RED POLÍTICAS PÚBLICAS Y DESARROLLO RURAL EN AMERICA LATINA

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Family Livestock and Climate Change

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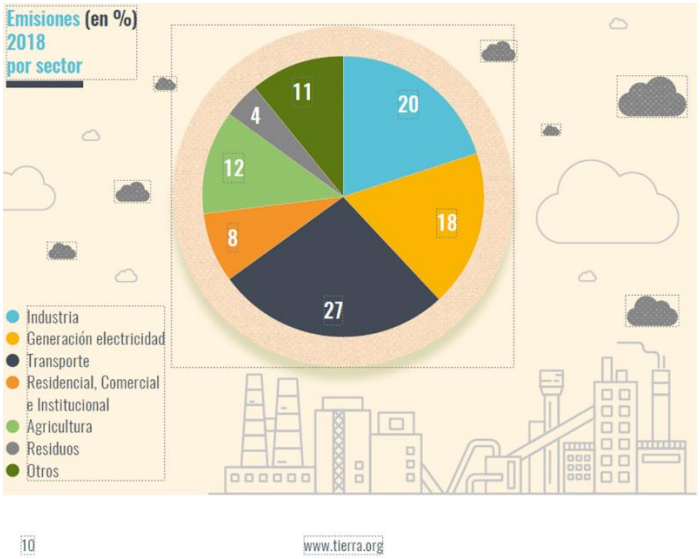
Introduction

Context:

Livestock in general and family or peasant livestock in particular are criticized for their greenhouse gas emissions.



Box 1. ***Climate change and greenhouse gas (GHG) emissions from livestock farming***

Plan of te communication

- Who is criticizing, with what discourse, from where and why?
- What science says: elements of response ?
- Alternatives

1. Criticism of globalization and manipulation by the agro-industrial sector

There are many sources of criticism: ecological movements, academia, sectors of the GIEC and FAO, vegan and animal defense movements, the industrial livestock lobby + multinationals and cellular meat start-ups, etc.

The main reason is because the same metric is used for estimating GHG emissions for all types of livestock or cattle systems.

The global standard calculates emissions by animal/species, not by product (weight; l/milk) or by production system or biome. So we observe the same criticism and the same attacks for all livestock systems

Thes attacks or critics does not consider context and nature of production system, e.g. compensation for grazing, natural or artificial pasture and livestock/agriculture integration

Such a situation and discourse allows industrial livestock farming (feed-lots) to justify itself at the cost of family livestock farming:

- livestock industrial farming would be more efficient & legitimated (zero pasture and soil)

- family livestock farming systems would be inefficient: they would emit more for its large number of heads (India, China, Africa, pampas) , so, in a rationale and ecological world, they should disappear as a priority.....

2. What does the research say? : alternative measure method

With the Global Livestock Environmental Assessment Model (GLEAM) difunded by FAO (LEAM Method v3.0 Dashboard::, the weight of animal products in GHG emissions is estimated by FAO (2015) at 12% , but this global estimate hides regional differences

This mesures don't consider methane emissions/animal by production: for example, an European cow producing 30 litters/day of milk emits less per litter/milk than a Sahelian cow producing 3 litters/day. (see Cassecs, 2024, in African Sahel https://www.cassecs.org/).

You can't just issue cattle from feedlots and family livestock (Herrera, 2009 & 2018 in Spain) :

An alternative is proposed by CASSECS Project, the Ecosystem or territorial method:

It measures Carbon balance of all flows throughout the territory: i) the GHG emissions in the atmosphere, but also , ii) the carbone capture in the ecosystem

Fig 2. The Ecosystemic or territorial method

3. Other realities in Sahel, Spain, Russian steppes, Mongolia, Pampas

We know that 50% of the world's cultivated land is dedicated to the production of grains and fodder for intensive livestock farming - instead of crops producing 2 to 50 times more vegetable protein

In reality, we also know that extensive livestock farming does not compete with plant-based food production. 35 million km2 of pastures (15 million km2 cultivated land) occupy marginal lands (extreme climates, deserts, mountains...) that are not suitable for cultivation.

With pasture and environmental conservation (fire), organic fertilisation (faeces, urine) and seed transport, extensive livestock farming can result in a carbon-neutral food production system.

Alternatives and proposals:

First, one can and should eat less meat, but more and of higher quality. An international example between three countries and territories of the Pampas biome (Argentina, Brazil and Uruguay) is the Alianza del pastizal, based on the traceability of animals reared exclusively on natural pasture (see https://www.alianzadelpastizal.org.br)

Another alternative is to promote the preservation of and guaranteed prices for products from pastoral systems and extensive and agroecological family livestock farming (see extensive agroecology in Argentina (Sabourin et al., 2017).

The role of livestock in Argentinean extensive agroecology

One of many examples is the experience of Mr Esteban Gonzalez Zugasti, Estancia y reserva El Paititi, Mar del Plata (Bichos de campo.com).

His agroecological practice is based on a livestock-agriculture symbiosis: i) in addition to organic fertilisation, cattle eat weeds and multiply the biodiversity of natural pastures; ii) the rotation of 'cereals with fodder crops, maize, sorghum and legumes'; iii) the rotation of plots of natural pasture, the field (or artificial) and recovery of degraded areas; iv) the possibility of protecting or conserving natural pastures with reserves (biological or agro-tourism).

Conclusions

Extensive livestock farming feeds on biomass that cannot be used by humans and is produced on uncultivable soils. This biomass is transformed into meat, milk and other products. It contributes to the local economy, reduces the risk of fires and generates environmental benefits.

Extensive livestock farming is not the cause of the increase in GHGs in the atmosphere…. but it must face up to major challenges and improve its production and marketing models and face a process of differentiation on various scales.

So, do more research with ecosystem or territorial method !

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