



Food and Agriculture
Organization of the
United Nations



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**FAO LIVESTOCK
ENVIRONMENTAL
ASSESSMENT AND
PERFORMANCE
PARTNERSHIP**



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INTRODUCTION

Promoting sustainable livestock practices and informed decision-making



Livestock production contributes to global food security, reduces poverty, and sustains rural livelihoods. The Food and Agriculture Organization of the United Nations (FAO) actively promotes the transformation to more efficient, inclusive, resilient and sustainable agrifood systems, including livestock supply chains. Aligned with this commitment is the FAO Livestock Environmental Assessment and Performance (LEAP) Partnership, a multi-stakeholder initiative committed to improving the environmental performance of livestock supply chains while ensuring the sector's economic and social viability. The FAO LEAP Partnership is a coordinated global initiative that aims to accelerate the sustainable development of livestock value chains by cultivating collaboration among governments, the private sector, and civil society organizations.

Recognizing the importance of science and evidence-based solutions in enhancing policy formulation and driving positive change within the livestock sector, the FAO LEAP Partnership develops methodological guidelines covering different aspects of livestock production systems. These guidelines play a vital role in shaping effective and science-driven policy measures and business strategies to enhance the livestock sector's environmental sustainability. Highlighting the importance of standardized metrics and indicators, these tools are essential for a comprehensive evaluation and monitoring of the environmental impact of livestock systems, taking into account a multidisciplinary and multi-stakeholder perspective.

The multi-stakeholder nature of the FAO LEAP Partnership encourages collaboration among stakeholders with different viewpoints, facilitating the adoption of sustainable and harmonized approaches to tackle the intricate challenges confronting the livestock sector in the present time. By anchoring decisions and policymaking in scientific principles, livestock stakeholders can drive innovation, address global challenges, and execute strategies aimed at minimizing the environmental impacts of livestock while catalyzing a sustainable transformation of agrifood systems on a global scale.

FAO LEAP IN BRIEF



OUR VISION AND MISSION

The FAO LEAP Partnership's mission is to provide evidence-based support to decision making for improved environmental performance of the livestock systems, while considering their economic and social viability.

Facilitating global consensus

FAO LEAP is a collaborative multi-stakeholder partnership aimed at building global consensus on the metrics and methods to assess the environmental impact of livestock worldwide.

Promoting sustainable livestock production

Adopting sustainable practices is crucial for ensuring the long-term viability of the livestock sector. FAO LEAP emphasizes efficient resource use, animal welfare, biodiversity conservation, and the reduction of emissions and waste.

Addressing information needs

Livestock stakeholders, including policymakers and practitioners, increasingly seek comprehensive information on the environmental performance and sustainability of livestock supply chains. FAO LEAP offers comparative and standardized indicators to guide decision-making.

Fostering dialogue and collaboration

Through its initiatives, FAO LEAP facilitates constructive dialogue and encourages participation from livestock stakeholders with varying interests, driving collective action towards sustainable practices.

Advancing science-based benchmarking

FAO LEAP responds to the current demands for advancing towards a science-based benchmarking of the environmental footprint of livestock. By adopting a holistic and integrated approach, the partnership anticipates and addresses major global trends, contributing to a more sustainable livestock sector.

Realizing tangible benefits

Stakeholders have used FAO LEAP guidelines and principles to improve decision-making and practice. This adoption has resulted in tangible benefits such as improving national-scale policy decisions, enabling farmer participation in carbon trading, and rewarding producers for their environmental performance, among other positive outcomes.



ABOUT THE PARTNERSHIP

“The project responded to an existing demand to advance towards a science-based benchmarking of the environmental performance of the livestock sector. A decade later, the science-based approach and the multi-stakeholder Partnership remain fully relevant, contributing to a holistic and integrated perspective that even anticipated major global trends”.

Evaluation of the project “[Livestock Environmental Assessment and Performance \(LEAP\) Partnership](#)”

The [FAO Livestock Environmental Assessment and Performance \(LEAP\) Partnership](#) is a multi-stakeholder initiative launched in 2012. Its goal is to improve the environmental sustainability of the livestock sector through harmonized methods, metrics, and data. The partnership is founded on a voluntary and collaborative process between FAO and three main stakeholder groups:

- Governments
- Civil societies and non-governmental organizations
- Private sector

By building global consensus on science-based methodology and indicators to assess the environmental performance of livestock supply chains, the FAO LEAP Partnership supports the transition towards more sustainable, inclusive, and resilient livestock systems. This effort supports FAO’s ambitious goals of achieving Better Production, Better Nutrition, a Better Environment, and a Better Life.

FAO LEAP guidelines

Having access to scientific evidence is crucial for making informed decisions about livestock development. The FAO LEAP guidelines serve as a valuable resource for decision-makers, providing them with data-driven insights to understand the potential consequences of their choices. These resources identify the best strategies to optimize livestock production’s benefits while reducing its environmental impact. Based on rigorous scientific research, the FAO LEAP guidelines offer a comprehensive understanding of the complex dynamics within the livestock industry and their environmental impacts. By anchoring decisions and policies in precise data, they mitigate conflicts arising from divergent viewpoints or biases. Embracing this systematic methodology promotes transparent and uniform decision-making processes, cultivating trust and fostering collaboration among diverse stakeholders across the livestock sector.



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SUCCESS STORIES

AFRICA

Setting up a national greenhouse gas inventory for livestock in Kenya

In 2021, the State Department for Livestock of the Ministry of Agriculture, Livestock, Fisheries and Cooperatives of Kenya established a national greenhouse gas inventory system. Using a life cycle assessment approach, Kenya calculated the environmental impact of its livestock production systems across different stages, including production, processing, transportation, waste management, and energy usage. By implementing the FAO LEAP guidelines “[Environmental performance of large ruminant supply chains](#)”, Kenya developed its national livestock greenhouse gas inventory, facilitated the understanding of the environmental implications of livestock production, and strengthened its climate commitment through nationally determined contributions.

ASIA AND THE PACIFIC

Assessment of soil carbon stock changes in New Zealand

New Zealand has employed the [FAO LEAP’s soil carbon measurement model](#) to establish a robust national-level inventory of soil carbon changes within five land use categories. This method enables the detection of stock changes as small as two tonnes per hectare, ensuring statistical rigor and cost-efficiency by minimizing the required sampling sites. The methodology involves soil sampling, carbon analysis, and stock change calculations, with an initial baseline measurement at 700 randomly selected sites and periodic measurements to identify carbon stock variations of at least two tonnes per hectare.



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EUROPE AND CENTRAL ASIA

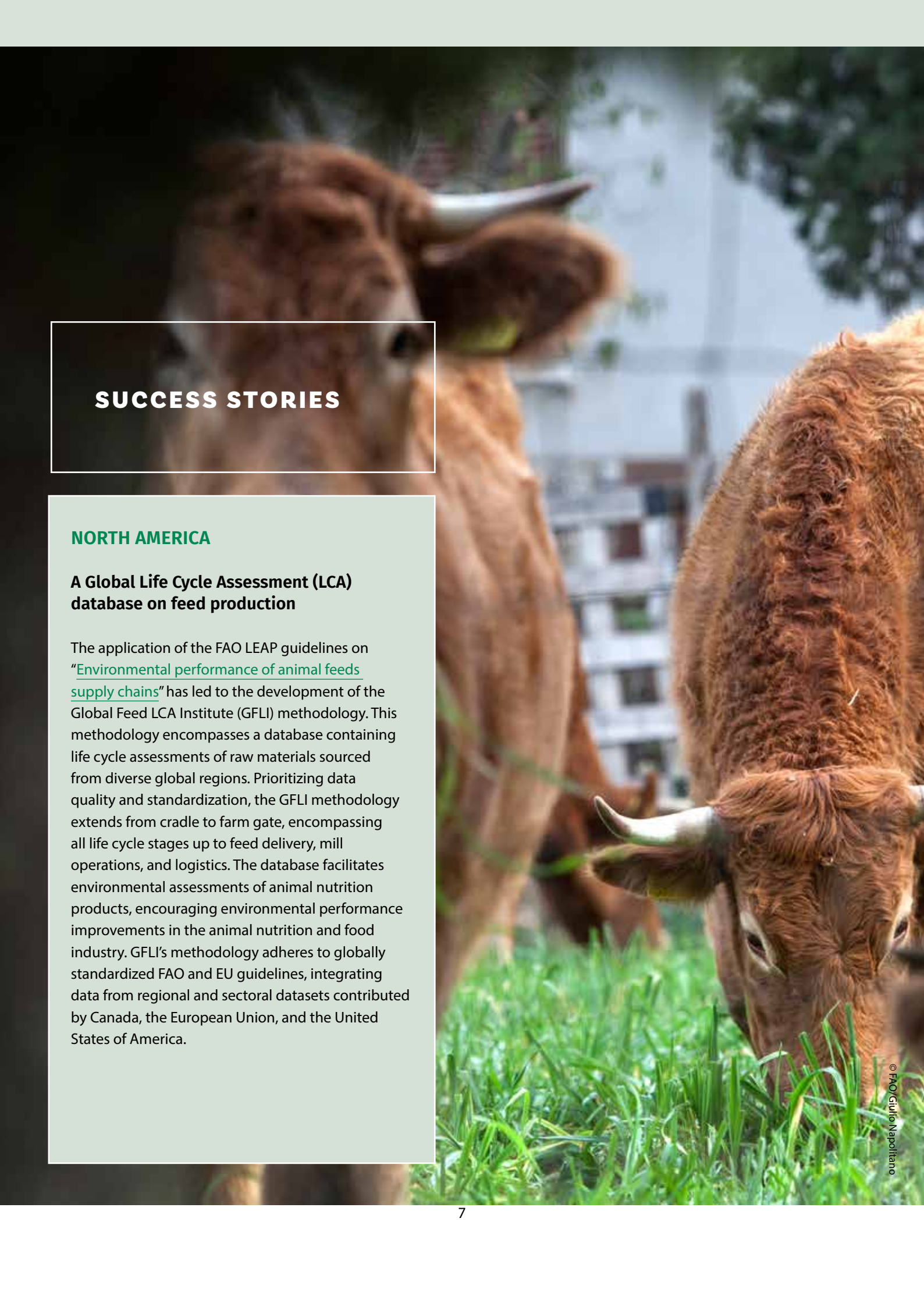
The Environmental Footprint methodology in the European Union

The European Union has developed the [Environmental Footprint \(EF\)](#) scheme, incorporating the [FAO LEAP guidelines](#) as methodological references to enhance modeling. Here the FAO LEAP guidelines play a key role in addressing specific challenges within the EF method, including managing multi-functional processes in agriculture and handling crop seasonality data averaging. Key insights from FAO LEAP guidelines are actively integrated into various areas, such as the environmental performance of animal feeds, sheep and goat farming, greenhouse gas emissions, energy consumption, water usage, nutrient flows, and biodiversity assessment within livestock supply chains. This integration ensures a more robust and holistic approach to environmental footprint assessment, fostering sustainable practices and informed decision-making within the European Union.

LATIN AMERICA AND THE CARIBBEAN

Land use management, biodiversity, and livestock in Uruguay

The Instituto Nacional de Investigación Agropecuaria (INIA) in Uruguay has conducted a comprehensive analysis focusing on farms with mixed livestock systems spanning from 2 000 to 5 000 hectares. Leveraging the [FAO LEAP guidelines](#) for environmental management, strategy development, and product-oriented environmental communication, the INIA's study employed a pressure-state-response framework to assess land use management, biodiversity, and livestock practices at the country level. Here the application of the FAO LEAP guidelines on biodiversity highlighted the need for sustainable land use practices that balance livestock production with biodiversity conservation efforts.

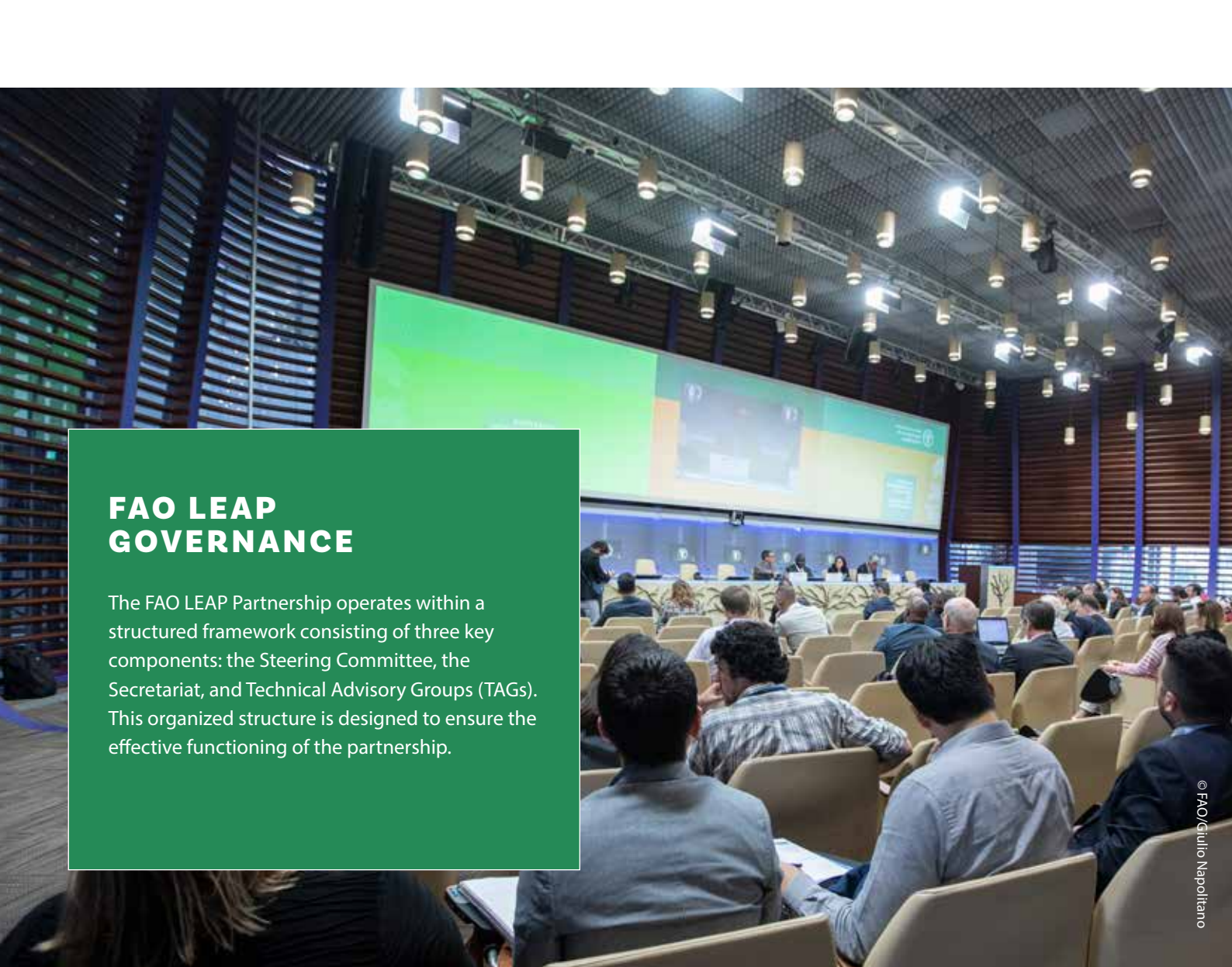


SUCCESS STORIES

NORTH AMERICA

A Global Life Cycle Assessment (LCA) database on feed production

The application of the FAO LEAP guidelines on "[Environmental performance of animal feeds supply chains](#)" has led to the development of the Global Feed LCA Institute (GFLI) methodology. This methodology encompasses a database containing life cycle assessments of raw materials sourced from diverse global regions. Prioritizing data quality and standardization, the GFLI methodology extends from cradle to farm gate, encompassing all life cycle stages up to feed delivery, mill operations, and logistics. The database facilitates environmental assessments of animal nutrition products, encouraging environmental performance improvements in the animal nutrition and food industry. GFLI's methodology adheres to globally standardized FAO and EU guidelines, integrating data from regional and sectoral datasets contributed by Canada, the European Union, and the United States of America.



FAO LEAP GOVERNANCE

The FAO LEAP Partnership operates within a structured framework consisting of three key components: the Steering Committee, the Secretariat, and Technical Advisory Groups (TAGs). This organized structure is designed to ensure the effective functioning of the partnership.

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STEERING COMMITTEE

The Steering Committee is a diverse group of FAO LEAP members that includes representatives from governments, the private sector, and civil society organizations. Its role is crucial in providing guidance and direction to the partnership and its activities. With equal representation from different stakeholder groups, the Steering Committee approves the FAO LEAP guidelines for public release and ensures a balanced decision-making process within the partnership.

SECRETARIAT

The Secretariat, hosted by the FAO Animal Production and Health Division, serves as the central coordinating body of the partnership, and ensures that FAO LEAP activities adhere to international best practices. In addition, the

Secretariat facilitates the work of Technical Advisory Groups (TAGs), guiding the content development of the guidelines, and ensuring their alignment with the partnership's mission.

TECHNICAL ADVISORY GROUPS (TAGS)

The Technical Advisory Groups (TAGs) are experts from various fields and research areas responsible for the development and revision of FAO LEAP methodologies and guidelines for evaluating environmental impacts in livestock supply chains. By identifying gaps and priorities, TAGs provide valuable guidance for future FAO LEAP work, encouraging the wider adoption of the guidelines through dissemination activities. Their collective expertise is crucial in advancing the partnership's mission to promote environmentally sustainable practices in the livestock sector.

JOIN US



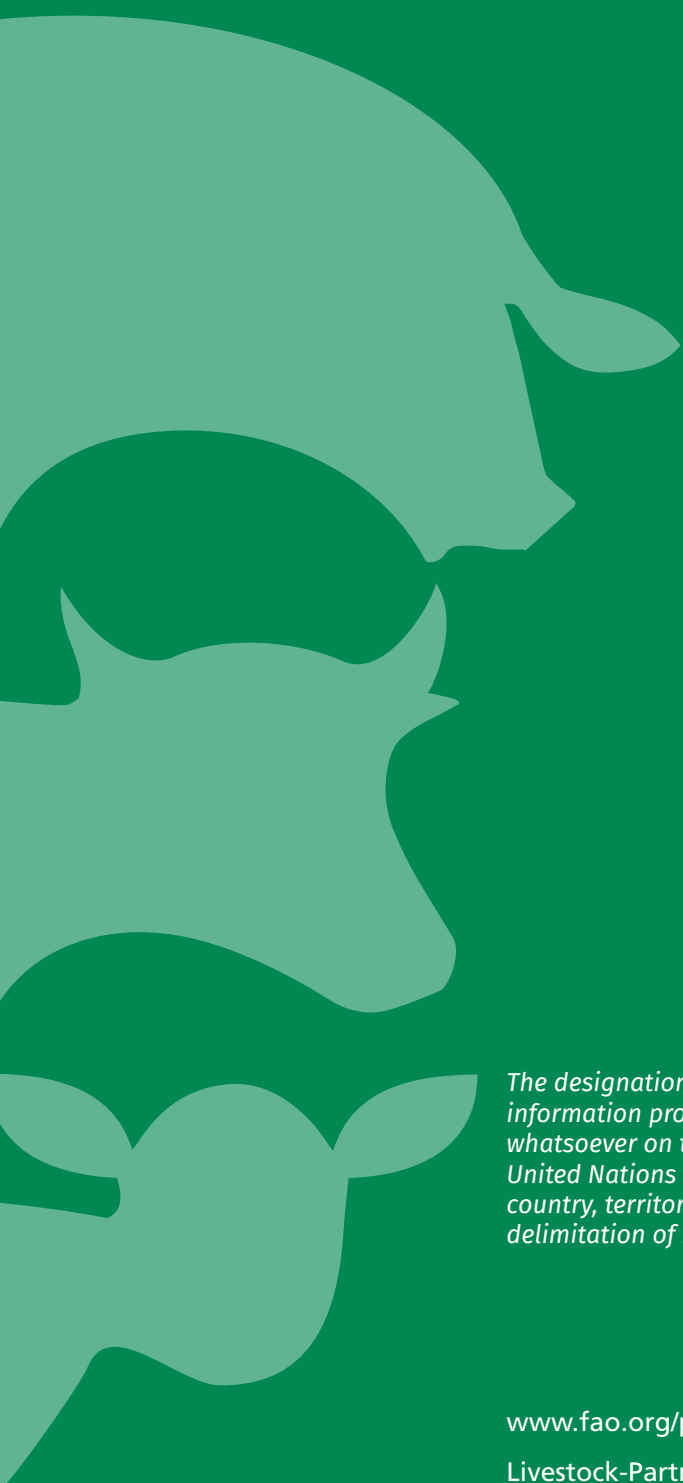
The FAO LEAP Partnership invites governments, the private sector, civil society and non-governmental organizations to join our collaborative efforts to make livestock systems more sustainable and environmentally friendly globally. We believe in the power of diversity and inclusion, recognizing that every voice contributes uniquely to our shared mission.

Reasons to join:

- Collaborate with diverse stakeholders from governments, the private sector, and civil society, working together to develop sustainable solutions for complex environmental challenges in the livestock sector.
- Contribute to the development of guidelines and policies that shape the environmental performance of the livestock sector.
- Share best practices for improving environmental assessment and performance in the livestock sector.
- Participate in training and capacity-building initiatives to enhance your knowledge and skills in environmental assessments.
- Contribute to solving environmental challenges in the livestock industry, including greenhouse gas emissions, resource efficiency, and biodiversity conservation.

FAO LEAP isn't just a partnership. It's a chance to influence, innovate, and catalyze a tangible change in the sustainable transformation of global livestock systems.

Let's create impactful change together!



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