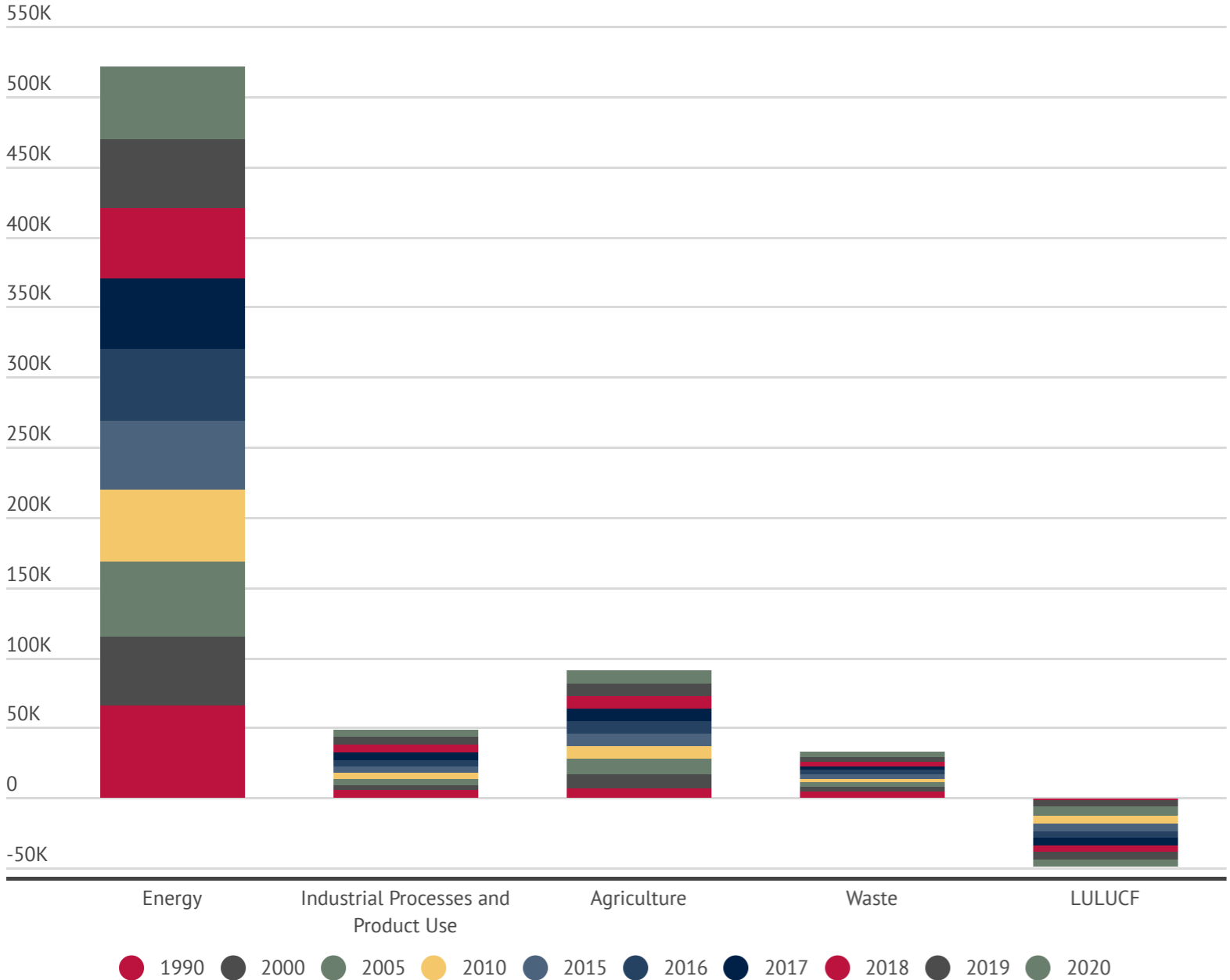
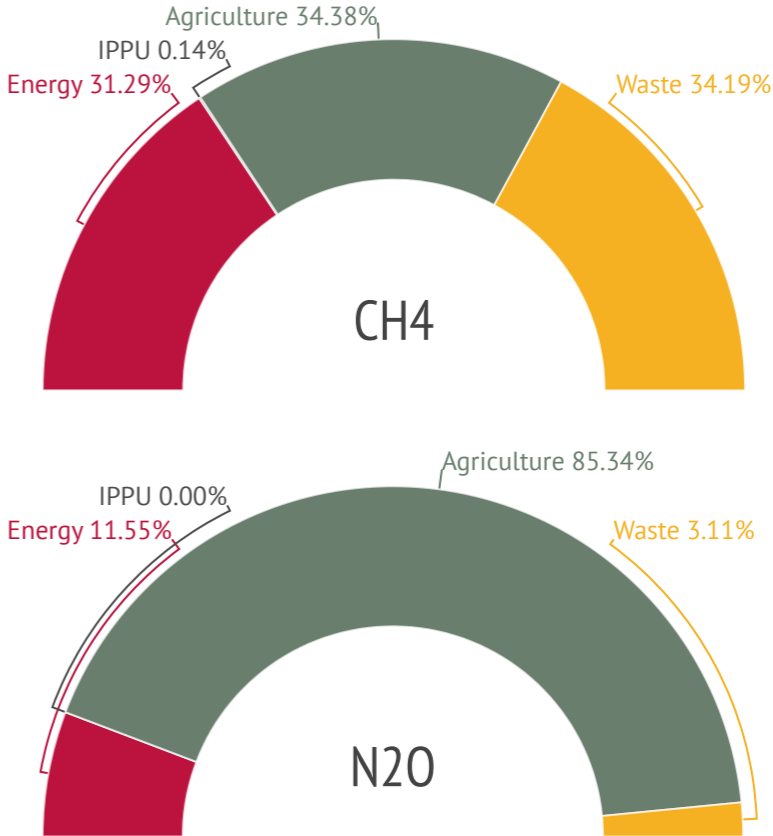


**National context**  
**| GHG emissions**

# Sources of GHGs in Serbia

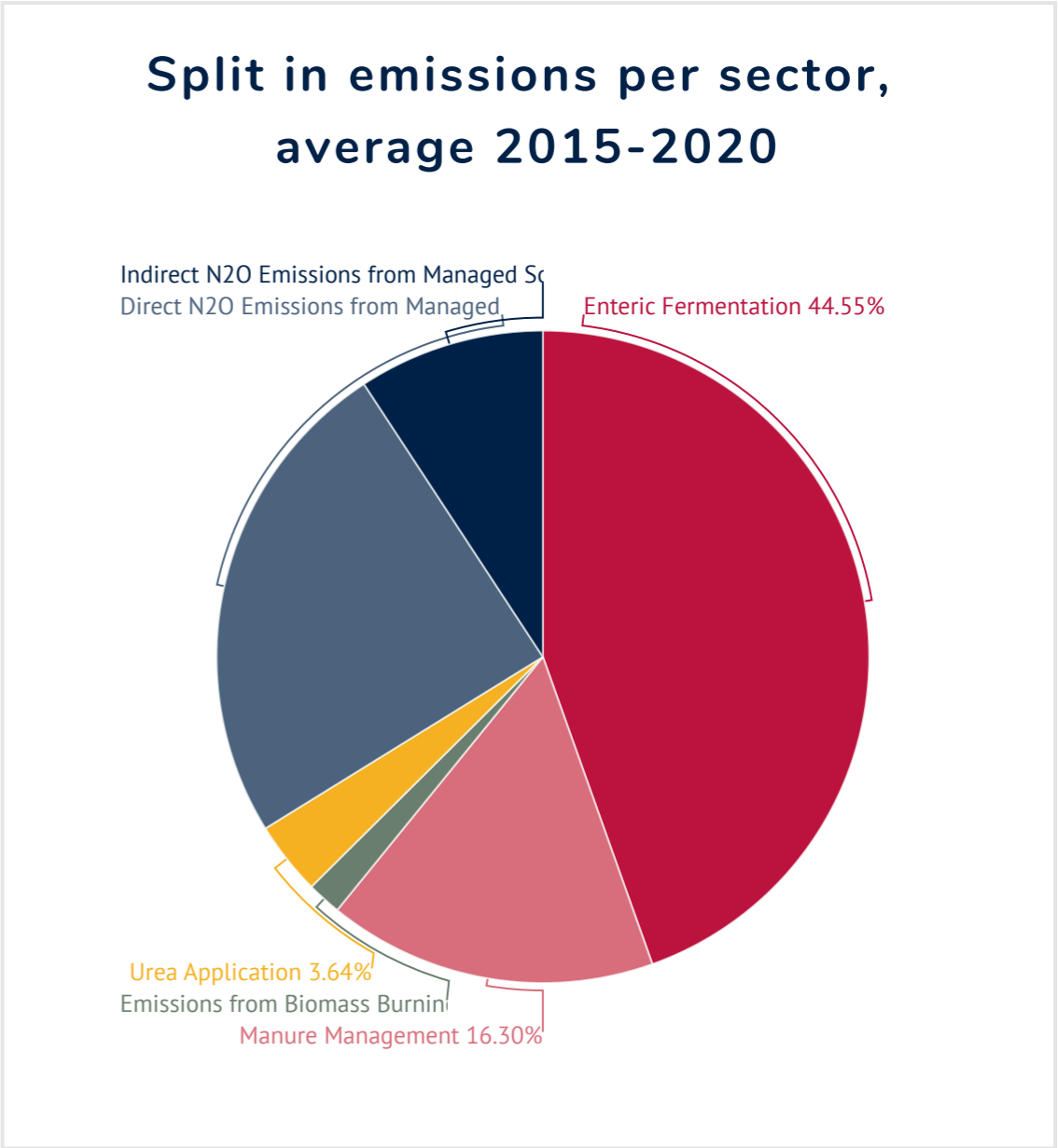
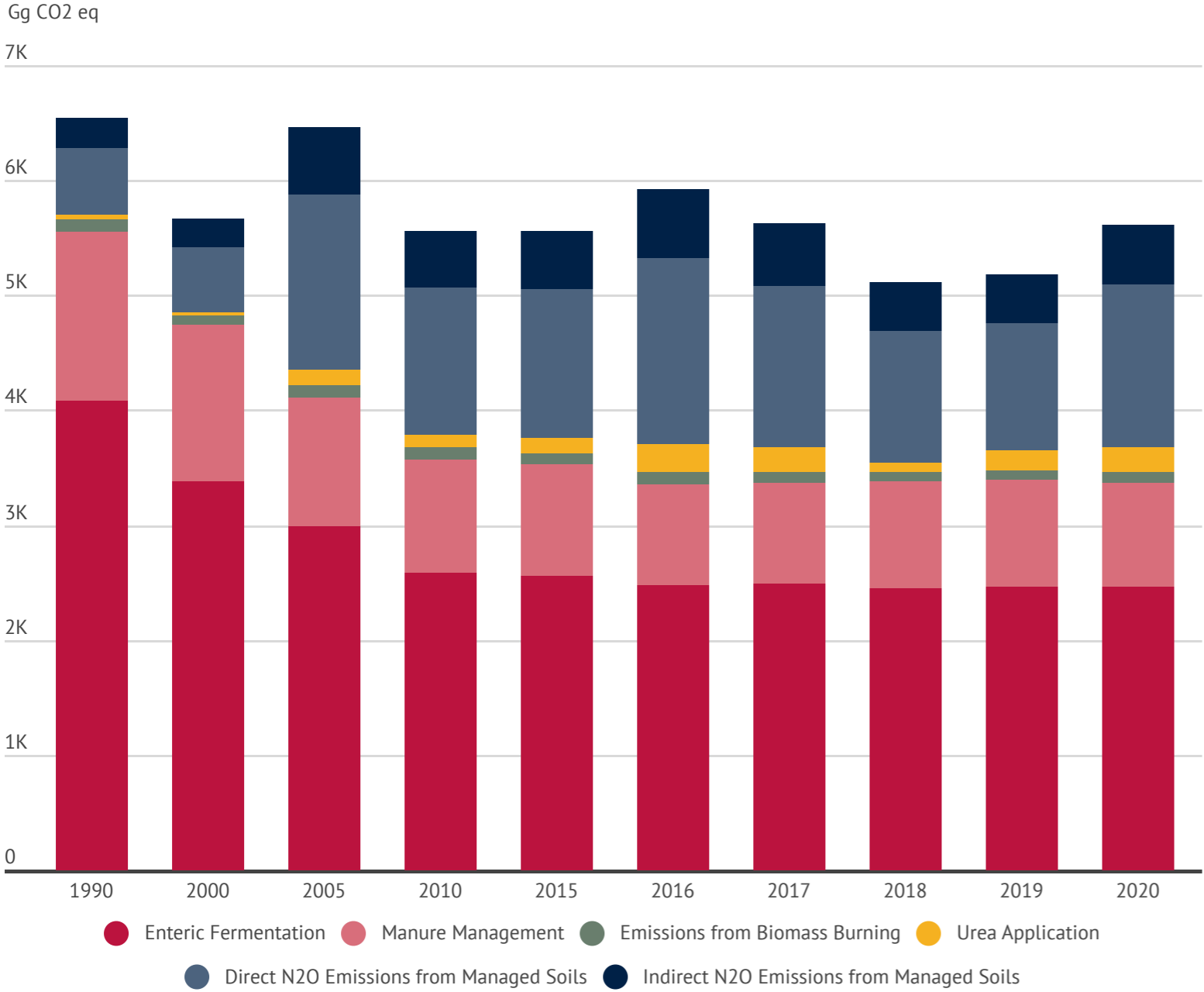


Split in emissions per sector, year 2020

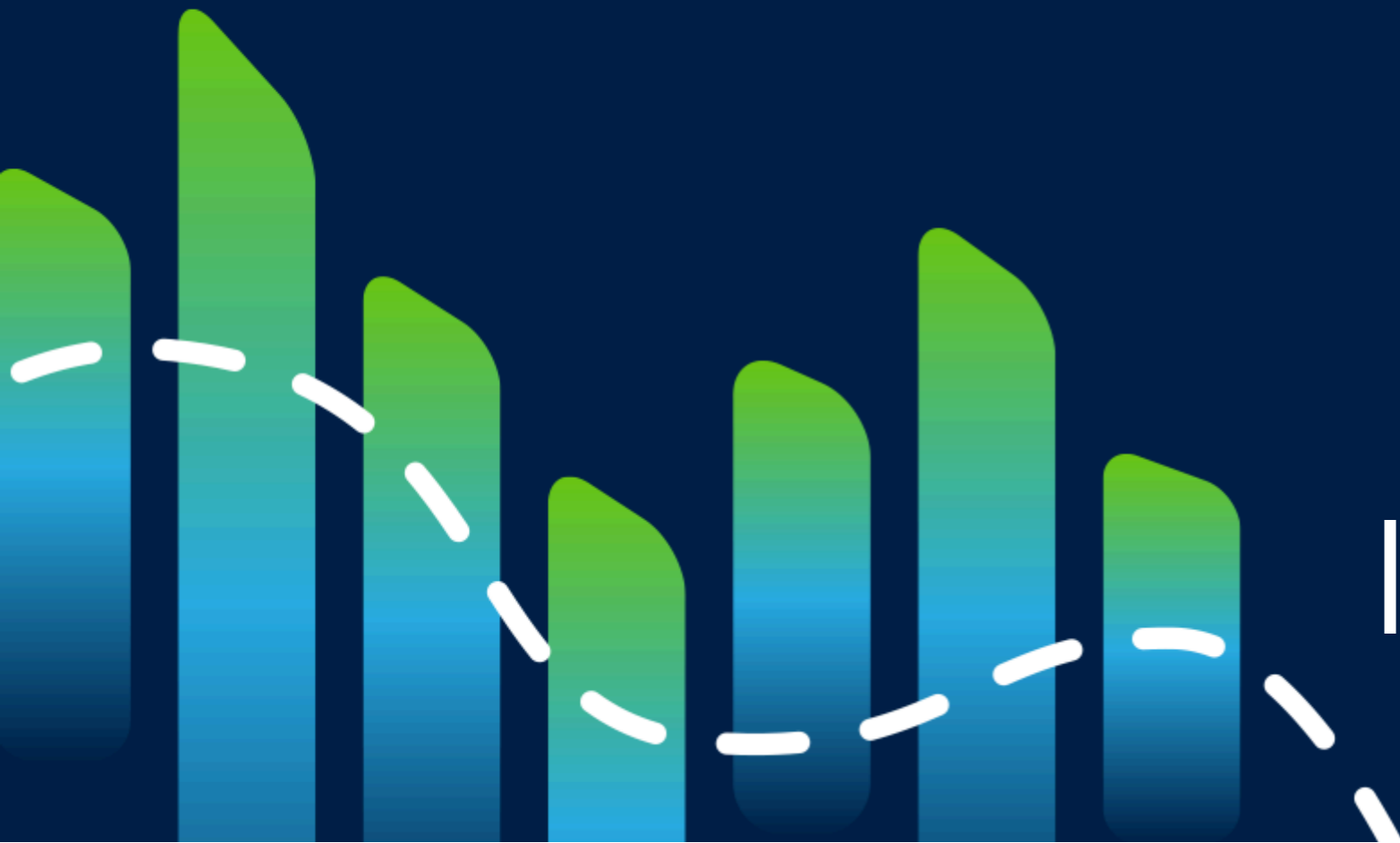


Source: BUR2, 2023

# Sources of GHGs from agriculture in Serbia



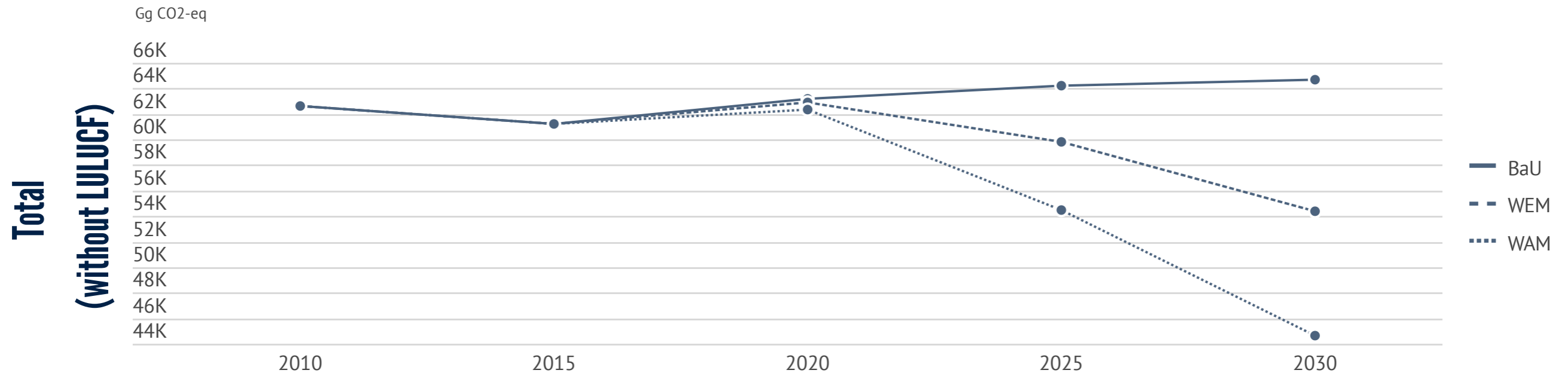
Source: BUR2, 2023



**National context**  
**| NDC pledges & scenarios**

# Scenario and objectives | Overall

- **Without Measures (WOM, BaU)** – No policies and measures (PAMs) after 2015;
- **With Existing Measures (WEM, M2 in LCDS)** – Low Carbon Development Strategy (LCDS) ;
- **With Additional Measures (WAM, M3 in LCDS)** – EU 2030 targets (at least -40% in GHG emissions compared to 1990; 32% RES by 2030 and 32.5% improvement in energy efficiency).



# NDC Target | Based on LCDS

## Overall target:

Economy-wide GHG reduction target, expressed as relative reduction by 2030 :

- -13.2% compared to 2010
- -33.3% compared to 1990.

## LULUCF

GHG emissions reductions [2020-2030] from LCDS :

- Increase carbon sink by 17% by 2030 and between 22% to 132% by 2050, compared to 2010.



**Cover crops,  
legumes on grassland**



**N-fertilizer**

## Agriculture

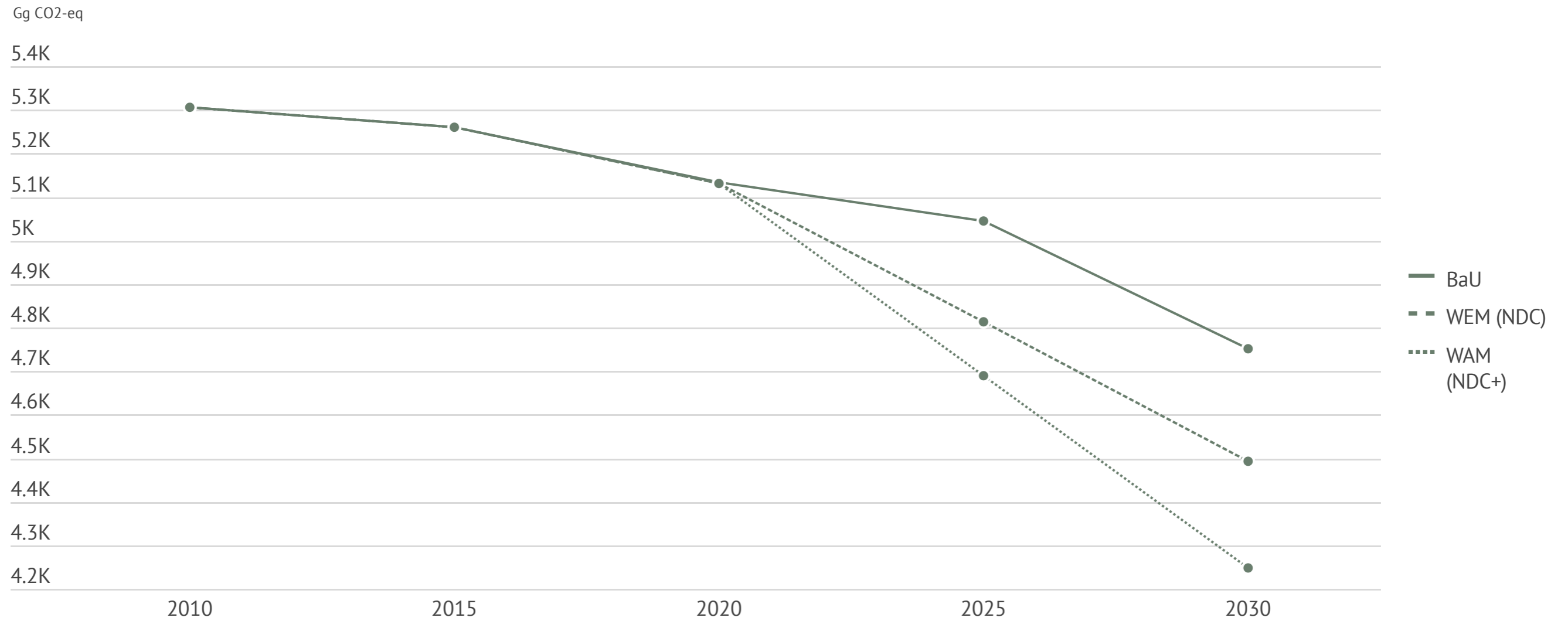
GHG emissions reductions [2020-2030] from LCDS :

- -15% by 2030 compared to 2010
- Retain emissions between the range of +2% to -24% by 2050.



**Livestock**

# National scenario | Agriculture



# NDC Target | P&Ms for agriculture

## Measures

## Expected output



Cover crops,  
legumes on grassland

- **Winter cover crops** on 1.9 milion ha by 2030.  
Implementation: 2025-2030
- 33 000 ha of **grassland with increased legume share** by 2030.  
Implementation: 2025-2030



**Higher sequestration**  
(LULUCF)  
+  
**Reduce N-fertilizer use**  
(Agriculture)

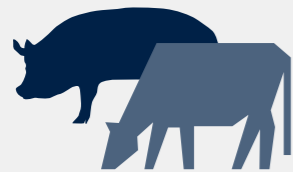


N-fertilizer

- **Decrease in use**, resulting from winter cover crops and increased legume share on grassland | no specific target



**Decrease in N2O emissions**

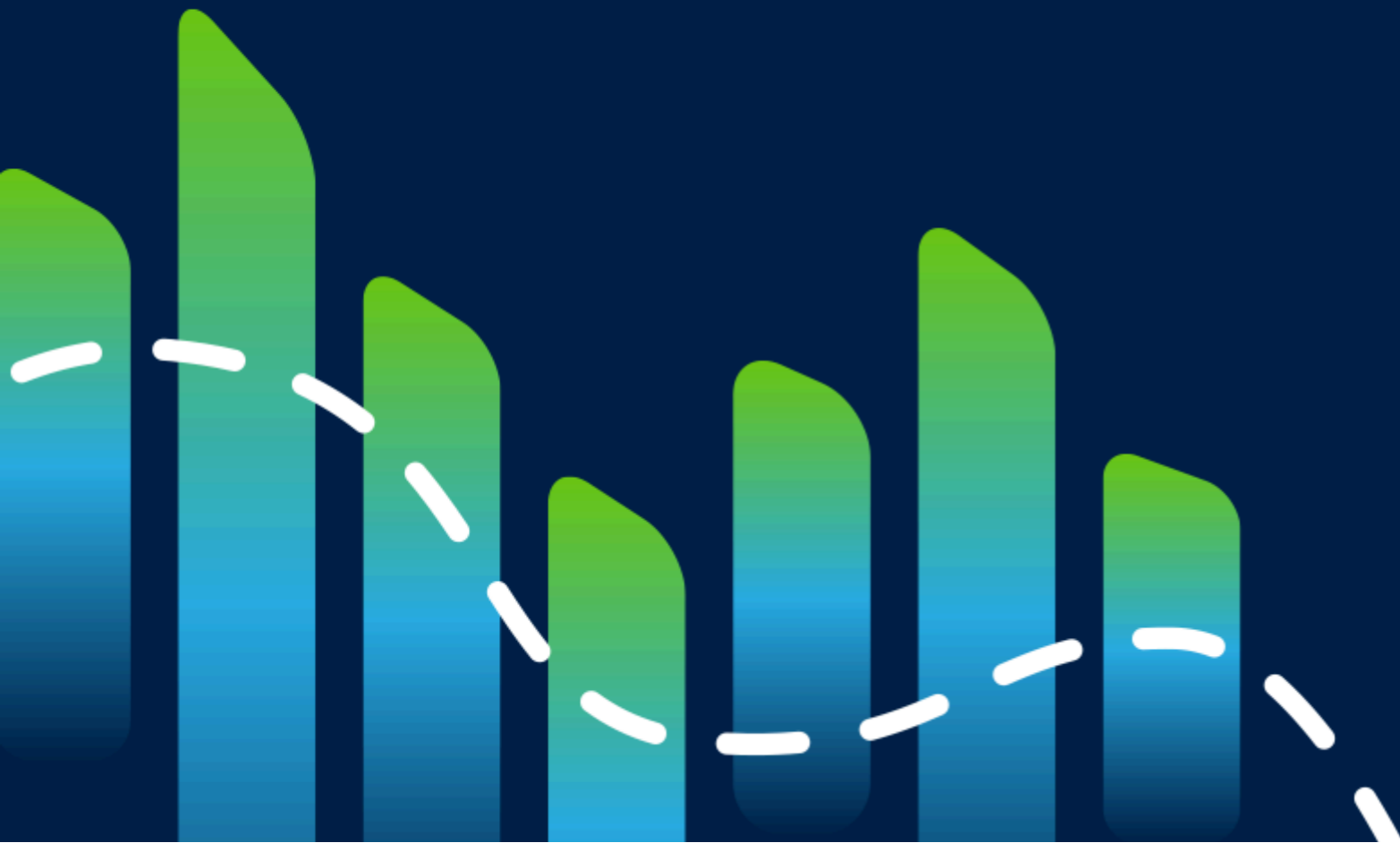


Livestock

- **Breeding for higher milk yields.**  
Implementation: 2021-2030
- Expected **decrease in number.**



**Increase emissions/unit**  
+  
**Decrease overall emissions**



**NDC analysis**  
**| Agriculture**

# NDC analysis | Hypothesis and results



**Cover crops**  
**Legumes on grassland**

**-400 000 tCO<sub>2</sub>-eq**  
sequestered in 2030  
compared to BaU.

**45% of the objective**  
for annual carbon sink (LULUCF)



**Decrease in livestock units until  
2030, following past trends.**

**-500 000 tCO<sub>2</sub>-eq**  
by 2030

**70% of the objective**  
in agriculture



**Decrease in fertilizer use**

**-55 000 tN/yr by 2030**

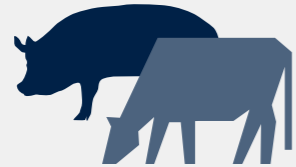
**-20% by 2030**  
**compared to 2020 levels\***

**Fertilizers reduction to reach LCDS target**

\*190 000 tN in 2030 vs  
245 000 tN in 2020 (FAOstat)

# NDC analysis | Improvements & uncertainties

## After 2030 ?



Livestock units would still decrease?

"Agriculture: stabilization by 2015 and **gradual recovery of livestock number**"

SNC, 2017

## Data & calculations



Decrease in fertilizer use

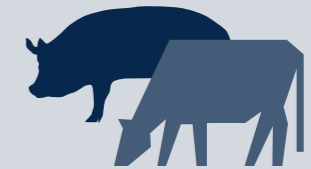
Deduct the reduction in N-fertilizer due to cover crops.



Cover crops implementation

**1.9 million ha** to be converted in **5 years\***.

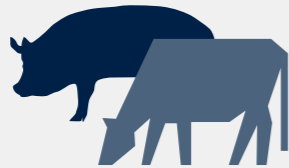
\*BUR2, 2023



Higher emission intensity?

Resulting from breeding for more yields.

# NDC+ | Difference with NDC in agriculture

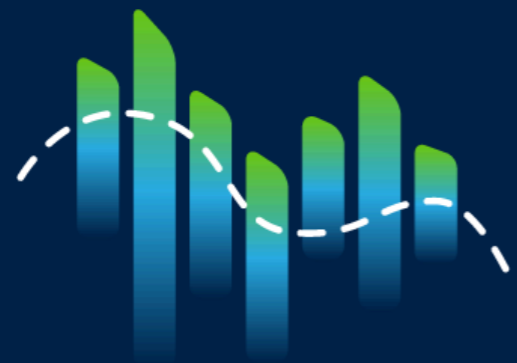


## Options for livestock

- Improved animal diets | lipids mentioned in BUR
- Manure management | anaerobic digestion mentioned in IPARD III & BUR, 2023 (for swine)



*To be assessed according to 2nd BUR.*



# NEXT

NATIONALLY  
DETERMINED  
CONTRIBUTION  
EXPERT TOOL

**Contact: [ndc-tool@fao.org](mailto:ndc-tool@fao.org)**

<https://www.fao.org/climate-change/our-work/what-we-do/ndcs/research-tools/next>