

Republic of Sierra Leone



NATIONAL CATTLE SETTLEMENT POLICY

*Creating the Enabling Environment for Sustainable Increased Crop and
Livestock Production*



**MINISTRY OF AGRICULTURE AND
FOOD SECURITY**

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Table of Contents

Table of Content.....	Error! Bookmark not defined.
Preface.....	iv
Executive Summary.....	v
Introduction.....	1
1.1 Background to Sierra Leone and the Livestock Sub-sector.....	1
1.1.1 Country Context	1
1.1.2 The Livestock Sub-Sector in Sierra Leone	1
1.2 Situational Analysis of the Livestock Sub-Sector in Sierra Leone.....	3
1.3 Background to Crop Farmers and Cattle Herders Conflicts.....	6
1.4 Problem Statement for Crop Farmers and Cattle Herders Conflicts	7
1.5 General and Specific Objectives	8
1.5.1 General Objective	8
1.5.2 Specific Objectives.....	8
1.6 Significance of the Cattle Settlement Policy.....	8
2.0 Stakeholders and Drivers of Cattle Herders–Crop Farmers Conflicts	9
2.1 Divers of Cattle Herders and Crop Farmers Conflicts.....	9
2.2 Stakeholders in Cattle Herders and Crop Farmers Conflict Resolution.....	10
3.0.Policy Conceptual Framework and Cattle Settlement Policy	10
3.1. Policy Conceptual Framework.....	10
3.2.National Cattle Settlement Policy Framework.....	11
3.3.Methodology for Formulating the National Cattle Settlement Policy	12
3,4,National Cattle Settlement Policy Scope	13
3.5. Cattle Settlement Policy Statement.....	14
3.6. <i>National</i> Cattle Settlement Policy Formation Process – The Multi-Stakeholder Processes for Action Planning and Policy Formulation (MPAP) Process.....	Error! Bookmark not defined.
3.7.Legal Policy Framework.....	14
3.8. Legal and Institutional Framework.....	Error! Bookmark not defined.
3.8.1. Legal Framework	Error! Bookmark not defined.
3.8.2.Institutional Framework	15
3.9. Issues and Policy Statements Related to Cattle Settlements	15
3.9.1.Livestock Identification and Recording	15
3.9.2. Improvement of the Genetic Parameters of Local Breeds of Cattle	15

3.9.3. Improvement of the Animal Feed Resources.....	16
3.9.4.Improvement of Animal Health.....	17
4.0.Implementation Framework.....	17
4.1.Formation of Cattle Settlement Committees (CSCs)	18
4.2.Area Cattle Settlement Committee (ACSC).	19
4.3. Chiefdom Cattle Settlement Committee (CCSC):	19
4.4.District Cattle Settlement Committee (DCSC).....	20
5.0. Institutional Arrangements	Error! Bookmark not defined.
5.1 Registration of Ranches/Worrehs.....	21
5.2 Availability and Allocation of Grazing Land	21
5.2.1 Land Availability	21
5.2.2 Land Allocation.....	22
5.3 Land Lease Agreement.....	22
5.4 Obligations of Cattle Farmers.....	22
5.5 Obligations of Crop Farmers.....	23
5.6 Bye Laws for cattle Herders and Crop Farmers Settlement	23
6 Recommendations	23
8. Roadmap for the Implementation of the Cattle Settlement Policy	27
9. REFERENCES.....	28
10. Indicative Budget for the Implementation of the National Cattle Settlement Policy.....	1

Preface

Agriculture remains the major economic activity in Sierra Leone and contributes an estimated 47 per cent to GDP. It is a major source of livelihood and provides employment for over 70 per cent of the active labor force especially the marginalized and resource-poor rural farmers.

In the past couple of decades, the agriculture sector has witnessed unprecedented increase in conflicts between crop and livestock farmers. These conflicts do not only disrupt increased agricultural productivity that is required for achieving food and nutrition security but they have the propensity to create serious social unrest that may also threaten national security.

The Ministry of Agriculture and Food Security deemed it absolute necessary, as a matter of urgency, to address this problem and facilitate the peaceful co-existence between crops and livestock farmers. To achieve this goal, a National Cattle Settlement Policy document has been reviewed and validated to guide stakeholders in the settlement of farmers and enable them do their farming in a peaceful and friendly atmosphere.

The Ministry of Agriculture and Food Security in collaboration with the Ministries of Local Government and Community Affairs, Lands and Internal Affairs are encouraging all stakeholders including land owners, livestock farmers, crop farmers, Paramount Chiefs, and Local authorities, District Councils, Office of National Security, National Farmers Federation of Sierra Leone and the security sector to own and implement the document. It will also be prudent for the chieftaincy institutions, the key stakeholders for the successful implementation of the policy, to take necessary steps that will foster peace and empower farmers to embark on their farming activities.

I would like to thank the Food and Agriculture Organization of the United Nations (FAO) for providing funding to review the National Cattle Settlement Policy, the Emergency Center for Transboundary Animal Diseases (ECTAD) for their usual technical support and staff of the Ministry of Agriculture and Food Security for the relentless service to the people of Sierra Leone. I also express my gratitude to the World Food Programme, Office of National Security and all stakeholders that participated in the review of the policy. It is my profound wish that this policy will provide the impetus that will foster peace among farmers and provide the enabling environment for increased agricultural productivity in Sierra Leone.

Hon. Dr Henry M. Kpaka
Minister

Ministry of Agriculture and Food Security

Executive Summary

The Economic Community of West African States (ECOWAS) is experiencing an incessant increase in social conflicts between crop and livestock farmers often resulting in destruction of property and at worse loss of lives. There are documented evidences of Livestock Grazers-Crop farmer's conflict in Nigeria, Ghana, Guinea, Sierra Leone and Senegal. Sierra Leone is currently faced with a similar situation that is very worrisome for a fragile state that is yet to achieve food security for the citizenry. Conflicts between crop farmers and cattle grazers have been attributed to, among others, fierce competition for access and use of natural agricultural farming resources (land, water and pastures), challenges posed by the effects of climate change, high livestock stocking rate predisposing land to erosion, practice of crude farming systems including slash and burn shifting cultivation, transhumance and nomadic livestock grazing.

The continued unrest and social friction among these key farming communities (crop and livestock farmers) may have far reaching adverse effects if not promptly addressed. Conflicts among farmers has the potentials to disrupt farming activities which in turn may result in low agricultural productivity and worsen the already deplorable food insecurity in the country.

The current National Cattle Settlement Policy is deficient in certain critical issues especially conflict resolution mechanisms and lack the mandate and recognition of major stakeholders. However, the conflict prevention and resolution mechanisms have been thoroughly addressed and serve as a supplementary document in complementing the national cattle settlement policy.

Best practices recommend for periodic review of policies to abreast with developments and issues that the policy intends to address. The Multi-stakeholder Processes for Action Planning and Policy Formulation (MPAP) strategy was used in the review and to seek the mandate of stakeholders. In that regard, key stakeholders were consulted, engaged and eventually decisions were reached and recommendations made.

Among the key elements of the National Cattle Settlement Policy are causes and drivers of cattle herders and crop farmers' conflicts, cattle settlement policy statement, and re-establishment of committees (Area Cattle Settlement Committee, Chiefdom cattle Settlement Committee and District cattle Settlement Committee) with renewed mandates and terms of references.

To ensure the successful implementation of the national cattle settlement Policy, the following recommendations were made:

i. Capacity Development in the livestock sub-sector

Livestock and crop farmers capacities should be developed to abreast them with emerging innovative and sustainable technologies such as fodder conservation (making hay and silage), livestock identification, movement tracking and Artificial insemination, that will enable them operate and respond to the unfolding challenges of climate change patterns.

ii. Animal Health Certification

The Livestock and Veterinary Services Division of the Ministry of Agriculture and Food Security should establish and enforce the certification of an Animal/Herd Health Bill. This Bill should indicate vaccination against major zoonotic threats. This will contribute to enhanced prevention and control of transboundary animal diseases and safe trade.

iii. Use of Improved Animal Breeds

The N'dama cattle, the dominant cattle breed in Sierra Leone is less productive compared to main European breeds or breeds from East Africa. A good animal breeding national program that will yield an increased animal unit weight or milk production may attract farmers to invest in the livestock sector.

iv. Change of Farming systems

Livestock and crop farmers practice traditional farming practices that are no longer compatible with the available natural resources and climate change. Both livestock and crop farmers should be encouraged to adopt climate smart practices for sustainable agriculture intensification.

v. Develop identification and Tracking system for Livestock Movements

Sierra Leone has several porous borders through which unaccountable numbers of different livestock cross into the country. At present, there is no system of tracking livestock movement except for the cattle that pass through the veterinary check points at the borders. This unchecked livestock movement and weak animal diseases surveillance system has resulted in sporadic animal disease outbreaks including FMD in 2018 and Brucellosis in 2022 reported by National Veterinary services. The identification of livestock and the tracking system will help to provide timely, accurate and relevant information to reduce the impacts of TAD outbreaks and food safety issues.

vi. Conduct Livestock Population Census

A comprehensive livestock population census is needed for prudent planning and development of a strategic development agenda.

vii. Adequate Sensitization and Popularization of the National Cattle Settlement Policy

The key factor to be considered for a successful implementation of any policy is to adequately sensitize all stakeholders and provide them with all information that will dispel ambiguity or doubt. In effect, adequate resources must be committed to reach out to all stakeholders and solicit their inputs. This will assure them as being part of the process, own the policy and willing to take collaborative responsibility of the outcome of its implementation.

viii. Harmonize cattle settlement bye-laws

However, synergetic harmonized cross-cutting bye-laws should be developed and harmonized that will address common issues such as livestock movements, enforced vaccination programs, conflict arbitrations, etc.

ix. Establish a Trained Police Force to Address Livestock Grazer-Farmer Conflicts.

The Security apparatus should identify subject specialist personnel and create a different unit that specializes in handling matters of livestock grazers and crop farmers' conflicts.

x. Strengthen and Support the Sierra Leone Livestock Rearers Association

Developing the capacity of members of the Association and empowering them with conflict resolution skills will enable them, as key stakeholders, in managing their affairs.

xi. Identify and Map out Land for Livestock Grazing with Recommended Stocking Rates

To minimize conflicts in the use of natural resources, a land mapping initiative at the chiefdom or District level is needed to apportion and demarcate land for both crops and livestock farming.

1.1 Definition of Terms

As used in this policy, the following terms, words and phrases shall mean as follows:

Cattle settlement	: Area allocated for sedentary livestock/cattle production
Crop Farmers	: Farmers involved solely in crop production.
Crop Residue	: Crop left over after processing e.g. rice straw, corn stock, groundnut, Stover, etc.
Demarcated Area	: An area of land set aside for cattle settlement or ranching.
Free grazing	: Animals left to graze freely without restriction
Herd	: A group of animals living and feeding together in the demarcated area.
Mixed Farming	: Growing of crops and keeping livestock on the same demarcated area.
Ranch/worreh	: Farm where livestock especially cattle are raised.

1.2 List of Acronyms

ACSC	: Area Cattle Settlement Committee
CSC	: Cattle Settlement Committee
DC	: District Council
DCSC	: District Cattle Settlement Committee
DLO	: District Livestock Officer
EBKUST	: Ernest Bai Koroma University of Science and Technology
FMD	: Foot-and-mouth Disease
GDP	: Gross Domestic Product
FAO	: Food and Agricultural Organization of the United Nations
IAEA	: International Atomic Energy Agency
LVSD	: Livestock and Veterinary Services Division
MAFS	: Ministry of Agriculture and Food Security
MAFFS	: Ministry of Agriculture Forestry and Food Security
MIA	: Ministry of Internal Affairs
MLGCA	: Ministry of Local Government and Community Affairs
MPAP	: Multi-Stakeholder Processes for Action Planning and Policy Formulation
MoECC	: Ministry of the Environment and Climate Change
NCCP	: National Climate Change Policy
NCSP	: National Cattle Settlement Policy
NLIP	: National Livestock Implementation Plan
NU	: Njala University
ONS	: Office of National Security
POCA	: Parliamentary Oversight Committee on Agriculture
PPR	: Peste des Petit Ruminants
SLARI	: Sierra Leone Agricultural Research Institute
SLLRMA	: Sierra Leone Livestock Rearers and Management Association
UNIMAK	: University of Makeni
WAR & U	: Western Area Rural and Urban

Introduction

1.1 Background to Sierra Leone and the Livestock Sub-sector

1.1.1 Country Context

Sierra Leone is a small West African country with an estimated total land area of 71,740 Km² and a population of approximately 8 908 040 with an annual growth rate of 2.41 percent (World Bank, 2023). Agriculture is the backbone of the economy contributing between 45 percent and 50 percent annually to Gross Domestic Product (GDP). Rice is the staple food supplemented by tuber crops (cassava, potatoes, yams, etc.), beans and pulses.

Sierra Leone is located in the tropical zone between 7 and 10 degrees north and longitude 10.5 and 13 degrees west. The country is bordered by the republic of Guinea to the north and northeast with a borderline stretching 794 Km, Republic of Liberia on the east and southeast with a borderline stretching 299 Km and the Atlantic Ocean on the west and south.

Sierra Leone is blessed with six ecosystems consisting of forest, mountains, savanna, agricultural, wetland and fresh water and coastal and marine. The savanna ecosystem is found in the north and northeast and occupies about 35 percent of the country. Several savanna lands have been identified for grazing cattle forest savanna, mixed tree savanna and grassland savanna. However, cattle rearing are practiced in almost all parts of the country.

1.1.2 The Livestock Sub-Sector in Sierra Leone

Livestock production in Sierra Leone is a key source of livelihood especially for resource-poor rural farmers and contributes 8.2 percent to Agricultural Gross Domestic Product (SSL, 2022). In rural Sierra Leone, livestock production is under the traditional management systems and is dominated by nomadic migrants mainly from neighboring Guinea and other countries in the sub-region (Mali, Burkina Faso, Senegal, etc.). However, affluent Sierra Leones are getting interested and engaging in livestock.

In the recent past, there had been a drastic increase in demand for live animals and livestock products due to increased human population and better standards of living. Moreover, globalization and regional integration have created better market opportunities for trade in live animals and animal products, influencing the huge influx of nomadic migrants from the sub-region. Livestock are rich sources of proteins, and a pathway out of poverty. They are critical in achieving household livelihood security and can be easily converted into cash to meet exigency expenditures such as medical and educational bills.

Livestock, especially large and small ruminants production, face numerous challenges, including limited access to animal health services, the practice of traditional management systems under scarce natural resources (water, fodder, and land), poor production and management facilities, water scarcity during the dry season, and more seriously the increased grazer-farmer conflicts. Despite these challenges, the country has the enabling agro-climatic conditions such as low livestock populations relative to the available natural resources, huge forest covers, grass, and abundant rainfall and sunshine to sustain increased livestock production and productivity.

Livestock production is a significant source of livelihood for many resource-poor rural farmers in Sierra Leone. These livelihoods are critical for economic development and promoting resilience, and they can cause heightened vulnerability to individuals in conflict environments. Policy on livestock development in Sierra Leone needs to be improved, and existing ones have favored crop production over livestock. A.R. Sesay (2016) identified two major problems that have plagued past agricultural policies. Firstly, policies that lacked stakeholder support or commitment ended up poorly or inconsistently implemented, and secondly, inadequate or poor capacity to absorb or sustain policy implementation due to limited financial resources and administrative mismanagement. These facts manifest the need to develop a national livestock development plan.

Multi-stakeholder processes are increasingly considered to be an important element of policy design, action planning, and implementation. By involving a broad base of stakeholders, rural authorities are more likely to develop policies and programs that will meet the needs of both the rural farming communities and its constituents, and are thus more inclusive and successful in their implementation. In reviewing the National Cattle Settlement Policy (NCSP), we adopted the Multi-stakeholder Processes for Action Planning and Policy Formulation (MPAP). This approach is designed to be inclusive, democratic, and participatory and ensures ownership of outcomes of deliberations and actions.

The two major agricultural production sectors in Sierra Leone are the crop and livestock production sub-sectors. These two agricultural production sub-sectors are confronted with increasing social conflicts emanating from different sources including the utilization of natural agricultural production resources (land, water, pastures, etc.) coupled with the continued crude agricultural practices which tend to conflict the interests of both categories of farmers. This has necessitated the review of the national cattle Settlement Policy that will create and guide the enabling environment for farming

1.2 Situational Analysis of the Livestock Sub-Sector in Sierra Leone

Livestock contributes very minimal, estimated at 3.15 percent to GDP compared with crops which contributes about 35.2 percent due to the fact that most agricultural development initiatives have been skewed to the crops sector (SSL, 2022).

A recent livestock census conducted by Kwaku Agyemang in 2017 estimated the livestock population in Sierra Leone as indicated in Table 1. Cattle were estimated at 546,881, goats, 812,906, sheep, 427,667, chickens, 1,956,650 and duck, 99,775. Senahoun (2014) indicated that approximately 92 percent of farming households are engaged in livestock farming including poultry, small (goats and sheep) and large ruminants (cattle).

Livestock production is dominated by immigrants from the West African sub-region (Guinea, Mali, Burkina Faso, Ivory Coast, etc) who virtually have no title to land ownership. These immigrants are traditional nomadic livestock grazers still using traditional husbandry practices to rear their livestock. The use of improved breeds, lack of or inadequate use of supplementary feeds and poor access to veterinary services and inadequate vaccination against endemic diseases is responsible for high mortality levels (MAFFS, 2009). Cattle and other ruminant production (Goats and sheep) system is nomadic with nomads always on the move in search of pastures and water. This random movement coupled with non-sustainable animal disease surveillance and monitoring plan is also responsible for sporadic animal diseases outbreaks.

Traditional nomadic cattle herders rarely invest in development of ranches and cultivation of fodder crops for their animals. They entirely depend on natural pastures which they exploit upland during the dry season and lowland during the acute dry season. Few conflicts are observed during the rainy season because of the abundance pastures but conflicts will escalate the sooner the dry season unfolds and cattle are left freely in search of food. During the dry periods, crop farmers also follow the water regime in the lowlands to cultivate vegetables and other crops. Most crop farmers at this time will fence their small vegetable crop fields but several reports made by crop farmers indicate that these fences are often penetrated by desperate hungry stray cattle at night. In such situation, both crop and livestock farmers may mutually resolve their differences either through cash compensation or other suitable means.

Table 1 shows the estimated national livestock population conducted in 2017. The total livestock population is estimated at 4,061,356 distributed as follows: cattle, 546 881, goats, 812 906, sheep, 427 667, pig, 217 497, chickens, 1 956 630 and ducks, 99 775. The N'dama is the

dominant cattle breed reared under free range nomadic system. They are tolerant to the local environment and resistant to many endemic diseases.

Cattle rearing are considered a traditional and cultural heritage which is passed down from the older to the younger generation. Abdul Rahman Sesay *et al* (2015) noted that 70 percent of herdsman own their cattle but there had been a significant paradigm shift as more affluent Sierra Leoneans are engaged in cattle rearing but hire the services of an experienced person mostly Fulla tribesmen to manage the herd. Women play a critical role in the management of the herd and they are more useful in milking the cows and managing the home.

Small ruminants (Goats and sheep) reared in Sierra Leone are dominated by the West African Dwarf breed which is characteristically thrifty but well adapted to the fast changing environment. Small ruminants are widely distributed in the country and are mostly favored by resource-poor rural farmers. They are handy, thrive well in marginalized range systems, play an important socio-cultural function and can be easily traded into cash to address exigency problems. Herd sizes can vary between 10 to 20 heads tethered under a semi-free range system but numbers can increase from 50 to 100 when simultaneously reared with cattle, under the traditional extensive system.

Ruminants (Cattle, goats and sheep) are often infected with diseases which may pose serious challenges for farmers especially with a weak national veterinary extension service. In 2018, foot-and-mouth disease (FMD) outbreak was reported among Kambia and Port Loko axis and was alleged to have been introduced into the country by herdsman from neighboring countries. Also, in 2022, anthrax was detected in the same region. In the same year, brucellosis was reported in Falaba and Koinadugu Districts among large and small ruminants. Peste des Petits (PPR) is endemic and can be detected among herds in every part of the country. Consequently, several vaccination exercises have been undertaken to control PPR in the country.

The poultry industry is dominated by local chickens under the free range system. However, there several small and medium enterprises that intensively rear exotic chickens of different breeds. Local chickens are reared organically because virtually no inputs of any kind are provided in their rearing. They fend for themselves and usually pick grains and insects at their disposal. The exotic chickens, on the other hand, include different breeds that are intensively reared for eggs and very seldom for meat (broilers). Spent layers are sold to individual customers or in bulk to wholesalers who take them to urban cities for marketing. Newcastle disease is the main disease that infects local chickens often resulting to higher

mortality rates between 80 percent and 90 percent of unvaccinated birds of all ages. Ducks production is not popular in Sierra Leone. Their production and consumption is hampered by several unfounded myths and cultural beliefs. Household duck populations may range between 10 and 20 birds subjected to a free-range system of management. However, ducks are known to be very prolific and are resistant to Newcastle disease.

Table 1. Estimated National Livestock Populations in 2017 in Sierra Leone

Administrative Units (District)	Livestock Type					
	Cattle	Goat	Sheep	Pigs	Chickens	Ducks
Kailahun	430	54,478	17,159	6,924	98,894	150
Kenema	5,332	73,507	50,980	11,842	200,560	25,861
Kono	101,156	44,661	22,559	5,455	65,599	3,675
Bombali	158,705	61,723	51,831	8,553	125,451	2,623
Kambia	62,223	47,053	26,503	6,278	171,903	3,305
Koinadugu	97,858	63,327	39,136	38,214	137,045	630
Port Loko	11,614	97,596	52,737	4,909	259,212	5,436
Tonkolili	36,138	76,796	31,744	5,047	115,903	2,398
Bo	50,930	97,920	22,640	9,086	173,037	10,493
Bonthe	6,840	26,987	9,161	9,051	60,715	12,078
Moyamba	11,629	48,101	8,499	5,660	146,996	7,606
Pujehun	3,510	36,934	28,136	5,265	86,335	8,352
WAR&U**	514	83,822	66,581	101,213	314,981	17,167
Total	546,881	812,906	427,667	217,497	1,956,630	99,775

WAR & U = Western Area Rural and Urban combined

Source: Kwaku Agyemang: Sierra Leone National Livestock Sample Survey, 2017.

Pig production is traditionally an urban and peri-urban domain where pigs of different breeds are reared. Two systems of pig management are presently observed in urban and peri-urban areas; the intensive management system and the free range system which is similar to the rural extensive system. In the former system, pigs are completely confined and provided with the necessary inputs to enhance their performance. In the latter, pigs roam about and fend in unusual places like refuse dumps and by the seaside where they likely pick up dangerous substances like heavy metals and contaminated sources of food. The intensive and free range system of management in urban areas utilizes the exotic breeds while the local breeds are often reared in rural areas.

A huge quantity of livestock and livestock products are imported in the country. Frozen pig feet, lard, and poultry (chicken feet and wings) are popular in the diets of Sierra Leoneans. In addition, over 70 percent of eggs consumed in the country are imported from Asia and Europe.

1.3 Background to Crop Farmers and Cattle Herders Conflicts

The agriculture sector, including livestock and forestry, is vital to the country's economic development. The perennial conflicts between crop and livestock farmers are a serious concern and threat to national security if not adequately addressed.

Many attempts have been made both by the local authorities and the security sector to find a permanent solution to these problems, but more is needed. Sierra Leone has substantial natural resources (fertile land, large nutritious grazing land, abundant rivers, and rich biodiversity) with the potential to sustain increased agricultural productivity. Unfortunately, these potentials have not been adequately tapped and managed to transform the agriculture sector for the public benefit and sound of the people and the country at large.

Unfortunately, there is a heightened concern over rising levels of farmer-herder conflict across Sierra Leone. Sierra Leone communities are presently experiencing incessant frightening security challenges orchestrated by cattle herders and crop farmer's conflicts, even security operatives are not spared in these attacks. Recent years have witnessed increased violent conflicts involving pastoralists and crop farmers impacting human and national security. The relationship between sedentary farmers and nomadic pastoralists on the other hand and the national government on the other can be characterized as "uneasy love-hate affair".

These conflicts are driven by competition for natural resources (land, water, and fodder), but socio-economic factors are also involved. The constant attacks drastically affect food

security, animal disease dissemination, and socio-economic development to an enormous extent, as it poses a great danger to the rural Sierra Leone economy.

Aggressions are stirred up whenever cattle, on their feeding quest, eat up cultivated farmlands and destroy them in the process. Considering the losses incurred to the farmers because of this act, they often retaliate by stealing, maiming or even killing livestock. Likewise, the cattle herders also retaliate back and often harm anyone who maims or kill their livestock. The driving force for these clashes has been competition for available resources especially grazing and farming lands and proliferation of small arms and light weapons. Often these clashes results into widespread destruction of property and loss of lives

1.4 Problem Statement for Crop Farmers and Cattle Herders Conflicts

The Ministry of Agriculture and Food Security charged with the development of the agriculture sector has been inundated with several complaints regarding destruction of crops by strayed livestock and retaliatory attacks on livestock. Attempts at settling and sedentarizing nomadic herders in Sierra Leone have yet to be largely successful, partly due to the difficulty of restricting the movement of domestic livestock. The movements of nomadic herdsmen is triggered by competition for the use of scarce agricultural resources (land, water and fodder), insecurity of land tenure, high taxes, animal diseases outbreaks and challenges posed by climate change patterns. The nomadic production system is characterized by random movements in search of pastures and water for their livestock. Majority of these cattle herders are migrants from neighboring countries who do not have permanent titles and rights to land. They depend on local land owners who lease them land for a specific period of time without guaranty of tenure. They can be evicted at any time when problems arise and this has compelled them to be randomly moving to new settlements often in close proximity to crop farmers. Further exacerbating the challenges of land lease is the communal land tenure system where land is fragmented and claimed by numerous land owning families. Livestock grazers are often confronted with the reality of grazing animals in territories outside of their jurisdiction and lease agreements. Grazing livestock in these areas have high tendencies of cattle straying into crop fields and destroying farmer's crops and invariably their livelihoods. Moreover, there are several incidences of cattle theft and assault which has worsen the relationship between livestock and crop farmers resulting in increased social tension among farmers. The land insecurity issue has not encouraged nomadic herders to invest in the development of ranches and adopt modern technologies (fodder conservation, Artificial Insemination, vaccination, etc) that will increase their

productivity. Both crops and livestock farmers' heavy dependent on natural agricultural resources has inevitably led to serious incidences of conflicts affecting their agricultural activities at times leading to low productivity.

1.5 General and Specific Objectives

1.5.1 General Objective

The overall objective of the national cattle settlement policy is to regulate the establishment of livestock production systems and address issues of social conflict between livestock grazers and crop farmers and to create the enabling environment for their peaceful co-existence that will enhance sustainable increased agricultural productivity and resilience using available resources and practices that are environmentally friendly.

1.5.2 Specific Objectives

The specific objectives of the cattle settlement policy are:

- i. Review and strengthen the cattle Settlement policy to enable it rapidly and adequately respond to issues of grazer-farmer conflicts that will foster a peaceful co-existence among communities.
- ii. Identify and strengthen the conflict resolution mechanisms and establish a multi-stakeholder platform that is well capacitated to address issues of grazer-farmer conflicts.
- iii. Identify possible areas for interventions that will enhance the development of the livestock sub-sector, such as animal nutrition, animal health, established rangelands, and enhanced marketing strategies.
- iv. Build the capacity of cattle and small ruminant farmers to produce products that will meet the health, sanitary and phytosanitary international standards for international trade into the global market.

1.6 Significance of the Cattle Settlement Policy

The socio-economic implications following incessant attacks on farming communities in Sierra Leone is very alarming. The attacks causes' food insecurity, it leads to poverty (absolute or primary poverty) situation and more social instability as well as political damage. Government is keen on addressing this developing incessant attacks by both crops and livestock farmers and has developed a policy that will guide the settlement of livestock and crop farmers which is expected to maximize agricultural productivity in both sub-sectors. The present perspective of the Ministry of Agriculture and Food Security is, among others to intensify agricultural production. In terms of animal production, this involves

increasing the livestock population as well as its productivity. Productivity can be enhanced through proper management especially the feeding regime. In Sierra Leone, the extensive system of management is practised where animals are allowed to graze freely, which is the main cause of conflict between the farmers. The animals when left unattended have the tendency of straying into farms thereby destroying crops. The subsequent reaction by the crop farmers in most cases is to inflict injury on the animals which usually leads to fracas between the crop and livestock farmers. Such conditions are detrimental to the development of agriculture. If the country is to achieve food self-sufficiency, the crop and livestock farmers must work as a team and not as adversaries, and as such, there is a need to find a solution to this problem.

2.0 Stakeholders and Drivers of Cattle Herders-Crop Farmers Conflicts

2.1 Drivers of Cattle Herders and Crop Farmers Conflicts

Several factors have been attributed to those conflicts. Some of the causes may include:

i. *Competition for Scarce Resources:* Competition over scarce resources (land, water and pastures) is the fundamental cause of conflict between economic agents since all conflicts share common qualities. During the dry season, the available land near water sources are scarce, resulting in severe competition between livestock and crop farmers in their bid to provide pasture and grow crop respectively. Water is only available at the banks of rivers and streams where crop farmers normally grow their crops during the *dry season*. As the animals congregate near water sources, the tendency for them to break fences and feed on the crops nearby is high, resulting in the destructions of the crops.

ii. *Overgrazing:* is a source of conflict between herders and crop farmers. Rural dwellers and farmers often accuse herdsmen of overgrazing on their lands. Overgrazing causes land degradation, soil erosion and loss of useful species. Persistent overgrazing causes erosion of the top soil thereby making it infertile and difficult to cultivate by farmers.

iii. *Destruction of Crops and Cattle Theft (Rustling):* Destruction of crops by the cattle during grazing and cattle theft is one of the major causes of conflict between Fulani herders and crop farmers in Nigeria.

iv. *Indiscriminate Bush Burning:* The burning of bush by farmers often creates tension between farmers and herders. Alternatively, there are instances in which the herders also burn bushes to stimulate the growth of new grasses which they consider nutritious for their animals. In the process, the crops of farmers are sometimes burnt as well.

Poor Control of Cattle: Conflict erupts when livestock are poorly controlled and when herders wander on the cultivated fields.

v. Climate Change – Livestock production activities is vulnerable to climate change and has negatively impacted on livestock farmers livelihoods thereby creating social inequality, unequal access to farming resources (land, water, pastures and forests), poor infrastructure and increased poverty (Yohe and Tol, 2002). In essence, the National Climate Change Policy of 2012 developed by the Ministry of the Environment and Climate Change (MoECC) recommends the need for mainstreaming of adaptations and links between its climate change and development planning. The policy advocates for the “integration of policies and measures to address climate change into sectors and develop planning and decision making”. There is an urgent need for the development of an Agriculture Climate Change (Climate Smart Agriculture) policy and policy Instrument that will address both the livestock and crop sectors in terms of the sectors contribution to climate change, and the impact of climate change on the sectors as well as the relevant mitigation and adaptation strategies to combat the effects.

2.2 Stakeholders in Cattle Herders and Crop Farmers Conflict Resolution

To sustainably address the problems of livestock grazers and crop farmers, a thorough stakeholder analysis was carried out. The essence is to identify stakeholders and assess the impacts they may have on resolving the problem. Stakeholder analysis will also help to understand which stakeholder has a high and low impact in solving the problem, and will also pave way to better communication and engagement strategies. The table below defines and describes each stake holder in resolving grazer-farmer conflict.

3.0 Conceptual Framework and Cattle Settlement Strategy

3.1. Policy Conceptual Framework

This policy is intended to regulate and guide the establishment of livestock production systems that are compatible with emerging issues of climate change and prudent use of natural resources that will eventually minimize conflicts between livestock grazers and crop farmers thereby increasing agricultural productivity. The policy will also facilitate the improvement of the socio-economic status of stakeholders (cattle value chain actors) of the affected rural communities. Those whose livelihoods that are mainly affected are the farming communities (crop and livestock farmers) and other stakeholders in cattle value chain including transporters, butchers, animal health and nutrition services providers and cowboys.

Table 2 List of Stakeholder in Livestock Grazer and Crop Farmers Conflict Resolution

Stakeholder	Identified potential Role	Type of Stakeholder	Stakeholder influence-interest Level	Stakeholder interest in Committee /Institution
Chairman POCA	Policy advocacy	External	Low	MAFS
Office of National Security	Security and safety	External	High	DLO/DC
Ministry of Agriculture	Food and nutrition security	Internal	High	POCA
Ministry of Lands	Proper land use	Internal	High	MAFS
Ministry of the Environment	Environmental safety	Internal	High	MAFS
FAO	Support to agriculture	External	High	MAFS
District Councils	Local administration	Internal	High	ONS
District Livestock Officer	Livestock development	Internal	High	DCSC
Chiefdom Councils	Chiefdom administration	Internal	High	CCSC
Customary Law Officer	Justice for all	External	High	DCSC
Security Sector	Peace and security	External	High	ONS
Council of Paramount Chiefs	Coordinate chiefdoms	External	High	CCSC
Paramount Chiefs	Chiefdom administration	Internal	High	CCSC
Section Chiefs	Local administration	Internal	High	ACSC
Village Chiefs	Local administration	Internal	High	ACSC
Fula Tribal Head	Inter-community peace	Internal	High	DCSC/CCSC
Land Owners	Promote agriculture	Internal	High	ACSC
Livestock Farmers	Farming in livestock	Internal	High	ACSC
Crop Farmers	Farming in crops	Internal	High	ACSC
The Press	Information sharing	External	Low	POCA/MAFS
SLLRMA	Development of cattle rearing	Internal	High	DCSC/CCSC

Source: Saidu Kanu 2023

3.2. Cattle Settlement Policy Strategy

The cattle settlement policy strategy aims at achieving several goals, including identifying and securing pasture space for livestock farmers, implementing better management of rangelands for commercial livestock production, and resolving conflicts between crop farmers and cattle herders who live and farm in the same area. Additionally, the policy aims to equip livestock farmers with essential skills for managing their animals, including fodder production, processing, and conservation, and breeding for specific production objectives like increased carcass weight, milk production, and better animal health. One way to achieve these objectives is by conserving pasture through methods like silage, hay, and treated crop residues, which can be stored and used to supplement livestock feed during times of scarcity. The policy also aims to limit the movement of nomadic herders and encourage them to adopt sedentary grazing practices within protected areas.

The challenges faced by farmers are compounded by the reality of climate change, which causes changes in weather patterns and requires the adoption of new strategies to reduce the risk of failure in agricultural activities. According to Elizabeth Stites and Kristin Bushby

(2017), “Diversification has always been an important part of household livelihood strategies, serving as a means of expanding and testing economic opportunities; spreading risk; building social and political networks; and dividing human, natural and physical capital across multiple sectors. This diversification is part of a decades-long shift as communities respond to erratic rainfall patterns, barriers to transhumance, and a negative policy environment for pastoral livelihoods in many countries”.

Human activities have contributed to climate change, which has facilitated the emergence and re-emergence of pathogens responsible for the outbreaks of many transboundary and zoonotic diseases, such as Ebola, Covid-19, and Crimean Congo Hemorrhagic fever. Sierra Leone is no exception to these climate change realities and should be reactive and proactive in addressing these challenges.

3.3. National Cattle Settlement Policy

3.3.1. Methodology for the Development of the Cattle Settlement Policy

The methodology used in the development of the cattle settlement policy is the Multi-stakeholder Processes for Action Planning and Policy Formulation (MPAP) shown in Figure 1. In MPAP, stakeholders were sensitized, stimulated and given equal opportunity to participate in the definition of cattle grazer and crop farmers’ problems and identify potential related policy issues. They are encouraged to propose possible solutions or lines of action as well as define their potential roles in implementation. MPAP is thus characterized by: the participation of both governmental and a variety of non-governmental actors in joint policy making and action planning (some refer to this process as a strategic planning), who are given an equal chance to contribute to the preparation, implementation and evaluation of a policy and related action plans in an open and transparent process, in which the final decisions are jointly taken, owned and respected by the stakeholders.

Rural districts including Falaba, Kionadugu, Bombali, Karene, Kono, Tonkolili, Kenema, Kailahun, Port Loko, Kambia and Moyamba are engaged in a cycle of conflicts arising mainly from exploitation of scarce resources. This situation was then identified as a major problem for the development of the agriculture sector. This led to the MAFS conducting a situational analysis to understand the underlying causes and impact on the sector. After realizing the magnitude of the problem between crop farmers and livestock grazers, the MAFS identified and collaborated with pertinent partners such as Office of National Security (ONS), Ministry of Internal Affairs (MIA), the Ministry of Local Government and Rural Development (MLGCA),

the Republic of Sierra Leone Armed Forces, Media Houses, Farmers Associations, Academia, and Livestock Marketers and established a multi-stakeholder team assigned with the responsibility of engaging, dialoging and taking joint decisions with all stakeholders. Among the expected outcomes of the stakeholder engagement is the development of a livestock development agenda and settlement of cattle farmers that will ensure a peaceful co-existence among stakeholders. Embedded in this plan is the development of harmonized cattle settlement bye-laws and identification of potential projects that will augment the development of the livestock sub-sector. Bye-laws that are found to be very effective will eventually be incorporated into national laws and progress made in addressing livestock grazers and crop farmers' conflict will be monitored and evaluated accordingly.

At present, there is no harmonized cattle settlement Bye-laws probably due to diverse cultures and geo-political landscape. However, the problems encountered by both crop and livestock farmers are common. In addition, harmonized bye-laws may facilitate the movement and resettlement of livestock farmers from one region to the other with prudent and stringent processes that will minimize the spread of animal diseases.

3.3.2. Scope of the Cattle Settlement Policy

This policy shall apply throughout the country especially in those districts where crop and livestock production is being practiced. Ministry of Agriculture and Food Security, Ministry of Local Government and Community Affairs, Ministry of Lands, Ministry of Internal Affairs, Crop Farmers, livestock rearers, Landowners, Traditional Rulers, Local Councils, the Sierra Leone Police, and Office of national Security are considered as key stakeholders in this policy.

This policy shall address issues, but not limited to crop farmers and livestock grazers, who are embroiled in a perpetual cycle of conflicts resulting in use of scarce natural resources. The scope of the policy shall also extend to the emergence and proliferation of the use of small arms in stealing livestock which in several documented incidences have resulted in the loss of lives and properties. Cattle rustling and poisoning are not a major problem in Sierra Leone but the policy shall be proactive in addressing potential and real problems.

The policy shall not only address issues caused by stray cattle rather it will include all issues of different categories of livestock goats, sheep who are also recognized as major cause of livestock grazers and crop farmers conflict.

The policy shall also address local arbitration among stakeholders involved in conflicts through a well-developed conflict resolution system that will win the confidence of

participants in resolving sensitive matters of interest. In his regard, the policy shall advocate for the constitution of a **“Local Farmers Conflicts Arbitration Committee”** which should be proactive and capable of timely intervention to avert potential problems among parties involved in conflicts. In essence therefore, the policy shall apply to all farmers (crop and livestock farmers, land owners, local authorities, agricultural associations, and staffs of the Ministries of Agriculture and Food Security, Internal Affairs and Local Government and Community Affairs, District Councils and other relevant bodies and institutions working with farmers.

3.3.3. Policy Statement

The purpose of the policy statement is to guide the development of a policy and ensure that those who might be affected by the policy are identified, considered, and consulted. *The National cattle settlement policy shall advocate for the equitable use of natural resources within a peaceful and enabling farming environment where farmers will complement each other to achieve a sustainable increased agricultural productivity.* Cattle Settlement committees shall be established in all districts where crop production and livestock rearing are being practised side by side. Areas will be demarcated where cattle rearers will be settled and provided with all the necessary facilities to prevent the animals from straying out and destroying crops. The policy shall also take into account the realities of climate change and advocate for an environmentally sound use of natural resources for a sustained resilience farming community.

3.3.4 Legal and Institutional Framework

3.3.4.1 Legal Framework

The National Livestock Implementation Plan (2021) highlights legal and institutional framework that superintends animal Diseases and welfare and service delivery respectively. The policy identifies poor genetic materials of local breeds and the continued practice of traditional livestock production systems had exacerbated and threatened rural agricultural livelihoods and further heightened social conflicts among rural farmers.

Furthermore, the National Livestock Implementation Plan passively mentioned and recognized the increased social conflicts among stakeholder farmers and in several instances resulting in loss of lives and properties. The plan associates this problem with migrant cattle rearers who lack legal entitlements and rights to land ownership and are compelled to enter loose contractual non-binding agreements which can easily be revoked.

The livestock sub-sector is governed by an obsolete Animal Disease Ordinance of the 1940s until 2020 when both the Animal Health and Animal Welfare and Protection Bills were introduced. At present, both Bills are yet to receive constitutional approval to enable their effective and binding regulation of the livestock sub-sector.

The NCSP is subsumed under the Sierra Leone legal system for which the national constitution is paramount in all legal issues. Accordingly, conflicts emanating from crop farmers and cattle grazers and other related matters shall be referred and subjected to the Sierra Leone legal system.

3.3.4.2 Institutional Framework

The Livestock and Veterinary Services Division (LVSD) under the Ministry of Agriculture and Food Security has the sole national legitimate mandate of providing livestock services for livestock farmers in the country. The Sierra Leone Agricultural Research Institute (SLARI) is a subsidiary institute under the purview of the Ministry of Agriculture which has the constitutional mandate to conduct research and enhance the development of the livestock sub-sector in the country.

3.4.0. Issues and Policy Statements Related to Cattle Settlements

3.4.1. Livestock Identification and Traceability System

The NLIP advocates for the introduction of an identification, registration and traceability system that use tools capable of collecting data on each animal throughout its entire life time. At the moment, there is no identification, registration and traceability system aside from the traditional branding system used by local farmers to differentiate their animals.

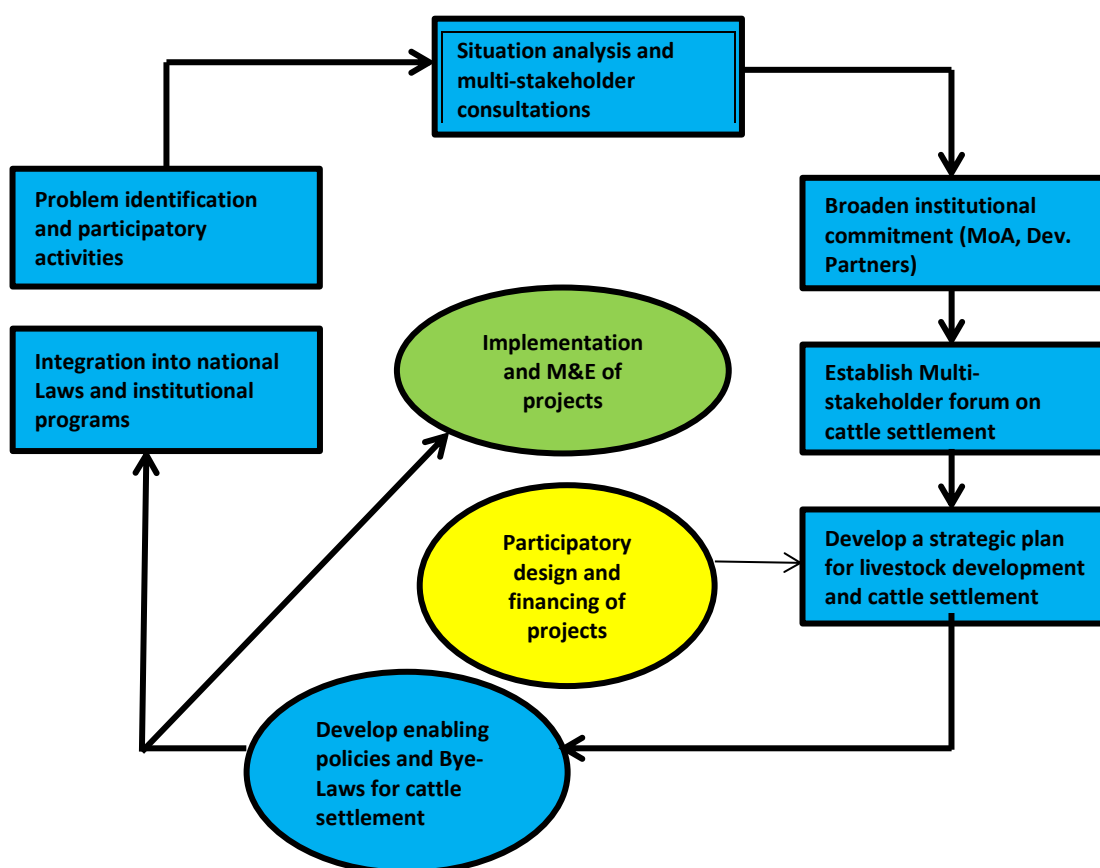
3.4.2. Improvement of the Genetic Parameters of Local Breeds of Cattle

Most of the livestock reared in Sierra Leone are mainly local breeds with inferior genetic materials with respect to production parameters such as weight and milk production. However, these animals are well adapted to the local environment and are tolerant to adverse climatic and management challenges. Notwithstanding, the NLIP advocates the upgrading of indigenous livestock species with proven germplasm through a structured crossbreeding program. The essence is to promote increased weight per animal rather than increase in animal population that farmers cannot adequately manage.

3.4.3. Improvement of the Animal Feed Resources

Among the main reasons behind the continued social conflict among crop farmers and livestock grazers is the traditional management system still practiced by nomadic livestock farmers going in search of pastures and water. The persistent nature of nomadic farmers relying on natural pastures is being challenged by climate change and diverse land use initiatives. To address this problem, nomadic farmers may have to modify their traditional livestock rearing system and engage in some investment that will improve on the natural pasture productivity. According to NLIP (2021), “A number of forage legumes such as *pueraria phaseolides*, *centrosema pubescens*, *stylosanthes humilis* and *s. gracilis* have been introduced for grass/legume associations but reportedly failed to persist”. However, other forage crops like cow pea (*Cajanus cajan*) and *Leucaena leucocephala* are well established and available to pastoralists. In addition, livestock farmers also exploit crop residues such as rice straw and stubbles but lack the technical skills to add value to these crop residues that will augment livestock productivity.

Figure 1 Steps in the Multi-Stakeholder Process for Action Planning and Policy Formulation for Cattle settlement in Rural Parts of Sierra Leone



3.4.4. Improvement of Animal Health

The country has experienced several animal diseases outbreaks including transboundary and zoonotic diseases. In 2018, foot-and-mouth Disease (FMD) was detected among cattle and in 2022 both Brucellosis and Anthrax have also been detected. At present, the LVSD is not adequately capacitated to effectively handle animal diseases outbreaks. However, much progress has been done in animal surveillance and laboratory diagnostics. Additionally, SLARI, a national research institute under the supervision of MAFS, is mandated to undertake pertinent research in animal nutrition, health and production. Tertiary institutions including NU, EBKUST and UNIMAK in collaboration with international partners such as International Atomic Energy Agency (IAEA) and other centers of excellence are also engaged in agricultural research including animal production and health. Notwithstanding the above, there will be the need for a cattle settlement act to address the issue of cattle settlement and attendant problems. The act will legislate and regulate the following:

1. Provide the guidelines and regulations for establishing and managing commercial cattle and small ruminant farms along the value chain;
2. Provide the breeding and cross-breeding regulations based on International best practices;
3. Incorporate the regulations of the Animal Health Bill for implementation;
4. Incorporate the regulations of the Animal Welfare and Protection Bill;
5. Provide the regulations for meeting the sanitary and phytosanitary International standards for selling live animals into the International market;
6. . Provide the regulations for meeting the sanitary and phytosanitary International standards for the production, processing, and of beef for the International market;
7. Chieftom bye-laws related to cattle settlement and conflict resolution mechanisms will be incorporated into the act.

4.0 Implementation Framework

- **STRATEGIC OBJECTIVE 1. Strengthen the knowledge base and embark on sensitization and popularization of the NCSP**

1.1.1 Engage public sensitization through the mass media;

1.1.2 Convene a meeting for the Council of Paramount chiefs and other stakeholders

1.1.3 Convene an inter-ministerial and other MDA to discuss and strategize issues of Grazer-Farmer conflicts;

STRATEGIC OBJECTIVE 2. Develop and implement a five year strategic plan for the development of the livestock sub-sector

The plan will include:

- 2.1.1 Set up and conduct 5 days training for the MPAP team to coordinate all development plans for the small ruminant value chain;
- 2.1.2 Introduce and establish the Cattle Ranch Scheme in 5 districts;
- 2.1.3 Develop a National Animal Breeding program;
- 2.1.4 Strengthen the Animal Health surveillance system;
- 2.1.5 Develop supplementary feeding strategies for livestock;
- 2.1.6 Strengthen livestock marketing systems.

STRATEGIC OBJECTIVE 3. Strengthen advocacy and develop capacity of key stakeholders in resolving livestock grazers and crop farmers' conflicts

3.1 Strengthen advocacy and lobbying

- 3.1.1 Establish a lobbying group for to lobby for enactment of the CSP into law;
- 3.1.2 Identify and lobby for sources of funding for the development of the livestock sub-sector;

3.2 Strengthen capacity of farmers

- 3.2.1 Train livestock farmers in ranch management and best animal health and husbandry practices;
- 3.2.2 Train crop farmers in best agronomic practices and alternative sources of livelihoods;

3.3 Establish or Strengthen livestock production facilities

- 3.3.1 Establishment of Ranches and barbed wire fencing;
- 3.3.2 Establish a mobile veterinary clinic facility;
- 3.3.3 Establish watering points for cattle;

3.4 Strengthen conflict resolution mechanisms

- 3.4.1 Establish cattle settlement committees;

4.1. Formation of Cattle Settlement Committees (CSCs)

Cattle Settlement Committees shall be formed in all districts where crop and livestock production are practiced to ensure proper implementation of the policy. The following committees will be established.

4.2. Area Cattle Settlement Committee (ACSC).

The committee shall operate in the area where the ranch is situated and the surrounding communities within a radius of 5 to 10 miles.

(a) Composition

- Elders in the community(preferably the eldest members who are acquainted with land ownership situation in the community)
- Town/Village Headmen, listed in District Council documents, within a radius of 5- 10 miles
- Youth Representation within a radius of 5- 10 miles (2)
- Women Representation (2)
- Crop Farmer Representation (3)
- Section Chief/s
- Head of Cattle Rearers Group
- Representatives of land owners
- Religious leaders

(b) Terms of Reference

- Ascertaining the ownership of the land
- Land agreement
- Identification of areas to be allocated to cattle /livestock owner(s)
- Channel of complaints
- Arbitration of conflicts within the area
- Reporting to the Chieftom Settlement Committee.
- Establishing period for free grazing of livestock in the year.

4.3. Chieftom Cattle Settlement Committee (CCSC):

The committee shall operate in the chieftom where the ranch/es is/are located

(a). Composition

- Paramount Chief- Chair
- Relevant Section Chief (s)
- Three Representatives of land owners
- Three Representatives of Crop Farmers
- Three Representatives of Cattle Farmers
- Crop officer covering the chieftom

- Livestock Officer covering the chiefdom
- Ward Councillor
- Civil Society Representative in the chiefdom
- National Federation of Farmers representative in the chiefdom
- Sierra Leone Police
- Religious leaders
- Chiefdom security coordinator

(b) Terms of Reference

- Setting rules and regulations (bye-laws) governing use of the land for grazing and crop farming within the confines of the laws of Sierra Leone.
- Enforcing implementation of rules and regulations (bye-laws) mentioned in (i) above.
- Investigating and settling cases of crop or livestock damage and theft.
- Referring defaulters to the District Cattle Settlement Committee where the committee is unable to resolve the issue.
- Conducting annual census to ascertain the number of 'worrehs' in the chiefdom

4.4. District Cattle Settlement Committee (DCSC)

The committee shall operate in the district where the ranch/es is/are located

(a). Composition

The committee will be chaired by the District Officer and will include:

- The Local Unit Commander of the Sierra Leone Police
- The District Agriculture Officer
- The District Livestock Officer
- The District Crops Officer
- Civil Society Organisation
- Office of National Security
- Council of Paramount Chiefs
- District/Senior District Officer
- Chief Administrator
- National Federation of Farmers, Sierra Leone
- Religious leaders
- Legal Aid Board
- Sierra Leone Livestock Rearers Organization

(b) Terms of Reference

The Committee will be responsible for:

- Arbitrating matters from the Chieftom Settlement Committee
- Enforcement of penalties on defaulters of rules and regulations.
- Reassessment of the degree of damage to crops/livestock for settlement where such cases cannot be handled by the chieftom settlement committee.
- Compensation determine by the committee
- Overseeing the activities of the Chieftom Settlement Committee.

5.1 Registration of Ranches/Worrehs

Proper records must be maintained to ensure proper monitoring of movement of animals within the districts and country as a whole. To this effect the following rules shall be observed:

All 'worrehs'/ranches in each chieftom shall be registered with the Chieftom Cattle Settlement Committee (CCSC).

ii). The CCSC shall register all 'worrehs'/ranches with the District Council.

iii). A registration fee shall be paid to the CCSC every 5 years as follows:

- 1-50 Heads of cattle - Le 500.00 or the equivalent of \$25)
- 51-100 Heads of cattle - Le 1000.00 or the equivalent of \$50)
- Above 101 Heads of cattle - Le 1500.00 (or the equivalent of \$75)

This should be distributed as follows:

- Community Development -60 percent (Chieftom Authorities)
- ACSC -20 percent for area cattle settlement committee administration
- CCSC - 10 percent for chieftom cattle settlement committee administration
- DCSC - 10 percent for district cattle settlement committee administration

An annual Ranch/'Worreh' License fee shall be paid to the District Councils and should be NLe1000.00 paid on yearly basis

- District Council - 30 percent to be used for district development
- Chieftom committee and Area Committee- 70 percent payable to chieftom council of which 50 percent is meant for the Chieftom Committee and 20 percent is for the Area Committee, the Paramount Chief is responsible to manage the 20 percent of the Area C
- Area Committee - 20 percent to be used for area development

5.2 Availability and Allocation of Grazing Land

5.2.1 Land Availability

Land availability is not a major constraint to cattle production. Insecurity of the tenure however contributes to conflicts between crop and livestock producers and prevents the adoption of improved range management techniques. A national survey must be undertaken to classify land suitable for cropping and grazing activities.

5.2.2 Land Allocation

The Area Settlement Committee responsible for allocation of grazing land should be guided by the following guidelines.

- i). an isolated area preferably demarcated/delineated by natural boundaries (i.e. river, mountain, forest etc.).
 - ii). the area shall be allocated /leased for a period not less than 20 years.
 - iii). the area shall not be used for crop cultivation until the end of the period allocated for grazing.
 - iv). areas allocated for livestock should be at least five (5) miles away from crop production.
 - v). the size of the herd must be considered when allocating land to prevent over grazing.
- VI) Take into consideration during the process development plans of the municipalities concerned

5.3 Land Lease Agreement

There shall be a five year Land Lease Agreement between the landowners and the cattle settlers, guided by a Legal Representative witnessed by the ACSC and endorsed by the District Councils and the Chiefdom Councils. Copies of the signed Land Agreement should be sent to MAFS, ONS, Ministry of Local Government and Paramount Chiefs. The annual lease payment shall be the Leones equivalent of US\$5/acre, to be distributed as follows:

- Landowners - 65 percent as compensation to landowners
- ACSC - 20 percent for area development and administration of area Settlement committee
- CCSC - 10 percent for chiefdom development and administration chiefdom cattle settlement committee
- DCSC - 5 percent for district development and administration of district cattle settlement committee

5.4 Obligations of Cattle Farmers

- i). All cattle owners should register their ranches and their animals with the local Authorities accordingly.

- ii). All Cattle owners should ensure that all animals are kept within a sleeping paddock at night.
- iii). All cattle owners should ensure that the animals are well tended during the day
- iv). All cattle owners with more than 100 heads of cattle should have not less than 5 cow hands to tend the animals during the day to prevent them from destroying crops. In effect, the ratio between cattle heads and cow hand should be 20:1
- v). All cattle owners should ensure that they have a source of clean water for their herds by sinking bore-holes/water wells within the settlement where natural water sources are not available.
- vi). All cattle owners should secure authentic Land Lease Agreement as per 5.3.3 above.
- vii). All cattle owners should comply with the bye-laws governing their areas of settlement and with the decisions taken at various levels of cattle management structures.
- viii). All cattle owners should support crop farmers make fence around their second /third crops.
- ix). All cattle owners should ensure that their animals are kept within a fenced settlement area.

5.5 Obligations of Crop Farmers

- i. All crop farmers should ensure that they cultivate their crops in farm sites of at least 5 to 10 miles radius from the area selected for grazing.
- ii. Crop farmers should make fence around their second/third crops to protect their farms.
- iii. Crop farmers should provide all necessary assistance to livestock farmers in preventing straying of animals into cropping areas.

5.6 Bye Laws for cattle Herders and Crop Farmers Settlement

Considering the fact that the districts differ in terms of population and ecology, the existing district bye laws, as long as they do not contradict the issues above and do not contravene the national constitution, will remain valid and complementary to this policy.

6 Recommendations

For the cattle settlement policy to effectively fulfill its intended purpose, it is crucial that all stakeholders demonstrate wholehearted commitment to its full implementation. Recognizing that livestock, while being a pathway out of poverty and essential in combating malnutrition, are also a significant source of transboundary zoonotic diseases, policymakers are faced

with the responsibility of formulating appropriate enabling policies. In light of this, the following recommendations are proposed:

i. Capacity Development of the livestock sub-sector

Farmers capacities (both livestock and crop farmers) should be developed to abreast them with emerging innovative technologies and ideas that will enable them operating within the unfolding challenges of climate change. Livestock farmers can be equipped with appropriate scientific animal husbandry techniques such as fodder conservation (making of hay and silage), vaccination, processing and utilization of crop residues. Similarly, crop farmers can also be capacitated with skills that will enable them increase their crop yields. Training farmers in crop rotation farming can reduce unnecessary deforestation associated with the shifting cultivation (slash and burn) farming system.

ii. Animal Health Certification

Presently, the world, especially in Africa, is faced with the challenges of transboundary zoonotic disease outbreaks. Livestock are known to be the major source of these diseases. Sierra Leone is a fragile State with very porous international borders. The Livestock Division of the Ministry of Agriculture and Food Security should enforce the certification of an Animal/Herd Bill of Health. This Bill should indicate vaccination against major zoonotic threats.

iii. Use of Improved Animal Breeds

The dominant cattle breed in Sierra Leone and probably the sub-region of West Africa is the N'dama cattle which manifests inferior characteristics compared with European breeds or breeds from East Africa. The Sahiwal cattle breed has a mature weight of 450 Kg for males and 500 Kg for females with milk production of 3 Kg per day. The N'dama cattle is a slow growing and small breed with a matured in three years ranging between 200 Kg to 300 Kg (Abdul Rahman Sesay *et al*, 2016). A good animal breeding program that will yield an increased animal unit weight will may pacify farmers to invest in the program hence reduced the traditional perception of keeping huge numbers of animals with no proper control measures in place.

iv. Change of Farming systems

Livestock and crop farmers practice traditional farming practices that are no longer compatible with the availability of natural resources and climate change. Nomadic livestock

grazers move from one place to another in search of pastures and water while traditional crop farmers also move from one place to another in search of fallowed bushes. Both Livestock and crop farmers should be encouraged to sedentarize. Livestock farmers can develop ranches in which some fodder crops and water can be provided for the animals. Similarly, crop farmers can adopt crop rotation farming which can be accomplished by developing the land and use more agricultural inputs (agro-chemicals, improved varieties and fertilizers) to sustain their outputs.

v. Develop System of Tracking Livestock Movements

Sierra Leone has several porous borders through which unaccountable numbers of different livestock cross into the country. At present, there is no system of tracking livestock movement except for few who go through the veterinary check points. This unchecked livestock movement and weak animal diseases surveillance system has resulted in sporadic animal disease outbreaks including FMD in 2018 and Brucellosis in 2022. It will be prudent to develop a technology that can spot and record livestock movements both within and outside the country.

vi. Conduct Livestock Population Census

For over forty decades now, the true and realistic livestock population is not known. Current statistics is based on estimated provided by consultants at different times. A comprehensive census of livestock populations is needed for prudent planning and development of a strategic development agenda.

vii. Adequate Sensitization and Popularization of the Cattle Settlement Policy

The key factor to be considered for a successful implementation of any policy is to adequately sensitize all stakeholders and provide them with all information that will dispel ambiguity or doubt. In effect, adequate resources must be committed to reach out to all stakeholders and solicit their support. This will assure them as being part of the process, own the policy and willing to take collaborative responsibility of the outcome of its implementation.

viii. Harmonize cattle settlement bye-laws

Despite the fact that this policy addresses national common issues, it is also realistic to note that regions have their peculiarities with respect to customs and traditions that may warrant additional bye-laws. However, synergetic harmonized cross-cutting bye-laws should be

developed and harmonized that will address common issues such as livestock movements, enforced vaccination programs, conflict arbitrations, etc.

ix. Establish a Trained Police Force to Address Livestock Grazer-Farmer Conflicts.

The Security forces are key stakeholders in resolving livestock grazers and crop farmers conflicts and should therefore ensure their interventions positively contributes to sustainable peace between conflict parties. In essence, the Security apparatus should identify subject specialist personnel and create a special unit that specializes in handling matters of livestock grazers and crop farmers' conflicts.

x. Strengthen and Support the Sierra Leone Livestock Rearers Association

Recently, a Sierra Leone Livestock Rearers and Marketing Association has been constituted. The overall objective of the Association is to foster the development of the livestock sub-sector and among its specific objectives is conflict resolution between farming communities in rural areas. Developing the capacity of members of the Association and empowering them with conflict resolution skills will enable them, as key stakeholders, in managing their affairs.

xi. Identify and Map out Land for Livestock Grazing with Recommended Stocking Rates

Availability of land is not a major problem in the country. However, a comprehensive land mapping that will identify certain lands for specific agricultural activities is yet to be accomplished. To minimize conflicts is the use of natural resources, a land mapping initiative at chiefdom or District level is needed to apportion and demarcate land for bot crops and livestock farming. Livestock ranches can be then be developed and stocked accordingly.

xii. Ministry of Agriculture and Food Security to follow due processes to enact the Cattle Settlement Policy into enforceable laws.

The Ministry of Agriculture bears the sole responsibility of providing food and nutrition security for the nation. Where this mandate is threatened or complicated by conflicts, it has the responsibility to ensure peace prevails under such circumstances. The MAFS should follow due processes and ensure this policy is upgraded and incorporated within the laws of Sierra Leone

xiii. Office of National Security to own up to their responsibilities and be proactive in addressing emerging challenges of Grazer-Cattle conflicts. The use of shot guns has been

reported in several violent attacks and resulted in isolated deaths. However, this is a major security concern that the office of ONS must contend with.

xiii. Forceful disarmament to reduce or collect small arms and light weapons from civilians by authorities, i.e. SLAF and the SLP.

7. Review of the National Cattle Settlement Policy

The policy shall be reviewed every five years effective date of approval of the document. The policy shall be reviewed by the local councils in consultation with the Ministry of Agriculture and Food Security.

8. Roadmap for the Implementation of the National Cattle Settlement Policy

The successful implementation of the National NCSP depends on the commitment and sincerity of all stakeholders and the resources that will be available to accomplish critical activities of the policy. The following strategic interventions have been considered that will enhance the effective implementation of the NCSP.

1. Strengthen the knowledge base and embark on sensitization and popularization of the NCSP. Many stakeholders including policy makers are not fully aware about the magnitude of livestock grazers and crop farmer conflicts and their potential ramifications. The public need to be well informed and stakeholders who mediate such conflicts should be educated with the conflict mediation processes to enable them act professionally. Traditional Local authorities especially the Paramount Chiefs, who are custodians of their chiefdom lands should be adequately consulted and involved in every stage of the popularization of the NCSP. Government should endeavor to engage all means of communication including social media in the popularization of the NCSP
2. Develop a five year strategic plan for the development of the ruminants' value chain. The ruminant (Cattle, goats and sheep) value chain requires investment in infrastructure, develop skills of farmers and empower actors along the value chain. A strategic plan that captures all these issues will articulate the development of the ruminant value chain and curb the problems of conflicts with crop farmers.
3. Engage the Council of Paramount Chiefs and fully integrate them in the implementation process. The chieftaincy institution is pivotal if problems of livestock grazers and crop farmers are to be adequately addressed. Paramount Chiefs are the custodians of land and play a key role in its allocation and utilization. All cattle farmers coming to their

chiefdoms must be recognized by them and will provide the traditional and cultural arbitrations when the need arises.

4. Encourage and facilitate the development of chiefdom bye-law including penalties to be levied against defaulters. Livestock herders in Sierra Leone are mostly nomadic except for a few affluent Sierra Leoneans who are also investing in the business
5. Strengthen advocacy and develop capacity of key stakeholders in resolving livestock grazers and crop farmers' conflicts
6. Strengthen the monitoring and evaluation of the implementation of the CSP in view of identifying the weaknesses and strengthens of the policy and incorporating such findings into the policy.

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10. Indicative Budget for the Implementation of the National Cattle Settlement Policy

STRATEGIC OBJECTIVE 1. Strengthen the knowledge base and embark on sensitization and popularization of the NCSP									
Strategic interventions	Activities	Responsible MDA	Year					Indicative Budget (NLe M)	Source of Funding
			1	2	3	4	5		
1.1 Embark on massive sensitization and popularization of the CSP	1.1.1 Engage public sensitization through the mass media	MAFS,DC,CC NaFFSL, ONS,	x	x	x	x	x	100,000.00	GoSL, Dev. Partners
	1.1.2 Convene a meeting for the Council of Paramount chiefs and other stakeholders	MAFS, DC,ONS CC	x			x		240,000.00	GoSL, Dev. Partners
	1.1.3 Convene an inter-ministerial and other MDA to discuss and strategize issues of Grazer-Farmer conflicts	MAFS, MoL Law Office, MoECC, NaFFSL, MLGCA	x	x	x	x	x	100,000.00	GoSL, Dev. Partners

STRATEGIC OBJECTIVE 2. Develop and implement a five year strategic plan for the development of the livestock sub-sector									
Strategic interventions	Activities	Responsible MDA	Year					Indicative Budget (NLe M)	Source of Funding
			1	2	3	4	5		
2.1 Develop a strategic plan for the development of the Small Ruminant value chain	2.1.1 Set up and conduct 5 days training for the MPAP team to coordinate all development plans for the small ruminant value chain	MAFS, ONS, NaFFSL, SLLRO	x					100,000.00	GoSL, Dev. Partners
	2.1.2 Introduce and establish the Cattle Ranch Scheme in 5 districts	MAFS, NaFFSL and Dev. Partners		x		x		1,000,000.00	GoSL, Dev. Partners
	2.1.3 Develop a National Animal Breeding program	MAFS, Universities, SLLRO, NaFFSL , Dev. partners	x	x	x	x	x	500,000.00	GoSL, Dev. Partners
	2.1.4 Strengthen the Animal Health surveillance system	MAFS, SLLRO Universities, NaFFSL , Dev. partners	x	x	x	x	x	500,000.00	GoSL, Dev. Partners
	2.1.5 Develop supplementary feeding strategies for livestock	MAFS, Universities, SLLRO NaFFSL , Dev. partners	x	x	x	x	x	500,000.00	GoSL, Dev. Partners
	2.1.6 Strengthen livestock marketing systems	MAFS, Universities, NaFFSL, Dev. partners						500,000.00	GoSL, Dev. Partners

STRATEGIC OBJECTIVE 3. Strengthen advocacy and develop capacity of key stakeholders in resolving livestock grazers and crop farmers conflicts

Strategic interventions	Activities	Responsible MDA	Year					Indicative Budget (NLe M)	Source of Funding
			1	2	3	4	5		
3.1 Strengthen advocacy and lobbying	3.1.1 Establish a lobbying group for to lobby for enactment of the CSP into law	MAFS, Law Office Dept, ONS, NaFFSL, SLLRO	x	x	x			100,000.00	GoSL, Dev. Partners
	3.1.2 Identify and lobby for sources of funding for the development of the livestock sub-sector	MAFS, DC, CC, , SLLRA, NaFFSL, SLLRO and Dev. Partners	x	x	x	x	x	100,000.00	GoSL, Dev. Partners
3.2 Strengthen capacity of farmers	3.2.1 Train livestock farmers in ranch management and best animal health and husbandry practices	MAFS, Universities, NaFFSL, SLLRO and Dev. Partners	x	x	x	x	x	100,000.00	GoSL, Dev. Partners
	3.2.2 Train crop farmers in best agronomic practices and alternative sources of livelihoods	MAFS, Universities, NaFFSL, SLLRO and Dev. Partners	x	x	x	x	x	100,000.00	GoSL, Dev. Partners
3.3 Establish or Strengthen livestock production facilities	3.3.1 Establishment of Ranches and barbed wire fencing 3.3.2 Establish a mobile veterinary clinic facility 3.3.3 Establish watering points for cattle	MAFS, DC, CC, , SLLRA, NaFFSL, Dev. Partners, SLLRO	x	x	x	x	x	1,000,000.00	GoSL, Dev. Partners
3.4 Strengthen conflict resolution mechanisms	3.4.1 Establish conflict resolution committees comprising of key stakeholders with clear TORs 3.4.2 Conduct training for local administrative authorities in effective and just conflict resolution	MAFS, DC, CC, Law Office Dept, MLGCA	x	x	x	x	x	50,000.00	GoSL, Dev. Partners