



NATIONAL LIVESTOCK TRANSFORMATION PLAN (NLTP) 2019-2028

National Economic Council (NEC)

IMPLEMENTATION PLAN GUIDELINES FOR FGN AND STATES



FMARD
FEDERAL MINISTRY OF AGRICULTURE
AND RURAL DEVELOPMENT



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FOREWORD

The process of transforming any system is often a daunting task. The approach captured in this document derives from wide stakeholder engagement that has enabled us to identify the key drivers of today's escalated conflicts, which are competition for scarce resources of land, water and pasture. In addition, negative impacts of climate change have increased the pressure to support an ever-growing national human and livestock population. This straightforward resource-conflict is complicated by ethnic, religious and political biases. These factors have also created negative perceptions that have sometimes overshadowed the primary causes of resource competition between farmers and herders despite their long history of mutual coexistence.

It was clear to the federal and state governments that new avenues must be sought that offer the nomadic cattle breeders and smallholder crop farmers a peaceful pathway into modernised farming, high quality and cost competitive crop and animal food sources, and a transparent economic activity that enhances household incomes, and contributes to high quality human capital and job growth.

The National Livestock Transformation Plan (NLTP) outlines a new path premised on a three-pronged approach that:

1. Provides a roadmap for modernising livestock production using a mix of nomadic breeding and ranching that would serve a modernised dairy and meat processing industry;
2. Develops a plan for resettling and addressing the dislocated populations in the key conflict zones to enable them become a part of the agriculture modernisation process; and
3. Provides a mechanism for peaceful dialogue and reconciliation in the affected communities towards a harmonious multi-cultural interdependent and mutually beneficial future.

The plan is a partnership between the federal and state governments and there are entry points for all stakeholders. The National Economic Council (NEC) Committee for the Farmer-Herder Crises is committed through its secretariat to coordinate and help drive the implementation of the plan as designed, as well as ensure transparent and accountable use of funds appropriated for this purpose.

The net impact of this plan would be measured in the creation of jobs – direct and indirect; inflow of capital from investors, government, and donors; and the development of an ecosystem that would sustain Nigeria's demand for high quality plant and animal protein. In addition, data related to implementation of the National Livestock Transformation Plan would be tracked and published on a periodic basis to ensure transparency and accountability.

As indicated in this publication, we are open to working with all stakeholders and partners to create a better future. The commitment of the Buhari Administration to the people of Nigeria is absolute and the enormous goodwill demonstrated by Nigerians in response to this plan emboldens our tenacity to build a safe, stable and prosperous livestock ecosystem.

Prof. Yemi Osinbajo, SAN

Vice President, Federal Republic of Nigeria

1. INTRODUCTION

1.1. Purpose and Scope of the Implementation Plan

This Implementation Plan (IP) provides a framework for implementing the National Livestock Transformation Plan (NLTP). The NLTP presents the strategic direction for modernizing livestock production through the establishment of ranches primarily for nomadic and transhumant pastoralists who depend on livestock rearing as a mainstay of their livelihoods, supporting them and their host communities to overcome the challenges relating to seasonal migration in search of food and water for their cattle. The establishment of ranches will also improve the genetic merit of indigenous cattle for milk and meat production, and the reproductive performance of indigenous cattle.

The programme will initially develop pilot ranches in grazing reserves in each of the 7 pilot States (Adamawa, Benue, Kaduna, Nasarawa, Plateau, Taraba and Zamfara), with 4 categories of ranches (small, intermediate, medium and large) developed and tested in each grazing reserve. The IP can also be adopted by other interested states. The developmental objective of the proposed programme is to improve the performance and sustainability of livestock production and value addition in Nigeria underpinned by technological interventions in livestock genetics, health and nutrition combined with integrated solutions and enabling conditions (markets, policies, incentives, infrastructure and facilities, etc), in order to improve the livelihoods of livestock producers and postharvest operators in Nigeria.

The purpose of the IP is to provide the basic steps to making the NLTP operational. It sets down the **main framework for NLTP implementation**. The IP will be followed by more detailed guidance for each of the pilot States based on their peculiarities. The plan by itself will achieve nothing: results will come through action. Therefore, this document presents the main outcomes that need to be pursued and what new institutional arrangements will be needed to ensure that the plan is an effective mechanism for realising the goals of the NLTP. In so doing it builds upon, and takes to a new level the broader goals of the national Agriculture Promotion Policy (2016-2020) - the Green Alternative, which has highlighted the low productivity of the livestock sector in Nigeria and outlined major structural and technological challenges facing the sector, dominated by nomadic herdsman.

The IP provides the basis initially, for the pilot States to **integrate the NLTP into their existing state administration, planning and budgetary systems** as well as ensure that the performance of the NLTP is monitored on the basis of a **comprehensive Results Framework** based on clear Outcomes, Outcome Key Performance Indicators (KPIs) and Targets. The NLTP IP also provides an important context and point of reference for other sector components, such as the Federal Ministry of Agriculture and Rural Development, and their State and Local Government level counterparts.

The IP also shows how Development Partners and processes beyond the State administration, especially those in the private and civil society sectors, relate to the NLTP and contribute to its goals. Essentially, implementation will be achieved through a coalition of the public sector, the private sector and the general public. The public sector consists of MDAs including parastatals, and local government bodies. The private sector includes organised bodies like the Chambers of Commerce, Small Business organisations, Traders Associations, and individual large Corporations and enterprises. The general public includes civil society bodies, consumer associations and the taxpayers. The role to be played by each and how they will use this IP is espoused in this document.

1.2. The Implementation Processes

The flow and context of the NLTP IP is illustrated in figure 1 below. The goal of the NLTP is to create a conducive environment for the transformation of the Livestock sector that will lead to economic development, peaceful coexistence, and food security for Nigeria's growing population. Although the focus of the Plan is on cattle, transforming and solving the crises in this subsector will have a multiplier effect on the whole livestock sector. The NLTP will build the potential of farmers to improve harvests of key fodder crops, support peaceful coexistence, and promote crops and legumes, such as soya production, that are key to poultry, piggery, fisheries and other parts of the livestock industry. This will also enable the importation of raw feedstock material to be reduced for the entire livestock sector.

Ultimately, all of the above will ensure that the welfare of the citizens (especially farmers and pastoralists) is met by improving their livelihoods opportunities from cattle production and providing them with services. The appropriate MDAs of the States will orientate their strategies to achieve NLTP outcomes. This will be expressed through appropriate sector strategies, which provide the reference frame for annual budgets and operational plans. These processes will

take place within the Policy and Institutional Context at the Federal and States, which are being improved through a collection of reforms that will ensure these processes are effective, transparent and accountable.

Fig. 1: The interrelationships between Institutional contexts and Flow of IP Activities



2. NLTP RESULTS FRAMEWORK

2.1. Introduction

This Section summarises the main elements of the NLTP and sets out the Outcomes, Key Performance Indicators and Targets to help the many players involved in its implementation to identify their key areas of responsibility.

2.2. Overview of the National Livestock Transformation Plan (NLTP)

The NLTP is a framework to transform the livestock sector and eliminate conflict by evolving and strengthening intensive livestock production systems, with the aim of making the sector more productive and sustainable. The NLTP prioritises key areas of intervention into a comprehensive framework to modernize and transform the livestock sector into an important instrument for rapid economic growth and diversification in Nigeria. Part of the strategy is to utilize this programme to develop a blueprint for sustainable development of ranching in Nigeria, including mechanisms for transitioning a significant portion of nomadic livestock into sedentary market-driven and technology-enabled production systems.

The various elements of the NLTP are arranged around five pillars – addressing conflicts, improving access to justice and peace, addressing the needs of affected populations, human capital development, as well as cross cutting issues of gender, youth, research and information and strategic communication (see Figure 2 below).

Figure 2: Supporting Pillars of the NLTP

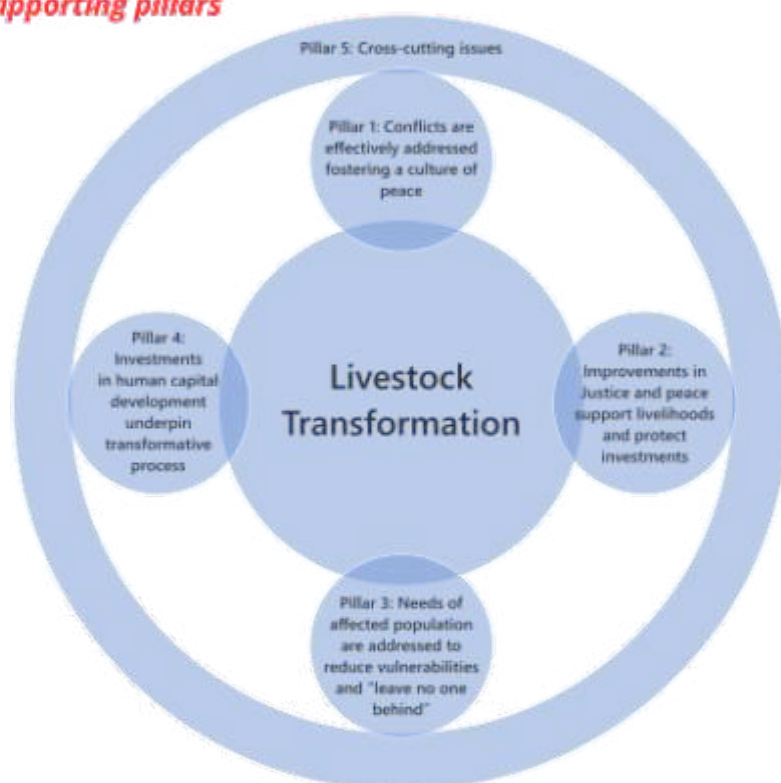
The goal of the NLTP is to create a conducive environment for the transformation of the Livestock sector that will lead to peaceful coexistence, economic development and food security for the growing population.

The goal of the NLTP has many dimensions. Firstly, it is about **Transformation**. Through the development and promotion of ranching and related value addition enterprises as envisioned in the Green Alternative, thus offering an opportunity to address the issue of low productivity of the livestock sector. In addition, driving the transition of smallholder producers, value chain actors,

pastoralists and agro-pastoralists from near subsistence to productive small to medium scale enterprises for resilient livelihoods.

Secondly, it is about **Safety and security**. Building on the extensive consultations held on the farmer-herder conflict and the recommendations for enthrone lasting peace, improvements in the enforcement of law and regulation and the general restoration of order. Dealing with the periodic conflicts and making plans for managing risk such conflicts and improved publicity and a continued effort to imbue the citizens of Nigeria with a sense of reconciliation, and those charged with guarding public safety and security with a sense of personal and civic responsibility.

Fig. 2: The supporting pillars



Thirdly, it is about **Functionality and Productivity**. This recognises that for the livestock sector to contribute to improved livelihoods and welfare of citizens, it must function efficiently and be economically productive so as to create sufficient wealth.

Fourthly, it is about **Job Creation**. This recognises that job creation is important to future prosperity, especially of young Nigerians currently suffering poverty. An important development logic of the NLTP is the creation of a dynamic sub sector that can provide jobs along the value chain – from input supply such as feedlot production, to ranching as well as processing and marketing.

Finally, it is about **National Growth**. Enhancing the key attributes of the livestock sector, and improving the contribution of the sector to agricultural sector's contribution to the national GDP, which currently stands at 40 per cent.

2.3. The Results Framework

In order to provide clear guidance and direction for monitoring and evaluation, this IP has developed a high-level Results Framework (RF) that is shown in Appendix 1¹. The purpose of the RF is to provide a structure and set of indicators that will enable the performance of the NLTP to be assessed and evaluated. The RF will be a living document; and will need refinement in terms of data to define baselines and targets. MDAs and parastatals will be key in its refinement. The Departments of Planning Research and Statistics in the State Ministry of Agriculture will work with the *State Project Management Office* in this regard. It should be noted that the RF in this document is a guide and provides a platform for the collation of information from across the pilot implementation States. At the beginning of implementation, each of the participating State will need to develop its *results framework, define the targets for each of the pillars and detail out the monitoring and evaluation* arrangements and data collection, in a way that feeds into the overall NLTP implementation framework. This will be an integral part of the implementation plan to be developed by the state.

For each **NLTP Strategy Focus** the RF provides **targets** to be achieved between 2019 and 2028. Accompanying each set of targets and related to each Outcome are a set of **Key Performance Indicators (KPIs)**. These KPIs are measures which can track the progress towards achieving Outcomes targets. As the term assumes, the indicators seek to be measurable, that is, they involve proportions, ratios, numbers, amounts, volumes or specified events or actions achieved.

In order to track progress through Outcome KPIs it is essential to have an agreed starting point at an agreed start date. This baseline position is vital but, in many cases, may be weak or non-existent. Nonetheless, the information from the extensive consultations can provide some baseline information, but each of the participating States may need to collect baseline data so that measuring the performance of the NLTP can be undertaken in a full and meaningful way. In essence, each state will need to provide a baseline assessment against each of the pillars – into state level IPs, as soon as implementation begins.

¹ A series of state level results framework spreadsheets should also be developed and handed over to the NLTP Steering Committee/PMO as part of the M&E plan for implementation per state.

In the pilot period, there will be 2 GRs pilot sites per state, consisting of 4 ranches per site. Overall, a total of 7 breeder ranches, 56 ranches and 7 semen banks are initially envisaged among the 7 pilot states. Between 150,000 – 200,000, plus over 92,000 cattle raised in clusters in the 7 pilot states will increase the number of improved high-yielding local dairy cows. Over the 10-year period, the number of ranches envisaged at this point would be 112 plus 7 breeder ranches totalling 119.

The economic activities involved in building and maintaining ranch infrastructure, the production of livestock and feedstock, as well as related upstream and downstream support services and value addition provide tremendous opportunities for gainful employment and human capacity development, especially in the rural communities.

By the end of the third year (*Phase 1*), these activities alone would have created more than a *third of a million jobs*, with over 500 pastoralists linked to market-led value chains. The ranches will provide opportunities for the emergence of market-driven agro-pastoralists and linking to markets through quality improvement and standards. By the end of the plan period *in 2028*, job growth will rise to more than *two million*. The mix of jobs to be created will largely be a mix of technical roles (veterinarians, plant operators), unskilled workers (farm hands, feed lot hands), and farm managers. Outside of production, additional job growth is anticipated for processing technicians, factory packing roles, transporters from rail to trucks, and warehouse managers. Retail jobs such as supermarket in-house butchers and aisle stocking teams will also be created and present across the federation.

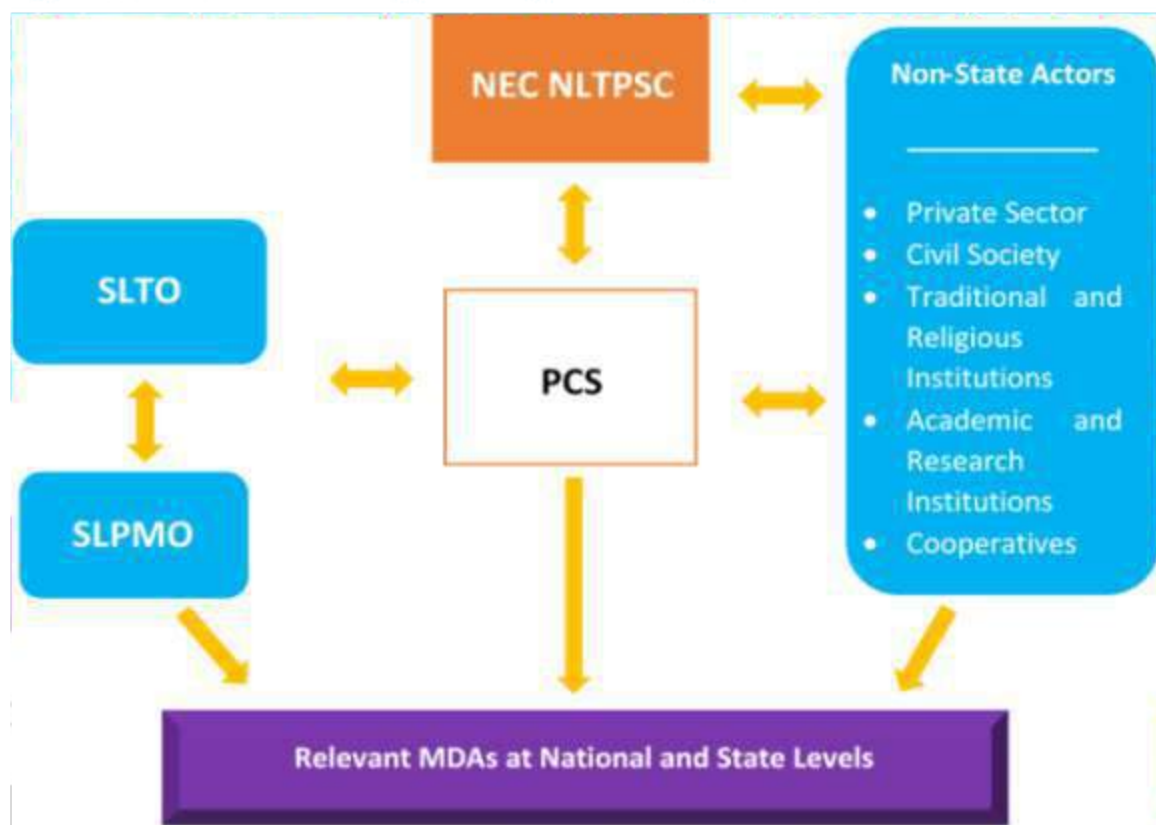
Given the historically important role of women in agro-processing, the programme will deliberately target women entrepreneurs in the rural areas through capacity development, provision of extension services and facilitating access of their products to markets. These will enhance the opportunities for new and gainful employment, better income, household food security and nutrition, and peace and social cohesion among the rural communities.

3. GOVERNANCE STRUCTURE AND INSTITUTIONAL ARRANGEMENTS

An essential component of this IP is the establishment of a comprehensive programme management structure to take care of planning, coordination, implementation, monitoring and evaluation and financial management in an effective and efficient manner. The Federal Government has the responsibility to oversee the implementation of the NLTP and to take the initiative in developing communication with non-state sectors about the plan. In order to undertake these tasks some additional institutional arrangements are necessary. A robust implementation embraces a number of key players and elements and is shown in detail in Figure 3 below.

The overall responsibility for the co-ordination of the NLTP will be carried out at the Federal level by the NEC National Livestock Transformation Plan Steering Committee (NLTPSC) acting through the Programme Coordination Secretariat (PCS) to be domiciled in the Office of the Vice President, Federal Republic of Nigeria.

Figure 3: Institutional Arrangements for NLTP Implementation



The Project Coordination SECRETARIAT (PCS)

The NEC NLTPSC is the highest relevant body, working through the PCS in the Office of the Vice President. It shall be responsible for overall programme oversight, overall policy guidance, strategic direction and review, and approval of the annual work plans and budgets. It is concerned that all Outcomes of the NLTP are achieved and pay special attention to

Outcomes related to the overall Goal; and receive the main reports on performance and issues.

The PCS will be staffed by a combination of managers and technical experts, and will ensure that the relationships with institutions at the state level as well as the non-state actors and development partners are appropriate and effective. They are informed of any important developments and respond to the need for any resolutions that are recommended by State Livestock Transformation Offices (SLTOs).

Specific responsibilities of the PCS include:

- overall programme coordination (including incremental operating costs and implementation of a financial management system);
- assisting states with technical support in the development of their state level IPs and budgets;
- monitoring and evaluation and learning processes (including establishment and operations of a Management Information System – MIS);
- quality control and contract management;
- carrying out project-related studies;
- building and strengthening partnerships with service providers, and Research Institutions; and
- communication and information dissemination.

State Level Implementation

State-level coordination will mirror the arrangements at the federal level and will be carried out by the State Livestock Transformation Office (SLTO), to be established initially in each of the participating states (Benue, Nasarawa, Adamawa, Plateau, Zamfara, Taraba, Kaduna). The SLTO will be supported by the State Livestock Project Management Office (SLPMO). The SLTO through this unit, will have responsibility for key decision-making, including oversight and policy and strategic orientation functions relevant to its state.

To kickstart implementation, the SLTO will evolve a detailed implementation

programme for the state which will include funding sources and flows, and other technical matters. This will ensure that implementation activities are adequately funded and resourced. The SLTO will work with other stakeholders in the state, including MDAs, to ensure that areas relating to their context and comparative advantage are factored into evolving the implementation programme. For example, the appropriate ranching option, including the mix of support activities as well as how these are synchronised, will be determined by the SLTO, based on the context of the state.

The SLPMO will also develop a broad results framework that is linked to the national framework, including the establishment and operations of a state level management information system. It may be that a state level system exists perhaps through the State Bureau of Statistics; it is the responsibility of the SLPMO to ensure that implementation plan activities are adequately captured in such a system.

The SLTO will also have a responsibility that all that needs to be done is done and the different parts of the system at the state level are working and effective. Specifically, its role is to ensure that:

- SLPMO is working and prepares reports of progress of NLTP which are sent to the PCS on a regular basis
- All relevant MDAs understand and act on their roles and responsibilities in the implementation of the NLTP. One of the tasks is that MDAs are able to navigate through the Results Framework of the NLTP presented in this plan. A particular link will be with the offices of Directors Planning, Research and Statistics in the relevant MDAs.

Ministries, Departments and Agencies (MDAs)

MDAs are at the core of the implementation process. The NLTP sets the strategic perspective for the livestock transformation but the more, detailed implementation is taking place at the state level and needs to key into the planning undertaken by the relevant MDAs which make up the main implementation agencies of the State and federal government. The Ministry of Agriculture and the relevant Livestock Departments and Agencies, including the River Basin Authorities, will be a key player in the NLTP implementation. Their existing roles would be a key component in several NLTP outcomes.

The Cooperative Sector

The Co-operative sector is very vibrant in the country and is primarily in the agriculture sector. The sector will be important in channelling credit and

facilitating value chain options. The cluster model being suggested under ranching, allows participants to form productive alliances or cooperatives to manage common facilities (water, central feedstock), pricing agreements, quality control, as well as access to credit. It will be important that the project does not form the participants into cooperatives from the beginning but should rather leave participants to form themselves around the key issues because of shared interests. The voluntary, opt-in model will be key for sustainability. For example, groups of pastoralists can form a natural cooperative that integrates farmers, herders and feed producers in a symbiotic ecosystem. These cooperative ranches can then become the basis for additional investments in shared equipment capacity e.g. tractors, irrigation systems, etc. Key to the success of these ranches is the adoption of professional ranch management systems and personnel who can help the farmers focus on what they do, while keeping the systems efficient. Such farm management capability will increasingly be available on the open market, as well as supported by the Federal and State level teams managing the transformation of the sector.

Civil Society Sector

The civil society sector is large and complex. While no one arm of government may be able to relate and deal effectively with this sector, they are nonetheless important. Thus, the issues, concerns and interaction of the civil society sector with the NLTP will be dealt with by the relevant MDAs in the specific areas that civic sector bodies operate. For example, the sector is active in conflict related issues and would be important in early warning systems, conflict mitigation and resolution as well as in the humanitarian issues. The sector can also ensure coordinated actions at federal, state and community levels.

The Private Sector

The private sector has a major and independent role to play in realising the economic investment aspects of the NLTP goal. Full use will be made of those bodies that seek to represent the various interests of the private sector such as the Chambers of Commerce and Industry or the National Association of Small and Medium Enterprises. At individual enterprise level, the private sector will relate directly to the outcomes of the NLTP. For example, those investing in input supply issues such as infrastructure or power.

4. IMPLEMENTATION ARRANGEMENTS

This section details the implementation arrangements by providing a guiding framework to states for implementing the NLTP. It starts with the cattle production and ranching options, and then provides further guidelines for each of the supporting pillars.

4.1. Cattle production options

Ranching has been proposed as an overarching approach to preventing conflict; but the option also includes other benefits of improving the genetic merit of indigenous cattle for milk and meat production, and the reproductive performance of indigenous cattle. The objectives of the breeding (genetic) improvement component are to: (a) produce animals with traits which are better than those animals now available to farmers for the production of animal products; (b) provide animals with better efficiency of converting inputs (animal feed) into outputs (milk, meat etc.) such as increased milk production per animal per unit of feed or unit of time.

Given that the proposed ranching options would be pilots in the beginning, it is important to consider options that will create an environment that prevents conflicts between herdsmen and farmers. That will be achieved by putting in place, alternatives for those herdsmen who cannot be settled immediately and in the medium-term period (please see figure 4 below). Put differently, for the resolution to be sustainable, the needs of the traditional Fulani pastoralists must be built into the solution. That can be achieved via increased knowledge on the reasons for migrating cattle; these are movements southwards to find water and feed, and to bring the cattle to the market.

Figure 4: Cattle production options

Cattle production Options for preventing Conflict			
Ranching Option*	Non ranching option 1	Non ranching option 2	Non ranching option 3
Cattle production along the value chain	Establish corridors for migrant cattle with feeding and watering points along the routes	Feed/feedlot production to allow cattle stay close to home-base, together with watering points	Establish marketing places close to home-base

* A ranching option 2 would be States that want to opt in to ranching, but who are not one of the 7 frontline states.

A short-term option could be to establish corridors for migration of cattle, where there shall be established points for watering and feeding the cattle to avoid them leaving the corridor, with animal health and breed improvement services provided.

For feed and water, consideration should be given to feed production and trade. The production and marketing of feed needs to be developed to ensure that cattle can stay near their home-base during the dry season. It will be necessary to arrange feedlots and watering places in those areas, where it's decided to allow the cattle to be grazed. While the development of feed is vital, an additional step is necessary: evolving mindsets about paying for such grass for example. The mindset that grass is a case of the "commons" needs to be changed to create a perception of value in feed and associated land systems.

For marketing of cattle, it will be desirable to move the market places for cattle closer to the home-base for the cattle, so they can be sold off and brought to their final destination by truck or railway. An alternative is to establish abattoirs to slaughter the animals locally, and then just transport the meat in cold chain transport systems. More market systems with traders to buy the cattle will have to be established.

Ranching

The desired ranching option being planned for the initial pilots is *one that will be designed as an integrated business which makes provision for (a) development of commercial crop production to support livestock through the supply of quality fodder and other feed materials, (b) the formation of producers into clusters to create viable ranch herd sizes, and (c) creation of cooperatives to facilitate improved access to inputs, infrastructure, finance, markets, and support services.*

It is worth noting that the ranching option proposed is a change from culturally based cattle rearing life into business-oriented agricultural production. It is also a shift from a low-cost cattle production into a business environment, which will require significant upfront investments and a gradual process and fairly long timeframe to be sustainable for farmers and the involved business partners for farm supplies and off-take of products. The target of this shift is the herdsmen / pastoralists who today may operate as a "sole proprietor". The objective is to incentivize groups of such players to aggregate into natural cooperatives or small businesses to whom the proposed "starter packages" can be delivered to.

Another important consideration is the fact that many of the people directly involved in cattle rearing have low formal education standard or are illiterates. However, a business-based cattle production will have to be based on knowledge and competencies; and these need to be built. Also, important to note is that there a lot of the cattle reared by the herders are owned by business

men, and they should be ready to invest in business-oriented production, if framework conditions are acceptable to them, and land is available for settling on for the production of either beef or dairy products or combined.

The remainder of the section on ranching is divided into two parts. The first section discusses the suggested ranching models for piloting and provides a broad range of beef and milk production ranching options. The second section then discusses the details involved in setting up the ranches, describing the different stages and activities required.

Pilot ranching models²

It should be noted that the ranching models proposed are a complete departure from the past failed ranching attempts in that they will be business orientated rather than public orientated in both ownership and management. As highlighted in earlier sections of this document, the establishment of ranches, is the core productive component of the NLTP which is supported and enhanced by a range of technical, socio-economic and security services. Learning models for such ranching exist around the country e.g. Friesland's Oyo State ranch as well as Arla's ranch in Kaduna State.

As a testing model, the development of 4 categories of ranches are proposed; the size models are: cluster 30, 60, 150 and 300 cows ranch models, respectively corresponding to small, intermediate, medium and large; in each of the pilot grazing reserves. In addition, the establishment of one breeder ranch with a minimum of 1000 cows, is proposed within a location in each piloting State. Each piloting state will decide whether the cluster will be beef or dairy cattle or a mix; depending on their peculiarities.

Each of the ranching models is designed as an integrated business which makes provision for:

- (a) development of commercial crop production to support livestock through the supply of quality fodder and other feed materials,
- (b) the formation of producers into clusters to create viable ranch herd sizes, and
- (c) creation of cooperatives to facilitate improved access to inputs (particularly water), infrastructure, finance, markets, and support services.
- (d) the development of onsite or proximate processing services to minimize transport of live animals.

² A series of model ranching options have been developed, and will be articulated here in summary, and an appendix in full, in the final IP document. The decision as to which model to adopt will be taken at the state level after consultation with affected citizens, state government departments and interested private sector investors and financiers.

Figure 5. Typical infrastructure components and layout on an integrated ranch.



Cattle Ranch

The table below presents a suggested herd size in each of the suggested clusters, including the corresponding land required, in hectares.

Table 1: Suggested herd size and land required

Farm Size:	30	60	150	300
Dairy Cattle				
Milking Cows	26	52	132	264
Dry Cows	3	7	18	36
Heifers 1 - 2 years	9	18	45	90
Calves 0 -1 year	10	21	52	105
Beef Cattle				
Beef Cattle	26	52	132	264
Bull Beef Breeding	3	7	18	36
Heifers 1 - 2 years	9	18	45	90
Calves 0 -1 year	10	21	52	105
Needed land in hectares	40	80	200	400

The suggested component layout of the 300-cow farm is presented below – it is big enough to supply services to the other farms in the cluster.

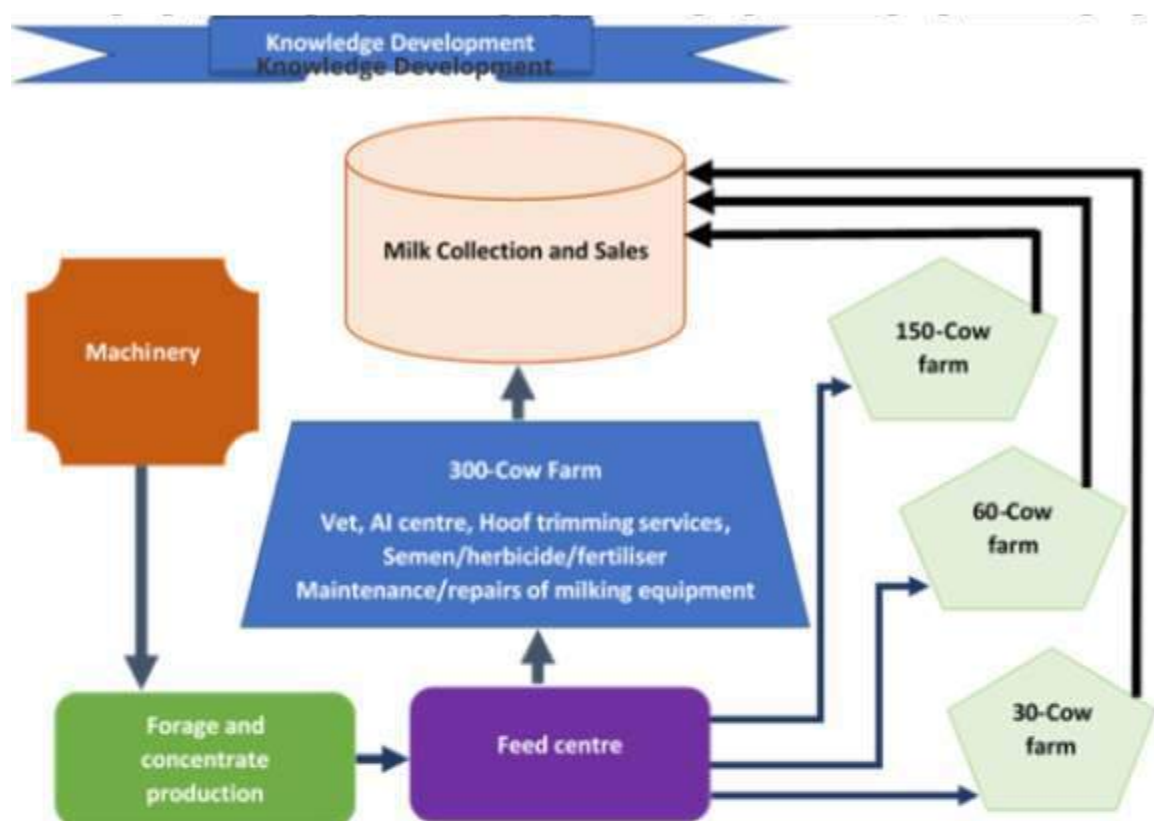


Figure 6: Components of a typical 300-cow farm and links to other smaller farms

At the centre of the 300-cow farm (which will serve as a sort of hub for the other farms) will be a complement of support services – the veterinary centre, artificial insemination centre, hoof trimming centre, and a repair shop for machinery.

Water Services: Boreholes drills and related water supply assets need to be available to avoid seasonal migration of the cattle during the dry season. Developing and maintaining such water assets will be the responsibility of the Farm Manager. Sufficient volumes of water needs to be available for all the livestock in the proximate catchment area.

Artificial Insemination Service: There should be technicians on the farm that are specialized in artificial insemination and pregnancy control of dairy or beef cows. There will be a stock of imported sexed semen with a genetic high potential. This service can also be shared with other farms, which will ensure that the smaller farms do get their cows pregnant from the breeding program.

Hoof trimming service Dehorning: The hoofs of cows need to be trimmed twice a year. This is very important otherwise cows will have problems with their legs, which will affect the animals and a negative impact on milk production. On the farm will be several trained hoof trimming specialists available for other farms as well.

Veterinarian Service: It is suggested that there should be at least two veterinarians specialized in cattle reproduction health, including a medical equipment stock. The veterinarians can also spend time on other farms as required.



Repair Shop for machinery: On the farm is a repair shop for modern agricultural machinery. In this repair shop other farms can maintain or repair their (milking) machinery. There is also a truck with containing all equipment to repair machinery in the fields. This service is also available for other farms.



Feed Center: The feed center will supply on a daily schedule (and) a complete ration for the large farm and potentially for other farms. The large-scale farm will have the machinery and the supplies to compose the necessary feed categories of cattle on the farm depending on whether it is dairy or beef cattle. What this means is that other farms in the cluster who are using this service do not have to invest in machinery, storage of feed and knowledge of how to feed cows. However, the other farms can own land but it is expressly necessary to own land. Using this service means they can concentrate on taking care of their cattle and do not have to worry about growing their own feed. All the machinery needed for crop growing are based on the 300 Cow Farm. The feed is sold to the other farms in the cluster and can be paid from their beef or milk revenues.

A main assumption under feeding of the cows, is that they will be grazing outside when it is possible. During a certain part of the season however, the cows needed extra roughage. Whereas the grazing fields are attached to all the different size farms, the fields for roughage and concentrate production are attached to the 300 Cow Farm. This farm will also manage the use of fertilizers and herbicides on the other farms in the cluster as desired.

Milk collection: As the hub for other farms, the 300-cow farm can receive milk from other nearby farms. Additional steps can be taken to ensure a baseline quality of output is maintained by the other farms in the collection cluster. However, milk collection points could be developed for the smaller farms and from their collection points the milk could be transported to central hub for proper storage and then the milk factory. The smaller farmers get paid on the quality of the milk they deliver.



For the milking, different systems can be adapted based on the size of the farm – the system should be determined for each farm as part of the initial activities. The milking equipment should be from the same brand because of sourcing of spare parts and knowledge of the engineers.

Beef collection and processing: Similar to milk collection, the 300-cow farm can receive beef from other farms. It will have an abattoir with necessary equipment for slaughtering and handling beef. From this central abattoir, beef can then be transported to nearby markets or other parts of the country as necessary. An alternative model could be that beef cattle are brought to the hub and transported to nearby markets. As mentioned earlier in this section, cattle marketers can come to the central abattoir and purchase their beef. Whatever arrangement will be implemented, needs to be fashioned out as the model farms evolve, and based on the peculiarities of the state and site of the ranch. The ideal outcome is that only carcasses are transported not live animals.

The different farms need a housing system for the cows. At the initial stages of the programme, a detailed design has to be made for every type of farm. Below is an inventory of the facilities on the various farms.

Table 2: Inventory of facilities on the model pilot farms
Engineering Programme of a Cattle Farm (Ranch

Building	30	60	150	300
Housing system - for milking and dry cows	X	X	X	X
Cow maternity equipment	X	X	X	X
Young stock department				
Office	X	X	X	X
Building for milking	X	X	X	X
Building for milk storage	X	X	X	X
Cold room for beef storage				X
Abattoir				X
Roughage storage				X
Concentrate storage				X
Manure storage				X
Water storage	X	X	X	X
Semen storage				X
Generator room	X	X	X	X
Machine storage				X
Training facilities				X

Knowledge Support Services

A knowledge centre should be set up on the 300-cow farm, which can also play a role in knowledge development of the other farms in the cluster. Extension services can be developed and results of the different farms can be compared in study groups. Training of farmers of other new clusters can be developed.

At the 300 Cow farm a practical training center could be built. The training program has to be adapted to the local situation of the farms. There are a number of subjects:

- Economy
- Fertility of Cows
- Young stock rearing
- Health of dairy cows
- Hoof trimming course
- Feeding of dairy cows
- Milking techniques and maintenance.

The training center must first train their own trainers, through a "train the trainer" programme. The Farm will have an extension officer who will visit other farms. The Extension Officer working in collaboration with government extension workers, will provide advice to the farmers on how to get and keep healthy animals, how to deliver the best quality and quantity of milk and will be a sparring partner for the small farmers.

Demonstration of new techniques, new crops or new machinery can easily become part of this center. This can play a good role in the development of the wider agricultural sector of the region.

Rancher Starter Package

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

- i. Land Clearing and demarcation
- ii. Support Access to inputs pasture seeds, fertilizer and other inputs
- iii. Access to the services of Agro-Rangers
- iv. Animal Healthcare
- v. Registration with Market led Anchor Borrowers 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

The Breeder Ranches

As mentioned earlier, there will be 7 breeder ranches one per state established where local young animals are inseminated and after calving being transported to other farms. The crossbred calves are transported to other farms in clusters or private interested farmers.

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, the 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 as in commercial beef feedlots to warrant purposeful cross breeding. But at research level and government farms and LBCs, 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.

Has our plan changed? No we said: 1000 for dairy (BJ) and 500 for beef (Sokoto Gusau) Every breeding farm will have 1000 animals. The animals will arrive at an age around 12 months and they are made pregnant by Artificial Insemination with a non-local bull (Holstein, Simmental or Jersey). The breeding farms are attached to a cluster. In this way the machinery from a cluster is used more efficiently. There will be an independent breeding station established at NAPRI.

On a cluster with a breeding station some extra machinery is needed to secure the food for the 1000 breeding animals. About 370ha of land is required for the 1000 breeding animals. *These breeding animals do not need concentrate feed, only good quality roughage is sufficient.*

The housing system is also simple. There are 3 groups of animals; the first is the adaptation group consisting of animals aged from 12 - 15 months old; the

second group consists of animals from 15 – 18 months old ready for insemination; and the third group consists of 18 - 24 months old pregnant animals.

Setting up the Ranches

This section describes the processes to be followed in setting up the ranches. Given the value chain approach, there are several sequential activities that need to be undertaken beginning from the input supply chain up to the marketing chain. As stated in the opening of the ranching section, the processes described here are broad and top-level processes from which the piloting States can draw guidance. Once the programme has been initiated in the respective States, each needs to undertake a detailed implementation plan arrangement that suits their peculiarities.

Input supply:

Access to land is a priority activity under input supply. To make land available for ranching, the following sequential activities need to be undertaken.

Mapping of available land

Undertake an *inventory of all gazetted and non-gazetted* grazing reserves in the participating states, followed by gazetting those earmarked but which has not been gazetted. This allows each state to determine the quantum of land available for ranching. Specifically, participating states should undertake a mapping, so that available land is divided into *agricultural land, forest land, natural land (grazing allowed)* and *natural land (protected nature)* and *city areas*. From this mapping it shall be possible to plan which areas should be allowed to be used for both ranching and “free” grazing. And it might be possible to arrange for different status of areas, during the rain and dry season.

Following this, will be to *identify and designate some of the gazetted reserves for pilot ranching*, and *undertake infrastructural provision* on designated pilot sites. A complementary activity here, will be to undertake a rapid *registration of all who are currently inhabiting the grazing reserves, including what they are currently doing*. In order to prevent conflicts from resettlement issues, simply asking those already in the grazing reserves to leave will not be enough. There would be issues relating to where they would relocate to, given that they may have settled in the reserves for a long time. There should therefore be options for such farmers to remain in the reserves with the proviso that they perhaps produce feed/fodder, as a proportion of their farmlands. Incentives and transition mechanisms will be vital to securing the peace.

Soil and seismic studies should then be undertaken on such designated areas, including the land surveying details to allow accurate demarcation as well as determining the type of grass that can be grown and knowing other details such as ground water levels and water holding capacity of the soil types.

Infrastructural upgrade should then be undertaken which will include the provision of roads, power, water, information and communication, drainage, fencing, etc. A decision should be taken in each state on water supply options which will include rainwater harvesting, storage and distribution, deep wells or and boreholes. Farmhouses, veterinary clinics and other accompanying support services should be determined, and their construction initiated together with the infrastructure provision. Options for mobile clinics can be considered in the beginning.

Using the results of land and seismic surveys, the type of grass to be planted and the water supply options should be determined. The need for other equipment should also be ascertained, planned and their supply initiated. This will include milking machines, refrigerating equipment. Other support services should then be planned for, such as schools and primary healthcare centres, and their construction initiated.

Identification and registration of livestock farmers for ranching and residency within the grazing reserves

Concurrent with the provision of infrastructure on the pilot ranches, should be the identification of livestock farmers that would be participants in the ranching pilots. Selection of livestock farmers to participate in the ranch project would be a sensitive issue. It is important to raise awareness of the need for transparent and objective selection criteria, while establishing an objective and transparent system to select the livestock farmers to join the ranch project.

Financing of the proposed ranches will be a topical issue, since herdsmen have little or no bank history, and do not have the capacity to present a business plan. Once selected, the participating livestock farmers can be arranged into cooperatives. This will facilitate their arrangement into appropriate ranches and ensure they have access to special credit packages, concessionary access to specialized inputs like veterinary drugs, vaccines, equipment, etc. as well as logistic and common infrastructure to support their operations within the reserves. An important learning point for these new potential ranchers is embracing the culture of paying for feed, as opposed to taking farmer output. The support of herder associations including Miyetti Allah and traditional leaders will be critical to reshaping behaviour and learning to pay for feed in return for more productive cattle for example. Such support is vital to avoid the

behaviour trap that a series of cultural beliefs have created e.g. keeping animals in one place will cause them to die. Concurrent with this, is the need for *education and capacity building*, to enable the participating livestock farmers to come up to speed with the required management knowledge and skills. Details of this, are included in the section on capacity building.

Production systems

Once all the input supply systems are in place, the next stage is to have productive small- to medium-scale ranching options in place, that is reflective of the peculiarities of the pilot states.

A flexible approach for farm sizes and technology levels will be adopted, which focus on farm sizes that can make a proper income for a farm family on short and medium term. A key consideration is that many herdsmen currently feed and water their cattle from nature with no or very little cost to the production. It is therefore necessary to ensure utilization of local feed resources wherever they are competitive. This can be in form of grazing or utilization of residues from other crop, food or feed production. Such support – combined with a campaign to create comfort with purchasing value creating feed – can be supplemented by importing grass from southern Nigeria. Given climatic cycles, additional grass can be grown in the south and transported north as needed.

There are three major types of ranch enterprises proposed, and are described below:

Individual ranches in pastoral areas. This will be individual ranches to be established in the grazing reserves with start-up credit. Individual pastoralists may apply for adjudication for a prescribed grazing area. The size of each individual area will be dependent on natural conditions as well as on the capability of the individual and the herd size. Most individual ranchers in this category would probably be those that have large herds.

Group ranches. These will involve title deeds being vested collectively in groups of say 30-45 pastoralists, some of whom might already be traditional users of the land in grazing reserves. Members will retain rights for individual ownership and management of their herds but the group must agree to maintain a given stocking rate and to cooperate in livestock marketing if loan assistance is to be given.

Commercial ranches. These will be held on lease or owned mainly on a freehold basis by individuals, although partnerships of small farmers may also operate commercial ranches.

Across all options, there will be partnerships with crop farmers or farmers interested in feedlot operations, producing silage that can augment grazing and prevent over-grazing. It also ensures value expansion through providing economic opportunities for non-livestock producers; and thus, an integrated system. These crop farmers could be those already in the grazing reserves, or those outside. As a strategy to ensure that the right type of grasses are produced for cattle feed and fodder, there will be established links and access to seed for grass production. The National Seed Services will be important in this regard.

Also accompanying the ranch options would be a decision about whether the ranch will be a beef production or a milk production focus. An individual or group ranch can either be a beef cattle ranch or a milk cattle ranch. This option will also determine some of the processing and handling facilities.

Processing and handling

This will be dependent upon whether the ranch is predominantly for beef or dairy production. This process will be linked back to the input supply where the need for processing and handling equipment have been ascertained, planned for and their supply initiated. This will include milking machines and refrigerating and pasteurisation equipment, as well as simple packaging equipment. Simple handling for beef cattle could involve linkages to local abattoirs, with adequate transportation provided to get the cattle to such abattoirs. Processing also represents an opportunity for gender-based empowerment e.g. women to participate in the value chain and deepen access to economic opportunity.

Capacity building for ranching

As mentioned above there is a need of building up competences. Farm management of cattle is important, but the ranch format also requires competences for running a business. This also include knowledge about financing and payment systems, and a culture, which ensures that there is focus for keeping liquidity for running business, before new investments. A rapid capacity needs assessment should be conducted for all participating livestock farmers, which should determine current knowledge and skills levels for the areas itemised above. A detailed capacity building plan should then be developed, using the outcomes of the capacity needs assessments.

Research and other agricultural training institutions will be important for designing and implementing the capacity building plans. The efforts of the

research and training institutions will be supplemented with extension service which will also provide practical hands-on support for the livestock farmers to reach the needed knowledge and skills level. It is important to note that ranching normally will engage the full family. Thus, training programmes will be designed so that all those involved can get a part of the knowledge and capacity building, especially women and youth in the families.

Beyond the specific medium to large farms is the broader issue of market linkages. This is the point at which the key supply chain for meat across the country will interconnect with regional medium scale farms. Nigeria requires a set of refrigerated trucks and rail cars to help transport processed meat from farm clusters to end users, whether consumers or factories. Key to such transport will be access to rail assets and storage capacity. Therefore, an effective inland container port system is necessary; the current system will need to be revisited as to whether the 7 ports are performing at the levels required to support the industry. Data should also flow back through these channels back to farmers as to what downstream buyers are actually interested

4.2. Addressing Conflicts

4.2.1. Effective Mechanisms for Conflict Prevention and Resolution.

Training and communication materials: States must undertake inclusive and *participatory* stakeholder engagement activities at the onset of implementation to help inform the way forward on strengthening the capacity of individuals, communities and institutions towards making valuable contributions to *peacebuilding processes*. These consultations will also be important in developing communication and messaging, as well as inform training, capacity building and curriculum development to promote conflict prevention. Such communications must occur in the field with farmers and herders in order to ensure that it reaches its intended target. Associations of herders will be important but direct communication is key.

Capacity building: Key segments of the population will be specifically targeted for capacity building and training activities, notably community leaders, traditional rulers, women and youth. By building the *capacity of community leaders, traditional rulers, women and youth groups*, the goal is to ensure their integration into the peace building processes as critical catalysts and vehicles for conflict transformation.

Design of conflict prevention framework: Using *advocacy, sensitization and engagement of stakeholders*, states will design a conflict prevention

framework with effective conflict prevention and peace building tools. *This framework should be institutionalized, building upon the input from communities and people affected by conflict*, to ensure relevance, effectiveness and sustainability of conflict prevention efforts. Where states already have such mechanisms in place, these should be further strengthened and supported. The advocacy, sensitization and engagement of stakeholders is meant to ensure inclusive and participatory processes for conflict prevention and resolution.

Setting up an effective mechanism: Technical support will be provided towards legislating and institutionalizing effective mechanisms through executive and legislative action at federal and state level. This has to do with the formalization and codification of the mechanisms for conflict prevention and resolution, as against the ad hoc arrangements or practices that have been the defining features of the resolution and management of conflicts over time.

4.2.2. Integrated Early Warning and Early Response System:

Stakeholder engagement: States should convene workshops on the identification, contextualization and development of local early warning signs. Since early warning signs precede all conflicts, the identification and contextualisation of these signs would be hinged on and linked to the development of mechanisms for response, which would be a central feature of the system for early response.

Support to state-level EWEERS: As the primary guarantor of public safety and security, support for state-level mechanisms for conflict prevention would be guaranteed as a core component of the early warning system. The goal is to ensure that as the first point of call for the citizens, state institutions have the capacity to effectively respond to security threats. This would also be achieved through the development of robust early warning and early response system that is ICT driven, transparent and efficient.

Cross-border coordination: The promotion of active and cooperative working relationships, as well as coordination between and among states would help in promoting the exchange of information, which would result in improved process outcome. In the light of the fact that intelligence and information are critical to peace and security, coordination is required in order to give meaning to the efforts within the framework of a clear and coherent vision of peace, security and stability. Support will therefore target interstate information exchange for enhanced cross-border coordination, including lessons learned and sharing of best practices.

4.2.3. Inclusive Dialogue in Support of Peaceful Coexistence

Mediation, facilitation and dialogue: As primary vehicles for mediation, state and community level actors would be given specialized skills and techniques for facilitating mediation and dialogue. These actors would be able to provide platforms for people to jointly work towards finding solutions to issues in a co-operative manner. Such expertise also takes into consideration the role of ethnic and religious institutions and actors as platforms for promoting inclusive dialogue and fostering harmony.

Dealing with the past and reconciliation: Since one of the most important features of conflict resolution has to do with dealing with the past, state and community level actors would be equipped with the expertise and skills of reconciliation. Technical support will be made available in this regard to ensure that conflict-affected populations and communities are empowered to let go of the past and live harmonious relationships.

4.2.4. Land Administration

Local committees: States and Local Government Areas should establish state and local level committees on land administration and management, with membership drawn from relevant institutions and agencies, traditional rulers and community leaders, security agencies and others. State and local level committees on land administration would be an important addition to existing institutions in administering and managing land related issues such as access to land and land tenure. This mechanism will be vital in adjudicating access to land especially state grazing reserves, as well as helping push for the certification of land. That latter step is vital as a way to unlock the economic value of land via development of a comprehensive land certificate of occupancy. It is foreseen that these committees would also play a role in helping to resolve land-related matters in close collaboration with relevant MDAs and justice institutions.

Addressing climate change: Improved land use and management represents one of the primary responsibilities of the state through the relevant MDAs. In this light, support would be provided to these MDAs towards the domestication or implementation of land related policies and programmes (such as the Great Green Wall) to address the longer-term implications of climate change and its impact on security and peace at the local level.

4.3. Improvements in Justice and Peace

4.3.1. Reducing the Proliferation of Small Arms and Light Weapons

State-level SALW committees: States should establish state-level committees to

lead its efforts in combating small arms and light weapons. These committees would draw on a number of MDAs and include traditional leaders and civil society, where applicable. Their understanding of the local environment and dynamics is a value addition for addressing SALW issues at the state level.

ECOWAS Convention on Small Arms and Light Weapons: In line with the ECOWAS Convention on SALWs, member states were called upon to establish national commissions on SALWs. The implementation of this decision would ensure effectiveness in terms of coordination in relation to issues around SALWs, if properly aligned to other relevant protocols relating to countering the manufacturing, transportation and storage of SALWs by persons and groups that are not authorized by law to use them.

State-level assessments: States should undertake thorough assessments on SALW issues that can help inform the planning process for weapons collections initiatives and reducing the proliferation of SALW. An assessment of the determinants of SALWs would also provide concrete information and data on their usage and impact on both human and national security and enable a state-level approach to addressing SALW that is evidence-based and analysis-driven.

Weapons collections initiatives: A multi-stakeholder engagement approach would be adopted towards harnessing efforts and linkages around vocational training, psychological support and other initiatives that seeks to guarantee successful weapons collection initiatives. These would build upon the recommendations that come out of the assessment and stakeholder consultation work done in the state.

4.3.2. Enhancing Coordination and Accountability of Security Response

Justice and security dialogue framework: States should embark on an inclusive and participatory consultative process with the aim to develop a justice and security dialogue framework. Premised on a facilitative dialogue approach, this is an important vehicle for dispelling mistrust and building trust between the state institutions, security institutions and communities. It has a strong community-policing component that seeks to bridge the gap that exists between the police and communities in terms of policing and order through training and capacity building for the relevant stakeholders.

Information-sharing protocols: To enable effective cross-border collaboration between states, as well as interagency collaboration within states, there is a need to develop an information-sharing protocol, including formats for data collection and transmission. Policies and initiatives that remove barriers to

information and intelligence gathering would be promoted through a more strategic partnership between security agencies and the communities. This mechanism for joint problem solving should be hinged on the principles of cooperation and collaboration for collective dividends of security.

Alternative Dispute Resolution: The use of ADR would enable the security agencies to prevent disagreements from escalating into violence through the use of multiple approaches that focuses on facilitative dialogue, mediation and negotiation by the security and law enforcement agencies. The ADR framework should be closely consulted upon, and include traditional and religious leaders as possible adjudicators and arbiters in local level disputes.

Model crime analysis course: A model crime analysis course will be developed and rolled out for all relevant security agencies. The basis of this is to develop and strengthen the reasoning skills and capabilities of the security agencies on issues related to data collating, mapping, profiling and analysis of crimes. The training to be given to these security agencies will focus more on evidence-based crime prevention techniques.

Enhanced legal framework for interagency coordination: Legislation will be undertaken to reduce the barriers of coordination and collaboration in the security sector, to promote increased joint operations for more effective security response. The proposed model law would serve as a guide for the design of policies and programmes on inter-agency coordination and joint operations by security agencies.

Strengthened rights-based security response: Budgetary allocations will be increased to support the integration of human rights oversight and monitoring functions within security agencies. To ensure a rights-based approach, human rights focal points should be trained and deployed into operations. The focus here is the institutionalization and enhancement of the principles of justice through respect for the rights of the citizens.

4.3.3. Criminal Justice Administration

Dedicated ADR courts: States should undertake inclusive consultations and sensitization on the establishment of dedicated courts for alternative dispute resolution. The ADR as a multi-door justice mechanism would provide people with efficient, multiple, accessible and cheap options for conciliation, mediation and dialogue. However, to be optimally effective, such mechanisms need to be integrated into the legal framework at the state level, ensuring that it has the necessary legal backing.

Technical support on ADR: Technical support would be provided to states towards the establishment of dedicated courts for ADR, with emphasis also

placed on capacity building for lawyers, judges, clerks, traditional and community leaders among others. This would ensure that the promotion of ADR is closely accompanied by select experts, ensuring that state-led processes on the matter are based on best practices.

Technical support for investigation and prosecution: The inability of the state to effectively investigate and prosecute mass killings in terms of the patterns, trends and persons involved, makes it difficult for impunity to be checkmated. Capacity building for state institutions emerges as an imperative, both in terms of holding perpetrators to account, but also in helping to restore public confidence in the justice system and, per extension, government as a whole.

4.3.4. Effective Compensation Framework Promotes Reparation

Development of compensation framework: States should, following inclusive and participatory consultations, develop a compensation framework that enables a form of reparation for victims of conflict. This framework should include protocols and processes for management and disbursement of funds: The absence of a compensation framework for victims of conflicts makes it difficult for the state to effectively address some of the immediate needs of these category of persons. The NLTP provides an opportunity for the state to develop a compensation scheme to ensure that those affected by violence are not left behind.

Stakeholder engagement and public sensitization: The compensation framework for victims of conflict that seek reparation would benefit from stakeholder engagements and public sensitization on the importance of the compensation framework, as well as the modalities for accessing it. This ensures that hard-to-reach populations, particularly women and youth in rural areas, are able to benefit from its existence.

4.4. Addressing the needs of affected populations

4.4.1. Addressing the Immediate Needs of Victims of Conflict

Information Management: Under the leadership of SEMA and the broader coordination of NEMA, states must step up their efforts in gathering and analyzing information on the humanitarian impact of the crisis. This is an essential tool in enabling an effective humanitarian response through ensuring that support is appropriately targeted. In this vein, information-sharing between MDAs within states, as well as horizontal (between states) and vertical (NEMA, SEMA, LEMA) information channels should be strengthened.

Framework for addressing the immediate needs of victims: The design and implementation of a WASH policy as well as broader issues around education, food and shelter is meant to provide coordinated approach to identifying and

addressing the immediate needs of the victims of conflict in terms of their plights, needs and rights as the case may be.

Protection and livelihood support clusters: Under the leadership of respective SEMA, states should establish protection and livelihood support clusters to address the needs of victims of the crisis. These clusters should be inclusive, and leverage the full potential of the NEMA, SEMA and LEMA chain to ensure coordinated delivery of humanitarian support to those in need. The goal of the cluster is to have a system-wide mechanism of preparedness and coordination in relation to addressing protection and livelihood related issues in relation to the provision of life-saving WASH facilities for displaced persons at both the IDP camps and host communities.

Sensitisation and awareness campaigns: To ensure people are aware of and responsive to the NLTP as a tool that supports livelihoods, as well as addresses the immediate needs as victims of conflict. These campaigns are also intended to address the pervasive narrative in conflict-affected communities that not enough is being done, which will help restore confidence in public institutions for a strengthened social contract.

4.4.2. Voluntary, Safe and Dignified Return and Resettlement

Framework for voluntary, safe and dignified return and resettlement: In line with the UN and AU principles on displacements, a framework for addressing the issue of voluntary, safe and dignified return and resettlement of victims of conflicts would be designed as part of a durable solution to achieving recovery. Some of the immediate recovery issues include food, shelter, WASH, education for out of school children among others.

4.4.3. Protection

Design child protection programme, with priority on the safety and protection of schools, through institutions such as UBEC and SUBEBs: The child protection programme involves a set of programmes and policies designed protect the children with emphasis placed family stability.

Build capacity of school management committees on community participation on early warning in relation to the risks of attacks: In view of the importance attached to the role of the communities in the management of education, the capacities of the school management committees would be built around equipping them with the skills and expertise of monitoring and participating in the management of schools.

Mechanisms put in place to address the trauma and post-traumatic stress disorder of victims of conflict upon return: Since trauma and post-traumatic

stress disorder constitute key consequences of conflict, the psycho-social support constitute essential components of the recovery package that would be provided at the state and local levels for victims of conflict.

Design and implement mechanisms for protection against Gender Based Violence (GBV): Tools for monitoring GBV would be developed as a basis for ensuring accountability for GBV related offences.

4.4.4. Early Recovery and Livelihood Support

Design framework for access to livelihood and economic recovery: The framework seeks to provide concrete and reliable information about the eligibility and dimension of the livelihood to be provided.

Restore access to livelihood through targeted cash transfers programmes: The cash transfer programme represents a poverty reduction strategy that would be implemented to address some of the key livelihood challenges of the people through cash/money transfer.

Improve prevention, preparedness and response against livelihood disruptions: This has to do with the conservation of livelihood through the improved capacity of security agencies and communities to detect and respond to threats. This would be achieved through improved coordination between the civilian and security actors.

Ensure the restoration of destroyed infrastructure towards the restoration of the economy: Rebuilding infrastructure constitutes the most important task for the state in relation to communities that were devastated by the conflict. Such effort by the state is part of a comprehensive community recovery strategy.

4.5. Human Capital Development

The overarching priorities of the human capacity development in the NLTP, is to help improve the efficiency of the livestock value chain, to improve production and make production sustainable. Priorities will focus on entrepreneurial and technical innovations, as well as business development and management practices. These will draw on practical training and extension and outreach services, and a particular focus on young people.

The first activity to be undertaken under human capital development would be the initial characterization of capacity needs across the intervention areas and the livestock production value chain, including ranching practices. This will draw

on the different strands of capacity development identified in the NLTP around herder education systems, vocational training and entrepreneurial capacity development.

Following the Identification of needs, there should then be a scoping of the support available, to fill the capacity gaps – from government institutions to research institutes and the private sector organisations. The sections that follow, will itemize the specific activities under each of the main strands of human capacity development identified in the NLTP.



4.5.1. Cross-cutting Educational programmes in support of the sector

This segment will provide overarching cross-cutting support to the sector through the capacity development of educational personnel, both teaching and non-teaching; and focusing on nomadic education.

Needs assessment. As part of the needs' assessment of this segment, there will be a characterization of the nomadic schools in each of the Implementation states, to determine their location, infrastructure and teaching needs (personnel and materials such as books and other instructional materials).

Determine support available and mobilise such. Following from the needs' assessment should be the characterization of the support available. This will include support from the private sector and research institutions and how the support can be mobilized. For example, the kind of training and capacity building programmes available in research institutions and Universities should be characterized and mapped against the training needs assessment results. The role of extension services in all of these, should also be determined, including the modalities of such support. In addition, the potentials of leveraging from the Federal Government's N-Power Initiatives should be determined. The N-Power Agro Volunteers is aimed at providing advisory

services to farmers across the country. They disseminate knowledge that has been aggregated by the Federal Ministry of Agriculture and Rural Development in the area of extension services, and will also gather data of Nigeria's agriculture assets. The N-Power Teach Volunteers initiative will help improve basic education delivery in Nigeria, and where possible, they will also assist in taking basic education to children in marginalised communities.

Infrastructural upgrades for nomadic education. After needs assessments have been undertaken and support determined, the next set of activities will be the provision and strengthening of the nomadic and sedentary education infrastructure. Drawing from the need's assessments, there will be an upgrading and rehabilitation of existing infrastructure in the grazing reserves as well as other sites. The ultimate aim will be to ensure that the educational needs of the farmers and herders especially their children, are met in a sustainable and meaningful way.

Deployment and training of personnel. This will be centered on the identification and deployment of teachers to nomadic schools from State Universal Basic Education Boards and Local Government Education Authorities (SUBEBs and LEGAs). This will be followed by the identification of training needs of the deployed personnel, the development and production of training manuals, and then undertaking training of the nomadic teachers, head-teachers. Training will also include nomadic education supervisors and coordinators on pedagogical renewal.

Pedagogical renewal. There is a need for pedagogical renewal within the nomadic education sector, which should focus on meeting the educational and social needs of nomadic herder's and farmers' children in a way that improves livestock and crop production in the medium to long term. The nomadic education curriculum is quite broad and covers the spectrum from educating children of herders, to sensitization and education of the herders themselves. The short-term objectives of the national nomadic education programme is to ensure the acquisition of basic functional literacy and numeracy, for the nomads, including the capacity to read, write and comprehend issues that affect their occupational roles such as on health and animals' treatment and other issues relating to animal husbandry and agriculture. Improving the relationships between herders and their immediate neighbours, sedentary farmers, and government authorities and agencies is also a key short-term objective of the nomadic education programme.

The key longer-term objectives of the NNEP includes acquisition of knowledge and skills to enable them to improve their income earnings, and capabilities

around proper grazing management including effective use of good variety of fodder, modern scientific livestock breeding and scientific treatment of animal diseases; and improvement of livestock products such as meat, milk, butter, hides and skins by applications of modern technology.

31 Pedagogical renewal should involve the adaptation of the NNEP objectives into the revisions of curriculum, given current realities. This will involve research and gathering of evidence and putting these into use in the revisions. It should also draw from the capacity needs assessments.

4.5.2. Capacity building

The introduction of modern livestock systems through this plan, will require capacity building of herders and other stakeholders involved in ranching and associated value chains. This will be on an on-going basis and will complement the vocational skills training for new entrants. Farm management of cattle is important, but the ranch format also requires competences for running a business. This also include knowledge about financing and payment systems, and a culture, which ensures that there is focus for keeping liquidity for running business, before new investments. Capacity building will thus, focus on two broad domains. A first domain will focus on areas such as livestock management, range management, and farm management including financial management, which are important for long term sustainability of the programme. The second domain will focus on the capacity building along the whole value chain and would include areas such as meat and milk production, processing and marketing.



Determine capacity building needs. While the capacity building activities will draw on the initial needs' assessments undertaken under the human development activities, there might be a need to undertake specific capacity needs assessments once full activities gets underway. The aim of this would be to identify specific capacity needs that could emerge once ranching activities have started. The capacity assessment should determine current knowledge and skills levels for the areas itemised earlier. Once capacity needs have been determined, a broad capacity development plan will be developed that will

draw support from agricultural research institutes, who provide training. It will also draw extensively on the agricultural extension services of the state ministries of agriculture. There should also be linkages with the N-Power Agro initiative.

Roll out capacity building plan.

The capacity development plan will detail the training needs for whom, where, and when the activities will be undertaken. In addition, the plan will indicate who is responsible for delivering specific activities within the plan, including funding needs and how they are synchronized. The plan should also include key performance indicators that will show what success looks like. Once the plan has been agreed, the next stage will be to implement the plan according to the timing of specific activities. There should be reviews and reflections at intervals, on the success and challenges of the capacity building plan. This will ensure that the plan is being implemented accordingly, and any remedial actions taken to overcome challenges.

4.5.3. Vocational training and skills acquisition

Vocational training will skills for who might be interested in cattle ranching or getting involved along the value chain, such as the production of feedlot for cattle, or low cost but efficient handling and processing of meat and milk products, as well as marketing.

This will particularly target young people and will seek to leverage support from vocation skills training initiatives in agricultural research institutes, and other livestock institutions like the veterinary colleges as well as universities. It will draw and attract investment from the private sector and public-private-partnership arrangements to support the transformation process.



Determine support available and mobilise such. The first major activity under vocation training would be the characterization of the support available and how such support can be mobilized. For example, the kind of vocational skills training programmes available in research institutions, veterinary colleges and Universities should be characterized. The type of support that can be attracted from the private sector should also be determined. All of this should provide an idea of the type and magnitude of support available and for what number of participants say on an annual basis. Agreements should also be reached with research and other institutions that will anchor such skills training.

Identification of vocational training participants. After the support types have been determined, there should then be a transparent process of selecting the training participants. A simple set of criteria for selection should be developed and adverts placed for the application process for participants. This set of criteria should take into cognizance the current realities in the respective States, for example around focus, location and some minimum educational qualifications. Given that this segment will focus heavily on young people, the selection criteria should reflect this focus. It may be that the selection process is left with the institutions that will be responsible for the training, once the criteria has been agreed. This will potentially contribute to the transparency of the process.

Design curriculum and roll out vocational training. Concurrent with determining available support and identification of participants, should be the design of the vocational skills training curriculum. This should be in concert with the providers of the training and should take cognizance of the major areas of the NLTP. The curriculum will be a living document, and should be trialed with the first set of participants, and improved with lesson learned from such trialing. Once participants have been selected, the next stage will be to start the vocational skills trainings, in line with the curriculum. Like every training initiative, there should be regular reviews of the programme to ensure it is on the right track.

Facilitate business start-up for graduate trainees. The aim of this should be to ensure that those who are graduating from the vocational skills training centres are able to quickly start up their businesses in the selected areas of cattle production. Graduates should be linked to finance either through schemes available on the programme, or through credit facilities facilitated by the programme.

4.6. Crosscutting Interventions

The NLTP recognises a number of crosscutting issues necessary to realise its objectives; these include gender and youth issues, targeted research, and information and strategic communication. Mainstreaming these issues means that the NLTP initiatives should have a positive effect on gender equality and youth. The sections that follow highlights how to make these themes an integral dimension of the NLTP implementation. Targeted research and information and strategic communication are necessary to ensure that relevant analyses and studies are conducted and that the NLTP implementation and results are adequately communicated to citizens and other stakeholders.

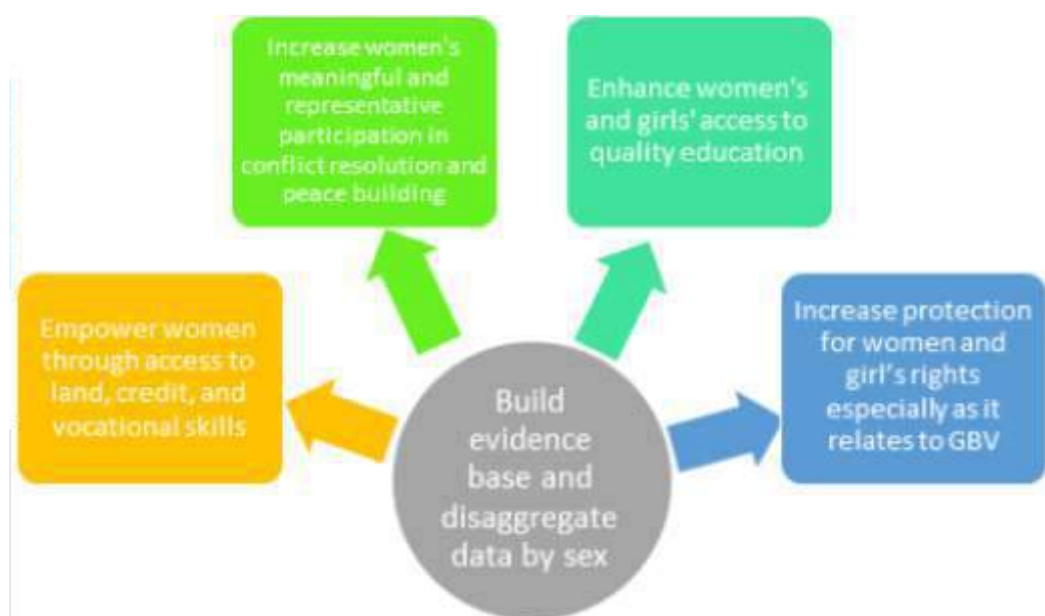
4.6.1. Gender

The NLTP recognizes that the impact of conflict is different for women than men and that this has been linked to women being more vulnerable due also to the socially constructed gender roles. Gender-based discrimination in access to resources, education, and exclusion from decision making processes have made displaced women one of the most vulnerable groups in the world. For example, according to the World Food Programme (2017), If women farmers had the same access to productive resources as men, agricultural production in developing countries would increase by 2.5 to 4%, translating to a 12 to 17% reduction in global hunger, or 100 to 150 million fewer hungry people.

As an overarching initiative, the NLTP implementation will build the evidence base and disaggregate data by sex, to track who is reached by the interventions, including making the information publicly available.

The public private partnerships under the NLTP must create the incomes for women, including improving access to finance, tackling discrimination to create economic opportunities for the empowerment of women. The empowerment initiatives need to address the problems of inadequate capital, the challenges to accessing credit facilities, as well as the cultural pressures and stereotypes which discourage women from going into ranching. This should include any other barriers to women working in the livestock sector through targeted programming and advocacy.

Implementation should ensure that land tenure security is improved for women, because without access to land, which is one of the most important input factors for performing agricultural activities; women are restricted to being laborers and this restricts their economic productivity and sustains unequal power dynamics.



The NLTP implementation activities should ensure that women and girls have access to good quality education, including ensuring that the capacity building as well as vocational skills training initiatives adequately and meaningfully include women and girls. In addition, NLTP implementation needs to ensure that women have access to agricultural extension services, perhaps through special services targeted at women.

In relation to conflict, implementation needs to ensure that the needs of women and girls are heard, and increase their meaningful and representative participation in the conflict and protracted crises. In particular, the NLTP implementation should pursue mechanisms which break down the barriers caused by gender-based violence, cultural pressures and lack of resources; all of which limit women's participation in peace processes. The creation and maintenance of mechanisms for the protection of women's rights in conflict situations should also be pursued. Part of the strategies should include the provision of gender-sensitive training to police, military forces, judiciary, health care personnel and social workers, including on how to prevent and address SGBV in displacement situations.

The following interventions should be undertaken as part of implementation, to ensure that gender is adequately reflected.

Build evidence base and disaggregate data by sex. This will link to the overarching initiative under research around having a Management Information System (MIS) in place, to capture all information relating to the implementation. The MIS should be designed in a way that ensures all data

captured is disaggregated by sex and age. This will ultimately contribute to the evidence base around who is reached by the programme, with gendered considerations.

Empower women through access to land, credit, and vocational skills.

This should link to the ranching options initiatives, as well as the human capacity development initiatives; to ensure that women have access to land, credit and other inputs, so they can get involved in ranching and other livestock production activities. The vocational skills training initiatives should ensure that women are fairly and meaningfully involved.

Increase women's meaningful and representative participation in conflict resolution and peace building.

States should facilitate capacity building for women and women organizations to be part of the conflict resolution and peace building activities.

Enhance women's and girls' access to quality education.

The implementation activities should ensure that all the support initiatives aimed at improving access to education for farmers and pastoralists, adequately captures women and girls.

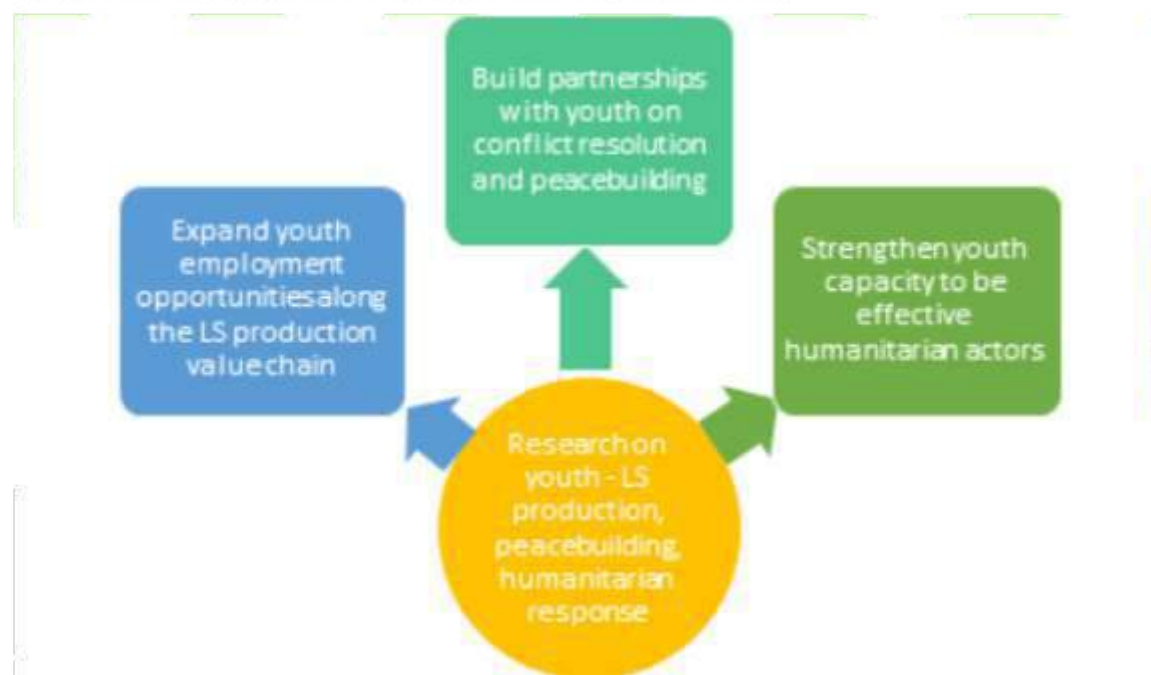
Increase protection for women and girl's rights especially as it relates to gender-based violence complaints arising from displacement due to farmer herder crisis.

States should strengthen security mechanisms to mitigate the risks of gender-based violence arising out of internal displacement caused by farmer herder crises. Security agencies must proactively respond to issues of gender-based violence and ensure that there is access to existing justice mechanisms and swift resolution of complaints. The existing human rights protection for women and girls must be greatly improved on to handle all gender-based violence complaints.

4.6.2. Youth

In implementing the NLTP, the importance of youth participation in successfully carrying out this plan is recognised. Indeed, the plan shares the sentiment of the former UN Secretary General Kofi Annan, "...a society that cuts itself from its youth severs its lifeline, but a society that engages their interest, enlists their talents and liberates their energies brings hopes to the entire world." Therefore, preference should be given to public-private partnerships which heavily utilize youth in their programmes and also make provision for their education and entrepreneurial mentoring. In order to

encourage youth participation in the livestock sector the current traditional investment models need to be revamped as youth are constrained by access to affordable capital to start and expand businesses.



Efforts will need to be made to ensure that youth can access employment opportunities at every point on the livestock value chain. There must therefore be investment into the education and enterprise of young people. The implementation should see youth as the potential solution and not the problem as regards the farmer herder crises; thus, youth contribution to intelligence gathering and conflict resolution and peace building programmes must involve youth.

The NLTP should encourage programmes which promote proactive partnership with the youth in order to address issues of insecurity and clashes. The NLTP will thus support community policing to encourage citizens especially youth participation in restoring law and order. Youth are instrumental in helping the security operatives to understand the roots of the challenges of several communal issues including drug abuse, gender base violence and the incessant farmer herder crises. The youth should be empowered with dispute resolution skills and mediation skills amongst other skills.

The NLTP implementation should commit resources to strengthen youth capacities to be effective humanitarian actors and also support local youth led initiatives in humanitarian response. Programmes which recognize youth as indispensable stakeholders, decision makers, problem solvers, change agents and humanitarian actors will be prioritized.

The following sets of activities and interventions should be undertaken as part of the implementation of the NLTP.

Undertake research on youth. This process should be at the core of the support to youth as part of implementation. It should be done at the beginning and then on an on-going basis so as to capture emerging issues. The research conducted should focus on the impact of conflict on youth, and on the challenges that youth face participating in livestock production, peace building and conflict resolution, with a view to building leadership and other life skills which will empower youth to be effective actors in decision making that affects their lives.

Expand youth employment opportunities along the LS production value chain. This initiative should link into the human capital development and other ranching interventions, and ensure that youth are adequately captured as part of the vocational skills trainings, as well as other capacity development initiatives. The N-Power initiatives mentioned under the human capacity development activities will be very instructive.

Build partnerships with youth on conflict resolution and peacebuilding. States should identify, train and support local youth community policing groups with knowledge and skills with a view to strengthening the youth and police partnership, as a strategy to prevent crime and restore order.

Strengthen youth capacity to be effective humanitarian actors. States should facilitate capacity building for youth and youth-led organizations to be part of the humanitarian response activities. This could be to deliver peer to peer services such as non-formal education and intelligence, but also to actively take part in other specific humanitarian activities.

4.6.3. Research

A core objective of the NLTP is to develop and deploy research-based solutions that will drive the transition of smallholder producers, value chain actors, pastoralists and agro-pastoralists from near subsistence to productive small to medium scale enterprises for resilient livelihoods. resilient livelihoods.



The research component will cut across the whole of the livestock production value chain and will focus on key areas such as flexible and adaptive inputs, feeding and innovative production systems including health systems; as well as processing and market systems. Priorities will thus include feed supply, animal health, genetic improvement, livestock management, crop/livestock farming systems, natural resources and policy. Another critical focus of research will be on the conflict continuum from early warning systems to the nature, causes and consequences of conflict including mitigation and resolution strategies. Underpinning all of these would be policy research on resource management, as well as environmental impact management particularly use of agroforestry systems to mitigate climate change.

In the sections that follow, the detailed of each of the components of research are discussed.

Determining the Role of Research Institutions. The Nigerian National Agricultural Research Institutions (NARI) and International Agricultural Research Centres (IARCs) play a critical role in ensuring that research processes utilize basic, strategic, applied and adaptive methods. To undertake very robust research as part of the implementation of the NLTP therefore, the role of research institutions will be very critical. The first set of activities to be undertaken under research is thus to characterize the support available from

NARI and IARCs. This will be with the aim of determining the potentials for leveraging on their support, including the modalities of such support. Many of the 15 agricultural research institutes in Nigeria are commodity-based. Examples of those with direct bearing on the NLTP are the National Veterinary Research Institute (NVRI) Zaria has mandate for large animals – cattle and other small ruminants, and the National Animal Production Research Institute (NAPRI) Zaria, which has the mandate to conduct demand-driven research and training in animal production and dissemination of technologies to animal producers, processors and marketers in an integrated value-chain system to achieve sustainable employment generation, poverty alleviation and improved livelihood in Nigeria. The International Livestock Research Institute (ILRI) is the major IARC focusing on livestock in Nigeria. A core objective of ILRI to develop, test, adapt and promote science-based practices that achieve better lives through livestock.

Input supply. Input supply covers access to land, feeds, credit and other production variables such as health and genetic improvement. Under input supply therefore, there should be research on land tenure systems and their interaction with agricultural and livestock production and the differential issues involved in fodder production across climatic zones, including alternative livestock feed from crop residues. The role of credit and what incentives exist for farmers, will also be researched.

Research will also be conducted to examine the efficacy of existing preventive and therapeutic treatments and to develop new diagnostics and vaccines, with a view to improving these. Specific focus or research would be on diagnostic techniques, preventive management and genetically mediated resistance, including antimicrobial and antibiotic use in food and animal production.

Research will also focus on genetic adaptations to disease and climatic stresses, through the identification, characterization and development of indigenous genetic material, but also the crossing of high-yielding "exotic" breeds with well-adapted indigenous genetic resources.

Livestock Production systems. Research will be conducted to explore the interactions between population pressure, expansion in crop cultivation and livestock production systems especially migrant systems. A major focus should be to characterize the typology of livestock production systems, and the options for ranching, as well making recommendations aimed at increasing the productivity from the better endowed and more robust lands; through

improvements in the management of soil, water and vegetative resources on the more fragile lands. Research studies should also be undertaken on herding practices including the seasonal movement of herds, using long-term monitoring of transhumance incorporating geographic information systems and remote sensing.

Processing and Marketing. Integral to the research on production systems should be research on processing options within the various systems. Low cost options for meat and milk processing should be priorities for research, and should consider handling and packaging options across the different climatic zones.

Marketing research is essential to provide vital information on the operations and efficiency of the livestock marketing system, and for planning and policy formulation. Using the table below as an example, research should particularly focus on the typology of markets and the flow of livestock from producers to the different markets.

Table X. Characteristics of livestock markets³.

Type of market	Main Sellers	Main Buyers	Purpose of Purchase
Primary collection markets	Producers	Other producers	For stock replacement or fattening
		Local butchers	Slaughter
		Traders	Collection for resale in larger regional markets
Secondary distribution markets	Traders	Local butchers	Slaughter
		Traders	For resale in terminal markets
Terminal markets	Traders	Local slaughter houses	Slaughter
		Traders	Export

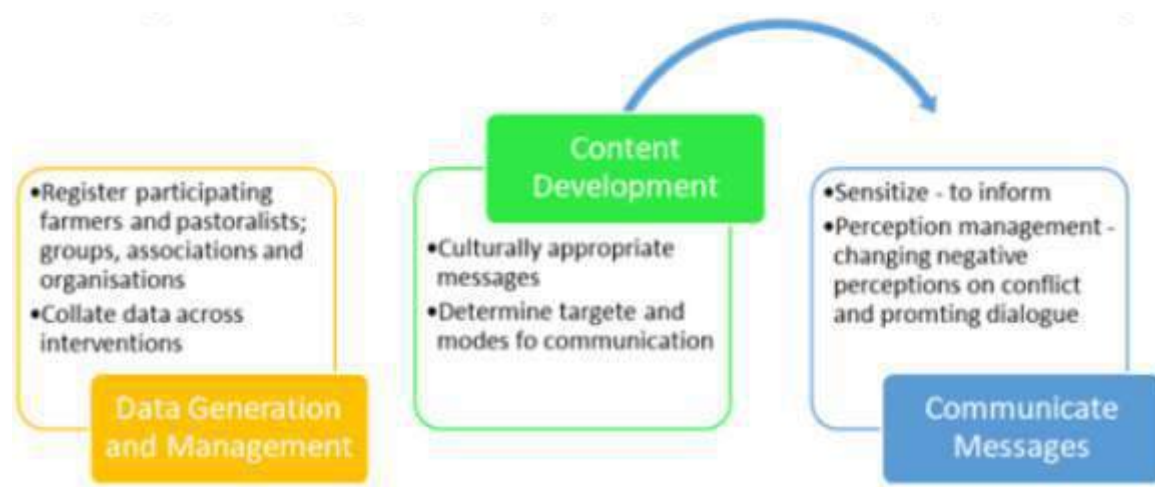
Research on conflict. This will inform early warning as well as conflict mitigation and resolution strategies; regular research should be undertaken to characterise the nature of conflicts – farmer-herder, farmer-farmer and other types of conflicts. The role of different actors in the conflict and the impacts of conflict should be part of such research enquiry. The research on transhumance discussed earlier, should complement this, to better understand the role of different actors, particularly those from outside the country.

³ Solomon Bekure and Negussie Tilahun, Available at

Policy research. Policy research should be undertaken to deepen the understanding of the role of policy interventions in the sector. For example, the role that resource management policies play on issues like incentives to producers, supplies of production inputs and the delivery of animal health services, effective marketing and credit facilities should be considered. There should be other considerations such as how issues like land use rights especially by women affect resource use and how changes in policies might advance gender and social inclusion as well as environmental protection objectives. These examples are not exhaustive, and the research topics will need to evolve as implementation progresses.

4.6.4. Information and Strategic Communication

The NLTP has highlighted the consequences of pastoralist-farmer conflicts, including the negative impacts on the overall livelihoods of both pastoralists and crop farmers and by extension sustainable development of the country. Although there are already on-going efforts at solving the problems, including strategies contained in this plan, it is important that policy makers and communicators re-examine how information is generated and communicated in a way that educates the public with accurate and up-to-date information on the issues. Therefore, the role that Information and Strategic Communication (ISC) plays in bringing about changes in behaviours in relation to conflict, both in terms of prevention and management; will be deepened. The range of ISC approaches, activities and outputs, will be deployed. This includes materials produced and used, such as pamphlets or posters, the use of mass media to inform and establish positive behaviours among the citizens, and the use of targeted interpersonal communication among groups of farmers and herders.



Overall, ISC must be integrated with all existing pillar interventions and with all conflict prevention strategies. For example, an awareness on reconciliation initiatives or the existence of grazing reserves and the facilities, or market channels for herders are all important aspects of a robust communication plan and implementation. ISC activities may also include designing and providing training in communication skills, carrying out research on audiences to determine what information is needed and the most effective way of communicating such information.

Specifically, ISC initiatives should focus on the following activities on an on-going basis:

Data generation and Management. One of the first activities to be undertaken under this area should be the development of a Management Information System (MIS) which will provide a platform for generating and managing the wide variety of information required under this plan. The design of the MIS should be informed by the type of information required. The list below is suggestive, but should be adapted and other information added as required.

- A collation of all registered participants on the programme along the following categories:
 - pastoralists along households, clusters and settlements
 - crop farmers along households, clusters and settlements
- Existing cooperative groups, associations and organizations
- Who is involved and what other information is available along the whole livestock production value chain, from inputs to marketing
- Aspects of conflicts (where it happened, when, and who was involved), including early warning and mitigation measures

Strategic Communication of data and information. The first activity under this segment will be a situational analysis. This will include an assessment of the NLTP's IEC needs and objectives; identification of target audiences, the formulation of strategic communication objectives and the identification of activities to be carried out, including a mapping of partners for implementation. Once the objectives have been identified and agreed, the next sets of activities will be content development and the communication of the developed contents.

Content development. Having a robust data management system in place provides the base for effective communication. All of the information then needs to be adapted through the development of specific materials targeting

specific groups like farmers, herders, communities, policy makers and the general population. This is the focus of content development. The two main aims of strategic communication under the plan (sensitisation and perception management) should also inform the content development activities.

The effectiveness of ISC materials depends on relevance, appeal, uniformity, and simplicity of the content and language. The accuracy of information, length of the material, cultural appropriateness as well as the modes of dissemination are also critical. It is therefore important to include communications professionals in the content development processes, and it may be that this process is actually contracted out to such professionals. Whatever strategy is used, a series of workshops should be held to include professionals and other stakeholders. These could include workshops on the scope, sequence and plans for dissemination; as well as workshop on scripting and development of jingles, short drama series and documentaries. It could also include workshop on the identification of thematic areas based on emerging issues.

Disseminating and communicating messages. In line with the provisions of the NLTP, this should be done with two important aims – sensitization and perception management.

Sensitization will be aimed at sensitizing the various groups of stakeholders, and will involve the following activities:

- Stakeholder mapping and analyses
- Production of IEC materials based on already developed content from the previous sections
- Production of documentary and jingles (audio and visual)
- Production and packaging of sponsored radio-magazine programmes and short drama series.
- Training of pastoralist and farmers on peaceful coexistence.
- Stakeholder engagement (Non-Governmental Organizations - NGOs, Community Based Organizations - CBOs, Faith Based Organizations - FBOs, opinion leaders, youths, women and cooperative groups).

Perception management will be aimed at changing the negative perceptions of stakeholders on conflict while promoting dialogue, and will include the following activities:

- Media engagement, including editorials, advertorials and features, as well as media chats and dialogue.
- Production of IEC materials

- Radio and television (TV) jingles and commentaries, and the production of documentaries
- Stakeholder engagement and dialogue, including the conduct of face-to-face campaigns on peaceful coexistence, farmer-pastoralists dialogue fora on peace building
- Conducting meetings, seminars, conferences and workshops.

5. NLTP BUDGET FRAMEWORK AND FINANCING MODEL

The discussion that follows is divided into 2 sub-parts. The first part tackles how the overall NLTP strategy will be funded from a budgetary perspective i.e. principles, sources of cash, uses of cash, and related governance. The second part focuses more on how to finance transactions in support of livestock modernization. This part is often the key risk for entrepreneurs and companies as the financial system will need to make several refinements to design loan instruments that are fit for purpose to cite but one example.

Part A: Budget Principles

Funding of the NLTP implementation will be a collaboration between the Federal Government, State Governments, private investors and donors. It is anticipated that such funding will be multi-year in nature. Outlined below are a few key design principles for the planned financing of the NLTP:

- *Duration:* Investment planning will occur over a 10-year return horizon given that secular direct impact is likely to start evolving after that time
- *Sources of Capital:* The cost of investment will be shared by various parties, with the Federal and State governments providing catalytic capital to support a range of public goods even if elements of the benefits are captured privately. The remainder of capital will come from the private sector and donors
- *Forms of Capital:* Multiple forms will be utilized including grants, long term debt, and soft-equity infusions. The objective is to reduce as much as possible the friction created by inadequate access to capital. The programme office will work with key financing institutions such as Anchor Borrowers/CBN/Nirsal Plc and Bank of Agriculture to innovate on financing instruments and processes
- *Uses of Capital:* The rules regarding uses of capital will be written carefully to allow for appropriate flexibility as markets evolve. Uses likely to be permitted include but will not be limited to improvements in labour capacity, purchases of relevant equipment, purchase of intellectual property (e.g. genetic strains), ability to generate direct income, and access to tools / enablers for generating such income e.g. safe streets, agricultural infrastructure, etc. will be prioritized
- *Measurement:* Process will seek to financialize all the pillars, and create a consistent metric for evaluating across initiatives e.g. household income in Naira as the constant unit

- *Flexibility:* The funding model and supporting services will reflect the structural flexibility built into the NLTP i.e. the lead actor can be a combination of private sector, public sector, or hybrid entities
- *Coordination:* A dual track approach will be taken to coordination i.e. bottom up engagement with communities and project sponsors, and top down catalytic guidance from government MDAs, to ensure alignment on key actions, accountabilities and metrics
- *Analytical Proxies:* Where appropriate, proxy metrics will be used from other comparable conflict zones to establish a plausible range of outcomes for the region e.g. the impact of community cash transfers in Colombia's former rebel-controlled territories.

Managing Expectations

The implementation plan will be implemented in phases. Therefore, results including the formation, flow and utilization of capital will also be in phases. The FGN's capital contribution will be used to commence implementation while funding from States, donors and the private sector will flow as soon as practicable based on their own internal governance processes.

Initial results will be slow in emerging and then pick up speed over time. It is important to note that the pathway is not a fixed process i.e. a region differences in performance will emerge due to differential starting points. Several states may choose to be more aggressive in their implementation versus others. That said, for sustainability, it is prudent to build up the progress based on the absorptive capacity of the region. Based on that, the table below lays out a high-level perspective on results to be generated in order to set appropriate expectations.

Stages	Description	Probable Duration	Sample Metrics
Initiation	<ul style="list-style-type: none"> Initial period during which investment plans are launched, capital is committed, and economic activity starts to unfold. Period of significant upfront investment in infrastructure, training, market development, and stabilization initiatives 	6 – 12 months	<ul style="list-style-type: none"> GDP growth of 1% - 3% Income growth of 1x – 2x depending on starting point Job growth fast in select roles / categories but otherwise slow
Take-off	<ul style="list-style-type: none"> Period of intensification of investments, combined with some early signaling on investment impact from initiation phase Sharper growth as substantial capital, training, technology, and other resources are committed 	6 – 12 months 2 – 5 years, with ongoing potential	<ul style="list-style-type: none"> GDP growth of 7% - 12% Income growth of 2x – 3x depending on starting point Job growth accelerates with growth in both skilled and unskilled labour demand
Equilibrium	<ul style="list-style-type: none"> Period of self-reinforcing normalcy, with economic activities more predictable, and a virtuous cycle The probability of conflict is low or non-existent, intensifying investor and community confidence with respect to range of investment activity 	Ongoing and then subject to business cycles	<ul style="list-style-type: none"> GDP growth of 5% - 8% Income growth of 2x over 10-year period Job growth accelerates with select sectors more active than others

What is critical to remember is that during this period, the role of key stakeholders will evolve. For example, during the middle stages, i.e. in the initial 2 – 5 years, the behaviours established are key to long-term project success. Why? This period is a critical learning period when the PMO, investors, donor partners and government stakeholders need to be extraordinarily vigilant. Reinforcing activities at this stage will build the confidence required by households and enterprises to commit additional resources (capital, emotional, spiritual) to the peace deepening effort.

Budgeting Framework and Preliminary Estimates

The Government of Nigeria has set aside N100 billion to fund the first phase of the livestock transformation strategy. State governments have also committed to spend 20% or a further N20 billion in support of the strategy. The funds will be used to execute the strategy described herein alongside additional funding from private investors and donors.

The proposed high-level allocation of the N100 billion over Phase 1 (3 – 5 years) is as follows, with the majority of spend targeted at the rollout of pilot ranches and implementation of the pillars. Note that state contributions are not

factored into the categories below and will be spent within each contributing state as deemed fit.

Budget Category	Preliminary Target	Commentary
Ranching Pilots - 7 Frontline States	N30 - N35 billion	<ul style="list-style-type: none"> Primarily spent on assets and services e.g. irrigation, forage designed to enable year-round feeding and watering of livestock on site
Ranching Pilots - Private and Other States	N20 - N25 billion	<ul style="list-style-type: none"> Targeted support to build and launch commercial ranches across the rest of the federation
Pillars Implementation	N22 - N30 billion	<ul style="list-style-type: none"> Spend on initiatives designed to advance the ecosystem of peace and livestock modernization
General Reserve Fund	N10 billion	<ul style="list-style-type: none"> Capital set aside to cover final period of Phase 1 activities and unplanned capital expenditures
Programme Office & Management	N3 - N5 billion	<ul style="list-style-type: none"> Spent to cover administrative services and investment team supporting implementation of strategy
Investment Capital Support	N10 - N15 billion	<ul style="list-style-type: none"> Window for providing targeted support on capex if certain circumstances are applicable
Total	N100 billion	

Proposed Uses of Budget

Behind each of the proposed allocations above are specific estimations and calculations the details of which are shared below.

1. Ranching Pilots - 7 Frontline States

- Spent primarily on capital investments required to provide sustainable access to water, forage and supporting services
- Spent estimates are a baseline with expectation that target numbers may be adjusted upwards or downwards subject to soil analysis, hydrology reviews of underground water reserves, and the overall condition of infrastructure at the site
- Each state is expected to have 3 ranches (2 for dairy and beef production, and 1 for breeding); the estimation assumes that in year 1, 7 pilots will be rolled out; in year 2, 7 breeding pilots will be rolled out; and in year 3, the other 7 production ranches will be rolled out. Outlined below is a pro forma cost estimate per ranch hub. While the structure below utilizes a target cost of N352 million, it is not improbable that the costs may rise to about N400 million – N500 million depending on conditio

Pilot Investments	Details	Units	Price/Unit	Total Cost
Pasture Systems	Land Clearing	1000	50,000	50,000,000
	Preparation & Planting	1000	25,000	25,000,000
	Pasture Seeds/Cuttings	1000	5,000	5,000,000
Feeding Systems	Molasses Tank	5	600,000	3,000,000
	Silage Pits	5	2,000,000	10,000,000
Equipment	Practors (100HP)	5	10,000,000	50,000,000
	Tractors (78hp)	5	6,000,000	30,000,000
	Forage Harvester	5	1,350,000	6,750,000
	Bulk Wagon	5	1,100,000	5,500,000
	Chain Harrows	5	450,000	2,250,000
	Chisel plough	5	800,000	4,000,000
	Disk Harrow	5	395,000	1,975,000
	Forage Mower	5	1,300,000	6,500,000
	Baler (Hay)	5	1,300,000	6,500,000
	Haywindrow	5	500,000	2,500,000
	Storage Shed/Barn	5	1,500,000	7,500,000
Transport	Toyota Hilux	5	5,500,000	27,500,000
	Motorcycles	5	125,000	625,000
Power	Generator	5	100,000	500,000
	Fuel Tank	3	500,000	1,500,000
	Fuel Supply	12	1,000,000	12,000,000
Water	Storage Tank (overhead)	5	3,000,000	15,000,000
	Pumps (Submersible)	3	600,000	1,800,000
	Service Water Pump	5	80,000	400,000
	Irrigation System	2	5,000,000	10,000,000
	Surveys	1	1,200,000	1,200,000
	Supporting Works	1	2,500,000	2,500,000
Infrastructure	Fencing	1	7,000,000	7,000,000
	Office/Admin Block	1	1,800,000	1,800,000
	Storage Shed	2	2,000,000	4,000,000
	Road Repairs	1	5,000,000	5,000,000
Processing	Abattoir	1	40,000,000	40,000,000
	Support Service	1	5,000,000	5,000,000
Total Cost (Naira)				352,300,000

2. Ranching Pilots - Private and Other States

- a. Primary spend will be on supporting investors seeking to scale up successful ranching model
- b. Spend designed to provide targeted capital expenditure and working capital support on a concessionary basis to support transformation of livestock sector

3. Pillars Implementation

- a. Spend will primarily be in support of specific service delivery e.g. reducing access to small arms or expanding access to farm specialists. The remainder of spend may be a mix of equipment and livelihood services e.g. helping internally displaced persons to return and resume economic life
- b. Final estimates will be shaped by the state level prioritization choices made with respect to pillar implementation e.g. resettling IDPs over reducing gender-based violence in year one

4. General Reserve Fund

- a. Majority is a set-aside to provide a backstop as required should budget estimates overrun in specific states, initiatives or projects. Dipping into the reserve fund will require additional approvals from the Steering Committee

5. Programme Office & Management (Secretariat)

- a. Programme office will help manage the SPV, oversee execution of the strategy, coordinate with state level counterparts, mobilize private sector investors, and take steps to improve the odds of success for the programme.
- b. The majority of spend will be recurrent in nature i.e. on salaries, benefits, travel and related expenses; some initial capital expenditures may include purchase of project vehicles.
- c. A few donor partners have indicated a desire to support the programme office, hence the limited spend estimates for the office

6. Investment Capital Support

- a. Budget estimate for this category is designed to provide support for existing projects and initiatives without resort to the the Reserve Fund; while this category will cover in effect budget overruns on an as needed basis, strict usage guidelines will apply e.g. can only be used to cover capital expenditure overruns if such where unanticipated and within reasonable limits

Funding the Budget

Various investors including the FGN will shape how the NLTP is ultimately implemented. These investors will range from large corporates to individual ranchers, nomads and farmer cooperative societies. It is important to stress that all parties will be on a level playing field. The PMO will in working with investors seek to prioritize results and equity of access. To ensure that as many small and medium sized players are at the table, the PMO will use the power of its funding envelope to encourage partnerships, collaboration, and activities that will accelerate the emergence of an ecosystem. Ahead of additional analysis of the role of various players, the following observations can be made:

- **Donors:** The PMO will leverage existing infrastructure and mechanisms such as the Agriculture Donor Working Group to share financing estimates as well as secure specific donor support across various sub-projects. It is important to note that no single donor can fund what is required; instead, multiple donors will be asked to pool resources, and/or select specific initiatives against which they will commit support. The role of donors is likely to help cover a few variable costs as well as close the gap in capital requirements outside of the scope of private actors. When investing alongside private actors, donor action may evolve into providing blended capital..
- **Private Investors and Lenders:** Private investors will be called upon to fund a mix of working capital as well as select capital investments. Given the duration of the investments, the capital structure required will need to be negotiated. The majority of credit facilities and equity capital deployed should be medium to long term in order to allow for the ecosystem to become stable and generate cash flow. The PMO will work with a variety of private investors and lenders to create a mix of credit windows, risk adjusted loans, and equity instruments as appropriate. Innovation will be vital as many participants in the ecosystem may have not participated in formal financial markets in the past, hence have no credit history. As appropriate, local market insight will be sought in the form of loan origination and management partnerships e.g. with microfinance banks.
- **Government:** In addition to key fixed capital asset spend, the role of government may include accelerating financial inclusion and innovation in the ecosystem. For example, using a mix of credit guarantees from Nirsal Plc and a long-dated loan note from the Development Bank of Nigeria and CBN, certain quasi-infrastructure costs and risky assets can be provided to reduce participation costs for private investors. This will include roads, land clearing and preparation, and expanding access to water rights. These are costs that can be recovered if payment terms are structured appropriately to match cash flows.

Part B: Financing Model for Livestock Modernization

I. Introduction

The financing strategy is designed to support the creation of a modernized livestock production system across Nigeria. While a range livestock (cattle, goats, sheep, chicken etc) are covered, financing may reflect regional endowments of livestock. To that end financing will focus on twin objectives: building out the enabling infrastructure; and providing working capital to investors.

II. Organizing Structure

The funds to be provided by the Federal Government and its partners should be segregated into a special purpose vehicle (SPV). The SPV must be independent, and not “the face of government” in order not to create an expectation that the credit available is a grant. The SPV structure allows for a measure of independence in terms of the uses and management of the funding. In addition, it provides a degree of flexibility for program managers with respect to how to support specific investment projects.

Beyond the initial federal funding, based on its track record, the SPV should consider issuing bonds that enable it to extend the scale and scope of financing. Such long dated bonds will enable the mechanism to fund certain catalytic projects using its balance sheet, and implied FGN credit rating. Such steps then allow for more rapid rollout of clusters with the full service and infrastructure package in place.

III. Role of States

State governments will be expected to make a 20% contribution to the SPV. The form of contributions can be taken in the form of land, services, and related support using an open market valuation. For example, the process of certifying land and building a database of such assets is as valuable as the cash contribution a state can make. Such flexibility is necessary to ensure that citizens and residents of states that have cash constraints are not penalized.

IV. Structure and Function of the SPV

Target Customers: The SPV will support both government sponsored, and private sector sponsored investments. Additional segmentation work will be done on the mix of farmers to ensure that small holders are advantaged in the setting up of access to capital and services. Sponsors should be segmented by their ability to borrow, and lending models need to be flexible to adjust for it. The ideal priority would be a group of small holders who work with value chain anchors and partners to optimize access.

Go To Market / Capital Risk: The SPV should deal directly with customers as much as possible and only use intermediaries such as banks as and when necessary. Thus, the SPV should not transfer the lending risk to intermediaries such as banks and microfinance institutions. Such a step will ensure that the intermediary's own credit evaluation criteria is not superimposed on the loan as has often been the case in previous FGN/CBN backed initiatives. By retaining the credit risk, the SPV has control over the credit review criteria and process.

Product Offered / Mix: The SPV should offer a mix of loans, technical assistance grants and infrastructure support.

- **Facilities & Infrastructure Services:** Offering a high-quality infrastructure support package is critical to commercial success of the livestock sector. Therefore, a package of support offered by the SPV should be focused on reducing the cost of doing business e.g. via improved irrigation, roads and rail, functional warehouses, and logistics packages.
- **Loans and Working Capital:** Offered as the main source of financing to investors across the livestock value chain and its related services. Loan volumes will be linked to the size and scope of the enterprises in question. Small holder farmers as well as medium and large enterprises will be treated equally in terms of access to capital.
 - *Interest Rate:* 1% - 5%
 - *Collateral:* Requirement waived, or asset being financed is used as collateral. In the medium term, the objective is to accept Letters of Credit, equipment and certificated land as collateral. The YouWin project has also successfully used such an approach.
 - The FGN and State governments should accelerate their process of Issuing Certificates of Occupancy (C of O) for agricultural lands
 - *Duration:* Flexible loans with a minimum of 10 year and 30 years maximum in duration
 - The loan duration is also reflective of the understanding that change may take an elongated period to become the new normal.
 - *Moratorium:* Standard moratorium is 30% of the loan duration years e.g. for a 10 year loan, a 3 year moratorium is applicable, while a 20 year loan will attract a 6 year moratorium.
 - *Pre-Payment Penalty:* No penalty will be charged should a borrower repay the underlying loan earlier than planned.

- o *Financing & Application Support:* Given the differential rates of both basic literacy and awareness of modern techniques for managing livestock, it is prudent to provide support to pastoralists to ensure that they can complete all the required documentation for loans, as well as deliver on cash flows as planned. The Central Bank's Development Finance Department has developed several exceptional resources e.g. EDBs that can be of use here. Ditto SMEDAN resources.
- o Among the support that can be provided would be modelling the business profitability of ranches for example. For example, outlined below is a pro forma feedlot example regarding fattening 2 – 2.5-year-old beef cattle; such financing guidelines will be produced by the SPV in partnership with 3rd parties to ensure that key financing intermediaries and parties are as well informed about operating and funding metrics as the SPV is.

Economics of Fattening Cattle (2Year Olds)		
Per Cattle Costs	Value	Unit
Cattle Acquisition Costs	130,000	Naira
Fattening Period	100	Days
Daily Feed Costs	700	Naira
Total Feeding Costs	70000	Naira
Total Cost/Cattle	200,000	Naira
Average weight of cattle	400	kgs
Average Cut Out Ration from Abattoir	56%	%
Sale Price (Live Cattle)/kg	760	Naira
Sale Price (Slaughtered)	1250	per kg
Revenue (Live)	304000	Naira
Revenue (Slaughtered)	280000	Naira
Margin (Live)	104,000	Naira
%(Live)	52%	%
Margin (Slaughtered)	80,000	Naira
%(Slaughtered)	40%	%

V. SPV Performance Support

To improve the odds of success for the SPV, a few other key design elements have also been identified. These include but are not limited to the following:

- **Disbursement Partners:** Given the need to reach borrowers across the federation at the lowest possible cost, it is vital that the SPV partner with existing financial institutions. As noted earlier, such partnership is not to transfer credit risk but to ease borrower access. A key requirement is that partners – in return for a limited compensation – will have to go into the field to meet customers rather than wait for them. Potential partners include Bank of Agriculture, commercial banks, microfinance banks, and select civil society organizations with financial inclusion programs e.g. Efina, Oxfam, etc.
- **Handling of Cash:** The SPV will minimize direct disbursement of cash to borrowers. Instead, it will pay service providers directly based on documented invoices and contracts. Nirsal Plc utilizes a similar model in its seed support programmes. Such an approach combined with sequestration of cash by off takers will ensure that a proper closed loop financing system is in place within a few years.
- **Monitoring and Steps to Prevent Diversion and Fraud:** The SPV should have a team focused on working with partners and borrowers to actively prevent illicit behavior and diversion of loans. That will require extensive intelligence and information sharing mechanisms, with credit partners making their notes available to the SPV. In addition, the SPV will also work with community leaders in key clusters to ensure that borrowers with poor repayment histories do not become a part of the scheme. Additional methods will be periodically reviewed and integrated into the SPV's defense mechanisms.
- **Insurance:** All borrowers will be required to purchase insurance from NAIC and premium payments made promptly. NAIC will be rolling out several product innovations designed to accelerate the growth of insurance coverage for livestock e.g. weather risk insurance; climate risk insurance; and expansion of existing area yield policy.
- **Coordination:** The SPV should truly be a one stop shop from a coordination perspective. All key agencies of government should be represented at the SPV, and provide support as required to ensure project success. Key agencies from Trade to Finance to FMARD etc. will be seconded to the SPV.

Such sharpened coordination will ensure that objective targets such as improving ease of doing business and reducing bureaucracy of the process are achieved. NAFDAC is an excellent example of this approach of redesigning its rules to be more customer facing and therefore improving performance as such.

- Use of Cooperatives: Only natural cooperatives should be encouraged rather than brand new ones formed to simply collect loans. For these cooperatives, the focus should be on improving their performance given the need many have for a professional manager. Such a manager can help the cooperatives identify, negotiate and purchase services that would boost production yields.
- Tax Treatment: The SPV and its borrowers should be provided with a renewable pioneer tax treatment by the FIRS and Joint Tax Boards. The tax authorities will need to provide additional sensitization regarding the rich mix of incentives available based on current law, as well as what is planned for the medium to long term.

VI. Operational Support Mechanism (Draft)

State governments are advised to create a State PMO that can also be using a variety of skills available to it, decided whether it wants to support a project. Potential project sponsors and promoters e.g. ranchers, investors, nomadic cooperatives, entrepreneurs, etc. will submit a brief Project Memo to the host state and Federal PMO via electronic mail. The submission Memo should contain the following in no more than 10 pages

- The business focus e.g. ranching with a target of 500 cattle
- The major financial requirements in terms of key capital costs, timeline for recovery of such investment, and key assumptions behind the analysis
- Key technical prerequisites and conditions for success
- Key inputs need for the project including personnel
- Other pertinent data and insight to guide the evaluation team
- The capital contribution sought from government
- Based on the review of the initial memo, the state and Federal teams, a go/no go decision will be made
 - For Go decisions, additional documentation will be requested, and due diligence conducted as appropriate to guide the process before any final offer is made

- o Unless explicitly specified in the submission memo, it is assumed that the formula for splitting capital support between the Federal and State PMO will be negotiable
- o All offers of capital will be made in writing with appropriate clarifications and conditions stated, as well as the process by which capital is transferred
- o All participants will need to be registered and available in the banking systems biometric record system
- It is recommended that States set up in partnership with ADP programs, technical support missions and local academic institutions, mechanisms for helping project sponsors prepare their submissions
 - o Ideally, a standard format is preferable for comparison across projects and stages of the livestock value chain for example
 - o The Federal PMO will provide support in creating such guidelines, as well as enabling States to provide support
 - o Large private investors will also be encouraged to work with states to help curate the process so that like the anchor borrower logic, clusters of independent nomads and ranchers can be aggregated to apply together as part of a plan to supply dairy or related output to a downstream processor

6. MONITORING, EVALUATION AND IMPACT ASSESSMENT

The monitoring of plan implementation shall be a continuous process, within the context of the NLTP budgets as an overall basis for operationalising and implementing the plan. The relevant committees at the federal and state levels will need to identify the relevant and appropriate NLTP Outcomes and develop strategies to realise these Outcomes. It is suggested that this exercise begins when the committees are reviewing and rolling-over their annual plans. The committees will need guidance and support in doing this and this guidance will come from the PCS either in the form of training, circulars or guidance notes. The established baselines and milestones set out for each KPI shall form the basis for M&E.

There will be a focus on the implementation of planned activities in relation to the established timetables, services used by 'beneficiaries', infrastructure and other inputs. The process of evaluation, on the other hand, will involve selective exercises. The exercises will be designed to systematically and objectively assess progress towards the achievement of planned outcomes. It is expected that the process of M&E will facilitate informed decision making and support substantive accountability to citizens and ultimately improve performance and indicate results achieved over the plan period.

6.1. Monitoring

To track progress towards outcomes and strategic result of the plan, a strong monitoring system will be established in the inception phase (year 1). Monitoring activities will be led by PCS and supported by the M&E departments in relevant MDAs at federal and state levels.

This process will include the following steps:

- a) **Environmental Impact Assessment.** The state and country level EIA will provide important information for developing the programme, including the design of the baseline.
- b) **Baseline Study.** The baseline study will be commissioned to identify appropriately contextualized targets and milestones for the achievements of results. The study will also identify data sources and means of verification, and it will gather the initial data set required for monitoring and reporting purposes. A consultant will be contracted to support the baseline study.

- c) Developing a Programme Operational Plan: A simple programme operational plan will be developed which draws on the outcome and key performance indicator information included in this PIP. The operational plan will provide further details on definitions, sources and means of verification of indicators.
- d) Developing a simple Management Information System (MIS) which captures the information on the KPIs associated with the outcomes of the NLTP.
- e) The routine monitoring activities to track results, challenges and lessons learned.

6.2. Evaluation

Evaluation activities will take the form of periodic studies and will be commissioned to assess the programme achievements against the target outcome in all the pillar activities. Evaluation will build on the monitoring system described above, but will undertake deeper analysis of programme relevance, efficiency and effectiveness. Evaluation activities will include a mid-term progress review and a final evaluation. As part of the final programme assessment, a detailed cost benefit analysis will be carried by an independent agency based on accumulated baseline data and data generated at all stages of the programme.

The PCS will lead a comprehensive mid-term progress review to be undertaken in the final quarter of the programme, the second year of the programme, with a view to informing any mid-course corrections required. The mid-term review will consist of document reviews, interviews and surveys as well as country and state level case studies. The mid-term review report and management response will be shared with relevant stakeholders.

6.3. Impact Assessment

The NLTP Strategy Document calls for core investments as well as across 5 supporting pillars to deliver the planned outcomes. The pillars, ranging from human capital development to novel approaches to public and private land use and access to inputs, are the organizing principle for the NLTP implementation. How much will it cost to invest across the pillars? What benefits will such investment provide? And how soon will these benefits be available to the region and its stakeholders?

Given the design principles, these improvements can be measured by estimating the gains in economic activity accruing to labour, capital, and technology i.e. by what factor does gross domestic production (GDP) grow in the

region because of the NLTP's successful implementation? We can further refine that by taking a per capita or household-based measure. For example, how will household incomes grow in Benue because of peace versus Taraba? How much more competitive will the cost of beef be across southern Nigeria as a result of a more stable supply chain, and what new jobs will that spur? How many new jobs will be created along Nigeria's new railway corridors as a result of using that logistics platform to serve the modernized livestock economy?

There are several ways by which we can evaluate the net economic impact of the NLTP. Below, we describe 3 tools that could be utilized:

1. **GDP Impact Analysis:** Establish what impact on gross domestic product (GDP) will be from a broad upswing in capital formation, labour utilization, growth in the technology intensity of the economy, and broader productivity improvements as peace grows. To do this analysis well requires the use of a general equilibrium model of the regional economy in question. The project team does not have access to such a model at present. Alternatively, a simplified approach using proxies can also establish a similar range of directionally accurate outcomes
2. **Streamlined Impact Analysis:** Estimate impact of the policy changes represented by the NLTP on key metrics using proxies. For example, estimate that for each person removed from an active conflict status (offensive or defensive), average household income will rise by a given amount, representing a material percentage increase in labour earnings in the specified region. For example, returning Borno State to peace effectively puts over 50% of its productive work force back, nearly guaranteeing accelerated productivity for the first few years as catchup investments are made. Outside of conflict zones, the expansion in economic potential is estimated to raise incomes by 5% - 10% depending on which state and its mix of activities related to livestock processing, distribution and consumption. It is expected that all states of the federation will experience an income uplift as a result, either directly or through paying more competitive prices for livestock.
3. **Cost-Benefit Analysis:** Establish the economic value of a project above and beyond its costs. The approach will structure and quantify key costs and benefits and derive a net value that can be used for evaluating the effectiveness of the NLTP. In evaluating the benefits, it is important to consider the tangible benefits e.g. increase in crop production, as well as

the intangibles e.g. impact on commercial confidence from an improvement in stability. For example, growth in value will include fodder producers as well as the Nigeria Railway Corporation

Given current circumstances, the analysis will primarily utilize methods #2 and #3. Analytically, the analysis will buildout each pillar, identify the critical interventions, develop a financial estimate (cost or benefit), and then prioritize. The proposed prioritized list across the pillars will become the core of the implementation road map. Below, we outline an example:

Pillar	Intervention	Description	Cost Metrics	Benefit Metrics	Implied Return
Law & Order	Small Arms Removal	Estimated 50,000 illegal weapons in circulation	Fully loaded cost/weapon to remove is ₦7,500 X ₦50,000	State household income per capita X impacted pool of residents (refugees as proxy)	$\frac{B-A}{A}$; if positive, goal achieved
Economic Investment	Inputs	Expanding farmer (crop and livestock) access to seasonal input/unit of production	Average input cost of ₦250,000/ hectare or ₦100,000/ head of cattle X count of units (hectares or cattle)	Cash realized from sales of product/cattle	$\frac{B-A}{A}$ provides relative % value

The above is a high-level illustration of the logic. Based on the results across the complete set of NLTP initiatives as outlined in the NLTP Strategy Document, the Programme Coordination Secretariat (PCS) will make a recommendation regarding which actions ultimately balance returns versus the design principles. That recommendation will then shape the full implementation plan and road map. Be that as it may, it is important to recognize that results will not emerge overnight, requiring that expectations be calibrated.

APPENDIX 1

Overarching Pillar: Economic Investment in Livestock Ranching, Fodder production and Value Chains

Development Objective: To support and strengthen the development of market-driven ranches in the livestock ecosystem for improved livestock productivity through breed (genetic) improvement and pasture production, in addition to efficient land and water productivity.

Strategic Focus	Key Performance Indicators	Indicator Description	Baseline 2019	Target Values			Data Management/Information Collection Management		
				2022	2015	2018	Source of Verification	Data Verification Methods	Frequency
Securing natural resources – land, water, feed	Hectareage of land under production	This tracks the total area of land brought into production					Gazetting reports	Document review	Annually
	Amount of fodder available	This tracks the total quantity of fodder produced per hectare					Ranch production records, reports of special studies	Review of ranch records and other study reports	Annually
	Amount of fodder consumed by cattle	This tracks the total quantity of fodder consumed by cattle as an average per head (whether beef or milk)							
	Amount of water available disaggregated by source – surface and underground	This tracks the total quantity of water available through surface of underground sources					Ranch production records, reports of special studies	Review of ranch records and other study reports	Annually
Sustainable models for	No of people in the ecosystem	This tracks the total number of people involved in the cattle production value chain – disaggregated by pastoralist and farmers, and by sex					Project and M&E reports, reports of special studies	Review of project M&E, and special studies reports	At the beginning and quarterly afterwards
	No of pilot ranches implemented	This tracks the number of ranches that are piloted, by beef or milk production					Ranch records, Project M&E records	Review of M&E and	Annually

Sustainable models for ranching developed	No of pilot ranches implemented	This tracks the number of ranches that are piloted, by beef or milk production							Ranch records, Project M&E records	Review of M&E and other records	Annually
	Heads of cattle raised in ranches	This tracks the heads of cattle raised in each ranch type							Ranch production records, reports of special studies	Review of ranch records and other study reports	Annually
	Total volume of beef produced	This tracks the quantity of beef produced by the beef ranches									
	Total volume of milk produced	This tracks the quantity of milk produced by the milk ranches									
	Proportion of products processed by type	This tracks the proportion of beef and milk processed overall									
	Extent of development of ranch infrastructure	This tracks the extent to which the infrastructure needs of the ranches are being met – roads, electricity, fencing.									
Infrastructure needs for ranches are met – roads, electricity, fencing									Bill of quantities; assessment reports	Content analysis of documents and inspection of facilities	Annually
Other support services developed – transport, health, education	Extent of development of support infrastructure for the ranches	This tracks the extent to which other infrastructure for community integration are developed in support of the ranches – health and educational facilities, transportation arrangements									
Private Sector Investment is encouraged	Quantum of resources attracted into the ranches from the private sector	This tracks the volume of investment by the private sector into the ranches							Project reports, investment records	Content analysis of documents	Annually
	An enabling policy and legislative environment are put in place	This checks that enabling policies have been developed at the national and state levels									
	Availability of enabling policies in support of ranching and value chains (for example land management within the grazing reserves – especially for women's access)								Policy documents, project reports	Content analysis of documents	Annually

Development Objective: To identify, establish and support structures that strengthen peace in order to avoid a relapse into conflict; address the sources of current hostilities and build capacities at all levels for conflict resolution.									
Mechanisms in place for Conflict Resolution and Peacebuilding	Functional agency for peacebuilding is in place, in each state	This checks that a peacebuilding agency has been established, well-staffed and has become operational					Agency building, staff nominal, agency reports	Physical inspection: content analysis of reports	Biannually
	No and nature of farmer-herder conflicts occurring compared to previous years	This tracks year-on-year type and nature of farmer-herder and cattle rustling conflicts occurring					Project reports, reports of special studies	Content analysis of reports	Annually
	Extent and type of damage (to crops and properties) resulting from farmer-herder conflicts compared to previous years	This tracks the extent and type of damage to crops and properties occurring from farmer-herder conflicts					Project reports, reports of special studies	Content analysis of reports	Biannually
	No of mortalities recorded (persons and cattle) in farmer-herder and cattle rustling related conflicts, compared to previous years	This tracks the year-on-year cumulative number of deaths arising from cattle-related conflicts					Project reports, reports of special studies	Content analysis of reports	Annually
	A functional early warning and response system is in place, in each state	This checks that an early warning and response system is in place in each state and has become functional					State peacebuilding agency	Structural review of system	Annually
Supporting Pillar: Justice and Peace									
Development Objective: To help develop a more peaceful, less violent society through resolution and access to justice									
Reducing the proliferation of Small Arms Light Weapons	No of small arms removed from the conflict	This tracks the number of light arms removed from conflict areas					Disarmament reports	Content analysis of reports, inspection of arms	Quarterly

Sources of small arms identified, and action taken to stop flows	This tracks the identification and actions taken on sources of small arms (both local and transborder)								Disarmament reports	Content analysis of reports	Quarterly
No of bilateral dialogues undertaken between Nigeria and neighbouring countries involving security agencies- custom, immigration	This tracks the extent to which Nigeria and neighbouring countries' security agencies are discussing and proffering solutions on light arms proliferation								Dialogue meeting reports; M&E reports	Content analysis of reports	Quarterly
A joint modality for response developed by security agencies	This checks that a joint modality for responding to conflicts has been developed by security agencies and has become functional								Assessment of modality document	Content analysis of document	One-off for modality and annually for responses
Degree of adherence to agreed modalities by security agencies.	This tracks compliance to agreed rules and ethics contained in agreements								Assessment report or security agency survey report	Document review	Annually
Number of mediation cases handled and resolved annually through ADR mechanisms	This tracks the number of cases handled and resolved through mediation from alternative dispute resolution mechanisms								Assessment report. Citizens Perception report.	Trend Analysis and tracking of cases resolved by ADR.	Quarterly
Number of prosecutions concluded annually	Progressively tracks the number of cases taken to court; including the number of cases that are concluded								Assessment reports	Trend analysis of cases concluded	Annually
Functional compensation framework in place, in each state	Compensation frameworks in place and made functional								Compensation framework; operations reports	Review of compensation framework and operations reports	One-off for framework and Biannually for operations

Effective Compensation Framework in place which Promotes Reparation	Functional compensation framework in place, in each state	Compensation frameworks in place and made functional							Compensation framework; operations reports	Review of compensation framework and operations reports	One-off for framework and Biannually for operations
Supporting Pillar 3: Humanitarian Relief and Early Recovery											
Development Objective: To put in place a humanitarian and early recovery system for victims of conflict											
Voluntary, safe and dignified return and resettlement	Re-integration mechanisms in place and functional	This checks that there is a reintegration mechanism established in each state and has become functional							Re-integration mechanism and system	Functional review of mechanism and system	Biannually
	Land management system in place	This checks that there is a land registration system in place in each state, and has become functional							Land registration system	Functional review of system	Biannually
	Quantum of land registered and C of O or customary titles issued	This tracks the total area of land that has been registered and certificates of occupancy or other customary titles issued to settlers							Registration records; special study reports	Content analysis of records and reports	Quarterly
	Area of land under dispute compared to previous years	This tracks the year-on-year total area of land under dispute							Registration records; special study reports	Trend analysis	Annually
	No of IDPs resulting from farmer/herder/cattle rustling-related conflicts (disaggregated) compared to previous years	This progressively tracks the number of IDPs from cattle related conflicts, disaggregated by sex							IDP records, project M&E reports	Trend analysis of IDPs	Annually
Early recovery and livelihoods support	No of people able to access livelihood support	This tracks the number of people receiving livelihood support, disaggregated by sex							Livelihood study reports; project M&E reports	Content analysis of reports	Biannually

Protection of victims of conflict	Effective protection mechanisms in place	This checks that there are protection mechanisms in place especially for women and children							Protection mechanism	Functional review of mechanism	Biannually
Supporting Pillar 4 "Human Capital Development"											
Development Objective: To deploy entrepreneurial and technical innovations, as well as business development and management practices that will help improve the efficiency of the livestock value chain and make production sustainable											
Educational programmes and support to the sector	No of functional schools established that target children	This tracks the number of schools (new or refurbished) that have been established, which target children of farmers and pastoralists							Bill of quantities; Project records	Assessment of documents; physical inspection of buildings	Annually
	No of pastoralist children attending regular school	This tracks the number of pastoralists' children attending schools on a regular basis, disaggregated by sex							School records	Trend analysis of enrolment	Annually
Capacity building	Number of teachers deployed to nomadic schools	Number of teachers deployed to nomadic schools disaggregated by sex							NCNE records; school records	Trend analysis	Annually
	No of people trained/retrained to support the NLTP implementation	This tracks the total number of people trained to provide support for the NLTP implementation, disaggregated by sex									
	No of extension personnel (crop/livestock) trained and deployed to support the NLTP	This tracks the number of extension workers that have been trained and deployed to support the NLTP, disaggregated by focus area and by sex							Training records; project M&E reports	Trend analysis	Annually
	No of people reached through extension services	This tracks the number of people reached with extension service messages disaggregated by sex							Extension service records; project M&E reports	Trend analysis	Quarterly

Vocational training and skills acquisition	No of skills acquisition centres established	This tracks the number of centres established and equipped					Bill of quantities; Project M&E reports,	Assessment of documents; physical inspection of buildings	Annually
	No of vocational skills training schemes designed and implemented	This tracks the number of and typology of vocational skills designed and Implemented					Training curriculum; project M&E reports	Content analysis of documents	Annually
	Number of graduates from skills acquisition centres	This tracks the number of people graduating from skills centres disaggregated by skills type and sex					Skills centre records	Trend analysis of graduates	Annually
Linkages with N-Power programme	No of N-Power personnel involved in the programme	This tracks the number of N-Power personnel supporting the programme, disaggregated by programme area and by sex					N-Power records, project M&E reports	Trend analysis of personnel	Annually
Supporting Pillar 5: Crosscutting Themes									
Development Objective - Gender: To remove gender - based discrimination in access to resources and education, and improve women's participation in conflict									
Empower women through access to land, credit, and vocational skills	No of women participating in the crop and livestock production value chain	This tracks the total number of women involved/benefiting along the cattle production value chain					Value chain analysis reports;	Trend analysis	Annually
	No of women enrolled and graduating from vocational skills centres	This tracks the total number of women graduating from the vocational skills centres, by skills area (e.g., health and nutrition)					Skills centre records; special study reports	Trend analysis of graduates; content analysis of reports	Annually
Increase women's meaningful and representative participation in conflict resolution	Number of women and women organisations involved in peacebuilding Initiatives	This tracks the number of women and women organisations involved in peacebuilding Initiatives					Peacebuilding activity reports; special study reports	Content analysis of reports	Biannually

Increase protection for women and girls' rights especially as it relates to gender-based violence	No of GBV crimes reported and addressed	This tracks the number of crimes reported and addressed						GBV assessment reports	Trend analysis of cases resolved	Annually
Development Objective Youth: To enhance youths' participation in the livestock value chain and their participation in conflict resolution and peacebuilding										
Expand youth employment opportunities along the livestock production value chain	No of youths participating in the crop and livestock production value chain	This tracks the total number of youths involved/benefitting along the cattle production value chain						Value chain analysis reports;	Trend analysis	Annually
	No of youths enrolled and graduating from vocational skills centres	This tracks the total number of youths graduating from the vocational skills centres, disaggregated by skills area and by sex						Skills centre records; special study reports	Trend analysis of graduates; content analysis of reports	Annually
Build partnerships with youth on conflict resolution, peacebuilding and humanitarian activities	Number of youths and youth organisations involved in peacebuilding initiatives	This tracks the number of youths and youth organisations involved in peacebuilding initiatives						Peacebuilding and humanitarian activity reports; special study reports	Content analysis of reports	Biannually
	Number of youths and youth organisations involved in humanitarian initiatives	This tracks the number of youth and youth organisations involved in humanitarian initiatives								
Development Objective Research: To develop and deploy research-based solutions that will drive the transition of smallholder producers, value chain actors, pastoralists and agro-pastoralists from near subsistence to productive small to medium scale enterprises for resilient livelihoods										
Research undertaken on conflicts and along the livestock value chain	Number and typology of research undertaken (cattle production, ranching)	This tracks the number and category of research undertaken - cattle production, ranching practices, conflict types						Research reports; project M&E reports	Content analysis of reports	Biannually
	Number and typology of research undertaken on conflict									

	Evidence of research recommendations informing the development of new initiatives (products and services, conflict mitigation)	This checks that the recommendations from research are informing the design of new initiatives					Research uptake reports; project M&E reports	Content analysis of reports	Annually
Enhancing the role of research institutions	No of research institutes in the pilot states (by focus)	This checks the number of research institutes in the pilot states by their focus					Assessment report; project M&E report	Content analysis of report	One-off
	Volume of funding and other type of support provided by research institutes in support of the NLTP	This tracks the volume of funding channelled as support to the NLTP, categorised by the area of support					Project M&E reports; research institute reports	Trend analysis of funding and other support	Annually
	No of global R&D partnerships developed	This tracks the number of global research partnerships developed, categorised by the area					Project M&E reports; partnership review reports	Content analysis	Annually
Development Objective-Information and Strategic Communication: To provide information, education and strategic communication on the strategic focus as well as the implementation of the initiatives as contained in NLTP									
Data generation and management	Fully transparent Online database on NLTP IP in place and functional	This checks that there is a functional Online database for reporting NLTP activities					Online platform	Functional reviews of platform	Quarterly
	Volume of funds committed to data generation and communications	This tracks the volume of funds used for data generation and communication activities					Project M&E reports	Trend analysis	Annually
Content development	Typology of communication narratives developed	This tracks the types of communication narratives developed by the implementation programme					Communication plan, narratives and messages	Content analysis of narratives and messages	Quarterly
	No of technical messages developed and disseminated	This tracks the types of specific technical message contents developed by the implementation programme							

