry of Animal Resources to raise the profile of the Livestock Industry, increase focus, and promote national and international business as in other climes
  10. Consolidate the creation of the new Livestock Research Institutes that emerge from restructuring NAPRI
  11. Deregulation of Agricultural Insurance to accommodate more private insurance companies.
  12. Support Curriculum and Programme Structure Review in selected Federal and State Universities to train Range and Ranch Management Professionals to produce the relevant manpower and technologies for transforming the transforming the livestock industry
  13. Strengthen Research and Development; Extension, Collaboration, Partnership and Linkages;