



Veterinary Drug and Animal Feed Administration
And Control Authority

**INSTITUTIONAL AND FEED VALUE CHAIN
CAPACITY BUILDING FOR FEED SAFETY INITIATIVE**

**SUBMITTED TO: IFIF CAPACITY BUILDING
PROJECT**

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1. Background

Ethiopia is predominantly Agrarian country with satisfactory growth level and prominent Livestock Genetic Resources Repository. The Livestock sector plays critical roles in improving the livelihoods of community, stabilizing food and nutrition security, accelerating export and industrial growth.

The Livestock sector, contributes a lot to the Ethiopian GDP that has significant economic and social importance at household level and makes considerable contributions to foreign currency earnings. But the productivity and economic contribution of the livestock sector is much below the naturally endowed potential. One of the basic reasons for the low contribution is due to the scarcity and instable quantity, quality and safety of the feed supply side.

Lack of feed quality control & assurance mechanism, has further created mistrust among the feed value chain actors. Furthermore, feed processors pay very little attention to the quality of raw materials they use in compounded feed. Eventually, the supply side is not reliable to guarantee the nutritional value of the compounded feed they produce for sale. None the less, users of compounded feeds are not yet well aware of the feed quality and safety issues and more often procure tainted/unsafe feed with low price they find nearby. These show that quality is compromised with cheaper prices which may predispose to health hazards of both animals and human health.

Therefore, all the problems indicated above can, directly or indirectly, impose fundamental challenges to Ethiopian livestock production, productivity and product safety. Hence, requires special attentions that entail cooperation with development partners and the proposed project (Feed Regulatory Capacity Building) interventions to avert the mentioned constraints. It would also have contribute more in raising community awareness, institutional and personnel capacity as well as skill enhancement in inspectorate functions in commercial feed value chain.

Growth and Transformation Plan (GTP - II) has given better emphasis to the livestock sector to enhance its contribute to the national GDP in the next 5 years and even more in the coming 20 years as indicated in Livestock master plan- the Road Map for Livestock Development, which shall be promulgated very soon.

According to the stretched plan, designed by GTP –II, numbers of improved dairy cattle will increase from 453000 to 4,044,000 (793% increase or 8 times of the baseline year), total cattle milk production 4132 to 7967 million liters (93% increase), local cattle individual milk yield from 1.9 to 6 liters/day (216% increase), chicken meat production from 48.9 to 163.9 tones (235% increase) and egg production 419 to 3,888.8 tones (828% increase).

On the other hand, the Ethiopian CRGE plan also emphasized to intensification and segmented animal species that suit to Climate changes adaptation and mitigation strategies focusing on more productive meat and dairy animals as well as scale out poultry industry.

The intensification and industrialization of livestock production systems is characterized with high animal densities per given area, would consequently cause substantial environmental and social impacts which require particular attention to feed – food safety. Hence, main emphasis should be given to prevention and control of contamination and trans-contamination of animal feed, feed born diseases, as well as to the protection of human health.

However, the emphasis made and ambitious targets set alone, cannot be achieved without basic inputs supply system development and implementation, particularly, animal feed and adequate health services. The input (feed supply) delivery needs concurrent strategy and prudent safety and quality assurance and regulation system.

The above alluded problems have drawn great attention towards necessity of regulatory system in feed production, processing, storage, transportation and utilization processes. The regulatory frame works need, within the livestock industry, stringently organized and oversea systemic problems in the national mandates, harmonized with global norms, rules and regulation to fit into the global market needs and requirements. This is important because, as part

of the world community in general and the country needs to enter to WTO in particular.

With this regard, the Ethiopian Government has recently established the Veterinary Drug and Animal Feed Administration and Control Authority (VDFACA) by provision of proclamation 728/2011. The primary duty and responsibility of the Authority in feed regulation aspects include, but not limited to:

- Ensure animal feed quality and safety in processing and distribution thereby play role in enhancing animal productivity and health,
- Strengthen, facilitate and regulate animal feed industries thereby enhance animal products safety and consumers health,
- Safeguard feed-food safety system and trade to prevent animal diseases emanate from poor quality and unsafe feed to maintain public health and remain competitive in the world markets for animal products,
- Certification and market authorization of feed manufacturing Companies for domestic and export markets.

The authority also has a responsibility to create systems for feed quality management to ensure consumers confidence in feed-food safety through systematic controls over raw materials and ready compounded feed, entering the food chain, via food producing animals in livestock industry.

The project concept is conceived with this background to alleviate the current constraints and shortages of regulatory skills. Rationale, justifications and main targets of the project is shortly elaborated hereunder.

2. Rationale and Justification of Capacity Building Project

The Ethiopian feed industry is at rudimentary level of development. The reason may be stated as due to weak awareness in feed utilizations in animal production, lack of confidence among consumers in feed purity, quality and safety for their animals, knowledge gaps in standardized feed processing and management, Feed processing technology is capital intensive, requires credit and insurance system. The systemic problem could not yet invite the social stratum, with low capital resources, to enter into the venture.

Currently, all feed manufacturing plants are producing below their annual production capacity. This is due to raw material price fluctuations, weak market network and/or feed producers and utilizes linkage. On the other hand, the price of imported feed additives is skyrocketing and became unaffordable. Due to this, compounded feed utilization is discouraged and most consumers prefer to use homemade feed which is not well guaranteed from the nutrition availability points of view as well as safety and profitability of livestock production activities.

The supports and monitoring activities of VDFACA to the feed value chain is not well developed. Community awareness is to be strengthened further and the role of Private – Public Partnership (PPP) in the feed value chain actors ameliorated. The Authority is responsible for assuring feed quality and safety. With this regard, further support is needed in trainings to improve the regulatory knowledge gaps which is identified & recognized as one of the main constraints in the improvement pathways of feed quality and safety.

Shortages of skilled manpower, adequately trained managers, supervisory personnel along with recurrent incidences of feed contamination and its implications on human health is critical threats that need to be alleviated prudently. Furthermore, it is paramount important to build community awareness in processed and compounded feed utilization, feed quality and safety issues along the feed value chain, as considered the major constraints, in the development of feed industry.

The bottom line of this project document is that the, VDFACA has not yet built the capacity of its newly employed personnel to strongly support the feed value chain actors and transform feed industry regulations. Accordingly, the limitations in knowledge, skill, institutional facilities are expected to be addressed and alleviated through the proposed capacity building project.

Identified Knowledge Gaps of VDFACA personnel

The Authority is actually at infant stage and its regulatory capacity, knowledge and skills of the staff is not yet built on strong ground. The knowledge gaps identified among the staff of the Authority indicate that there are shortcomings in regulatory operations. The main gaps, among others, are mentioned as follows:

- a) Lack of knowledge and experiences in regulatory operations,
- b) Low knowledge in Feed safety and quality assurance principles and procedures,
- c) Low know how in HACCP principles, planning and implementations,
- d) Low knowledge in Good Manufacturing Practices (GMP), Good hygienic practice (GHP)] in Feed processing plants,
- e) Feed hazards Risk assessment, risk management and risk communication skill, inclusive preventive measures,
- f) Application of Risk Assessment for Feed as per Codex Guidelines,

Therefore, this Project concept focuses on institutional capacity building for the mentioned Authority, its staff members and Feed value chain actors engaged in feed processing, importation, whole selling and distribution operations in the country. The joint cooperation as well as capacity building for both regulatory and value chain actors will enable to ensure safety & quality of feed management thereby opens an opportunity in meeting international feed quality standard requirements for global trade in livestock origin commodities.

VDFACA is established recently & is fully accountable for ensuring feed quality standards, safety & traceability animal feed. Accordingly, organizational structure was created & required employees are employed but the institution capacity is not yet well developed to pursue regulatory functions as required to be. The Authority is not equipped with expected technical facilities as well as skilled human power in regulatory aspects.

In general, the staff and feed value chain actors lack knowledge and skill in feed quality management system & transform the existing commercial feed production, processing and trade to the most desirable healthy and competitive level.

3. Project Components

3.1 Institutional capacity building

Feed analysis Laboratory equipment particularly, *Rapid Multispectral Imaging* for ensuring high quality feed products and protect counterfeiting actions in feed Industry is the main institutional facility required. This facility will help and capacitate to frequently monitor and supervise feed processors, importers and distributors' in production storage and distribution operation mechanisms. Model and capacity of this equipment will finalized in the due course the grant processing.

Consultancy support for preparation of Technical Regulatory Manuals and Guidelines development which would enable Feed Registration and Certification Directorate as well as Feed Inspection Directorates. The Manuals and Guidelines are to be focused on Feed Quality & safety Assurance Systems, Standard operation procedures (SOPs), Set up a design and specifications for a Model Feed Processing Plant. Different Feed Regulatory Guidelines are to be prepared by reputable international consultants. Working manuals & Guidelines (7) produced on the following issues:

1. Feed quality and safety management system,
2. Develop Feed Quality Assurance System,

3. Quality and Safety Audit operations in Feed Processing Plants,
4. Application of Good Manufacturing Practice (GMP) in Feed Processing Plants,
5. Feed Sampling Methods case by case,
6. Model feed processing plant, design with specifications,
7. Guideline for animal feed disposal methods and procedures,

Institutional Capacity building areas are the followings:

No	Items	Qty
1	Rapid Multispectral Imaging Machine for Feed Lab Analysis	1
2	Laboratory feed mill (knife mill GRINDOMIX GM 300)	1
3	Automated sample Preparation	1
4	ELISA Reader	1
5	Consultant hired for setting different Guidelines and Manuals	7

3.2 Human Capacity Building (Study Tour, Domestic Training and Workshops)

Financial support is requested for important Study Tour abroad and for conducting several Domestic trainings and workshops to adopt and own the prepared regulatory guidelines. Funds are required also for periodical consultative meetings with partners and stakeholders engaged in feed industry sector. The detail is presented in proposed Fund Request, Annex 1.

A) Study Tour in Reputable Countries

The basic objective of the study tour is to acquire best practices in Feed Regulatory System, in potential institutions of reputable country (countries). The tour programs can be segmented in 2 parts:

1. Study tour for higher management officers (DG of the Authority, Deputy DG, Directors for Main Directorates, which includes 5 person),
2. Medium leadership staff (Team leaders and technical performers staff in Feed Registry and Inspection Directorates, it includes 9 staff members),

B) Domestic Trainings

After the study tour, the participants are expected to train regional senior experts as TOT and consequently, they will train the respective Zonal District experts so that eventually the last experts will train Das and community as needed in their respective areas. Training thematic areas for TOT could include the followings, but not limited to:

1. Principles of Feed Quality and Safety Assurance system,
2. Total Quality Management System in Feed Processing plants,
3. Good Manufacturing Practice (GMP) in Feed Processing Plants, Ethiopian conditions
4. Principles and Applications of Hazard Analysis and Critical Control Points (HACCP) in Feed Processing Plants,
5. ISO 9001, 22000 and others (why ISO standards? How to use them in Feed Quality Management system, practicality in Ethiopia?).

This project supported by IFIF capacity Building Project will upgrade institutional capacity, staff & the feed value actors as whole. This enables to build confidences of consumers in feed quality assurance, trade and transactions within the system.

Moreover, the capacity building for the staff and skill development through domestic training and study tour, the bad existing scenario within feed value chain would be transformed to a better status, quality assurance systems would be improved based on the principles of GMP as appropriate in Ethiopia and feed industry will be capacitated to establish self control mechanisms. Furthermore, food animal producers are encouraged to inter into the sector investment ventures.

As an outcome, this project is expected to develop the capacity of feed value chain actors including relevant stakeholders and collaborators to enhance their participation on keeping quality & safety of feed which is considered as a top urgent for VDFACA in establishment of reliable participatory regulation system in feed industry.

4. Project outcome and out puts

Comprehensive Outcome: Quality and Safety of commercial feed assurance system Developed

Output 1: 7 higher and medium level management officers and experts gained experience sharing knowledge in the reputable countries.

Activity 1.1: Conduct International Study Tour FOR **higher** and medium level management officers and experts

- Identify reputable countries and potential institutions in respective country in Feed quality & safety management system,
- Identify higher management officers (DG of the Authority, Deputy DG, Directors for Main Directorates, which includes 3 persons),
- Recruit Medium leadership staff (Team leaders and technical performers staff in Feed Registry and Inspection Directorates, it includes 4 staff members),
- Prepare TOR for study tour and conduct the tour, share good practice in principles of GMP, HACCP, Quality, Safety Assurance & others,

Output 2. 550 Feed value chain actors capacity developed.

Activity 2.1: Conduct domestic training for potential human resource involved in feed value chain (feed processing plant operators and regional senior experts)

- Conduct training for 200 regional and district experts on principles of feed safety and quality management,
- Conduct training for 50 feed processing plant quality control officers, production heads and warehouse officers on Feed quality management system, GMP in feed processing plants, Hygienic feed handling systems,

Activity 2.2: Organize Workshops and/or training for regional feed vendors and users to build public awareness.

- Prepare workshop/training manual,
- Conduct workshop/training and build public awareness on basic principles of feed quality and safety management for 300 regional beneficiaries.

Output 3. Institutional logistics and resource Guidelines and Manuals Developed

Activity 3.1: Procure and supply Laboratory Analysis Equipment and set Guidelines and Manuals useful in Feed Regulatory Operations by Animal Feed Registration and Certification Directorate of the Authority. Detail are indicated in the following table.

No	Items	Qty
1	Rapid Multispectral Imaging Machine for Feed Lab Analysis	1
2	Laboratory feed mill (knife mill GRINDOMIX GM 300)	1
3	Automated sample Preparation	1
4	ELISA Reader	1
5	Consultant hired for setting different Guidelines and Manuals	7

5. Requested Budget Summary

No	Item	Qty	Unit cost, USD	Total est. cost USD
1	Institutional Capacity Building			442,050
1.1	Multispectral Imaging Machine for Lab Analysis	1	120,000	120,000
1.2	Laboratory feed mill (knife mill GRINDOMIX GM 300)	1	6,6000	6,600
1.3	Automated sample Preparation	1	39,600	39,600
1.4	ELISA Reader	1	15,850	15,850
1.5	Consultant hired for setting Guidelines and Manuals	2	130,000	260,000
2	Regulatory Human Capacity Building			20,470
2.1	Study Tour			10,969
	Participants per-diem (DSA)	7	96*7*7days	4,705
	Air fare and accommodations	7	820*7+75*7	6,265
2.2	Domestic Training			9500
	Trainees per-diem	550	30*550*5days	82,500
	Trainers per-diem	5	50*5*5 days	1,250
	Grand Total (1+2)			462,520