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A snapshot of ongoing and planned projects on GHG reduction in livestock in Asia

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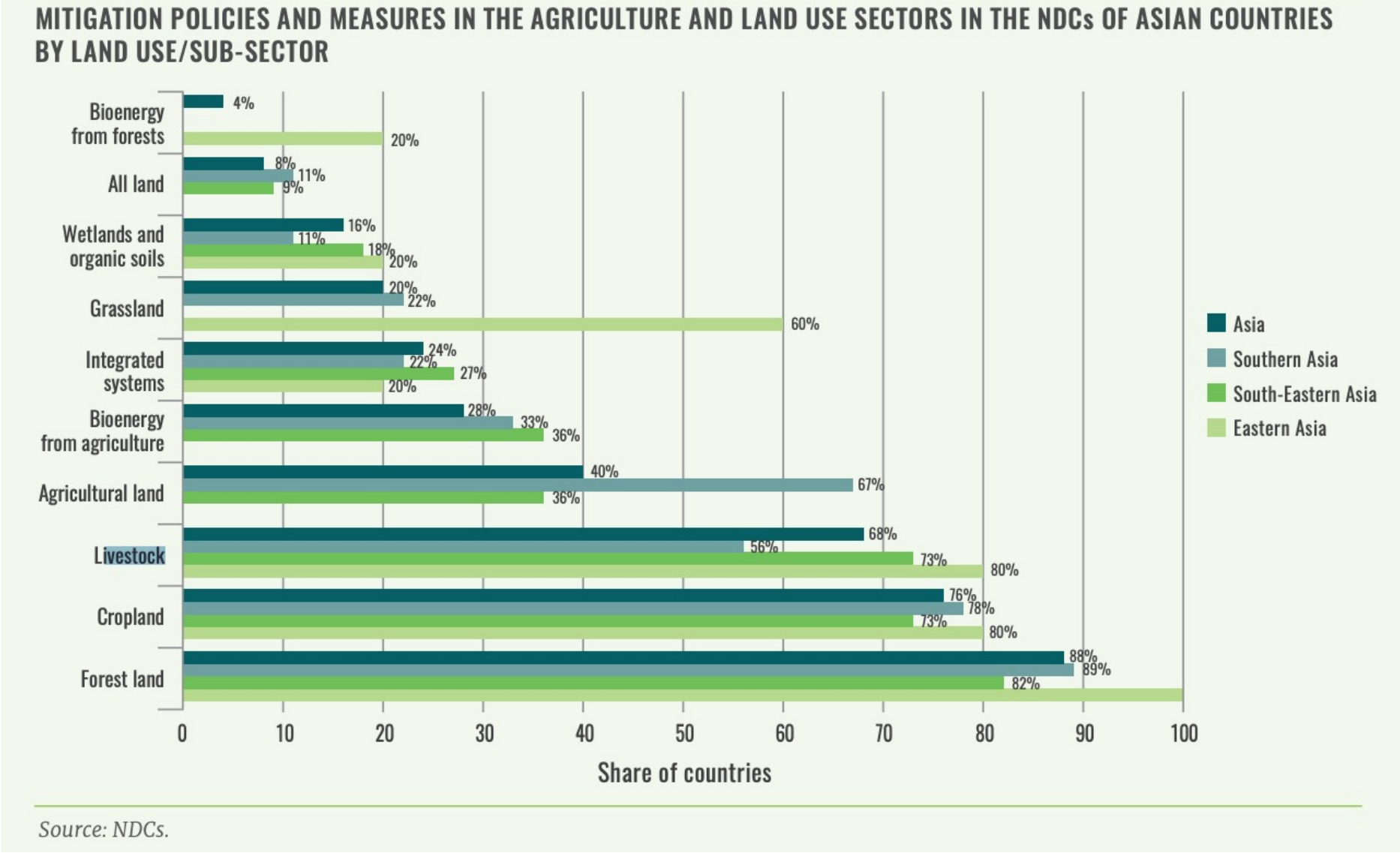
Livestock and NDCs in Asia

Pastoral systems represent 26 to 29% of total ag area in ESEA, 11% in South Asia.

Livestock are present in lowland and upland mixed systems, including with rice, and are key in mountain areas.



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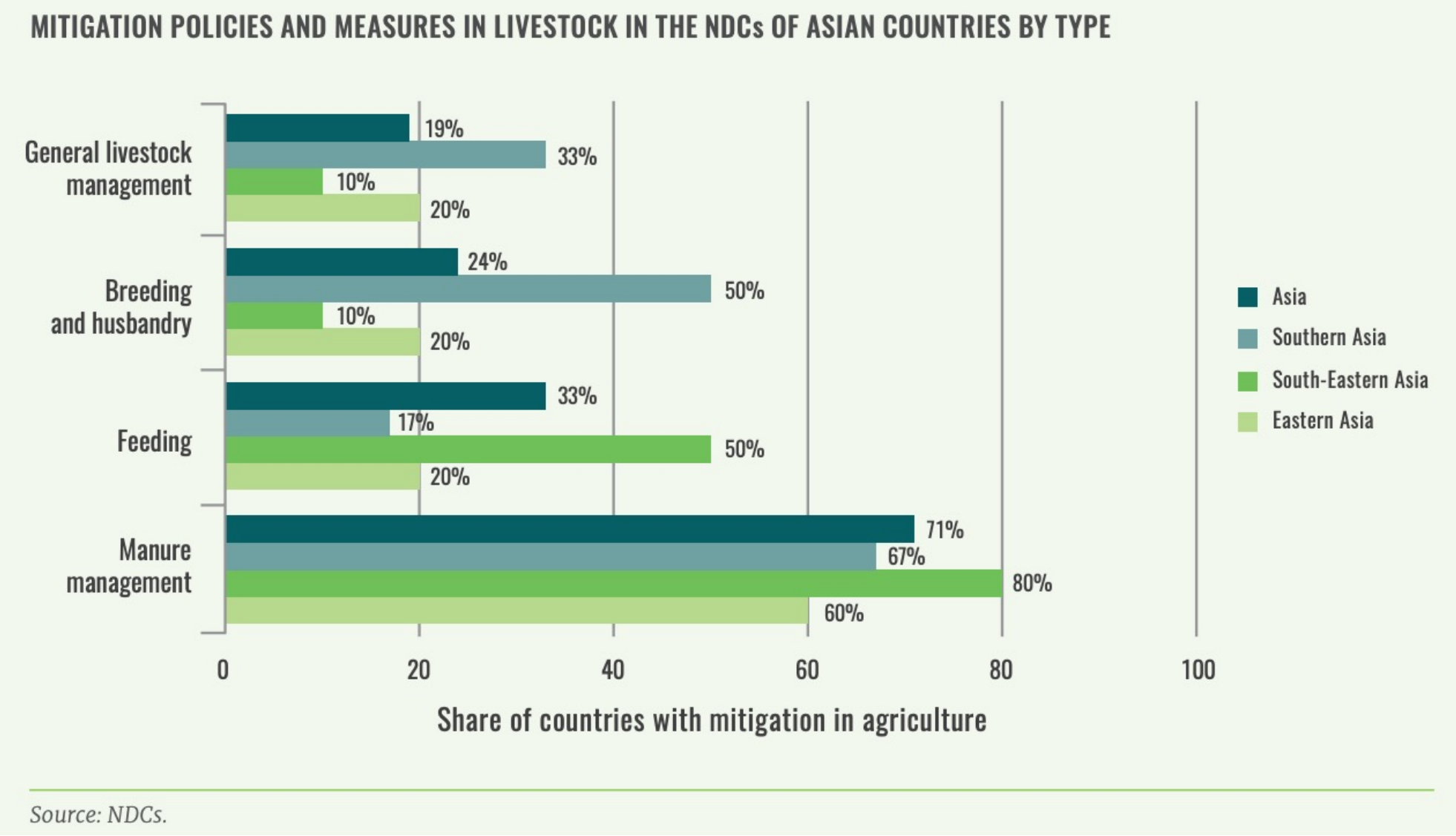
68% of countries include at least on mitigation measure on *livestock*



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Examples of mitigation policies and measures in livestock

COUNTRY	MANAGEMENT ACTIVITY	METRIC	2030 TARGET
PAKISTAN	DEVELOP AND ADOPT NEW BREEDS OF CATTLE WHICH ARE MORE PRODUCTIVE IN TERMS OF MILK AND MEAT, AND HAVE LOWER METHANE PRODUCTION FROM ENTERIC FERMENTATION	NON-GHG QUANTIFIED	35% INCREASE IN ORGANIC FERTILIZER USE
VIETNAM	292 000 DAIRY CATTLE WILL BE FED MOLASSES UREA BLOCK (MUB) BY 2030. THE NUMBER OF MUB-FED CATTLE WILL BE 73 000 HEADS IN 2010, 182 000 BY 2020 AND 292 000 BY 2030	GHG QUANTIFIED	-7.9 MT CO_2 EQ
AFGHANISTAN	DEVELOP 2 000 BIOGAS SYSTEMS	NON-GHG QUANTIFIED	2 000 SYSTEMS
BHUTAN	PROMOTE CLIMATE SMART LIVESTOCK FARMING PRACTICES TO CONTRIBUTE TOWARDS POVERTY ALLEVIATION AND SELF SUFFICIENCY	NON-QUANTIFIED	

COUNTRY	MANAGEMENT ACTIVITY	METRIC	2030 TARGET
AFGHANISTAN	15% OF THE EXISTING DEGRADED RANGELAND AREAS WILL BE REGENERATED, COVERING APPROXIMATELY 4.5 MILLION HECTARES OF RANGELANDS	NON-GHG QUANTIFIED	4.5 MHA RANGELAND
CHINA	PROMOTE MECHANISM OF MAINTAINING THE BALANCE BETWEEN GRASS STOCK AND LIVESTOCK, TO PREVENT GRASSLAND DEGRADATION, TO RESTORE VEGETATION OF GRASSLAND	NON-QUANTIFIED	
BHUTAN	INTRODUCE CONTROLLED BURNING OR MECHANICAL CLEARING OF SHRUBS FOLLOWED BY RESEEDING WITH SELECTED SPECIES AND PROTECTION FROM GRAZING BASED ON APPLIED RESEARCH AND EXTENSION	NON-QUANTIFIED	

https://www.fao.org/3/ca7264en/ca7264en.pdf

FAO Dairy projects in Asia

1	Afghanistan	Dairy Industry Development in Kabul, Logar and Parwan provinces
2	Bangladesh	Technical assistance to the Ministry of Fisheries and Livestock with the implementation of Livestock and Dairy Development Project (TA-LDDP)- LDDP/SD-65
3	Bangladesh	Technical assistance to the Ministry of Fisheries and Livestock to enhance the local capacity building and development program for Livestock and Dairy Development Project (Package No. LDDP/SD-76)
4	Bangladesh	Technical assistance to the Ministry of Fisheries and Livestock with the capacity building and policy development to support the implementation of LDDP (Package No. LDDP/SD-77)
5	Bhutan	Strengthening Capacity for enhanced Animal Nutrition Services
6	Lao	TCPF: Developing an improved model for the promotion of smallholder integrated livestock production
7	Mongolia	Piloting an improved animal identification and registration system (AIRS) in Mongolia
8	Mongolia	Piloting the Climate-Smart approach in the livestock production systems
9	Pakistan	The Project for Enhancement of Foot-and-Mouth Disease Control in Pakistan
10	Pakistan	Initiation of Pakistan Animal Identification and Traceability System (PAITS)
11	Philippines	Development of Halal Agricultural Production Systems in Mindanao, Philippines
12	Regional	Technical support to develop and implement Livestock Identification and Registration Systems (LIRS)
13	SAP	Strengthening Capacities to Improve Animal Health and Enhance Livestock Production in the Pacific Region
14	Tonga	Cattle and sheep production and management in Tonga, Phase II of TCP/TON/3602

Feed balancing in India

National Dairy Development Board (NDDB) program and user-friendly computer software for advising milk producers to balance dairy feed rations with available feed resources.

Data generated from approximately 11 500 animals in seven locations

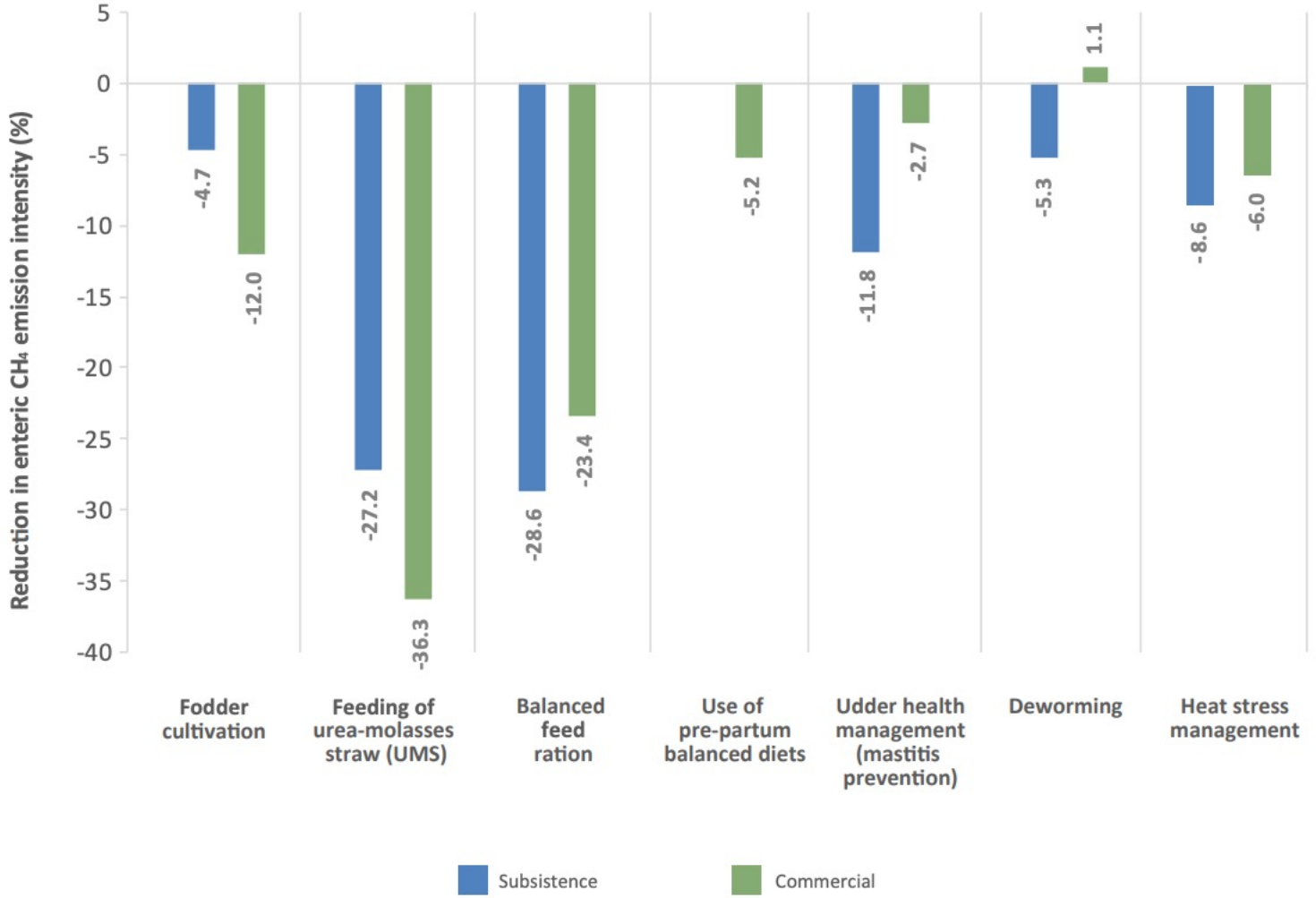
Increase net daily income by 10–15% for smallholder farmers.

Milk production efficiency (milk yield/dry matter intake) for cows before and after ration balancing were 0.58 and 0.78 kg respectively, and for buffaloes the corresponding values were 0.53 and 0.66 kg respectively.

Reduce enteric methane emissions by 15– 20 percent per kg of milk.

Identifying mitigation options in Bangladesh

Figure 5.1: Enteric CH_4 emission intensity reduction potential relative to baseline emission needs updating intervention



Source: GLEAM, 2016.

NEW ZEALAND AGRICULTURAL GREENHOUSE GAS Research Centre

CLIMATE & CLEAN AIR COALITION TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

https://www.fao.org/in-action/enteric-methane/en/

Pig production in Thailand

Department of Livestock Development launched the Green City Project in 2015, subsidizing biogas digesters and promotion of wastewater treatment systems.
Main goal : reduce GHG emissions, as well as air and water pollution from pigs
Pig farmers were able to reduce their energy costs by 64% on average after installation of a biogas system. CSL options:

1. encourage mixed farming systems for smallholders to utilize natural resources effectively;
2. improve animal health services to cope with changing disease agents;
3. design buildings for natural ventilation, increase insulation, use of creep boxes for piglets;
4. select crop varieties that can cope with changes in the climate;
5. invest in water storage facilities;
6. use less intensive rearing techniques, e.g. outdoor production systems;
7. more research and development in relation to GHGs is required.

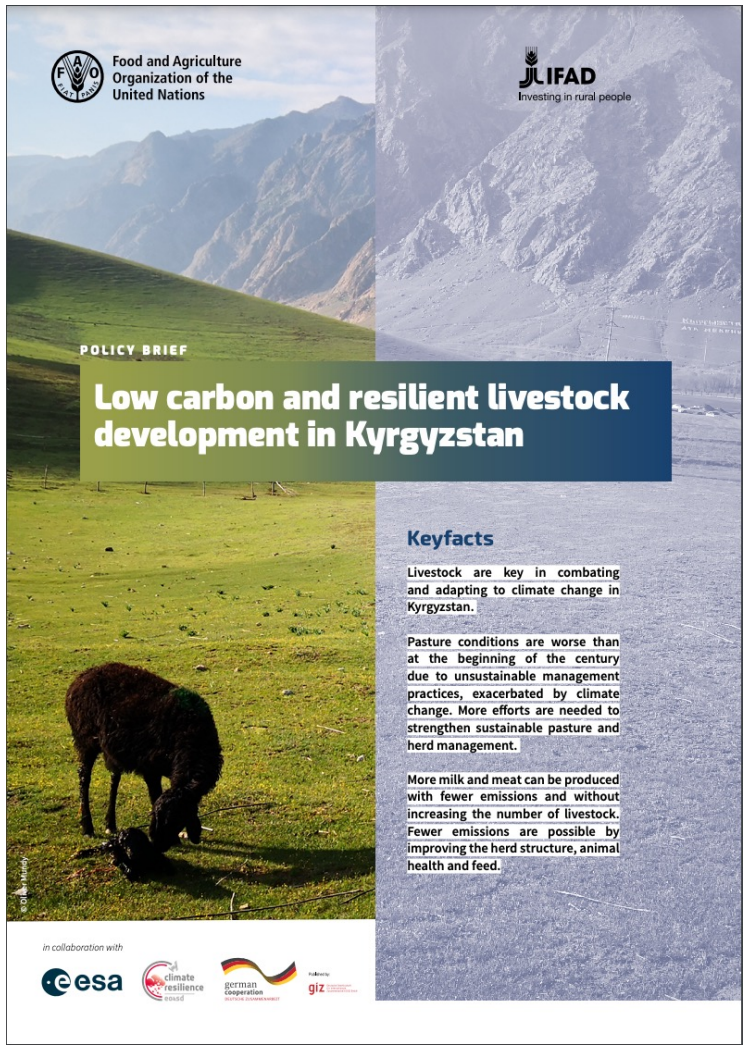
CSL project in Mongolia, including tools for MRVs

"Piloting the Climate-Smart approach in the livestock production systems" (FAO)

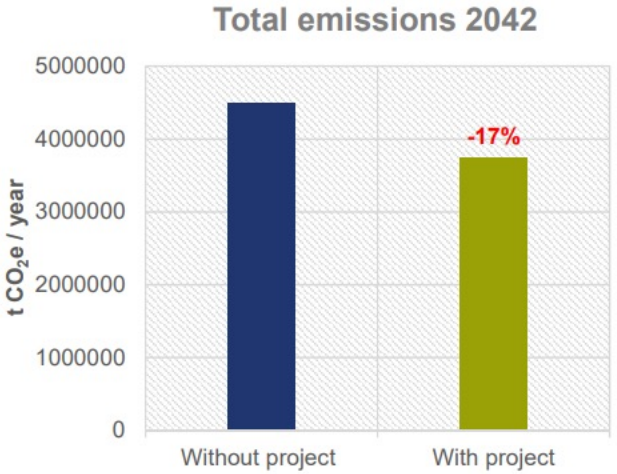
- Better animal husbandry techniques
- Improved feeding strategies
- Better dry season feeding
- Improved pasture management with reduced and more productive herds

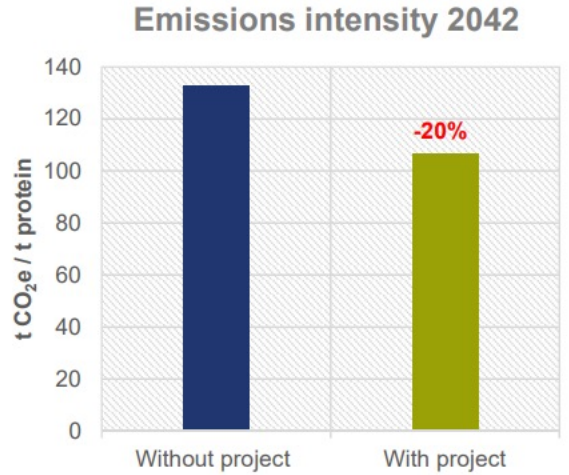
Preliminary results from GLEAM model show a potential significant drop in GHG emissions, on average -21% for CH4, -21% for CO2, and -15% for overall GHG

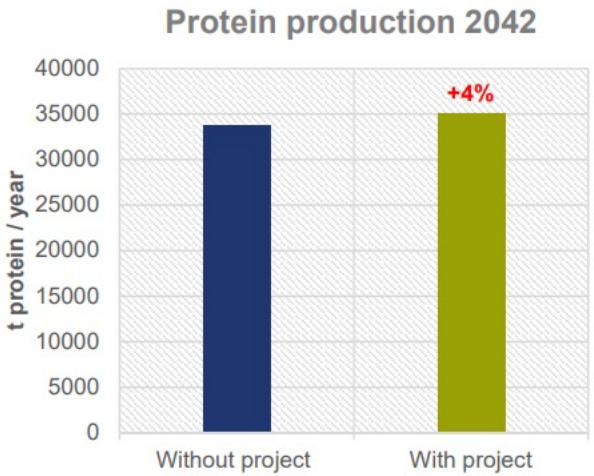
Low C and resilient livestock in Kyrgyzstan NDC revision process

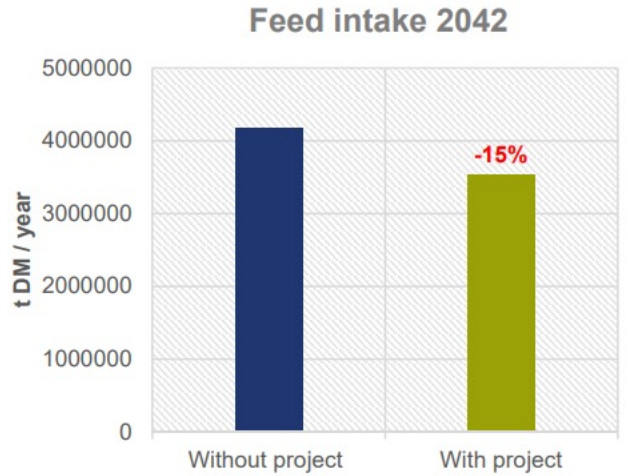


Improved grazing management, feed quality and management of reproduction









FAO's work on CSL/low carbon livestock in Asia

- Global program of work of technical assistance to estimate GHG emissions from livestock investments (WB, IFAD, IFC, EBRD…), incl. tools such as the online GHG calculator GLEAM-i and capacity building https://gleami.apps.fao.org/

- November 2019: LSIPT - GLEAM-i training in Bangkok (18 countries)

- Design of a work program on CSL/low carbon livestock in the region, in collaboration with the GRA. Scoping based on:

  - Mitigation and adaptation potentials
  - Other environmental/ecosystem services benefits
  - Value added from having regional project vs. country on-going efforts
  - Innovations – potentials for scaling up proposed interventions
  - Co-financing (country budget, private sector etc.)
  - Coherence (in terms of production systems, trends etc.)

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Thank you!

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