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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

# POLICY PLANNING FOR REQUIRED POLICY AND LEGAL REFORMS

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This report "Policy planning for required policy and legal reforms" is submitted in response to deliverables Sub- activity. 1.1.8 "Propose areas for policy, legal reforms and interventions, based on the international requirements and best practices (OIE, Codex), to streamline the national legislation in the short, medium and long term" and "Sub-activity. 1.1.9. Make recommendations on the gaps in the existing legal framework governing food safety in the country as against international requirements".

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#### Bangladesh

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# **Abbreviations and Acronyms**

AMR	Antimicrobial Resistance
AMU	Antimicrobial Use
СВО	Community-based Organisation
BFSA	Bangladesh Food Safety Authority
BLRI	Bangladesh Livestock Research Institute
BSTI	Bangladesh Standardization and Testing Institute
DLS	Department of Livestock Services
GDP	Gross Domestic Product
FDIL	Field Disease Investigation Laboratory
IT	Information Technology
LDDP	Livestock and Dairy Development Project
MRL	Maximum Residue Level
PVS	Performance of Veterinary Services (OIE Evaluation tool)
QC	Quality Control (Laboratory)
ТВТ	Technical Barriers to Trade (WTO Agreement)
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organisation
WOAH	World Organisation for Animal Health (formerly OIE)
WHO	World Health Organisation
WTO	World Trade Organisation

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### **EXECUTIVE SUMMARY**

This Policy Paper has been developed through a consultative process between a Team of international and national experts working alongside senior managers within the Department of Livestock Services (DLS) and representatives of the main actors involved in the production processing and regulation of the quality and safety of animal products destined for human consumption.

The rapid growth of commercial scale livestock production, especially in the poultry industry as well as the expansion of milk collection and processing systems, combined with the everincreasing demand for safe and high quality animal products, bring major challenges related to food safety management.

The high density of human settlement combined with the rapid intensification of livestock production systems, especially in peri-urban areas where poorly regulated waste management of industries such as leather tanneries as well as others discharging toxic wastes into an environment where crop and livestock farming are being undertaken side by side, brings the risk of hazardous residues entering the human food chain.

The intensification of crop and livestock production systems also presents additional risks to human and animal health largely due to increasing usage (and abuse) of agrochemicals, antimicrobials and hormones to prevent and control crop pests and livestock diseases, again leading to the risk of undesirable levels of hazardous residues in both crop and animal products destined for both animal and human consumption, as well as environmental contamination. Furthermore, poor standards of hygiene at each stage of production, processing and distribution of animal products can also result in the contamination of animal products with biological and physical hazards.

In response to these emerging challenges, over the past two decades, a number of agencies within the government of Bangladesh have begun to adopt policies with the aim of addressing public concerns related to food safety of animal products. However, in spite of these positive undertakings, it is now recognised that there has been insufficient dialogue between each of these institutions, resulting in a lack of coordination and collaboration in addressing the risks associated with food safety. This in turn has resulted in a degree of overlap and ambiguity in the respective mandates of these institutions as well as some significant gaps in the overall approach to food safety management along each of the major livestock value chains.

At present the bulk of animal products, (meat, milk and eggs) placed on the market in Bangladesh are being sold in the absence of well-planned, regular surveillance, inspection and other preventive control measures.

Earlier Livestock Policies placed a greater emphasis on increasing livestock production and productivity, sometimes at the expense of allocation of resources towards animal health and especially the implementation of regulatory functions to ensure the food safety of animal products. There is now a need to shift towards a Policy which includes the promotion of increased investment in measures to address the risks associated with the production, processing and distribution of animal products destined for human consumption.

### **INTRODUCTION**

### **1. Policy Framework**

The proposed Policy Paper presented in this Report, is seen as just one component to be included within an overall proposed draft comprehensive Livestock Development Policy Framework. Due to the shortcomings noted in the most recent National Livestock Development Policy (2007), a new draft Livestock Development Policy Framework is proposed for future consideration. This Policy framework has been developed in line with best practice and is based on similar livestock development policy outlines that are now being adopted in both developed and developing countries elsewhere in the world.

Figure 1 below, and Table 1 (Annex 1) have been developed in order to illustrate where the area of **"Food Safety of Animal Products"** would fit into an overall comprehensive National Livestock Development Policy Framework.

Figure 1 below, provides a pictorial representation of the position of "Food Safety of Animal Products" in relation to the other proposed four pillars and areas of interest within the draft proposed Livestock Development Policy Framework.

Table 1 (Annex 1) provides an outline of the chapters which describe the existing situation in terms of the importance of livestock production and the challenges faced by the Department of Livestock Services and then goes on to provide an outline of the Livestock Development Policy under five main areas of intervention, presented here as five major pillars under which Overall Objectives, Strategic Objectives and then Desired Outcomes are formulated. Such a Policy Framework can be used as the basis for the formulation of Annual Investment and Implementation Plans which are used to provide an indicative budget and to identify the activities which will be undertaken by the Department of Livestock Services to achieve the stated objectives and outcomes referred to above.

Such a Policy Framework will provide a strong justification for greater investment in Livestock development than has been the case in the past, given the extremely important role of livestock ownership within Bangladesh's rural economy as well as in the context of the rapidly growing consumer demand for safe livestock products as well as the expected increase in volume of export trade of livestock products to generate foreign income.

The five pillars presented in this draft Policy Framework are considered as being the most important components of a comprehensive Livestock Production and Veterinary Service.

**Pillar 1 - Organisation and Management** is a common pillar and includes sections to deal with cross cutting areas of interest such as Human Resources, Capacity Development, Administration, Finance, Procurement, internal and external Communication, Policy, Planning, Monitoring and Evaluation.

**Pillar 2 - Livestock Production**, includes the services required to improve livestock production and productivity, such as extension programmes to improve livestock farm management, housing and nutrition, fodder and forage production and utilisation, and the quality of animal feeds, the preservation of indigenous genetic resources as well as improved livestock breeds and breeding practices.

**Pillar 3 – Animal Health and Welfare** covers the surveillance, prevention and control of animal diseases, routine clinical veterinary services, the prevalence and relative importance of livestock diseases and the welfare of animals on the farm, working animals, animals during transportation, animals at slaughter, animals used for experimentation, exhibition (zoos) and for sport.

**Pillar 4 – Veterinary Public Health and Food Safety** includes three main components, the first of which is the **Food Safety of Animal Products** and which sits alongside the surveillance, prevention and control of zoonotic diseases and antimicrobial resistance (AMR).

**Pillar 5 - Domestic and International Trade**, covers the regulatory controls required to protect human and animal health and the environment of Bangladesh from the risks associated with the domestic marketing and international trade in live animals, animal products and animal feeds, as well as Export certification. Such regulatory controls must be in compliance with the international standards set under the Agreement on the Technical Barriers to Trade (TBT), the Sanitary and Phyto-Sanitary (SPS) Agreement, both from the World Trade Organisation (WTO) and those of the Terrestrial and Aquatic Animal Health Codes of the World Organisation for Animal Health(WOAH) (formerly OIE) and the Codex Alimentarius of the joint FAO/WHO Codex Commission.

The following draft Food Safety of Animal Products Policy thus comprises one component within the overall draft proposed Livestock Policy Framework, lying within Pillar 4, "Veterinary Public Health and Food Safety", alongside the surveillance, prevention and control of zoonotic diseases and anti-microbial resistance (AMR)

The draft proposed Food Safety of Animal Products Policy recommends strengthening the area of the veterinary domain known as "Veterinary Public Health". Food Safety regulatory functions are shared by a number of partner organisations, not always having clearly defined boundaries as to each of their respective roles and responsibilities. It is therefore recommended to the DLS to actively engage with each of its implementing partners, both public and private, in order to clarify their respective roles and responsibilities and thus improve the effectiveness and efficiency of the management of (scarce) resources directed towards food safety management of animal products.

# Figure 1 "Food Safety of Animal Products" as a component within Pillar 4 of a draft proposed National Livestock Policy Framework



### 2. The One Health Approach

The One Health High Level Expert Panel of the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO), whose members represent a broad range of disciplines in science and policy-related sectors relevant to One Health from around the world formulated the following operational definition of One Health:

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosytems) are closely linked and inter-dependent.



Most importantly, human populations are growing and expanding into new geographic areas. As a result, more people live in closer contact with wild and domestic animals, both livestock and pets. Animals play an important role in our lives, whether for food, fibre, livelihoods, travel, sport, education, or companionship. Close contact with animals and their environments provides more opportunities for diseases to pass between animals and people.

Over the past three decades in Bangladesh, livestock production has become more and more intensive, bringing larger numbers of animals into closer contact with one another and relying heavily on feed produced in less certain conditions in terms of environmental hazards and the use of agrochemicals. For these reasons it has become increasingly important for actors in all spheres related to livestock production to come together in order to **coordinate** their activities, to **collaborate** in their efforts to produce safe and high quality food and to **communicate** the information relating to their collective actions.

# BACKGROUND TO THE FOOD SAFETY OF ANIMAL PRODUCTS POLICY

Bangladesh is self-sufficient in poultry products. There is a rapidly growing small and medium scale peri-urban dairy industry and, alongside this, beef and small ruminant meat fattening

production systems are also becoming well established. However, the risks associated with intensification of production systems, as well shifting towards exotic, cross-bred animals aiming at higher production are also growing. As a result of commercialisation of poultry and dairy production systems in particular, there is increased use being made of anti-microbials to combat the common diseases associated with increasingly intensive farming systems. Thus, the danger of veterinary drug residues and other agrochemicals used in crop and fodder production used to manufacture animal feeds finding their way into animal products is also increasing.

At present, due to weaknesses inherent in the current food safety management systems, as well as a lack of scientific evidence from the human health sector, there is considerable uncertainty as to what extent contaminants found in animal products are causing food-borne illnesses in the human population. However, it is widely acknowledged that food-borne illnesses are common and that some of these can certainly be attributed to products of animal origin, either through the presence of pathogens in animals before slaughter or potentially due to contamination during processing, handling and retail. Recent studies conducted in Bangladesh [Islam et.al. 2010, E.coli Shiga toxin found in raw meat and milk samples); Faruque et.al. 2019 (poultry meat contaminated with E.coli and Salmonella spp); and Murshed et. al. 2016], would support this statement.

There is now therefore an urgent need to strengthen the regulatory systems to ensure good animal husbandry practices and the prudent use of agrochemicals and veterinary medicines as well as to ensure that good management practices are being employed along each of the animal product value chains from the level of production on the farm, through transport, marketing and processing systems to the storage, distribution, wholesale and retail sale networks involved in the supply of animal products to consumers.

This Food Safety of Animal Origin Food Products Policy identifies the more important gaps in food safety management of animal products and sets out a series of prioritised strategic objectives though which the main actors involved in livestock production and public and private input and service providers can progressively join hands to address the shortcomings. As more information becomes available through the gradual introduction of well-planned surveillance, inspection and incident data recording and analysis so the efficiency of food safety management activities can be improved on the basis of scientific evidence and risk assessment.

## **SITUATION ANALYSIS**

### 1. Methodology

This Situation Analysis is based upon the findings of desk studies to analyse the findings of related reports and documentation and a series of two missions to Bangladesh, (16–28 January 2022 and 28-30 March 2022) carried out by a team of international experts working alongside national counterparts contracted by UNIDO within the framework of the World Bank funded Livestock and Dairy Development Project (LDDP).

Each of the two missions allowed international **a**nd national experts to interact with directors

and senior executives representing the keys institutions holding mandates for performing functions related to the food safety of animal origin food products, as follows:

- The Department of Livestock Services (DLS).
  - Headquarters staff working in Administration, Extension, Research, Training and Evaluation; the Epidemiology Cell, Human Resources, and the section responsible for Legislation, Administration/Registration/Certification; the Quality Control Laboratory of DLS.
  - Central Disease Investigation Laboratory (DLS)
  - Veterinary Public Health Laboratory, DLS
  - Quality Control Laboratory (Savar)
  - The Livestock Research Institute (DLS)
- The Bangladesh Livestock Research Institute (BLRI)
  - Food and Feed Safety Laboratory and AMR Laboratory.
- Department of Fisheries
  - The Quality Control Laboratory
- The Bangladesh Food Safety Authority (BFSA).
- The Bangladesh Standardization and Testing Institute (BSTI).
- City Corporations, Ministry of Local Government, Rural Development and Cooperatives
  - Administrative section;
  - Health section dealing with veterinary inspection;
  - Slaughter house;
  - Food Safety Laboratory.
- Directorate General of Drug Administration (management of veterinary drugs), Ministry of Health and Family Welfare;
- Faculty of Vet Science, Sher-e-Bangla Agricultural University Dhaka.
- The Bangladesh Veterinary Council.
- Milk Vita, Ministry of Local Government, Rural Development and Cooperatives (Government Milk marketing Organization.

The above studies have resulted in the accumulation of baseline information and the characterization of the food safety and veterinary management landscape.

The first mission focussed on determining the level of progress and changes achieved by Bangladesh partners and stakeholders since previous Performance of Veterinary Service (PVS) evaluation and Gap Analysis missions conducted by the World Organisation for Animal Health (WOAH, formerly OIE) conducted in 2011 and 2015, respectively, including, the evolution of food safety regulatory functions since the creation of new competent authorities and the implementation of targeted food safety investments.

The Workshop conducted at the end of this mission allowed preliminary findings of the studies and mission findings to be discussed and verified by workshop participants representing

the above listed institutions as well as other related academic and research institutions and organizations.

During the second mission and workshop a Gap Analysis exercise was carried out on the existing food safety legislation and regulations for food of animal origin to examine and better comprehend the current system, as far as:

- Legal authorities.
- Operations of food and veterinary regulatory functions.
- The level of collaboration and coordination between organizations / competent authorities expected to work together in delivering regulatory and veterinary functions pertaining to food of animal origin.

This situation analysis and the findings and recommendations given below are thus based on the findings and recommendations of two Reports submitted by UNIDO to the LDDP entitled:

(1) Gap Analysis of Food Safety Management along the Major Livestock Value Chains in Bangladesh: Report of a Study and Field Mission, January 2022

(2) Gap Analysis: Food Legislative and Regulatory Landscape – Food of Animal Origin

#### 2. Main Findings

The key institution responsible for the food safety of products of animal origin at the levels of production and primary processing is the Department of Livestock Services within the Ministry of Fisheries and Livestock.

Recent improvements in the organisational structure and levels of staffing at the DLS include the following:

At the headquarters, three (3) new sections and a state-of-the-art Quality Control Laboratory, Savar, Dhaka have been established supporting a strengthened food safety oversight for food of animal origin. A Legislation, Registration and Certification Section, an Information and IT Section, an Epidemiology cell, and the Quality Control (QC) Laboratory are key units supporting this enhanced oversight. Key positions have also been added at the Divisional Livestock Offices, including the position of Deputy Chief Epidemiologist and Deputy Director, Veterinary Public Health, thus strengthening the capacity of the DLS to communicate animal disease information and to coordinate the management of food safety and zoonotic disease control activities between headquarters and the 64 Districts, down to Upazila and Union levels.

Furthermore, 3 new Field Disease Investigation Laboratories (FDIL) and 2 new Para-professional training institutes as well as 4,554 Union Livestock Service Centres have been added to the DLS field services, below the Upazila level, in order to allow animal health and other services to reach the more distant rural farming communities. To date, 2,017 Veterinary Field Assistants have so far been recruited to man these Service Centres, providing an opportunity to extend good animal husbandry practices (GAHP) at the smallholder livestock producer level, throughout Bangladesh. The 2020 revised structure of the DLS features a total manpower of 13,052 positions.

However, in spite of these important changes there remains a lack of Directorates or functional units and what would be considered as insufficient manpower at the DLS headquarters dedicated to the internal and external coordination, oversight and direction of food safety management functions at the field operations levels throughout the country (i.e., Division, District, Upazila and Union Council). Similarly, and although some DLS officers are appointed for the purpose of border control and export certification, there currently is no authority with specific responsibility for managing the regulatory functions of import and export of animals, animal products and other high-risk commodities within the headquarters or at the regional operations levels of the DLS.

Furthermore, although the DLS provides an undefined number of veterinarians on deputation from the DLS to City Corporations and, in some cases, municipal authorities, with the aim to perform food safety inspection duties including ante- and post-mortem inspections at some of the larger slaughter facilities, there is almost no coordination of the activities of these veterinarians and there is no direct reporting of the inspection findings back to the DLS, leading to important gaps in the epidemiological information that could be derived from such inspections.

The DLS is empowered by various pieces of legislation to support exercising its regulatory oversight on animal health and the production of food of animal origin, including the Animal Disease Act (2005), the Animal Slaughter and Quality Control of Meat Act (2011), the Bangladesh Animal and Animal Products Quarantine Act (2005), the Fish Feed and Animal Feed Act (2011) and the Animal Welfare Act (2019) and their associated Regulations.

Some regulatory provisions under these Acts have been developed or are being considered under development, are intended to offer criteria for operation of production establishments – for example: slaughterhouses, etc. – but also to define product safety parameters.

It is not clear to what extent the proposed technical rules or the rules under development are benchmarked against international standards or are supported scientifically. Such rules should include provisions related to Good Animal Husbandry (GAHP) requirements as well as Good Hygienic Practices (GHP) applied to processing and retail premises of food of animal origin.

It is also uncertain to what extent other stakeholders and partners – such as, BFSA and food production partners contributed to the development of the proposed / referenced rules, nor

if their enforceability – i.e. readiness of the sector to comply with these rules – was verified/ ascertained.

The DLS is supported by four other key institutions with regulatory functions mandated by the principal and subsidiary legislation, namely:

- Bangladesh Standards and Testing Institution (BSTI), Ministry of Industries
- City Corporations, Ministry of Local Government, Rural Development and Cooperatives
- Directorate General of Drug Administration (management of veterinary drugs), Ministry of Health and Family Welfare
- Bangladesh Food Safety Authority, Ministry of Food

The existing legislation under which each of these institutions derive their mandates covers all of the essential functions required to manage the food safety of animal products. However, in some instances the legislation creates overlaps in the functions of certain institutions leading to a lack of clarity as to which institution should perform certain important functions.

For example, whilst the Bangladesh Food Safety Act does not repeal other food legislation, it specifies the mandate of the BFSA as an organization meant to "support" the fulfilment of some food regulatory functions, such as standard setting or inspection. This situation may create confusion, as to how competent authorities should exercise their respective mandates. It may also lead to possible duplication of functions and lack of clarity for regulated parties as to the requirements to be fulfilled. It would also potentially lead to inefficient use of resources by competent authorities.

One such example lies with the setting of standards for Maximum Residue Levels (MRLs) of veterinary drugs, agrochemicals and micro-organisms, whereby the legislation providing mandates to the BSTI, the BFSA, the DGDA and the DLS, in the case of meat, all overlap. Furthermore, it is not clear whether a process of risk assessment is followed in the approval of veterinary substances, along with the establishment of their MRLs. It is also not clear to what extent Codex provisions would be considered, along with the relevant checks of the proposed MRLs to ascertain their adequacy with the Bangladeshi population and its dietary habits. For this to successfully function, defining either in legislation or in governance documents, the scope and mandate of the relevant agencies would be necessary, along with a formal collaboration mechanism to ensure appropriate establishment and enforcement of MRL's along the food chain.

A detailed description of the legislation and the legal mandates provided to each of the abovementioned institutions is provided in the second of the two reports (Gap Analysis: Food Legislative and Regulatory Landscape – Food of Animal Origin).

The studies undertaken thus recognise the need for more effective operational food safety coordination mechanisms gathering the key competent authorities listed above, for the purpose of clarifying the shared responsibilities, coordinating interventions and establishing common priorities of work, to facilitate exercising food regulatory functions.

The scientific capacity underpinning food regulatory functions is well covered as it pertains to food laboratory infrastructure and other research capacities.

It was not clear however how organizations responsible for research and data collection interact with food regulators and decision-makers to ensure data is used effectively for regulatory decisions and to inform policy making.

Moreover, some examples of food regulatory decision-making being considered by the DLS to manage the safety and quality of food of animal origin, was not supported by a science-based or evidence-driven approach.

Across all of the institutions responsible for the management of food safety regulatory functions reviewed under these studies, the food safety risk assessment function does not seem to be fulfilled, either to support regulatory development or in the context of addressing situations of non-compliance and food safety incidents. This function is however identified as part of the prerogative of the BFSA, through the associated legislation.

The clarification and enhancement of the role of the BFSA, with a possible focus on offering the scientific assessment capacity to the food regulatory oversight exercised by the various regulators: DLS and BSTI would strengthen the robustness of the food control system as it applies to food of animal origin.

### 3. Main Conclusions

The review of the food legislative and regulatory landscape in Bangladesh as it applies to food of animal origin identified a clear commitment to enhance food regulatory oversight as witnessed by the recent investments in existing and new competent authorities.

The food safety regulatory mandate is well supported by empowering legislation, governing the intervention of various competent authorities, and supporting them in issuing requirements to govern the safety and quality of food of animal origin.

There was no evident gap in the scope of the primary legislation, however there are ambiguities around enforcement mandates resulting in possible overlap in responsibilities that may be mitigated by operational arrangements between competent authorities.

Most of the gaps and areas of enhancements identified in this study relate to the **way food competent authorities would exercise the food safety regulatory mandate**, granted to them by the relevant legislation and would not therefore necessitate changes in primary legislation to be addressed. In conclusion:

- The assessment of the regulatory coverage of the supply chain, identified that such coverage was provided from primary production with the confirmed oversight of the DLS to processed products and up to the retailer, under the leadership and through the oversight of the BSTI.
- DLS is equipped with a robust laboratory capacity, primarily as the result of recent investments, leading to the creation of the **Quality Control Laboratory**, associated with the Department, and which is fully equipped with state-of-the-art technologies that

enable the detection and quantification of major food safety hazards. At present, this lab is underutilised since there are no routine programmes in place for monitoring residues in food products of animal origin and there are insufficient numbers of trained laboratory personnel to utilise the current laboratory testing capabilities and have insufficient funding.

- A similar investment was noted in the Bangladesh Livestock Research Institute (BLRI), possessing the ability to conduct research, collect data and investigate food safety and Antimicrobial Resistance (AMR) issues.
- It is unclear, however, to what extent the activities of the laboratory/ies are well integrated in the regulatory activities of the DLS or how data to inform decision-making is being generated.
- While BFSA was identified as a key food regulatory authority, the examination of the BFSA Act, identified that the Act referred to the role of the organisation in a support role of existing food regulators and food regulatory requirements in force. The BFSA Act did not repeal any other food-related act but was considered in complement. As a result, the role of the BFSA can be envisaged more in the context of offering the scientific support that would be needed to all food regulators in the country and could therefore act as a food risk assessment / risk communication organisation, in a manner similar to the role of the European Food Safety Authority.
- Overall, the discussions witnessed and recorded during the Workshops did not identify any standing mechanism of coordination or collaboration between food regulators sharing the responsibility of oversight and regulatory operations pertaining to food of animal origin. It is important that such structures exist and that they are anchored in legislative and/or regulatory requirements, making them mandatory hence promoting such crucial functions.

### 4. Initial Recommendations

- A. It is important for DLS to exercise its food regulatory mandate to oversee primary production for food of animal origin, as directed by existing legislation and be empowered to develop and promulgate regulatory requirements in the form of technical regulations or technical guidance supporting the production sector in adopting more stringent veterinary practices and food safety requirements, benchmarked against international standards and guidance offered by OIE and Codex, while being adapted to the realities of the production sector of food of animal origin in Bangladesh
- B. It is recommended that technical rules / requirements issued by DLS or being considered for issuance be subjected to a scientific and technical review to ascertain their alignment with scientific information, international practices and their achievability.
- C. It is recommended that DLS develop planned food and veterinary regulatory programs, anchored in established regulatory development processes, ensuring the involvement of other regulatory partners and stakeholders.
- D. It is recommended that laboratory initiatives of food testing and research be better

integrated in regulatory operations from planning to the way results are expected to be utilized for regulatory purposes (to support decision-making).

- E. It is recommended to convene a consultative process enabling food regulators with regulatory oversight on food of animal origin with the objective to establish a standing coordination and work-sharing mechanism enabling collaboration and avoiding/ mitigating duplication and overlap. Such coordination protocol can be enshrined in a legislative or regulatory provision under consideration by the DLS.
- F. It is recommended that the food regulatory activities of BFSA be re-aligned with the needs to offer a scientific and risk assessment capacity to support food regulatory development. Such re-alignment is in line with the way the mandate of the organisation is defined under the Food Safety Act.

## **SWOTS ANALYSIS**

#### 1. Strengths:

- Dedicated workforce in DLS, with Veterinary Public Health representation established at Divisional level;
- Principal legislation sufficient to provide a legal basis for all essential food safety management regulatory functions;
- BFSA has been provided with the legal authority to provide policy support and coordination of agencies with shared interest in food safety of animal products
- The BAHIS has initiated analysis of clinical data records to inform understanding of antimicrobial utilisation (AMU).
- DLS-QC Lab has state of the art equipment suitable for analysis of drug and chemical residues in animal products.
- Good support available at BSTI for setting standards for food safety of animal products.
- Strong interest, organisation and capacity of commercial poultry industry to address issues related food safety of poultry products.

### 2. Weaknesses

- Senior management of DLS are over-stretched due to multi-tasking and have not sufficient leadership and management skills in addressing food safety issues.
- Insufficient capacity at all levels in DLS to address Food Safety regulatory functions.

- Absence of data management systems to aggregate, analyse and communicate food safety metrics across the food chain.
- Insufficient understanding and ability to undertake risk assessment as applied to Food Safety management.
- Inappropriate organisational structure of DLS to address Food Safety management regulatory and extension functions.
- The DLS and other partner institutions have not yet fully engaged with the BFSA in order to clearly define their respective roles and responsibilities for the management of food safety of food products of animal origin.
- Insufficient regulations, guidelines and standards to guide the implementation of primary legislation.
- Lack of clarity of roles and responsibilities between some institutions with shared responsibility for regulation of food safety of animal products.
- Weaknesses in infrastructures and marketing facilities, analytical services and controls to allow safe transportation and processing of meat and milk.
- Lack of food safety management regulatory functions in Job Descriptions of DLS personnel employed at Headquarters, Division, District / Upazila and field levels.

### 3. **Opportunities**

- BFSA to embrace its role as the agency responsible for providing policy guidance to regulatory agencies with shared interest in Food Safety of Animal Products.
- One Health approach engagement of stakeholders to join forces to collaborate in efforts to strengthen capacity to implement a comprehensive food safety management plan.
- Creation of Public : Private partnerships
  - co-financing of projects to strengthen food safety of animal products
  - development of guidelines and codes of practice to implement regulatory requirements along the food chain
  - development of coordinated training programmes for actors along the food chain
- Creation of consumer awareness of food safety and quality systems to help drive a process of change.
- Greater coordination and communication of research being undertaken in the areas of surveillance for drug / chemical residues and AMR.

### 4. Threats

- Resistance to change.
- Insufficiency of financial resources state financing.
- High level of dependency on donor funded projects for implementation of the few food safety management projects currently being undertaken by DLS and development partners
- Entrenched interests in management of food safety of processing and marketing of meat products at City / municipal Corporations.
- Climatic shocks that have a negative impact on agriculture crops / and supply of crop by-products for animal feed.
- Reluctance of mandated authorities to regulate retail sale and use of anti-microbials effectively.
- Economic shocks restricting the safe and sustainable supply of animal feed, remedies and antibiotics pushing the sector towards survival mode and de-prioritising food safety improvements.

## MISSION, VISION AND GUIDING PRINCIPLES

### **1. Mission statement**

Food safety of animal products is one of the core responsibilities of the Department of Livestock Services under its existing legal mandates, working alongside partner institutions including BFSA with shared responsibilities to ensure the supply of safe foods of animal origin to consumers and contributing to poverty alleviation and the social wellbeing of the citizens of Bangladesh.

#### 2. Vision statement

Enhancing the health of consumers as well as animals in Bangladesh through the "One Health" approach.

### 3. Guiding principles

- **"Prevention is better than cure"** adoption of risk assessment, risk communication and risk management decisions based on scientific evidence at all levels of the supply chain.
- **Competence and capacity building** Veterinary Education, induction training and Continuing Education programmes for professional staff, awareness creation and provision of guidelines to livestock owners on best practices, public awareness of food safety risks.

- **Knowledge Building** developing a framework in which data is captured to support competent authorities, food businesses and producers to develop knowledge relevant to the production, processing and marketing of safe food of animal origin in Bangladesh.
- **Good governance**: Stakeholder consultation, gender mainstreaming, equity and inclusiveness, rule of law, transparency, integrity, accountability, compliance with international standards.
- **Multi-sectoral approach** "One Health" collaborative approach to protect animal health, human health and the environment, public / private sector collaboration (PPP's).
- **Sustainability** consideration given to effects of climate change, long-term commitment to investment in improvements in education, capacity development, production and productivity, efficient use of limited resources.

## **OVERALL OBJECTIVE AND STRATEGIC OBJECTIVES**

### 1. Overall Objective

Sufficient quantities of safe animal products available to satisfy consumer demand in Bangladesh and surpluses certifiable for export markets.

### 2. Proposed draft Strategic Objectives

#### 2.1 Management and Organisation of Veterinary Services in relation to Food Safety of Animal Products

(Contributing to Pillar 1 of the proposed Livestock Development Policy Framework)

- **1.1** Improve the structural organisation and institutional management of the Department of Livestock Services to allow effective implementation of a food safety management system from farm to fork.
- **1.2** Strengthen capacity (staff numbers and resources) and capability (competency) of the Department of Livestock Services to allow effective implementation of its legal mandates to regulate the safety of products of animal origin.
- **1.3** Ensure policies, legislation and guidelines are suitable to allow efficient and effective control of food safety at all levels along each of the major animal product value chains;
- **1.4** Improve efficiency in the implementation of the national food safety management system through engagement, collaboration and coordination with each of the different

national food safety regulatory agencies;

- **1.5** Improve collaboration and coordination of operations between the different regulatory agencies to ensure synergy in the effective regulation of veterinary medicines and biologicals, including enhanced awareness, surveillance and risk management of veterinary drug and chemical residues, AMU (and AMR).
- **1.6** Develop a communications system that supports interagency collaboration, based on an integrated database of veterinary medicines, disease incidence and registered users.

# 2. 2 Strategic Objectives to strengthen the existing Food Safety Management System

(As a component of Pillar 4 of proposed Livestock Policy Framework - Veterinary Public Health and Food Safety)

- **2.1** Improve efficiency and accuracy of food safety management practices through adoption of a risk-based approach towards prioritising risk management actions;
- **2.2** Strengthen surveillance of residues and anti-microbial resistance (AMR) in order to detect misuse of veterinary medicines, agricultural chemicals and other hazards and control food safety of animal products;
- **2.3** Strengthen data management systems to allow analysis of records of food safety incidents and inform risk assessment of hazards along major animal product value chains;
- **2.4** Improve standards of hygiene during production, transportation, processing and distribution of animal products through introduction of risk-based food safety management practices;
- 2.5 Promote investment (public and private) in modernised milk collection and processing and animal slaughter (poultry and red meat) facilities, in line with international standards and best practices;
- 2. 6 Improve safety and quality of animal products along animal product value chains through the introduction of Good Animal Husbandry Practices and Good Management Practices;
- **2.7** Fast track the development of regulation and capacity for animal feed safety, including the formulation and implementation of guidelines for the safety and quality control of on-farm mixed feeds and commercial feeds.
- **2.8** Develop multistakeholder fora including producers, processors, veterinarians and regulators to promote the adoption of best practices in the production of safe food.

## **DESIRED OUTCOMES**

### 1. Management and Organisation of Institutions with responsibility for implementation of a Food Safety of Animal Products Management Programme

- Revised structural organisation of DLS allowing creation of a clear chain of command to implement a food safety management regulatory programme from headquarters to field level.
- Policy and regulatory framework reviewed and revised to define roles and responsibilities of all institutions with a shared interest in regulation of food safety of animal products.
- Capacity of staff at all levels of DLS strengthened to ensure competence at all levels to implement food safety regulatory functions effectively.
- Sufficient financial and physical resources available to allow DLS to implement its legal mandates for regulation of food safety of animal products.
- BFSA has the capacity and interest to take forward its role in supporting development of food safety of animal product policies and regulations as well as coordination of institutions with shared responsibility for the regulation of food safety of animal products.
- One Health principles being adopted by key institutions sharing responsibility for regulation
  of food safety of animal products especially in relation to licensing and inspection of food
  processing establishments, ante- and post-mortem inspection of animals and meat, milk
  handling and processing, the regulation of the sale and use of anti-microbials as well as
  other prescription only medicines.

### 2. Food Safety of Animal Products

- Introduction or strengthening of Good Animal Husbandry Practices at dairy, beef and small ruminant fattening and poultry farms.
- Regulations reviewed and revised to include clear roles and responsibilities of food safety regulatory authorities with a shared interest in food safety of animal products.
- Capacity for Food safety data reporting, recording and analysis developed to inform planning of risk-based food safety management actions.
- Risk-based food safety management systems progressively introduced by actors along animal product value chains from production, transportation, marketing, processing through to storage, distribution and retail sale.
- Joint-venture / PPP's established between public and private sector for establishment of modern slaughter and milk collection / processing facilities.

- Sufficient quantities of safe and high quality animal feed available to satisfy domestic demand.
- Sufficient quantities of safe animal products available to satisfy growing consumer demand.

# ANNEX 1 – TABLE 1 DRAFT PROPOSED NATIONAL LIVESTOCK DEVELOPMENT POLICY FRAMEWORK

Chapter / Section	Notes / Indicative content
1 Introduction / Foreword	Message from the Minister: Brief Introduction to the Policy; Why a new Policy has been developed, Summary of key Policy areas; implications Policy has on future structure and functions of DLS, Acknowledgement of main contributors to Policy Development
2 Executive Summary	Brief summary of all major aspects of the Policy document, targeting high level decision makers who may not have time /interest to read whole document. Should capture the important points without having to do a lot of searching. Needs to cover the national importance of the Livestock Sector, key challenges facing the DLS, and a brief description of the 5 Pillars identified below. Can provide a summary of how to navigate the Policy document.
3 Background	Reference to previous Livestock / Animal Health / Animal Production / Agriculture policies as well as how this Policy contributes towards achieving the objectives spelt out in any National Development Plans.
	Importance of the Livestock sector in Bangladesh, contribution of Livestock to Agricultural GDP / National GDP; Contribution of livestock towards the livelihoods of the rural population;
	<b>Trends over the last 10 years in</b> (a)Livestock populations; (b) Livestock Production / animal products – increasing consumer demand for animal products (c) Export of Livestock and Animal products; Main achievements (e,g, self-sufficiency in poultry products), rapid growth of dairy industry, reference to climate change and need to adapt to climate trends.
4 Situation Analysis	Provides overview of current situation in the Livestock Sector; UNIDO Reports + other sources / FAO Reports, DLS Annual Report
4.1 Livestock ownership / Livestock Value chains	Brief Description of breakdown of numbers of farms disaggregated by farm size / livestock ownership disaggregated by species; Importance of the role of women in livestock handling and management;
	Description of the main livestock value chains – proportion of animals owned at each level of scale / management system – rural /backyard, semi commercial, commercial – trends towards achieving self-sufficiency of animal products.

	Structural organisation of DLS, Staffing levels, Infrastructures, Main areas of intervention, Veterinary research /diagnostic laboratories, Quarantine/ Border Inspection Posts, Divisional, District, Upazilla, Veterinary Centre levels.
4.2 Organisation of Animal Health and Production Services	Mandates of the DLS – Animal production (self-sufficiency / export), Animal Health (disease surveillance, prevention and control systems), Extension services – (Animal health service delivery, animal production extension); Veterinary Public Health (Food safety, Surveillance, prevention and control of Zoonotic diseases and AMR); Trade – Domestic marketing of livestock and animal products, Import and Export regulatory services), Animal Welfare.
4.3 Animal disease situation	Overview of main animal diseases prevalent in Bangladesh, main diseases of socio-economic importance, zoonotic diseases and their effect on human health and productivity; Disease surveillance, Laboratory diagnostic services, Disease prevention and control programmes
4.4 Livestock production	Livestock populations, Animal nutrition, availability of forage and feed, commercial animal feed production, animal breeding
4.5 Livestock / Veterinary governance	Main pieces of principal legislation and supporting secondary legislation; Challenges in enforcement and implementation of legal mandates; brief description of levels of compliance – GAPS identified in terms of enforcement and compliance - consequences –compromised animal health and livestock productivity, Food safety, AMR, Residues, Zoonotic diseases, limitations on access to export markets -
4.6 Animal Health & Production Education & Training	Overview of existing Institutions, Degree/University level / Diploma Agricultural College level; Numbers of graduates of each type; commentary on competency levels for each type of graduate and suitability to undertake official tasks allocated within the DLS at each level of administration, as well as clinical veterinary practice.
4.7 Public and private partner institutions / International organisation affiliation	Introduction to the "One Health" concept, description of partner institutions with a shared interest in animal production, animal health, human health; policies; standards, (National – BSTI, BFSA, City Corporations, BLRI, DGDA; livestock keepers, traders, private food business operators, private veterinarians / VPP's, cost sharing, public : private partnerships, credit schemes; (International – FAO, OIE, Codex, ASEAN, etc);
5 SWOTS analysis -	Strengths, Weaknesses, Opportunities and Threats analysis for Animal Health, Animal Production, Human Health, Environmental protection; Main challenges facing Livestock health and production, <b>Food Safety, AMR</b> Overview of the main gaps and challenges facing the DLS in terms of service delivery, animal health, veterinary public health, animal welfare and domestic / international trade;
6 Legal Status of the National Livestock Development Policy	All the government, autonomous non-government organizations, community- based organizations (CBO), and persons who are working within the geographical territory of Bangladesh for the management, development and conservation of Livestock resources, import-export or other business related to the livestock sub-sector would be under the preview of National livestock Development Policy.

7 Mission, Vision, Rationale, Guiding principles	Mission statement – What does the DLS do today, who does it serve, what services does it provide?
	<u>Vision statement</u> – Where does the DLS want to go in the future in terms of providing services to support improved animal health, food security and food safety, poverty reduction?
	<b><u>Rationale</u></b> – Justification for investment in Animal health and production; Domestic market / export potential, Human health, Food Security, Social well- being etc.
	Guiding principles:
	<ul> <li>"Prevention is better than cure" – adoption of risk assessment, risk communication and risk management decisions based on scientific evidence.</li> </ul>
	• Competence and capacity building – Veterinary Education, induction training and Continuing Education programmes for professional staff, awareness creation and provision of guidelines to livestock owners on best practices, public awareness of food safety risks.
	• Good governance: Stakeholder consultation, equity and inclusiveness, rule of law, transparency, integrity, accountability, compliance with international standards.
	<ul> <li>Multi-sectoral approach – "One Health" collaborative approach to protect animal health, human health and the environment, public / private sector collaboration (PPP's).</li> </ul>
	<ul> <li>Sustainability – consideration given to effects of climate change, long- term commitment to investment in improvements in education, capacity development, production and productivity, efficient use of limited</li> </ul>
	Pillar 1 Management and Organization of the Livesteck Services: Pillar 2
8Five Main Pillars, Overall Objectives, Strategic Objectives, Outputs	Livestock Production; Pillar 3 - Animal Health & Welfare; Pillar 4 - Veterinary Public Health and Pillar 5 Domestic and International Trade.
	Overall objectives for each Pillar.
	Strategic Objectives to contribute towards achievement of Overall Objectives.
	Desired Outputs to be achieved.
Monitoring and Evaluation	Logical Framework Matrix to include above Objectives & Outputs and Objectively verifiable indicators, Risks and Assumptions.

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