

FAO Highlights Livestock's Role in Global Protein Supply and Food Security

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Local conditions and challenges vary enormously for a sector providing a third of the world's protein



According to a new study by the Food and Agriculture Organization of the United Nations (FAO), livestock production systems provide one-third of the world's total protein supply - most of it from mixed crop-livestock and poultry production systems - and are undergoing profound changes.

Feedlots and intensive production systems have important economic foundations, while the bulk of livestock's role in food security is based on national and local marketing, with only 15 per cent of meat, 12 per cent of milk and dairy products and just three percent of eggs traded across international borders.

At the same time, the livestock sector is experiencing a dynamic transformation process that is expected to last for the next decades, with feed-food competition for land - within a context of stabilizing arable cropland expansion and deforestation - driving the trend towards better use of agroindustrial by-products and other less conventional feed sources, as well as grasslands and marginal lands, to increase terrestrial animal food source (TASF) supply.

The report, Contribution of the livestock sector to food security and sustainable agrifood systems: Benefits, constraints, synergies and trade-offs, is the third of a series prepared in response to a request from FAO Members for a comprehensive, science-based global assessment of the livestock sector's contribution to food security, sustainable agrifood systems, nutrition and healthy diets, along with identification of key knowledge gaps.

This latest document assesses the available evidence from published scientific literature, as well as relevant policies and legal frameworks, focusing on livestock production system typologies. It considers the benefits, constraints, synergies and trade-offs they face, and contextualizes their social, economic and environmental sustainability while examining their resilience and their contributions to the bioeconomy.

"The many breeds and species of livestock on our planet can thrive in a wide range of environments, particularly in areas less suited or unsuitable for crop production, and contribute to a wide variety of healthy diets," FAO Director-General QU Dongyu wrote in the foreword.

“However, to optimize this contribution to human and planet health, the livestock sector must address a range of challenges,” he added, pointing to deforestation, land and water use, greenhouse gas (GHG) emissions, food-feed competition, herd management, productivity gaps, equitable social outcomes, animal health and welfare, antimicrobial resistance, and the risk of zoonotic and foodborne diseases.