



GLOBAL AGENDA FOR  
SUSTAINABLE LIVESTOCK



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8<sup>th</sup> MSP meeting Ulaanbaatar, Mongolia, 11-15.06.2018

# Livestock Environmental Assessment and Performance (LEAP) partnership - Achievements from 2012-2018

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Félix Teillard, Aimable Uwizeye

Ulaanbaatar, 8<sup>th</sup> MSP Meeting  
11-15 June, 2018

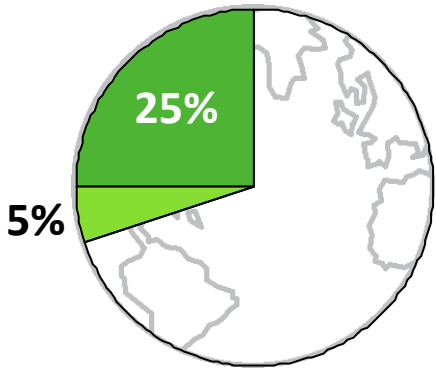


Food and Agriculture  
Organization of the  
United Nations

SUSTAINABLE  
DEVELOPMENT  
GOALS



# Why LEAP?



**25%**  
rangelands



**14.5%** GHG  
emissions



**30%** agric.  
water footprint



**>10000**  
species lost



**30%**  
proteins



**40%** agric.  
GDP



**1 billion**  
poor



**+70%**  
demand

## Why LEAP?

Growing recognition of the importance of livestock for addressing sustainability

- 92 developing countries have included livestock in their NDCs
- Agriculture now explicitly addressed in the UNFCCC negotiation process, countries to submit their views on improved livestock management, soil carbon and fertility in grassland, nutrient use and manure management
- Livestock contributes to all SDGs

## LEAP in a nutshell

LEAP is a multi-stakeholder partnership of Governments, Private Sector, NGOs and CSOs, and other stakeholders united by a shared commitment to the environmental management and sustainable development of the livestock sector

LEAP develops methodological guidance to assess the environmental performance of livestock supply chains and generate evidence for shaping policy measures and business strategies

# LEAP structure



The **steering committee** provides funding and guidance for the activities



The **secretariat** hosted at FAO coordinates the activities



**Technical Advisory Groups** build methodological consensus and draft the guideline documents

# LEAP structure



- ✓ Steering Committee: **equal say**
- ✓ Secretariat hosted at FAO
- ✓ Participation is **open and voluntary**: members recognize the objective and principles of LEAP

# The LEAP steering committee

**Countries** - Argentina (Observer status), Australia (Observer status), Brazil, China (Observer status), Canada, Costa Rica (Observer status), France, Hungary, India (Observer status), Ireland, Kenya, The Netherlands, Switzerland, New Zealand, Nigeria, Italy, Uruguay

**Private sector** - International Feed Industry Federation (IFIF), International Dairy Federation (IDF), International Meat Secretariat (IMS), International Egg Commission (IEC), International Poultry Council (IPC), International Wool and Textiles Organization (IWTO), International Council of Tanner (ICT)

**NGOs/CSOs** - World Wildlife Fund (WWF), World Vision International, World Alliance of Mobile Indigenous Peoples (WAMIP), International Planning Committee for food, sovereignty (IPC), International Union for Conservation of Nature (IUCN)

**Advisors & networking** - ISO, TU Berlin, Global Research Alliance, Joint Research Centre, European Commission, UN Environment, OIE, World Bank

# Key principles underpinning LEAP Guidelines

- ✓ Global, inclusive perspective, region specificities
- ✓ Science-based approach
- ✓ Consensus
- ✓ Harmonization (starting from alignment with relevant international standards)
- ✓ Transparency
- ✓ Continuous improvement and adoption



## LEAP 1: 2012-2015

Developing reference environmental assessment tools

- ❖ 6 Technical Advisory Groups (TAGs)
- ❖ 300 experts from all world regions
- ❖ 6 Technical Guidance documents
- ❖ 1 Global database for the 5 main feed crops



# Small Ruminants

# Feed Crops Database

## Feed



VERSION 1

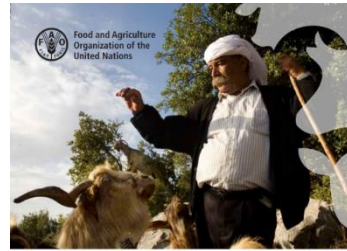
Environmental performance of animal feeds supply chains  
Guidelines for assessment

## Poultry



VERSION 1

Greenhouse gas emissions and fossil energy use from poultry supply chains  
Guidelines for assessment



VERSION 1

Greenhouse gas emissions and fossil energy use from small ruminant supply chains  
Guidelines for assessment

Crop: Italy  
Region Type: FAO  
Region: Western Europe  
Country: Austria

Agro Ecological Zone: Temperate  
Production System: Irrigated  
Production Practice: Mixed tillage

### Life Cycle Inventory (LCI)

Seed rate	1811.1	kg / ha
Organic fertilizer	5778.2	kg N / ha
Artificial fertilizer	2311.1	kg N / ha
Urea	0.034	AN
Nitrate sol.	0.227	CAN
NPK	0.132	AP
Amb. NPK	0.062	AS
Lime	577.8	kg / ha
Phosphorus	1155.8	kg Al / ha
Pesticides	1155.8	kg Al / ha

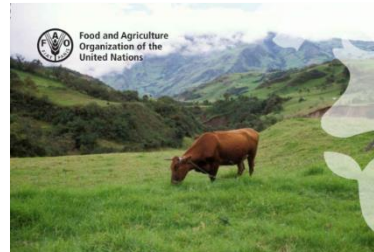
Ploughing	1	# / yr	0.2	0.8	0
Seedbed preparation	1	# / yr	0.2	0.8	0
Seeding	1	# / yr	0.2	0.8	0
Organic fert. Application	1	# / yr	0.2	0.8	0
Synthetic fert. Application	1	# / yr	0.2	0.8	0
Pesticide spraying	2	# / yr	0.2	0.8	0
Weeding	1	# / yr	0.2	0.8	0
Irrigation	1	# / yr	0.2	0.8	0
Harvesting	1	# / yr	0.2	0.8	0
Yield	118676.7	kg DM / ha			

### GLEAM output

Seed	37.03	kg CO <sub>2</sub> -eq / kg DM
Organic fertilisation	196.46	kg CO <sub>2</sub> -eq / kg DM
Synthetic fertilisation	1178.73	kg CO <sub>2</sub> -eq / kg DM
Energy use	61.63	kg CO <sub>2</sub> -eq / kg DM
Crop protection	177.72	kg CO <sub>2</sub> -eq / kg DM
Land work	318.98	kg CO <sub>2</sub> -eq / kg DM
Total excl. LU/LUC	1970.53	kg CO <sub>2</sub> -eq / kg DM
Land use	0.22	kg CO <sub>2</sub> -eq / kg DM
Land use change	0.23	kg CO <sub>2</sub> -eq / kg DM

## Large ruminants

## Biodiversity



DRAFT FOR PUBLIC REVIEW

Principles for the assessment of livestock impacts on biodiversity



DRAFT FOR PUBLIC REVIEW

Environmental performance of large ruminant supply chains  
Guidelines for assessment

## Pigs



DRAFT FOR PUBLIC REVIEW

Environmental performance of pig supply chains  
Guidelines for assessment

# LEAP+ (2015-2018): broadening the scope



Nutrient flows  
& Impact  
Assessment

Water use  
Assessment

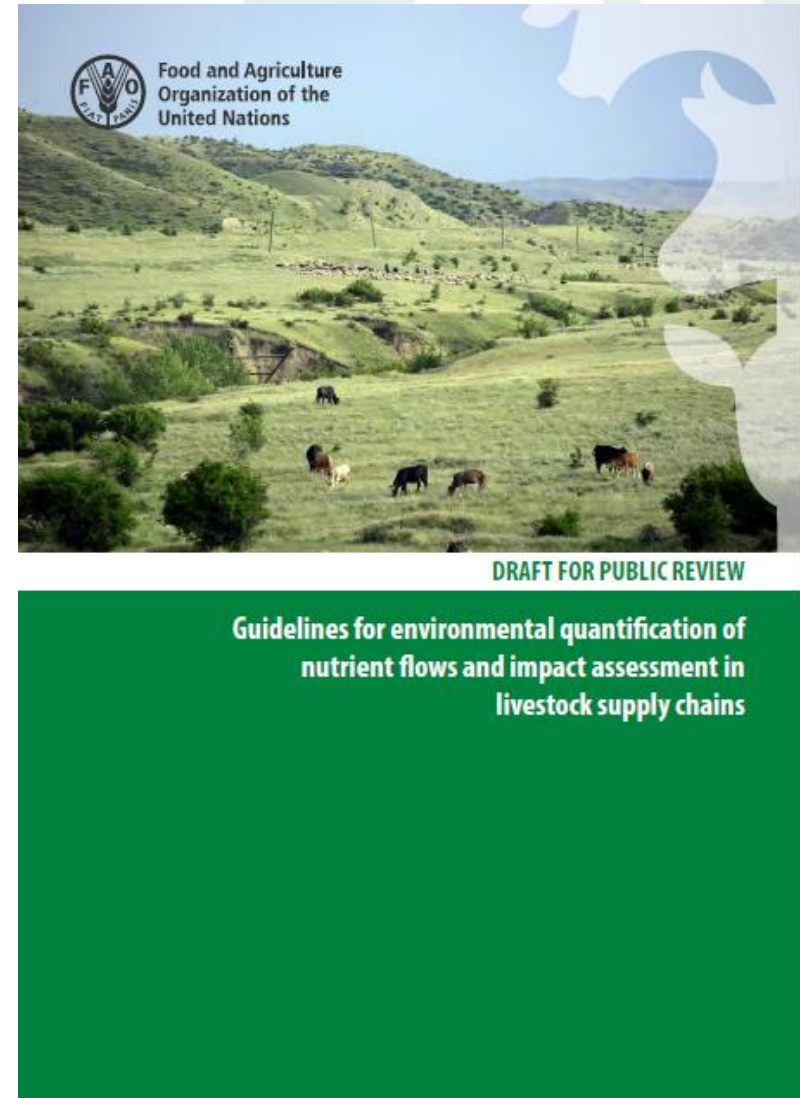
Soil Carbon  
Stock  
Changes

Biodiversity  
&  
ecosystem  
services

Feed  
Additives

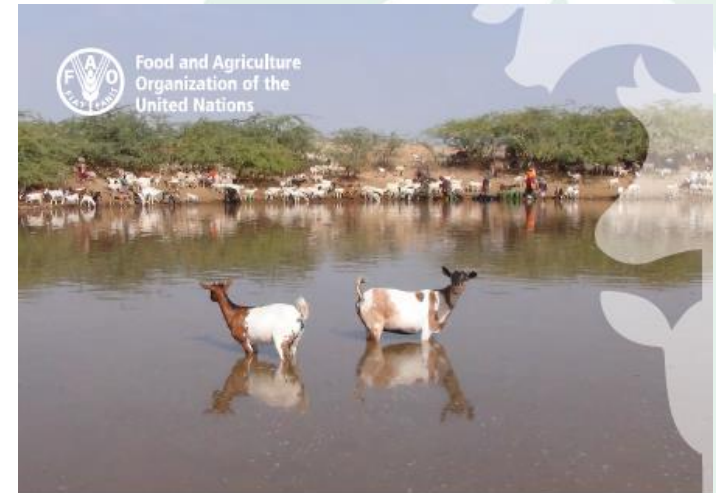
# Nutrient tag TAG

- Public review over
- Revisions done by end of April
- Under edition
- Publication by July 2017



# Water TAG

- Release for public review in May
- Final publication in October



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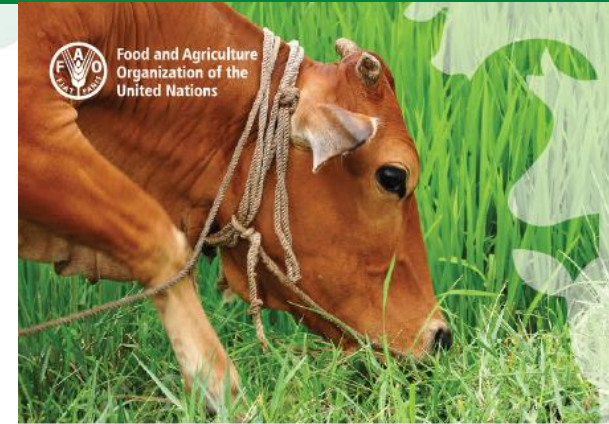
**DRAFT FOR PUBLIC REVIEW**

**Water use of livestock  
production systems and supply chains**

Guidelines for assessment

# Soil carbon TAG

- Release for public review until 21<sup>st</sup> August 2018
- Final publication in November
- Implementation in GLEAM from September in collaboration with INRA-France



DRAFT FOR PUBLIC REVIEW

Measuring and modelling soil carbon stocks and stock changes in livestock production systems

Guidelines for assessment



# Biodiversity TAG

- 2<sup>nd</sup> face-to-face meeting in January 2018
- 1<sup>st</sup> draft for technical review expected in June 2018
- Public Review in August 2018
- Publication in November 2018



# Feed additives

- 1<sup>st</sup> face-to-face meeting in February 2018
- 2<sup>nd</sup> face-to-face meeting in July 2018
- 1<sup>st</sup> draft ready by August 2018
- Public review by October 2018
- Publication in December 2018





# LEAP1 and LEAP+ achievements

LEAP guidelines have contributed to various initiatives

- EU Product Environmental footprint
- IDF Guide on Biodiversity for the Dairy Sector
- Cool Farm Tool
- Task Force for Reactive Nitrogen



# Road Testing

To evaluate the applicability of LEAP guidelines

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To get feedback on the clarity of recommendations

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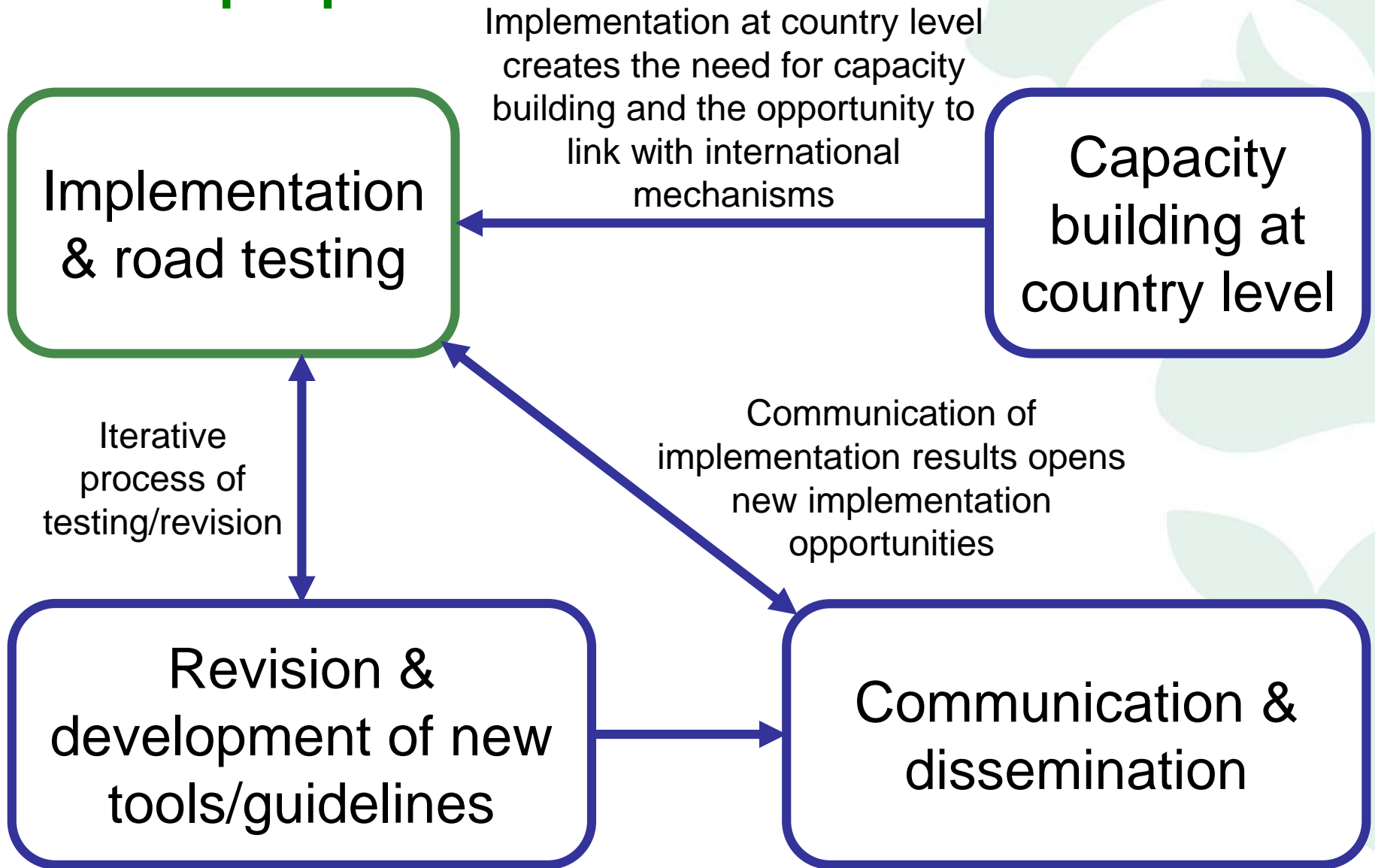
To identify gaps in recommendations and barriers preventing application and endorsement



# LEAP 3 proposal

A faint, light green illustration of a horse's head and neck is positioned on the right side of the slide. Below the horse's neck, there is a stylized plant with three leaves. The background is white with a light green gradient on the right side.

# LEAP3 proposal



# Implementation & road testing

- LEAP guidelines are intended to be relevant at the global scale to the diversity of existing livestock production systems
- There is a need to test the global relevance and applicability of the guidelines - especially in developing countries and smallholder production systems
- There is a need to understand how the guidelines are used and how they can be improved

## Outputs

- Technical support for road testing
- Database compiling all applications of LEAP guidelines, to facilitate knowledge exchange between users and collection of feedback for revision of the guidelines

# Revision & development of new tools

- LEAP keeps setting a high standard for science of livestock environmental assessments and follows the latest methodological developments
- Road testing allows to tailor revised/new products to the users' needs so they reach their maximal potential
- Efforts are made towards multi-criteria assessments and integration of the different LEAP guidelines
- Tools support road testing by simplifying the application of the guidelines for the user

## Outputs

- Revised versions of LEAP guidelines
- User-friendly tools integrating several LEAP guidelines and providing default data
- New LEAP guidelines on priority topics (e.g. eco-toxicity, ex-ante scenario assessment, ecosystem services)

# Capacity building at country level

- Implementation at country level creates the need for capacity building and the opportunity to link with international mechanisms
- For national inventories and reporting progress towards UNFCCC targets, LEAP guidelines could fill the gap of assessment tools
- The Paris Agreement recognize the key role of the private sector and LEAP in an excellent position to build on synergies between stakeholder

## Outputs

- Workshops, training course, webinars and on-line courses for capacity building of national technical services
- LEAP products are used in the context of international mechanisms (e.g., UNFCCC, CBD, IPCC)

# Communication & dissemination

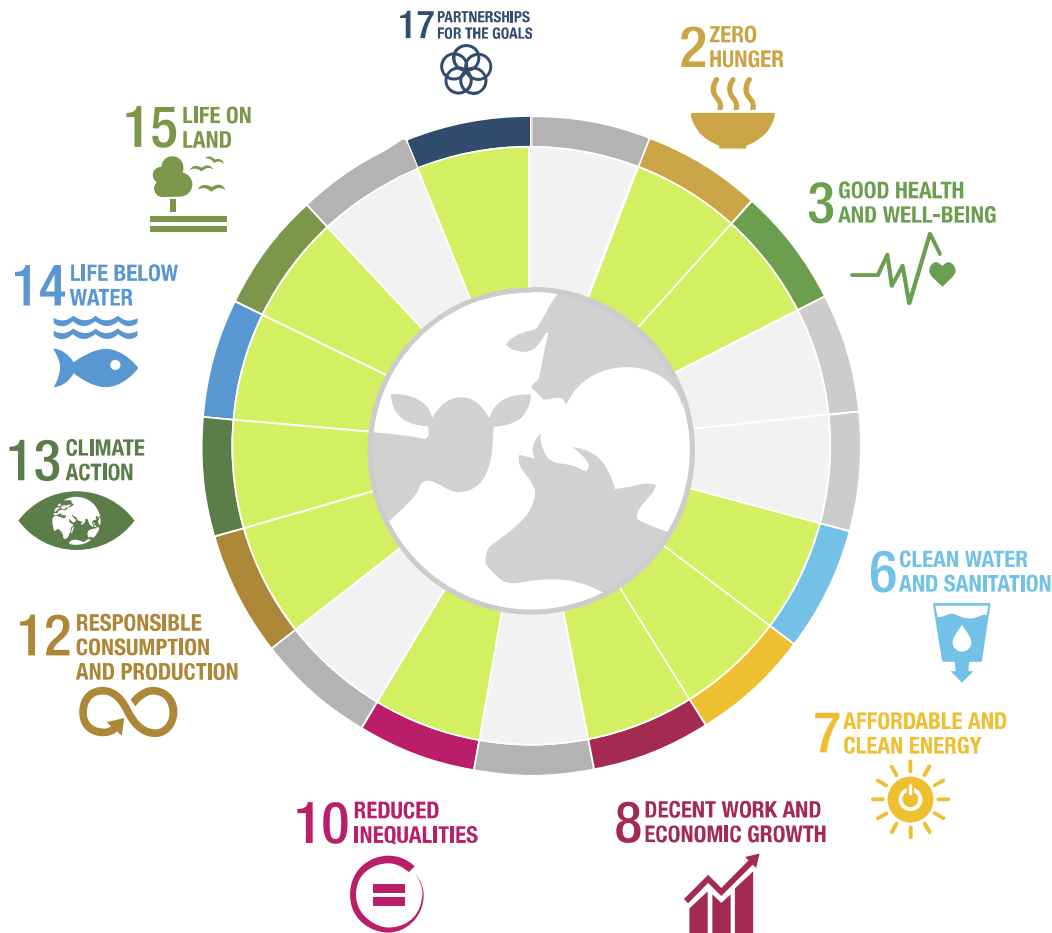
- Guidelines are disseminated to ensures their implementation
- In turn, communication of implementation results opens new implementation opportunities
- Communication around the frequent publication of revised version supports the testing/revision iterative process
- Synergies with the current SC task force on communication

## Outputs

- Communication plan (synergies with the current SC task force on communication)
- Communication material



# LEAP & Sustainable Development Goals



Road testing, consolidated guidelines and dissemination



Biodiversity



Grassland carbon storage



Accounting of nitrogen and phosphorus cycles + assessment methods on eutrophication and acidification



Water footprinting  
Eco-toxicity



From environmental assessment to sustainability assessment



LEAP guidance and methodology on feed additives



LEAP is a mechanism for achieving the SDG goals **17**

## Getting involved in LEAP

- Participate to the development of guideline documents by applying as an expert in Technical Advisory Groups
- Review the draft guidelines document before their final publication
- Use or road test the guidelines to ensure their applicability and representativeness

[http://www.fao.org/partnerships/leap/en/  
Livestock-partnership@fao.org](http://www.fao.org/partnerships/leap/en/Livestock-partnership@fao.org)



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# THANK YOU



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