



# COMMISSION ON LIVESTOCK DEVELOPMENT FOR LATIN AMERICA AND THE CARIBBEAN

**XVI CODEGALAC**

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**ANIMAL HEALTH AND TRADE**

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## I. CONTEXT

### 1.1.SUMMARY

Animal health is defined as the maintenance of animals' physical health to ensure their welfare and food production. This means controlling risks and managing the impact of transboundary and zoonotic diseases better, since both affect productivities and jeopardise the stability of ecosystems, human health and food security.

Controlling phenomena that endanger animal health necessarily involves greater coordination across borders, as well as within government institutions and with local producers.

Biosecurity and sustainable regenerative livestock farming provide a substantial opportunity for the control and mitigation of transboundary and zoonotic diseases, as well as for increasing productivity while safeguarding environmental services, and ensuring nutritious and sufficient food for people.

However, small and medium-sized livestock producers often have limited capacity (such as technology or guidance) or ability to comply with animal health standards or mitigate the ramifications of zoonotic diseases, which affects their productivity and resilience to global economic, market or climatic changes.

Improving financial mechanisms, investment in infrastructure, timely identification of sanitary risks, cross-border and international cooperation, recognizing added value at origin and product diversification, as well as ensuring that small producers have risk insurance and credit options, are some of the recommendations made by CODEGALAC's Technical Secretariat.

Finally, it should be noted that compliance with animal health standards is aligned with international frameworks on sustainable production such as: the Sustainable Development Goals, the international One Health initiative, the World Trade Organisation Agreement on Sanitary and Phytosanitary Measures, the joint FAO/WTO Codex Alimentarius, the World Organization for Animal Health Terrestrial Animal Health Code, and the FAO strategic framework for 2022-2031.

## 1.2. INTRODUCTION

The Food and Agriculture Organisation of the United Nations (FAO) defines animal health as the physical health of animals for food production, including the presence, risk and control of diseases.<sup>1</sup> It emphasises, for example, systemic attention to prevalent and emerging zoonotic diseases<sup>2</sup> at local, national and regional levels, as the risk of diseases spreading goes beyond borders.

Today, livestock production contributes to job creation and better livelihoods of more than one billion people worldwide, with small-scale producers making up a significant proportion of the total,<sup>3</sup> many of whom are female heads of households. With around 800 million people suffering from chronic hunger and billions more facing other forms of malnutrition,<sup>4</sup> properly managed livestock production that complies with animal health standards has a great potential to impact the food security of the most vulnerable populations.

However, zoonotic diseases severely affect food production and, accordingly, the food security of smallholder livestock producers. These diseases cause an estimated 2.7 million deaths per year, and their

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<sup>1</sup> <https://www.fao.org/sustainable-food-value-chains/what-is-it/sfvc-vocabulary/es/>

<sup>2</sup> Zoonotic diseases are diseases transmitted from animals to humans through direct contact, a bodily fluid or through an intermediary such as mosquitoes. Examples are toxoplasmosis, COVID, mad cow disease, or avian influenza.

<sup>3</sup> FAO, 2022. Multi-year Programme of Work of the Livestock Sub-Committee of the Committee on Agriculture. Strengthening coordinated national capacities to manage animal disease risks and emerging zoonoses through the "One Health" approach. (COAG:LI/2022/5).

<sup>4</sup> FAO, International Fund for Agricultural Development (IFAD), United Nations Children's Fund (UNICEF), World Food Programme (WFP) and World Health Organisation (WHO). 2021. The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable and healthy diets for all. Rome, FAO. 240p. (also available at: <https://www.fao.org/publications/card/es/c/CB4474EN>).

effects are exacerbated by climate change, which deepens their impacts, making them more enduring and increasingly recurrent.

One of the main challenges in animal health is precisely the effective control and treatment of zoonoses. In this respect, sustainable livestock farming under the regenerative approach<sup>5</sup> constitutes a vital opportunity to fight the spread of these diseases and contribute to the eradication of hunger and malnutrition, one of the global nutrition goals for 2025 of the World Health Assembly and the Sustainable Development Goals (SDGs).

### **1.3. CURRENT STATUS**

Livestock farming is the main user of agricultural land and consumes about one third of the world's cereal production. In some areas, the expansion of arable land at the expense of forests is driven by the demand for feed.<sup>6</sup> Its territorial impact is also related to the emission of 14.5% of anthropogenic greenhouse gases (GHG), and the expansion of the agricultural frontier into areas earmarked for other activities such as biodiversity protection or water recharge. All of this has sped up the development and transmission of zoonotic diseases, as seen in recent times.

Small-scale livestock farming in Latin America and the Caribbean (LAC) relies largely on family labour while also constituting an essential contribution to household livelihoods and communities' sense of cultural belonging. Livestock production plays a fundamental role in food and nutrition security, economic and social development, and in biodiversity conservation by using native and adapted species.

In contrast to this contribution, in many cases, smallholders have limited capacities for implementing health standards and effective risk management of zoonotic diseases. Overall, their response capacity to these diseases is limited in terms of resources and preventative capacity, which has a negative impact on the population's food and health.

The endless threat posed by endemic, emerging and transboundary diseases, such as foot and mouth disease, highly pathogenic avian influenza, African swine fever, persistence of brucellosis and bovine tuberculosis, among others (all zoonoses) has an extraordinary impact on production and trade, while representing a major challenge for national veterinary services.

In this regard, intergovernmental and inter-sectoral cooperation along with cooperation between governments and local producers, are key to mitigating these effects and reducing the incidence of zoonotic diseases through common animal health standards.

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<sup>5</sup> See the XVI CODEGALAC document on Regenerative Livestock Farming

<sup>6</sup> FAO, 2022. Multi-year Programme of Work of the Livestock Sub-Committee of the Committee on Agriculture (document COAG/LI/2022/10). <https://www.fao.org/3/ni044es/ni044es.pdf>

An example of this type of cooperation is the World Trade Organisation Agreement on Sanitary and Phytosanitary Measures that sets out the basic rules for the trade of animals, plants and food between countries, outlining the World Organisation for Animal Health, formerly the Office International des Epizooties (OIE) as the point of reference on the matter. Sanitary standards are global public goods that safeguard the sustainability of livestock systems and promote safe international trade between countries, preventing the application of unfair practices.

From the perspective of a national health system, these standards are applied comprehensively regardless of the level at which animals and food are traded, which is why producer compliance with health and safety standards is key to market access at all levels. An example of this are the joint FAO/WHO Codex food standards, which are internationally adopted standards designed to protect consumer health and facilitate international trade.<sup>7</sup>

Additional examples of large-scale cooperation are the One Health initiative<sup>8</sup> and the biosecurity initiative,<sup>9</sup> whose common goal is to improve disease risk management along animal product value chains. This approach recognises that, overall, the health of humans, animals, domestic plants, biodiversity and the environment are closely intertwined.

The Progressive Management Pathway for Improving Biosecurity<sup>10</sup> promotes practices aimed at reducing microbial threats to animals and animal products, irrespective of the disease or production chain involved and the possible dissemination routes, including the application of other preventative measures such as vaccination, record keeping at all stages of the production system and compartmentalisation based on disease-free herds or flocks.

Investing in the health of production systems, individually and/or as a value chain, should be an integral part of livestock practice, framed by compliance with current regulations, but also accompanied by appropriate incentives for small and medium-sized producers through government programmes.

In this regard, it is suggested that the following practices be promoted in the public sector:

1. Financial mechanisms for productive investment, including the adoption of technologies, to help producers increase compliance with health standards, with a focus on biosafety, especially small-scale producers.
2. Investments in infrastructure to reduce the risk inherent to the priority diseases, protecting livelihoods through a sustainable approach.
3. Timely reporting of suspected diseases, as well as accurate diagnosis and health education.
4. Cooperation as a mechanism to generate volume (commercial scale) and favour competitive access to local, national and international markets.

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<sup>7</sup> <https://www.fao.org/fao-who-codexalimentarius/es/>

<sup>8</sup> Defined by the World Health Organisation as a unifying approach to improving collaboration at multiple levels of government on public health policy.

<sup>9</sup> Biosecurity is an integrated approach to health risk analysis and management that includes policies, regulations and practices aimed at protecting agriculture, food and the environment from biological hazards.

<sup>10</sup> FAO will develop a Progressive Pathway for Biosecurity Management with a view to assisting countries to progressively improve biosecurity capacities in production systems and value chains.

5. Value added at source and the diversification of products and by-products obtained as a competitiveness strategy.
6. Access to risk insurance as a tool to offset animal health contingencies.

Investing in health is key for the sustainability of livestock farming that enables better access to markets and, with the right incentives, credits, risk insurance and government programmes, can contribute to climate change mitigation and national food security.

Moreover, small-scale livestock farming is ripe with positive side effects for the environment and natural resource conservation. Its techniques and practices are generally adapted to local conditions, seasonal cycles and the availability of native-breed forage is naturally improved by successive generations of breeding.

The preservation of native livestock species, adapted to environmental conditions over multiple generations, must be addressed from within the academic and science and technology sector through applied research and innovation under new agro-productive conditions resulting from climate change, new value-adding opportunities or the need for preserving animal genetic resources.<sup>16</sup>

The search for new health and production control tools that are based on the gene pool of native species can contribute to technological development and innovation in health and productivity. However, it is important to assume that the generation of changes in nutritional, reproductive and production management practices, such as the timing of animal replacement and discarding and directed grazing, among others, may constitute a "technological leap" accessible to small producers, with a high impact on the system as a whole.

Likewise, the addition of new information and communication technologies for productivity monitoring, including the opportunity to incorporate traceability data for private and public health management, should be considered as an area of research and development in line with the existing computer system capabilities, including artificial intelligence.

Integrating national science and technology programs with national animal health management could allow for epidemiological data from research to be used in risk assessments, as a positive addition to data collected from surveillance systems and subsequently analysed in the framework of emergency management.

Likewise, the role of academia in knowledge transfer and in encouraging changes in attitudes and practices that lean more towards a production, environmental sustainability and conservation of indigenous natural resource approach, must be brought to the forefront under an intersectoral approach to public health and production policies that help minimise and mitigate the impact of climate change on small livestock producers.

Consequently, research, development and innovation management should not be conceived solely from a private sector perspective, reliant on large investments and financial resources, but as part of a dynamic government policy that brings together health and production agencies with universities and public and private, national and international science and technology institutions.

## II. CHALLENGES

The challenges faced by every country today in terms of further developing the livestock sector necessitate having a robust health system, endowed with sufficient human, economic, technological and material resources for managing effective government programmes tailored to each national context. However, sustainable governance is simply not possible without a consistent and updated regulatory framework that grants the necessary powers and legal bases to veterinary services and concurrent agencies to act in accordance with sanitary relevance and need.

Biosafety as a central aspect of behaviours, practices and skills on every link of a production chain requires all actors in the system to adopt proactive leadership, with governments being key players not only for issuing regulations and their subsequent enforcement, but also for training, awareness-raising and debate between the public, private and civil society sectors.

Ensuring comprehensive and ongoing evaluations of health systems is yet another challenge. Fortunately, there are internationally validated tools that can guide and bolster these processes, such as: the Laboratory Mapping Tool,<sup>11</sup> Surveillance Evaluation Tool,<sup>12</sup> Progressive Pathway for Emergency Preparedness,<sup>13</sup> the Joint Risk Assessment Operational Tool<sup>14</sup> (all promoted by FAO), the WOAHP Performance of Veterinary Services (PVS) Pathway, the WHO Joint External Evaluation, and others. These are a starting point for identifying gaps and opportunities for improvements and identifying vulnerabilities that need strengthening on one or more production chains.

Likewise, adopting mechanisms to promote access to technologies, productive investments and markets (local and international), risk insurance and microcredit is key to improving production systems in the face of the challenges presented.

Cooperatives can play a relevant role in generating production volumes and scales that offset investment costs, minimise risk and grow the individual income of each member producer from the group profit.

New information and communication technologies are essential to data collection and analysis and the generation of strategic information for smart production chain management by all stakeholders, as the basis of traceability systems, encouraging early response by governments to emerging zoonotic disease risks.

## III. RECOMMENDATIONS

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<sup>11</sup> In 2010, FAO developed this tool to assist with laboratory evaluations and specifically assess veterinary laboratory functionalities and capacities. Available at: <https://www.fao.org/documents/card/es/c/e13cf0b7-c8f4-4ff7-b340-439f40c677ec/>

<sup>12</sup> This tool was developed by FAO in 2017 to provide countries with detailed guidance and recommendations to improve their national animal disease surveillance systems. <https://www.fao.org/documents/card/fr/c/CB6523EN/>

<sup>13</sup> This is a self-assessment tool for countries to develop and improve their animal health emergency management capacity. Available at: <https://www.fao.org/documents/card/en/c/cb7324en>

<sup>14</sup> Designed in 2017 by FAO-WHO-WOAH to support countries in applying a consistent and harmonized approach to assessing risks posed by zoonotic disease hazard. Available at: <https://www.who.int/initiatives/tripartite-zoonosis-guide/joint-risk-assessment-operational-tool>

Considering the information presented in the previous chapters, the CODEGALAC Technical Secretariat proposes focusing efforts on developing or strengthening animal health systems based on the following recommendations:

- Promote the review and updating of animal health regulatory frameworks, giving sanitary regulations a legal status consistent with necessary actions in the event of animal disease emergencies.
- Implement general and specific biosecurity regulations in livestock systems, with a focus on co-responsibility and incentives along each livestock chain.
- Comprehensively and periodically evaluate the animal health and food systems of each of its livestock production chains, to identify gaps and opportunities for improvement to minimise the risks of entry and spread of animal diseases as prioritised for each species.
- Strengthen intergovernmental and inter-agency coordination bodies for rolling out programmes and policies in each of the value chains, with special attention to small producers and the territorial management of production systems. These include updating and harmonising health regulations governing priority diseases and zoonoses under the One Health approach, access to productive credit and risk insurance, improvements in production marketing systems at all levels, and capitalization of dividends from global sustainability, emissions reduction and climate change programmes.
- Build greater capacity for health emergency management by developing specific procedures and tactical documents and establishing an inter-agency and multi-sectoral control and command, involving actors from all along each production chain, as well as the advance provision of essential material resources, including, where appropriate, conducting specific simulation exercises by priority animal species or disease.
- Encourage the adoption of modern information systems as governmental management tools that support real-time data collection and analysis, dynamic risk assessment, and rapid health emergency management measures that minimise the likelihood of the dissemination and impact of priority biological agents in each livestock chain.
- Promote the integration of the scientific and technological sector in the management of health and production organisations, encouraging knowledge and data generation, technical training, the adoption of best practices and changing practices, for better management of risks to animal and human health, minimising environmental impacts and environmental conservation within the framework of sustainable development objectives.

Additionally, FAO, through the Technical Secretariat of the XVI CODEGALAC, offers guidance to the countries for the follow-up of the recommendations described above. This considers:

- Support for the review of national animal health regulatory frameworks as a starting point for updating animal health legislation and policies for the different livestock chains.

- Guidance on the assessment of national health systems using internationally agreed tools such as the WOAHPVS exercise, the Performance, Vision and Strategy tool for capacity building promoted by IICA, or others that may arise.
- Support for training and continuing education of health professionals in biosecurity, emergency preparedness and management, use of computer systems and new technologies for dynamic disease surveillance and smart risk management, zoonoses and One Health, drafting of health standards, among other relevant topics.
- Technical guidance on the regular management of a Dynamic Risk Assessment exercise with a regional approach for the identification of entry vulnerabilities of priority diseases, such as African Swine Fever and Highly Pathogenic Avian Influenza, and the follow-up of actions to strengthen health systems, sharing data and strategic information among the countries of the region.
- Guidance for the creation and development of national and regional inter-sectoral coordination bodies to address sanitary problems, the consensus of policies and programmes, and awareness raising and strategic training of every actor on livestock production chains, including the identification, systematisation and implementation of successful experiences that may make for better animal health and trade.
- Implementing activities related to health emergency management preparedness, including the phases of preparing tactical documents and emergency response procedures for each participating actor, interagency and intersectoral coordination and, as a final assessment stage, testing the system through simulation exercises per animal species.
- Assistance with the implementation of information systems and technologies that improve strategic data collection, systematisation and analysis, enable their integration into existing regional and international early warning and notification systems, and generate key information for rapid and effective health emergency management.
- Training small producers in all priority areas related to animal health, reproductive management and good production management practices, environmentally friendly production through silvopastoral systems or the sustainable use of natural pastures, forest conservation, among others.