AFRICAN DEVELOPMENT FUND

ZAMBIA

LIVESTOCK INFRASTRUCTURE SUPPORT PROJECT
(LISP)

PROJECT PREPARATION FACILITY
(PPF)

OSAN DEPARTMENT
March 2013
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1. **INTRODUCTION**

1.1. **Background**

1.1.1. The Government of Zambia’s (GoZ) development agenda is articulated in the National Vision 2030 and the Sixth National Development Plan (SNDP: 2011-2015). The National Vision 2030 sets the long-term vision reflecting the understanding, aspirations and determination of the people to be a “prosperous middle-income country”. SNDP, whose theme is “sustained economic growth and poverty reduction”, is aimed at addressing the challenges of realising broad based pro-poor growth, employment creation and human development. The SNDP’s strategic focus is on infrastructure and human development which will be supported through enhancing investment for sustainable agricultural production and productivity of crops, livestock and fisheries. Contribution of agricultural sector to the GDP is 21.5% whilst employment in agricultural sector is 80%. The Ministry of Agriculture and Livestock (MAL) is refining its sector policies and strategies based on the National Agriculture Policy (NAP: 2004-2015).

1.1.2. The livestock sector is important for poverty reduction, livelihood security and economic growth but lacks the necessary infrastructure for improved production and value addition. Livestock sub-sector contribution to agricultural GDP is about 28%. Livestock production enhances the economic viability and sustainability of farming systems since they diversify income, provide all-year-round employment and serve as insurance in times of need. The sales of livestock and their products provide funds for financing farm investments. Livestock often forms the major capital reserve of farming households and contribute substantially to crop production through provision of draught power and manure. Above that, livestock products, especially meat and milk, provide food security and nutrition to the beneficiaries since they are guaranteed sources of high quality proteins, essential structural fats and micro-nutrients. However, the livestock sector remains under-developed and negatively affected by frequent outbreaks of diseases thus limiting its ability to penetrate international markets. Consequently, livestock and its products are often marketed in a disorganised manner and often slaughtered under unhygienic conditions which pose health risks to consumers.

1.1.3. The Livestock Infrastructure Support Project (LISP) is in line with the National Vision and the SNDP on livestock sub-sector whose main focus is to improve livestock production and productivity through infrastructure development, creation of Disease Free Zone (DFZ), enhance livestock disease control and surveillance, research and development, developing livestock standards/grades and processing of livestock products.

1.1.4. The LISP is anchored on Pillar I of the Bank Group’s Country Strategy Paper (CSP: 2011-2015) Mid-Term Review (Productive Sectors), which is “Supporting Economic Diversification through Infrastructure Development”. The project is also in line with the Bank’s Long Term Strategy (LTS: 2013-2022) which emphasises on infrastructure, regional integration, private sector development, governance, higher education science and technology (HEST), green growth and inclusive growth. LISP will promote livestock infrastructure development for improved livestock production, productivity and marketing, veterinary/extension services, household food security and inclusive growth. Apart from direct beneficiaries, LISP will also indirectly benefit other people through generation of employment along the value chains who will include civil works contractors, suppliers, local traders, agro-processors, transporters, exporters, casual labourers, rural youth and women. In terms of green-growth, the climate change and negative environmental issues are mainstreamed in the Environmental and Social Management Plan and efforts are being made to leverage GEF resources to climate proof LISP so that natural resources are used in a sustainable manner.
1.1.5. The main lessons, for the LISP design, were drawn from the Bank financed Agricultural Sector Investment Programme (ASIP: 1996-2008) in the Eastern Province, which had high infrastructure content. The ASIP Completion Report highlighted (i) the role played by the Implementation Unit in expediting Project implementation after a delay in start-up when implementation was entrusted solely to the Ministry, (ii) lack of designs/drawings at project start-up resulted in delay in implementation, and (iii) lack of adequate consultation with stakeholders in selection of sites for the infrastructures. In this regard, LISP will be implemented using the National Coordination Unit, as opposed to mainstream staff, whose capacity will be enhanced by recruitment of professional staff. Efforts will be made to ensure that the proposed LISP starts off with construction/rehabilitation of livestock infrastructures which have their drawings and tender documents ready and adequate stakeholders’ consultations held. Above that, institutional mechanisms for managing the infrastructures will be clearly defined during implementation.

1.1.6. As for the design of the PPF (Zambia LISP), the main lessons have been drawn from the on-going Bank financed PPF which is being implemented in Rwanda (Livestock Infrastructure Support Programme - LISP). In general, the Rwanda-LISP’s implementation progress has been very good although there was delay in start-up since the consultant signed the contract approximately 7 months after the project approval which has necessitated the Government to request for extension of the last date of disbursement. Another issue is that the Government also requested for a waiver on the financial audit which was supposed to be done by the Audit Firm to be carried out by the Auditor General since the PPF’s amount for operating costs is small and the bulk of the transactions are managed through Direct Payment method. Based on these valuable lessons, PPF for Zambia-LISP will be processed and implemented based on an agreed realistic schedule to avoid slippages. The Zambia Field Office will assist GoZ to facilitate smooth recruitment of the consulting firm, in line with the Delegation of Authority Matrix (October 2012). The consulting firm will be required to sign the contract soon after award and will be expected to mobilise within 2 calendar weeks. Auditing of the PPF will be done by the Office of the Auditor General (OAG, Lusaka-Zambia) since the bulk of the resources will be disbursed through direct payment method and only few transactions will be involved pertaining operating (local) costs. Consequently, hiring an Audit Firm to carry out the audit services might be expensive and waste of valuable resources.

1.2. Development Objective and Project Objective

The sector goal is to contribute to economic growth and food security. The project objective is to improve household income of livestock farmers by supporting livestock infrastructures, institutional capacity building and improved disease diagnosis, treatment and control. The project outcome is the decrease in prevalence of the main livestock diseases like contagious bovine pleuro-pneumonia (CBPP), foot and mouth disease (FMD), African swine fever (ASF), Newcastle disease (NCD) and other zoonotic diseases.

1.3. Project Components

The proposed project will consist of three components namely, (A) Livestock Infrastructure Development, (B) Capacity Building and (C) Project Management. The component description and outputs are indicated in Table 1.3.
Table 1.3: Proposed LISP Components and Activities

<table>
<thead>
<tr>
<th>No</th>
<th>Component Name</th>
<th>Component Description</th>
</tr>
</thead>
</table>
| 1  | Livestock Infrastructure Development | **Sub-component 1: Rural Community Infrastructure Support:**  
• Construction of **35 livestock service centres Tier 1**, each with basic structures including crush pen, holding pen, water trough, feeding trough, dip tank, borehole & overhead tank and improved pit latrines.  
• Construction of **15 livestock service centres Tier 1+**, each with basic structures as for Tier 1. However, dip tank will be replaced by spray race for tick control.  
• Construction of **2 livestock service centres Tier 2**, each with structures as for Tier 1 in addition, weighing scale, loading and off-loading bays, resting-shelter, 2 low-cost staff houses, office/store room and equipment.  
• Construction/rehabilitation of **2 livestock service centres Tier 3**, each with structures as for Tier 2, in addition, marketing unit, 10 low-cost camp/staff houses, training centre/dormitories, biogas digester (for demonstration), demonstration structures (goat housing, pig pens and poultry pens/housing), landscaping, external drainage system and waste management area.  
• Construction of **2 milk collection centres** with reception hall, office/store room and appropriate equipment like cooler (tank), lactoscan, water supply (borehole & overhead tank), electricity, waste management area and pit latrines.  
• Upgrading of **1 livestock market centre** in Nakonde District through provision of modern facilities including off-loading and loading bays, holding pens, cages/shelves, ablution (waste room/garbage yard), office block, store room, drainage system, borehole & overhead tank, pit latrines, gravel-access road, parking area and security fence.  
• Construction of **8 slaughter facilities** each with separate hygienic slaughter facilities (cattle, goats, sheep, pigs & poultry) with amenities, external drainage system, waste management area, hides and skins treatment/storage sheds, office block/store room, borehole/overhead tank, electricity, pit latrines, access road, sewage reticulation, septic tank, parking area and security fence.  
**Sub-component 2: Public Infrastructure Support:**  
• Rehabilitation of **80 km (total length) of existing rural feeder roads** with proper drainage system and crossing points like culverts/bridges.  
• Renovation of **8 District veterinary laboratory** blocks, improvement of external works, water reticulation system (borehole & overhead tank) and provision of essential laboratory furniture and equipment.  
• Construction of **2 quarantine stations** with livestock handling and watering facilities, 5 low-cost staff houses, office block, holding and waste areas.  
• Construction of **4 veterinary check points** with loading/offloading bays, holding pen, mini-quarantine station, crush pen, 1 office block including store room, 3 staff houses, borehole & overhead tank and communication equipment. |
| 2  | Capacity Building                   | • Support to consultancies and studies, including NGO services.  
• Community mobilisation (cooperatives) and support to Dept of Cooperatives.  
• Procurement of vehicles and equipment: 2 4x4-drive vehicles (1 per Province), 32 off-road motorcycles (4 per District), office equipment and furniture.  
• Staff and farmer training based on needs assessment (30% women).  
• Support to Livestock Information Management System (LIMS) under NALEIC.  
• Environmental and social management activities. |
| 3  | Project Management                 | • Project management activities and Technical Assistance.  
• Support to MAL’s NCU - recruitment of professional and support staff.  
• Financial management including audit.  
• Participatory monitoring and evaluation.  
• 2 off-road 4x4-drive vehicles, assorted office equipment and furniture. |
1.4. Project Coordination and Management

1.4.1 The project will be implemented, for a period of 5 years by MAL using the existing National Coordination Unit (NCU). Implementation will be through the institutional structures of MAL. However, the Department of Livestock Production will oversee implementation, monitor progress, coordinate and account for the utilisation of funds. The Bank would undertake a full financial management assessment of the NCU during appraisal of the LISP, with the view to ensuring that adequate fiduciary controls exist throughout project implementation.

1.4.2 The project will strengthen the NCU by competitively recruiting from open market well qualified and experienced local professional and support staff comprising the Project Coordinator, Civil Engineer, Assistant Accountant, Procurement Specialist, M&E Specialist and Administrative Assistant whose remunerations will be paid under the loan resources.

1.5. Justification on the Utilisation of the PPF Advance

1.5.1. The project was identified in May/June 2010 and prepared in April/May 2012 by the Bank. During the two Missions, the Bank was duly informed by GoZ that the infrastructure designs/drawings and tender documents would be ready before project appraisal. Unfortunately, the designs/drawings and tender documents have not been produced by GoZ. Efforts have been made by the Bank to have the documents ready but with no success. In January 2012, the GoZ agreed to establish a team of experts to develop and submit the required documents before project appraisal but could not do so due to lack of financial resources. Based on this, the GoZ has requested the Bank to avail MAL opportunity to access the PPF amounting to about USD 500,000 for finalisation of the LISP preparatory activities. The GoZ letter is in Annex 1 and the Bank’s draft letter granting the PPF is indicated in Annex 2.

1.5.2. In general, the PPF would be utilized to produce detailed designs/drawings and tender documents for the LISP.

1.5.3. As a lesson which has been learnt from ASIP, it is desirable that LISP starts off with construction or rehabilitation of infrastructures which have designs/drawings and tender documents ready in order to ensure quality at entry. The consultancy will contribute to the realization of LISP’s Component 1 (Livestock Infrastructure Development) through production of detailed designs/drawings of the livestock infrastructures in order to facilitate smooth implementation of the construction/rehabilitation activities.

2. DESCRIPTION OF ACTIVITIES FINANCED BY THE PPF

The consultancy objectives are to design the livestock infrastructures (Annex 3) earmarked for development under LISP. Specifically, the Consulting Firm will be required to (i) identify the exact locations of all the proposed livestock infrastructures, (ii) list the existing livestock infrastructures within the participating Districts including their current management structures/systems, (iii) undertake preparation of the livestock infrastructure designs/drawings, technical specifications, bills of quantities, Engineer’s cost estimates, tender documents, procurement packages, operation and maintenance manual and also management systems manual, (iv) list equipment for the laboratories and other infrastructures including their quantities, technical specifications and costs, (v) produce manual on management structure/system and also standard operation and maintenance manual for new infrastructures, (vi) propose institutional and technological support required by the breeding ranches to accelerate the availability of breeding animals to the livestock farmers, (vii) define and specify the modalities for institutional management through Public Private Partnership (PPP) for the proposed community infrastructure, and (viii) propose, for each livestock infrastructure and associated activities, the value addition/value chain micro-projects for job creation and income generation for the rural communities especially youth and women.
3. ESTIMATED COST AND FINANCING PLAN

3.1 Estimated Costs

The estimated costs, excluding taxes and duties, allocated in foreign and local costs, are given in Table 3.1. The Table has also included Operating Costs since, due to financial resources, the GoZ will not be able to finance consultative workshops and participation of MAL staff.

Table 3.1a: Estimated Costs for PPF Activities (UA)

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Amount in UA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unit Cost</td>
</tr>
<tr>
<td>A. CONSULTANCY SERVICES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Remuneration (Key Personnel Fees)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Agricultural Economist (Team Leader)</td>
<td>Person Month</td>
<td>4</td>
<td>8,500</td>
</tr>
<tr>
<td>2. Civil/Structural Engineer</td>
<td>Person Month</td>
<td>4</td>
<td>6,700</td>
</tr>
<tr>
<td>3. Quantity Surveyor</td>
<td>Person Month</td>
<td>2</td>
<td>5,800</td>
</tr>
<tr>
<td>4. Livestock Production Specialist</td>
<td>Person Month</td>
<td>4</td>
<td>6,700</td>
</tr>
<tr>
<td>5. Environmentalist</td>
<td>Person Month</td>
<td>1</td>
<td>6,700</td>
</tr>
<tr>
<td>6. Socio-Economist</td>
<td>Person Month</td>
<td>1</td>
<td>6,700</td>
</tr>
<tr>
<td>7. Agro-Processing Specialist</td>
<td>Person Month</td>
<td>3</td>
<td>6,700</td>
</tr>
<tr>
<td>8. Veterinary Specialist/Doctor</td>
<td>Person Month</td>
<td>4</td>
<td>6,700</td>
</tr>
<tr>
<td>9. Architect</td>
<td>Person Month</td>
<td>4</td>
<td>5,200</td>
</tr>
<tr>
<td>10. Surveying Technician/Assistant</td>
<td>Person Month</td>
<td>2</td>
<td>3,900</td>
</tr>
<tr>
<td>11. AutoCAD Technician</td>
<td>Person Month</td>
<td>3</td>
<td>3,900</td>
</tr>
<tr>
<td>Sub-Total I (Remuneration)</td>
<td></td>
<td>32</td>
<td>199,800</td>
</tr>
<tr>
<td>II. Reimbursable Expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Per Diem/Subsistence Allowances</td>
<td>Person Day</td>
<td>80</td>
<td>120</td>
</tr>
<tr>
<td>2. Accommodation (House Rent)</td>
<td>Month</td>
<td>4</td>
<td>1,000</td>
</tr>
<tr>
<td>3. Accommodation (Office Rent)</td>
<td>Month</td>
<td>4</td>
<td>600</td>
</tr>
<tr>
<td>4. Communication Costs</td>
<td>Month</td>
<td>4</td>
<td>500</td>
</tr>
<tr>
<td>5. Drafting/Drawings/Report Production</td>
<td>Lump Sum</td>
<td>1</td>
<td>1,000</td>
</tr>
<tr>
<td>6. Office Equipment and Consumables</td>
<td>Lump Sum</td>
<td>1</td>
<td>1,500</td>
</tr>
<tr>
<td>7. Local &amp; Field Transport Costs (Vehicle Hire and Running Cost)</td>
<td>Month</td>
<td>4</td>
<td>5,000</td>
</tr>
<tr>
<td>8. International and Local Flights</td>
<td>Lump Sum</td>
<td>1</td>
<td>12,000</td>
</tr>
<tr>
<td>Sub-Total II (Reimbursable Expenses)</td>
<td></td>
<td></td>
<td>52,500</td>
</tr>
<tr>
<td>Total A: Consultancy Services</td>
<td></td>
<td></td>
<td>252,300</td>
</tr>
<tr>
<td>B. OPERATING COSTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Audit (Auditor General – Zambia)</td>
<td>Lump Sum</td>
<td>1</td>
<td>8,000</td>
</tr>
<tr>
<td>2. Provincial Consultative Workshops</td>
<td>No</td>
<td>2</td>
<td>6,000</td>
</tr>
<tr>
<td>3. National Consultative Workshop</td>
<td>No</td>
<td>1</td>
<td>11,000</td>
</tr>
<tr>
<td>4. GoZ Counterpart Staff (field work)</td>
<td>Lump Sum</td>
<td>1</td>
<td>8,000</td>
</tr>
<tr>
<td>Sub-Total B: Operating Costs</td>
<td></td>
<td></td>
<td>39,000</td>
</tr>
<tr>
<td>Total (A+B)</td>
<td></td>
<td></td>
<td>291,300</td>
</tr>
<tr>
<td>Physical Contingency (0)</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Price Contingency (2.5%)</td>
<td>2.5</td>
<td></td>
<td>7,283</td>
</tr>
<tr>
<td>Grand Total Cost</td>
<td></td>
<td></td>
<td>298,583</td>
</tr>
</tbody>
</table>
Table 3.1b: ADF Loan - Categories of Expenditure (Summary)

<table>
<thead>
<tr>
<th>Category of Expenditure</th>
<th>ADF Loan Amount (UA)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign Cost</td>
<td>Local Cost</td>
<td>Total Cost</td>
</tr>
<tr>
<td>A Services</td>
<td>217,095</td>
<td>41,513</td>
<td>258,608</td>
</tr>
<tr>
<td>B Operating Costs</td>
<td>0</td>
<td>39,975</td>
<td>39,975</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>217,095</strong></td>
<td><strong>81,488</strong></td>
<td><strong>298,583</strong></td>
</tr>
</tbody>
</table>

3.2 Financing Plan

The PPF financing plan for the ADF Loan is given in Table 3.2.

Table 3.2: PPF Financing Plan (UA)

<table>
<thead>
<tr>
<th>Financial sources</th>
<th>Foreign Cost (UA)</th>
<th>Local Cost (UA)</th>
<th>Total (UA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF Loan</td>
<td>217,095</td>
<td>81,488</td>
<td>298,583</td>
</tr>
<tr>
<td>Government (NA)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>217,095</strong></td>
<td><strong>81,488</strong></td>
<td><strong>298,583</strong></td>
</tr>
</tbody>
</table>

4. PROCUREMENT ARRANGEMENTS

4.1 All procurement of goods, works and acquisition of consulting services will be in accordance with the Bank’s Rules and Procedures for Procurement of Goods and Works (May 2008 Edition as Revised in July 2012, and as amended from time to time) or the Rules and Procedures for the Use of Consultants (May 2008 Edition as Revised in July 2012, and as amended from time to time) using the relevant Standard Bidding Documents.

4.2 Consulting Services valued at an amount **UA 258,608** (73%) will be procured through Short List using the Quality Cost Based Selection (QCBS) method. For consultants, the selection method shall be through the Bank’s procedure for the selection of Firms. For contract amounts valued at less than UA 200,000 for Firms, the Borrower may limit advertisement of the procurement to national or regional newspapers. However, all eligible consultants, who wish to provide the required services, may express their interest to be short-listed. For contract valued at more than UA 200,000 for Firms, advertisement of the procurement must be placed on the UNDB online and the Bank’s website.

4.3 Operating Costs estimated at **UA 39,975** (27%) will cover financial audit, consultative workshops and financing of counterpart staff expenses which will be administered through existing Government accounting/administrative procedures.

5. FINANCIAL MANAGEMENT AND AUDITING ARRANGEMENT

The payment for consulting services will be through direct payment method whilst the operating (local) costs will use special account. In accordance with the Bank’s requirements, an audit report will be prepared by the OAG (Zambia) based on approved Terms of Reference (TORs) and using the Loan resources. The audit report and management letter will be sent to the Bank not later than six (6) months after the end of the PPF. Where the duration extends beyond the indicated period, the OAG would be expected to submit annual audit report and management letter to the Bank not later than six (6) months after the end of the respective fiscal years.
6. IMPLEMENTATION SCHEDULE

The PPF activities will be carried out within 8 calendar months after the date of signing the agreement. The actual consultancy period is 4 calendar months as indicated below:

<table>
<thead>
<tr>
<th>No</th>
<th>Activity Description</th>
<th>Responsibility</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Approval by the Board (Lapse of Time)</td>
<td>Bank</td>
<td>28/02/2013</td>
<td>14/03/2013</td>
</tr>
<tr>
<td>2.</td>
<td>Signing of Letter of Agreement</td>
<td>Bank/Government</td>
<td>18/03/2013</td>
<td>29/03/2013</td>
</tr>
<tr>
<td>3.</td>
<td>Preparation of EOI and Short List</td>
<td>Government</td>
<td>01/04/2013</td>
<td>10/05/2013</td>
</tr>
<tr>
<td>4.</td>
<td>Issuance of RFP and Submission</td>
<td>Government</td>
<td>13/05/2013</td>
<td>14/06/2013</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluation of Proposals</td>
<td>Government</td>
<td>19/06/2013</td>
<td>28/06/2013</td>
</tr>
<tr>
<td>6.</td>
<td>Approval of Evaluation Report</td>
<td>Government/Bank</td>
<td>01/07/2013</td>
<td>05/07/2013</td>
</tr>
<tr>
<td>7.</td>
<td>Award and Signing of Contract</td>
<td>Government/Firm</td>
<td>08/07/2013</td>
<td>26/07/2013</td>
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<tr>
<td>8.</td>
<td>Consultancy Services (all activities)</td>
<td>Consulting Firm</td>
<td>29/07/2013</td>
<td>17/12/2013</td>
</tr>
<tr>
<td>8.1</td>
<td>Mobilisation (Key Personnel)</td>
<td>Consulting Firm</td>
<td>29/07/2013</td>
<td>09/08/2013</td>
</tr>
<tr>
<td>8.2</td>
<td>Submission of Inception Report</td>
<td>Consulting Firm</td>
<td>12/08/2013</td>
<td>23/08/2013</td>
</tr>
<tr>
<td>8.4</td>
<td>Submission of Final Report</td>
<td>Government/Bank</td>
<td>14/11/2013</td>
<td>17/12/2013</td>
</tr>
</tbody>
</table>

7. FINANCING ARRANGEMENTS

7.1 Refinancing and Advances Reimbursement

It is planned that the Livestock Infrastructure Support Project (LISP) be financed by the ADF Loan. The refinancing and the reimbursement of the advance will be done according to the financial arrangements applicable to the PPF advances.

7.2 Suspension for Disbursement of PPF Advances

If it turns out that the suspension of the PPF advance is necessary, this suspension will conform to the directives that govern the utilization of PPF resources.

7.3 Special Account

Special Account will be opened for the PPF to finance the operating costs (UA 39,975) and the Direct Payment Method will be used for consulting services (UA 258,608).

7.4 Agreement Letter and Appendices

The draft Letter of Agreement and its Appendices (the subject, the conditions and modalities of the advance, the special deposit account, and the financial arrangements applicable to the PPF advances), are shown in Annex 2.

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

The PPF advance solicited by the GoZ will facilitate the preparation of detailed designs/drawings and tender documents for livestock infrastructures under LISP.

8.2 Recommendation

It is recommended to provide the GoZ an advance not exceeding UA 300,000 for financing of the PPF.
GoZ Letter Requesting the Project Preparation Fund Advance

30th October, 2012

Dr. Freddie Kwesiga
Resident Representative
Africa Development Bank
LUSAKA

RE: ZAMBIA LIVESTOCK INFRASTRUCTURE SUPPORT PROJECT (LIPS) – PROJECT PREPARATION FACILITY (PPF)

Reference is made to your letter dated 6th October, 2012 on the above-captioned matter.

As a matter of urgency, please avail the Ministry of Agriculture and Livestock the opportunities to access the Project Preparatory Fund (PPF) amounting to US$110,000 to enable the Ministry finalise the start-up activities for the African Development Bank funded Livestock Infrastructure Support project.

Please accept the assurances of my highest consideration.

Yours faithfully,

Frodson K. Yambo
Secretary to the Treasury
Ministry of Finance

C.C. Dr. David Shamulenge
Permanent Secretary
Ministry of Agriculture and Livestock
LUSAKA
Draft Letter Granting Project Preparation Fund Advance

His Excellency, Mr. Alexander Chikwanda, MP.
Minister of Finance,
P.O. Box 50062,
Lusaka, Zambia

Honourable Minister,

Subject: Advance for Preparation of Livestock Infrastructure Support Project (LISP) Letter of Agreement

I am writing on behalf of the African Development Bank to indicate the Bank’s agreement to grant to the Republic of Zambia herein referred to as the Recipient an Advance in an amount not exceeding UA 300,000 (the Advance). The purpose of the Advance is to finance certain expenditures required for the preparatory activities that would assist in the implementation of components of the proposed project, study or programme the execution of which the Recipient has requested the financial assistance of the Bank.

The Advance is granted for the purposes and on the terms and conditions set forth in Attachments hereto and the Recipient hereby represents, by confirming its agreement hereunder, that it is authorised to contract, withdraw, and repay the Advance for the said purposes and on the said terms and conditions.

The amounts of the Advance withdrawn shall carry a service charge at the rate of 0.75 percent per annum as per paragraph 5 of the Letter of Agreement Financial Provisions Applicable to Advances for Project Preparation.

The granting of this Advance does not constitute or imply any commitment on the part of the Bank to assist in the financing of the project for the preparation of which the Advance is granted.

Please confirm your agreement with the foregoing on behalf of Government, by signing, dating and returning to us the enclosed copy of this letter. This agreement will become effective on the date of countersignature.

AFRICAN DEVELOPMENT FUND

Mr. Aly ABOU-SABAA
Vice President, OSVP

Date: .............................................................

REPUBLIC OF ZAMBIA

Mr. Alexander CHIKWANDA, MP.
Minister of Finance

Date: .............................................................
Appendix I

Purpose, Terms and Conditions of the Advance

1. The advance is granted for the consultancy services to prepare the detailed designs/drawings, technical specification, bills of quantities, Engineer’s cost estimates, tender documents, operation and maintenance manuals, and management structure/systems for the livestock infrastructures under the Livestock Infrastructure Support Project.

2. The expenditures to be financed are summarized below and the details are in Table 3.1 of the main document.

<table>
<thead>
<tr>
<th>Category of Expenditure</th>
<th>ADF Loan Amount (UA)</th>
<th>Foreign Cost</th>
<th>Local Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Services</td>
<td>217,095</td>
<td>41,513</td>
<td></td>
<td>258,608</td>
</tr>
<tr>
<td>B Operating Costs</td>
<td>0</td>
<td>39,975</td>
<td></td>
<td>39,975</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>217,095</strong></td>
<td><strong>81,488</strong></td>
<td></td>
<td><strong>298,583</strong></td>
</tr>
</tbody>
</table>

3. The beneficiary shall:
   i. undertake the preparation activities referred to above with due diligence and efficiency;
   ii. provide as soon as possible the funds, resources, services and all other resources required for the preparation activities;
   iii. communicate to the Fund all information the Bank could reasonably request concerning those activities and the use of the resources of the advance; and
   iv. periodically exchange views with the Fund’s representatives on the progress and results of the activities.

4. The opening of a special account is envisaged for this advance to cover the Operating Costs. The consultancy services shall be paid through the direct payment method.

5. The beneficiary shall resort to consultants deemed acceptable by the Fund, in keeping with terms and conditions the latter deems satisfactory. The consultant shall be selected in accordance with principles and procedures deemed acceptable by the Fund and in conformity with the Fund’s Rules and Procedures for the Use of Consultants (May 2008 Edition as Revised in July 2012, and as amended from time to time). The consultant may not be replaced and the terms and conditions of their employment may not be altered without prior agreement of the Fund.

6. The advance shall be withdrawn and used in accordance with financial provisions applicable to advances for project preparation (the “financial provisions”) mentioned in appendix II.

7. The date ____________ is specified for the purpose of paragraph 6 of the financial provisions. Beyond this date, no withdrawal from the advance shall be allowed and any unwithdrawn amount shall be cancelled, unless the Bank sets another date for the purpose of paragraph 6.

8. Withdrawal requests shall be signed by the Minister of the Economy, Finance and the Budget or any other person designated in writing by this authorized representative of the Government. The authenticated signature specimens of the persons thus designated shall be attached to the initial withdrawal request.
Appendix II

Special Deposit Account

1. For the purposes of this Attachment:

   (a) the term "categories" means categories of items to be financed out of the proceeds of the Advance as set forth in paragraph 2 of Attachment I:

   (b) the term "eligible expenditures" means expenditures in respect of the reasonable cost of goods and services required for the project preparation activities to be financed out of the proceeds of the Advance; and

   (c) the term "Authorised Allocation" means an amount not less than UA20,000 to be withdrawn from the Advance and deposited in the Special Deposit Account (the Special Account) pursuant to paragraph 3 (a) of this Attachment.

2. Payments out of the Special Account shall be made exclusively for eligible expenditures in accordance with the provisions of this Attachment.

3. After the Bank has received satisfactory evidence that the Special Account has been duly opened, withdrawals of the Authorised Allocation and subsequent withdrawals to replenish the Special Account shall be made as follows:

   (a) For withdrawals of the Authorised Allocation, the Recipient shall furnish to the Bank a request or requests for a deposit or deposits that do not exceed the aggregate amount of the Authorised Allocation. On the basis of such request or requests, the Bank shall, on behalf of the Recipient, deposit in the Special Account such amount out of the proceeds of the Advance as requested by the Recipient.

   (b) For replenishment of the Special Account, the Recipient shall furnish to the Bank requests for deposits into the Special Account at such intervals, as the Bank shall specify.

   (c) Prior to or at the time of each such request, the Recipient shall furnish to the Bank the documents and other evidence required pursuant to paragraph 4 of this Attachment for the payment or payments in respect of which replenishment is requested. On the basis of each such request, the Bank shall, on behalf of the Recipient, deposit into the Special Account out of the proceeds of the Advance such amount as requested by the Recipient and shown by said documents and other evidence to have been made out of the Special Account for eligible expenditures.

4. For each payment made by the Recipient out of the Special Account, the Recipient shall (at such time as Fund shall reasonably request) furnish to Fund such documents and other evidence showing that such payment was made exclusively for eligible expenditures.
5. **Notwithstanding the provisions of paragraph 3 of this Attachment, the Bank shall not be required to make further deposits into the Special Account:**

   (a) if at any time, the Bank determines that all further withdrawals of the Advance should be made directly by the Recipient; or

   (b) once the total unwithdrawn amount of the Advance equals the equivalent of twice the amount of the Authorised Allocation.

6. **(a)** if the Bank determines at any time that any payment out of the Special Account was:

   (i) made for an expenditure or in an amount not eligible pursuant to paragraph 2 of this Attachment; or

   (ii) not justified by the evidence furnished to the Bank, the Recipient shall, promptly upon notice from the Bank:

       (i) provide such additional evidence as Bank may request; or

       (ii) deposit into the Special Account (or, if the Bank shall so request, refund to the Bank) an amount equal to the amount of such payment or the portion thereof not so eligible or justified.

   Unless the Bank shall otherwise agree, no further deposit by the Bank into the Special Account shall be made until the Recipient has provided such evidence or made such deposit or refund, as the case may be.

   **(b)** If the Bank determines at any time that any amount outstanding in the Special Account will not be required to cover further payments for eligible expenditures, the Recipient shall, promptly upon notice from the Bank, refund to the Bank such outstanding amount.

   **(c)** The Recipient may, upon notice to the Bank, refund to the Bank all or any portion of the funds on deposit in the Special Account.

   **(d)** Refunds to the Bank made pursuant to paragraphs 6 (a), (b), and (c) of this Attachment shall be added to the un-withdrawn amount of the Advance.
Appendix III

Financial Provisions Applicable to Advances for Project Preparation

1. In these Provisions, the term "Bank" means the African Development Bank Group (the African Development Fund).

2. The Bank shall disburse funds to the Recipient (Republic of Zambia) of a project preparation advance (the Advance) to meet expenditures specified in the Letter of Agreement for the Advance. The Recipient should submit a written application for withdrawal in the form specified by the Bank. The application shall be signed by an authorised representative of the Recipient and accompanied by evidence of the expenditures made or, if the Bank shall so agree, to be made.

3. The Advance shall be disbursed in the currency agreed to by the Bank and the Borrower in accordance with the Bank’s rules of disbursement.


5. As specified by the Bank in the agreement letter for the Advance, the amounts of the Advance withdrawn and not repaid shall carry a service charge of 0.75 percent per annum.

6. The amount of the Advance withdrawn, together with the service charge accrued thereon, shall be repaid by the Recipient to the Bank as follows:

(a) If by or before the date agreed upon for this purpose by the Recipient and the Bank in the Letter of Agreement for the Advance, a loan shall have been granted by the Bank, for the purpose of assisting in the financing of the project for the preparation of which the Advance was made, then the full amount of the Advance withdrawn and outstanding shall be repaid to the Bank. Such payment shall include the accrued service charge on the Advance to the date of repayment. The repayment shall be made by means of a withdrawal of the proceeds of such loan in accordance with the provisions of the agreement providing therefor, as soon as such agreement shall have become effective.

b) If by the date referred to in paragraph (a) above, no such loan or grant shall have been made, or if by such date or at any time thereafter, the agreement providing for such loan or TAF grant shall have been terminated without becoming effective, then:

(i) if the amount of the Advance withdrawn does not exceed UA 20,000, such amount shall be repaid by the Recipient to the Bank, together with the accrued service charge thereon to the date of repayment, on such date as the Bank shall specify in a notice to the Recipient; such date shall in no event be earlier than 60 days following the date of dispatch of such notice; and

(ii) if the amount of the Advance withdrawn shall exceed UA 20,000, the aggregate of such amount shall be paid by the Recipient to the Bank in three equal annual instalments of principal, together with service charges accrued on such aggregate outstanding amount from time to time in the amounts and on the dates specified by the Bank in a notice to the Recipient; in no event shall the first instalment date be earlier than 60 days following the date of dispatch of such notice.
7. All payments to the Bank shall be made in the currency of which the Bank disbursed the Advance or equivalent sum in another currency agreed to by the Bank and Borrower in accordance with the Bank’s disbursement rules.

8. The Bank may, by notice to the Recipient, suspend at any time further withdrawals of the Advance if any of the following events of suspension shall have occurred: (a) funds withdrawn have not been used for the purpose agreed between the Recipient and the Bank; (b) the preparation activities are not carried out in accordance with the standards or methods agreed between the Recipient and the Bank; or (c) the right of the Recipient, or any other entity to which the Bank has granted a loan with the guarantee of the Recipient, to make withdrawals under any loan agreement with Bank or any TAF grant agreement with Bank shall have been suspended.

9. At any time after withdrawals of the Advance shall have been suspended pursuant to these provisions, the Bank may, by notice to the Recipient, cancel any amount of the Advance remaining unwithdrawn.
Consulting Firm’s Draft Terms of Reference

CONSULTANCY SERVICES FOR THE DESIGN OF LIVESTOCK INFRASTRUCTURES

1. **Introduction**

1.1 The African Development Bank Group has prepared the Livestock Infrastructure Support Project (LISP). As per the Project Concept Note, LISP comprises 3 components namely: (1) Livestock Infrastructure Development with 2 sub-components (i) Rural Community Infrastructure Support and (ii) Public Infrastructure Support; (2) Capacity Building and (3) Project Management. The Project activities will be carried out in 8 Districts within Muchinga and Northern Provinces and will involve construction/rehabilitation of (i) livestock service centres, (ii) milk collection centres, (iii) livestock market centre, (iv) livestock slaughter facilities, (v) feeder roads, (vi) District/Regional veterinary laboratories, (vii) quarantine stations, and (viii) veterinary check points, as indicated in Appendix I. Most of the infrastructures do not have adequate technical details whilst some have standard designs which will not enable LISP to smoothly proceed to the appraisal phase. The standard designs/drawings are available for similar livestock infrastructures which have previously been constructed by the Government of Zambia (GoZ) within the Disease Free Zone. Consequently, there is need to adapt the drawings to suit the LISP sites’ conditions. Livestock production and productivity will also be promoted through support to NGO partners.

1.2 The LISP will be implemented over a period of 5 years by the Ministry of Agriculture and Livestock (MAL) through the National Coordination Unit (NCU) which will utilise the existing public institutional structures at National, Regional and District levels.

2. **Objective of the Consultancy**

2.1 The consultancy objectives are to design the livestock infrastructures earmarked for development under LISP. Specifically, the Consulting Firm will be required to (i) identify the exact locations of all the proposed livestock infrastructures, (ii) list the existing livestock infrastructures within the participating Districts including their current management structures/systems, (iii) undertake preparation of the livestock infrastructure designs/drawings, technical specifications, bills of quantities, Engineer’s cost estimates, tender documents, procurement packages, operation and maintenance manual and also management systems manual, (iv) list equipment for the laboratories and other infrastructures including their quantities, technical specifications and costs, (v) produce manual on management structure/system and also standard operation and maintenance manual for new infrastructures, (vi) propose institutional and technological support required by the breeding ranches to accelerate the availability of breeding animals to the livestock farmers, (vii) define and specify the modalities for institutional management through Public Private Partnership (PPP) for the proposed community infrastructure, and (viii) propose, for each livestock infrastructure and associated activities, the value addition/value chain micro-projects for job creation and income generation for the rural communities especially youth and women.

2.2 LISP activities shall be identified in full consultation with the participating beneficiaries and GoZ staff. The Consulting Firm shall carry out the proposed tasks under the overall supervision of the Director of Animal Production in the Ministry of Agriculture and Livestock (MAL).

3. **Description of the Consultancy and Timing**

The Consulting Firm shall be expected to carry out the following tasks, in 2 phases, within 4 calendar months after signing the contract:
Phase 1 (3 calendar months): Site Verification, Preliminary Drawings and Draft Report


Existing livestock infrastructures
b. undertake extensive field visits to the participating Districts (Appendix 1) in order to:
   - develop an inventory, including GPS coordinates, of all existing livestock infrastructures. Consult the GoZ staff at MAL Hq and Provincial levels prior to field visit).
   - assess the current status of operations/degradation and institutional arrangement (system/structure) for managing each type of the existing community and public livestock infrastructures indicated above.

c. Review the existing standard designs/drawings of similar livestock infrastructures (indicated in Appendix 1) which have already been constructed or rehabilitated by GoZ. The description in Appendix 2 is for basic information only.

Proposed LISP Infrastructures
d. Ensure full involvement of key stakeholders, including livestock farmers, community leaders, local authorities and MAL staff during preparation of livestock infrastructures designs/drawings. The infrastructure locations, design and management should be informed by the stakeholders.

e. Considering that more livestock (mainly cattle, goats, sheep and poultry) will be introduced in the target Provinces, propose the methodologies for enhancing the flow of veterinary services, livestock processing and marketing linkage services from public and private sector service providers to the livestock keeping communities.

f. Given that the development of livestock infrastructures (LSC Tier 1) will be on demand-driven basis, livestock stocking is necessary for promotion and increasing livestock numbers and quality. Consequently, propose modalities for introduction of a livestock stocking programme using NGOs and how this should align with the location and placement of LSCs. Recommend potential NGOs for consideration, by the Project, highlighting their merits and demerits. Propose three (3) core models which can be used by the Project to enhance livestock production and productivity around all LSC Tiers so as to facilitate proper utilisation of the livestock infrastructures and ensure sustainability.

g. Justify the appropriateness of each proposed livestock infrastructure in terms of disease control, livestock production, livestock processing and market linkages. This should be backed up by appropriate and up-to-date statistics.

h. Select and prioritize the most relevant camps or blocks within each target district to be supported by LISP in order to cover areas where livestock is most important and where overlap with the on-going interventions is minimized but complementarity is maximized. The selected sites for the livestock infrastructure should be rationalised based on the volume of livestock to be processed and the proximity to potential markets for live animals and animal products namely meat and milk as in the case of slaughter houses/slabs and milk collection centres.

i. Select and prioritize the type of infrastructures and their numbers with emphasis on infrastructure development that adds real value to the operation of the livestock sub-sector.

j. Assess the sustainability of the benefits derived from the LISP investments by opening up to the Private Sector and NGOs. Artificial Insemination (AI), vaccine production/distribution, milk collection centres, slaughter facilities and livestock markets are prime examples of a joint collaboration between the Government and the Private Sector with insights from more advanced countries, within the region, such as Kenya and Botswana.
k. Highlight modalities for enhancing the development of partnership with the private sector and NGOs in the livestock industry which will assist the smallholder livestock farmers to promote livestock production, productivity, value addition and market linkages.

l. For each infrastructure, indicate appropriate value chain development activities and their impact on job creation, enhancement of income and poverty alleviation for participating rural communities especially youth and women.

m. For the design of the milk collection centres, include facilities which shall promote job creation and income generation for rural youth and women through value addition to milk and milk products. Indicate the number of jobs which will be created in the value chain.

n. For the design of livestock slaughter facilities, include facilities which shall enhance job creation and income generation for rural youth and women through value addition to livestock and associated by-products such as skins/hides, blood, hooves, horns and also manure. Indicate the number of jobs which will be created in the value chain.

o. Propose a pilot programme for the demonstration and management of biogas digesters for lighting and cooking, around the LSCs, slaughter facilities and livestock markets. Recommend roll out of the biogas-digesters to the livestock farmers and linkages to the national biogas programme.

p. In terms of value addition and job creation, prepare technical proposal for the small-scale tannery (vegetable-base) for hides/skin processing and also leather processing for production of bags, shoes etc by rural communities especially youth and women. Indicate all the required start-up capital, tools/equipment, training, number of jobs to be created, gross margins and sustainability.

q. Although the Project is anchored in MAL’s Animal Production Department, propose themes/topics and modalities for full collaboration with the MAL’s Department of Health Services particularly in vaccine production and disease control aspects.

r. Assess the technical gaps which will require short and long term technical assistance.

s. The Zambia Institute of Animal Health (ZIAH) and Zambia College of Agriculture (ZCA) in Muchinga (Mpika District) have great potential in terms of training of Agricultural Technicians and even livestock producers in the area of animal production and health, in general. ZIAH and ZCA have crucial need for rehabilitating their infrastructures. Develop the rehabilitation requirements for both ZIAH and ZCA with clear separation between civil works, furniture and laboratory equipment.

t. Based on the participatory assessment tools, undertake extensive field visits to the participating Districts in order to:
  • confirm the list of Project sites/camps, together with MAL officials and farmers. Indicate the actual names of sites/camps, approximate location using acceptable coordinates, preferably using GPS, and the shortest distance (km) from the nearest all-weather road. It should be noted that the numbers and locations of the different type of infrastructures, in Appendix 1, is only indicative, consequently scrutinise and redistribute them based on the field data and proper justification.
  • carry out detailed assessments of livestock infrastructures’ requirements including availability of potable water and electricity.
  • assess the availability of construction/rehabilitation materials within the vicinity of the proposed location of the infrastructures.
  • define scope of works and estimate the most realistic and extent of beneficiary contributions, specifically for LSC tiers 1 and 1+ only.
  • produce preliminary designs/drawings, bills of quantities including Engineer’s cost estimates, tender documents, and technical specifications for each type of the proposed livestock infrastructure.
• assess and produce manual on institutional arrangement for the management system/structure for each type of the proposed livestock infrastructure. Where new institutions are required to manage, propose a timeframe for the registration and constitution of the management entities before project completion.
• produce standard operation and maintenance manual for each livestock infrastructure.
• prepare preliminary contract packaging (for tendering purpose), based on location.
• prioritise the livestock infrastructures so as to easily align them within the available LISP budget.
• justify, with statistics, the renovation/construction of District/Regional laboratory in each participating District (alternatively, technical options should be explored if two Districts can be clustered to use one laboratory). District (Provincial Headquarters) with Regional laboratory will not have a District Laboratory. Tabulate the required equipment, for both the CVRI, Regional Laboratories, District laboratories and other infrastructures, in terms of their quantities, technical specifications and costs.
• produce the tentative construction schedule taking into account the time available for construction/rehabilitation works and the probable civil works Contractors’ capacities.

u. Based on the issues indicated above, prepare and submit documents to the Client, in an acceptable format, which will include:
• draft consultancy report(s) including all aspects of the terms of reference, design assumptions and calculations;
• inventory of the existing livestock infrastructures, current status of operation/degradation and associated management systems/structures, within the participating Districts;
• preliminary designs/drawings and technical specifications;
• laboratory and other infrastructures’ equipment inventory and specifications;
• bills of quantities;
• Engineer’s cost estimates;
• draft tender documents including contract packaging;
• preliminary construction/implementation schedule;
• draft infrastructures management systems/structures manual; and
• draft operation and maintenance manual.

v. Stakeholders’ Workshop: the workshop will be organised, by GoZ, at least 5 calendar days before the end of Phase 1. The Consulting Firm shall present the draft reports and drawings during the stakeholders’ workshop, involving the key stakeholders, GoZ and Bank officials. The draft report and drawings (hard and e-copies, as indicated below) shall be distributed to the GoZ (the Client), at least, five (5) working days before the workshop.

Phase 2 (1 calendar month): Detailed Design/Drawings and Final Report

w. Finalise all aspects of the designs/drawings and the consultancy report by incorporating stakeholders’ comments and agreed issues.

x. Provide full justification for any significant changes in Engineer’s cost estimates from those determined during Phase 1.

y. Prepare and submit the final consultancy report to the Client, in an acceptable format, which will include the following, presented preferably under separate covers:
• end of assignment report with all aspects of the terms of reference and also design assumptions and calculations;
• inventory of the existing and proposed livestock infrastructures and associated management systems/structures;
• detailed designs/drawings;
• technical specifications;
• final list of laboratory and other infrastructures’ equipment including their quantities, technical specifications and costs;
• bills of quantities;
• Engineer’s cost estimates;
• tender documents including contract packaging;
• tentative construction schedule;
• livestock infrastructures management systems/structures manual; and
• operation and maintenance manuals.

4. Reporting Requirements and Schedule of Deliveries

During the assignment, the Consultant will be required to produce reports, in the English language and acceptable format, as per the following schedule:

i. **Inception Report**: no later than **two (2) calendar weeks** after commencement of the consulting services. To be submitted in hard copies (1 original and 5 copies) and an e-copy (in CD).

ii. **Phase 1a – Draft Report**: no later than **three (3) calendar months** after commencement of the consulting services. To be submitted in hard copies (1 original and 5 copies) and an e-copy (in CD).

iii. **Phase 1b - Summary/Resolutions of the Stakeholders’ Workshop**: no later than **two (2) calendar days** after the end of the workshop (e-copy only).

iv. **Phase 2 - Final Report**: no later than **four (4) calendar months** after commencement of the services. To be submitted in hard copies (1 original and 10 copies) and an e-copy (in CD).

5. **Staffing**

<table>
<thead>
<tr>
<th>No</th>
<th>Key Personnel</th>
<th>Minimum Qualification</th>
<th>Minimum Experience</th>
<th>Person-months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agricultural Economist (Team Leader)</td>
<td>MSc in Agricultural Economics or equivalent</td>
<td>15 years</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Civil/Structural Engineer</td>
<td>MSc in Civil Engineering or equivalent</td>
<td>10 years</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Quantity Surveyor</td>
<td>BSc in Quantity Surveying</td>
<td>10 years</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Livestock Production Specialist</td>
<td>MSc in Agriculture/Animal Science</td>
<td>10 years</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Environmentalist</td>
<td>MSc in Environmental Science or equivalent</td>
<td>10 years</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Socio-Economist</td>
<td>MSc in Agricultural Economics</td>
<td>10 years</td>
<td>1</td>
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<tr>
<td>7</td>
<td>Agro-Processing Specialist</td>
<td>MSc in Agro-industry or related field</td>
<td>10 years</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Veterinary Specialist/Doctor</td>
<td>MSc in Veterinary Science</td>
<td>10 years</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Architect</td>
<td>BSc in Architecture</td>
<td>7 years</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Surveying Assistant</td>
<td>Diploma in Surveying</td>
<td>7 years</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>AutoCAD Technician</td>
<td>Diploma in any Technical Field with vast experience in AutoCAD</td>
<td>7 years</td>
<td>3</td>
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</table>
### Appendix 1: List of Provinces and Districts including Proposed Infrastructures

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Rural Community Infrastructures (Number)</th>
<th>Public Infrastructures (Number unless stated)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1. Livestock Service Centres</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tier One</td>
<td>Tier One +</td>
</tr>
<tr>
<td>1</td>
<td>Muchinga</td>
<td>1. Isoka</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Mpika</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Nakonde</td>
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</tr>
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<td>4. Chinsali</td>
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<td></td>
<td>3. Mungwi</td>
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<td></td>
<td>4. Mporokoso</td>
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<tr>
<td></td>
<td></td>
<td>Sub-total 2</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LISP Total</td>
<td>35</td>
</tr>
</tbody>
</table>

1. LSC Tier 3 will be located at Mbesuma Ranch (Chinsali District) and Kalungushi Ranch (Mporokoso District).
2. Basic Slaughter Houses (not high-tech abattoirs). Where the demand is low, based on field assessment, provision should be made for Slaughter Slabs.
3. Preferably, gravel feeder roads.
4. The Provincial Centre (District) with Regional Laboratory will not have a District Laboratory. Depending on the livestock numbers and demand, if need be, two Districts can be clustered to use one laboratory which will be strategically located.