Non-CO2 emissions from livestock production in URUGUAY

MVOTMA | Ministerio de Vivienda Ordenamiento Territorial y Medio Ambiente.

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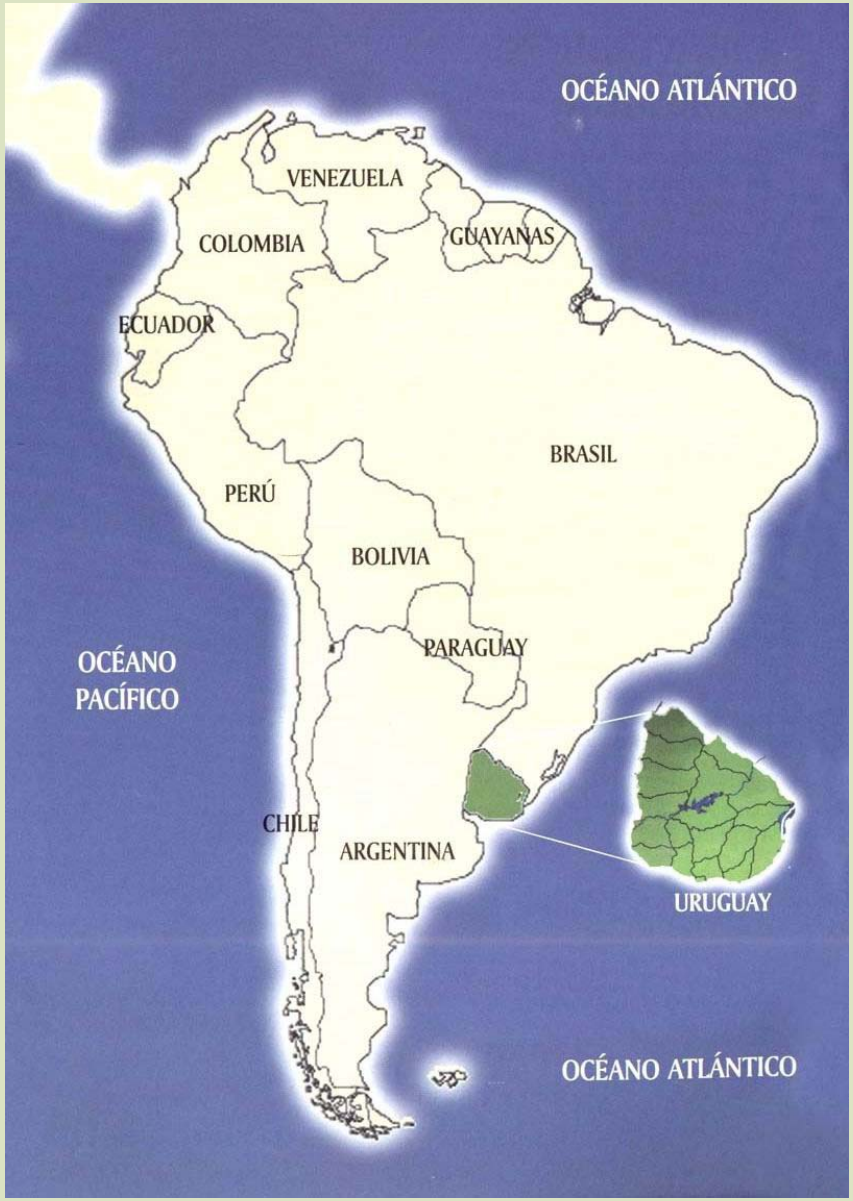
URUGUAY

SBSTA 27, Bali, Indonesia, 7 December, 2007

URUGUAY


OCÉANO ATLÁNTICO
VENEZUELA
COLOMBIA
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OCÉANO PACÍFICO
CHILE
ARGENTINA
URUGUAY
OCÉANO ATLÁNTICO


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ARGENTINA
BRAZIL
Artigas
Rivera
Salto
Paysandú
Melo
Lago Artificial de Paso del Palmar
Río Negro
Lago Artificial de Rincón del Bonete
Laguna Merin
Fray Bentos
Mercedes
Treinta y Tres
Nueva Palmira
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San José
Minas
Las Piedras
MONTEVIDEO
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Río de la Plata
South Atlantic Ocean
ARGENTINA

URUGUAY

•3,4 million inhabitants, 12 million head of beef cattle and 11 million sheep.

•Beef-exporting country, being stock raising the principal agricultural activity and the mainstay of the economy, contributing more than 35% of yearly exports in the form of meat, wool, and hides.

•Total area of 18.5 million hectares, 85% are productive and 83% of the total productive area is used for livestock production.

• Beef production is based almost exclusively on pasture grazing

• Beef production and exports have expanded since:
    - •granted the status of “foot-and-mouth disease -free with vaccination” in 2001
    - •classified in the lowest possible risk category for bovine spongiform encephalopathy (BSE).

• Over 70% of production is exported.

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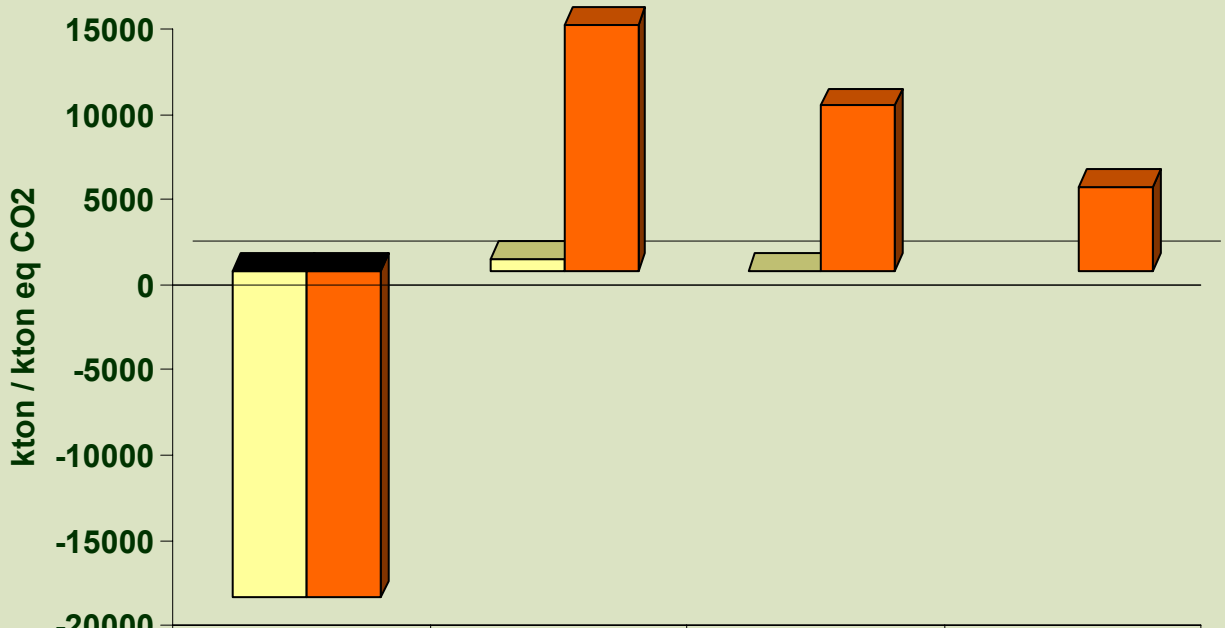
GHG National Inventory, 2002



	CO2	CH4	N2O	Total
Emisión neta (kton)	-19157	688	31	
Emisión neta (kton eq. de CO2) 100 años	-19157	14446	9697	4986

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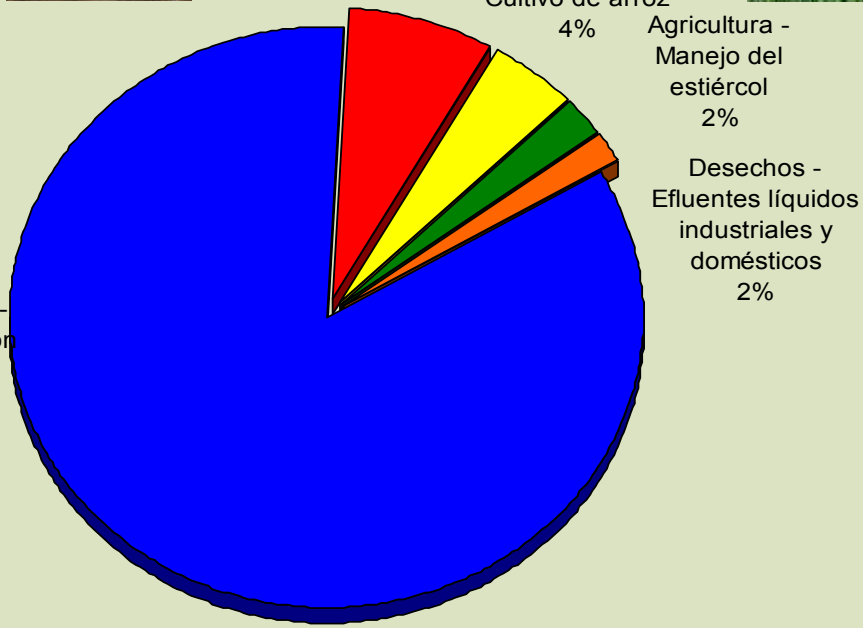
CH_4 emissions: 14.4 Mt CO_2-e



84% of the national emissions of CH_4 in 2002 came from livestock enteric fermentation

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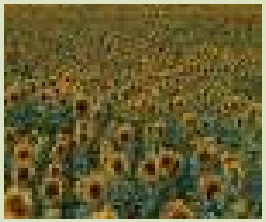
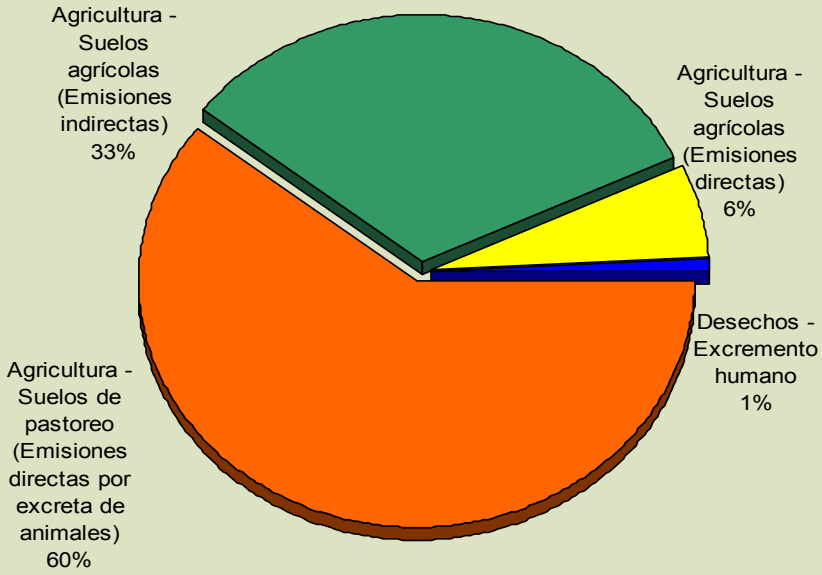
N_2O emissions: 9.7 Mt CO_2-e





99% of N_2O emissions in 2002 originated in agriculture, 90% of them from grazing animals (dung and urine deposited by free-range grazing animals).

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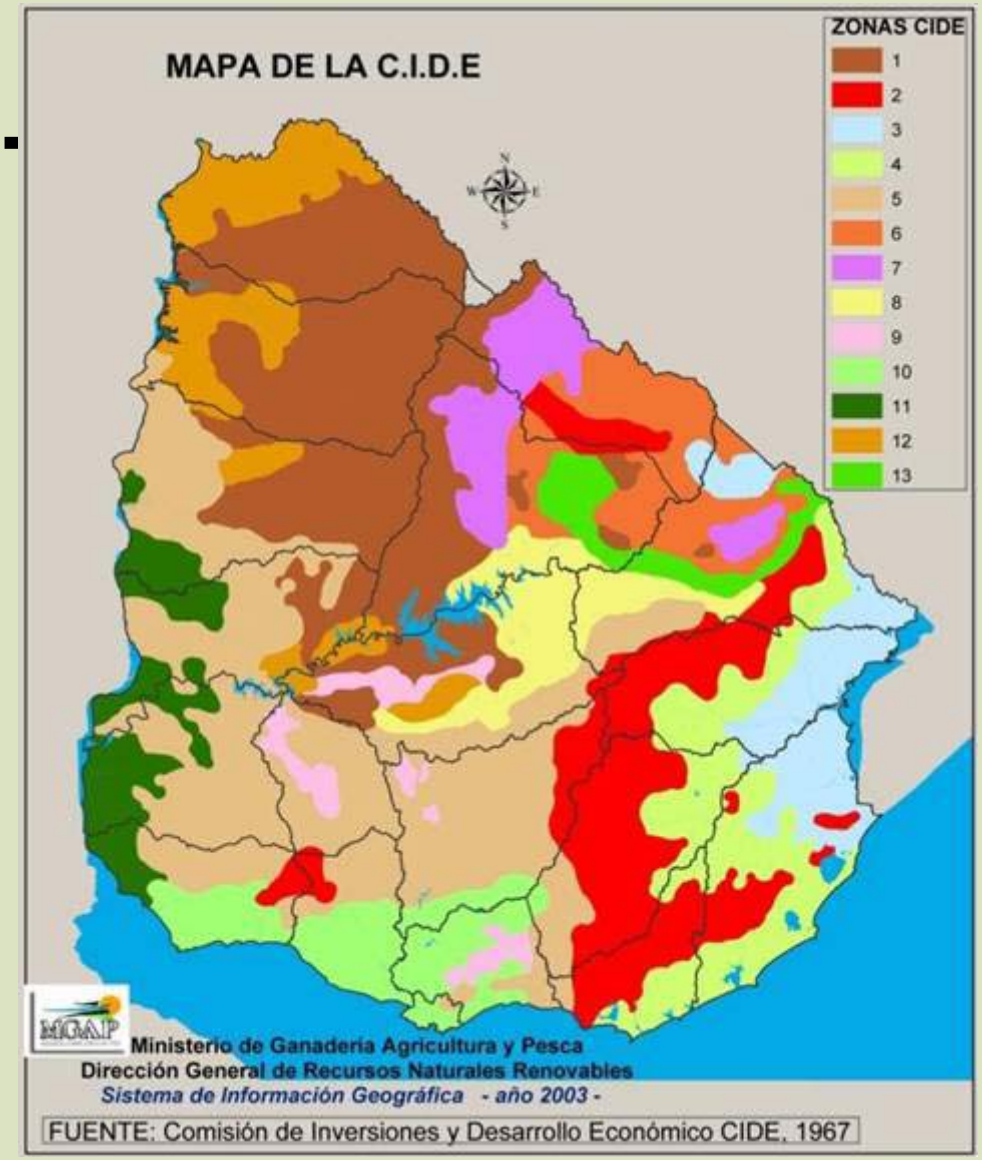
- Tier-2 methods are being developed for these two key sources

- Different agro-ecological units within the country are being considered for deriving country-specific emission factors

- In different zones in the country, and mainly due to the characteristics of the soils and native pastures productivity, specific production systems predominate (breeding, fattening and full-cycle, with some particular features



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- A multidisciplinary group of national experts from public institutions and the private sector has been conformed to estimate national emission factors.

- This group will continue working in CH_4 and N_2O abatement strategies from animal agriculture after EF calculation.

- Local research on GHG emissions by livestock is scarce. However, there is very abundant information in the country on pasture production and quality and on animal nutrition, and this can be used for deriving country-specific EFs. The group includes several of the experts in these areas.

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•Beef and sheep cattle are very important for Uruguay's development. GHG emissions from these activities are responsible for more than 80% of total national emissions

• Emissions per unit product are relatively large, almost 100% of the production occurs in grazing conditions, mostly in extensive systems. These emissions do not include decreases in carbon stocks, since there is no deforestation in Uruguay, and all grazing occurs on sites where grassland is the native ecosystem.

•Worldwide, there are few cost-effective practices for reducing GHG emissions from cattle (IPCC AR4, Ch. 8)

URUGUAY

- **Intensification of production through improved diet quality and better animal reproduction indicators is highly effective in reducing emissions per unit product.**

- However, emissions/head and emissions/ha would increase due to a higher total production.

- Intensification combined with a reduction in the land base used for livestock production may be an effective strategy.

- However, this may impair development, and is very difficult to implement, since intensification of livestock production systems is generally seen as a desirable practice to increase production, not to decrease GHG emissions.

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• Historically, several attempts to intensify livestock systems have failed due to a number of barriers.

•Even with the current positive signal from meat markets, the degree of pasture improvement in the country is very reduced.

•A possible climate change mitigation strategy being considered by the working group is a reduction in the carbon intensity of the beef production systems (i.e., reduction in GHG emissions per unit product) through intensification.

•***Carbon finance (based on both C sequestration in soils by improved pastures, and reduced carbon intensity of production) may be effective for lifting some of the historical barriers for intensification in Uruguay.***

Thank you very much for your attention!

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