

SAHELIAN LIVESTOCK AND CARBON FOOTPRINT

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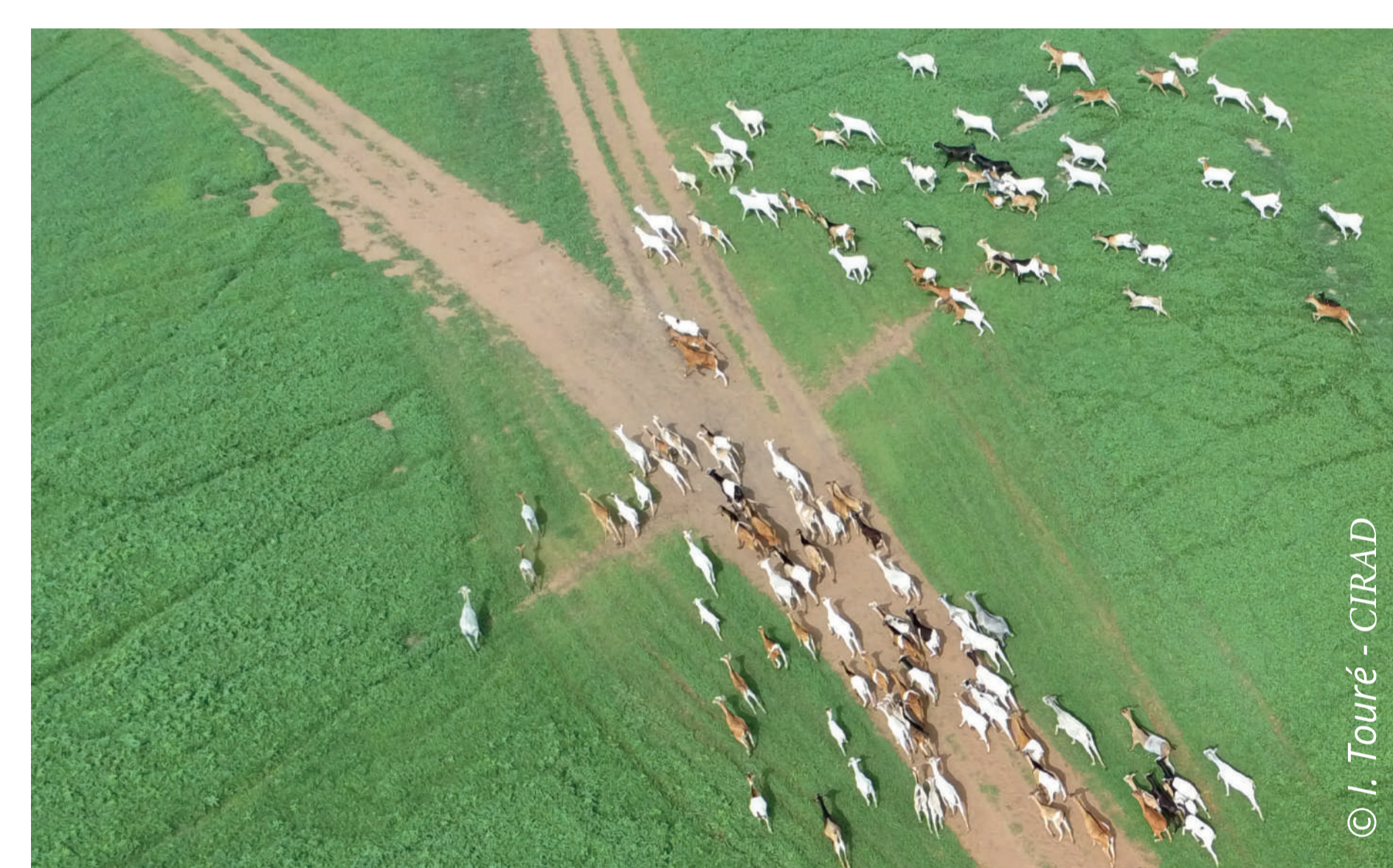
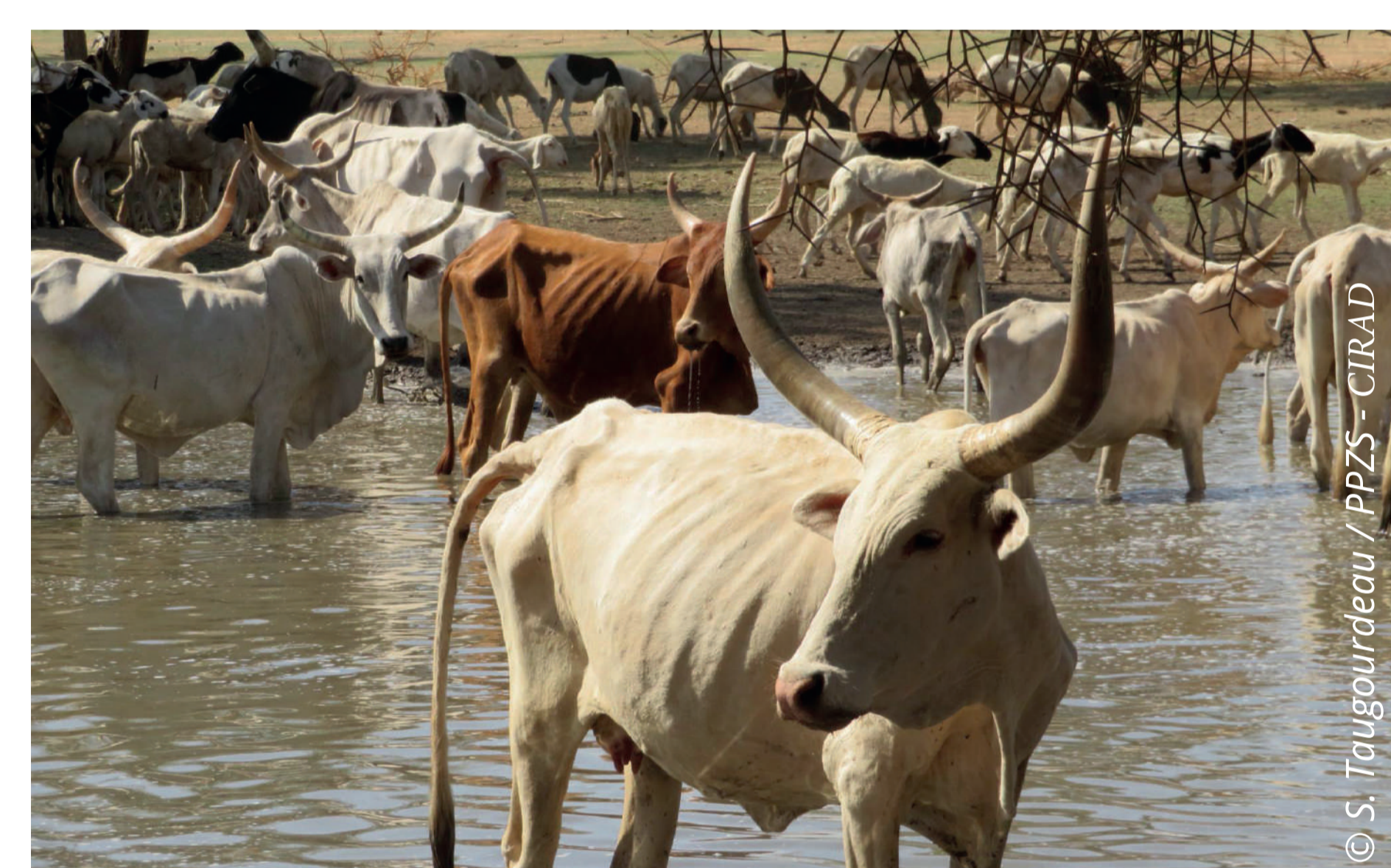
Carbon sequestration and GHG (Greenhouse Gas) emissions in the (agro)silvopastoral ecosystems of the Sahelian states of the Permanent Interstate Committee for Drought Control in the Sahel (CILSS)

Overall objective

To improve the assessment of the carbon balance of (agro) pastoral livestock systems to better quantify their impacts on climate change and to develop livestock policies adapted to the Sahel.

Specific objectives

- Produce knowledge and reference data on GHG emissions and carbon storage factors;
- Develop multi-scale carbon assessment tools and devices;
- Co-design sustainable mitigation options with (agro)pastoralists.

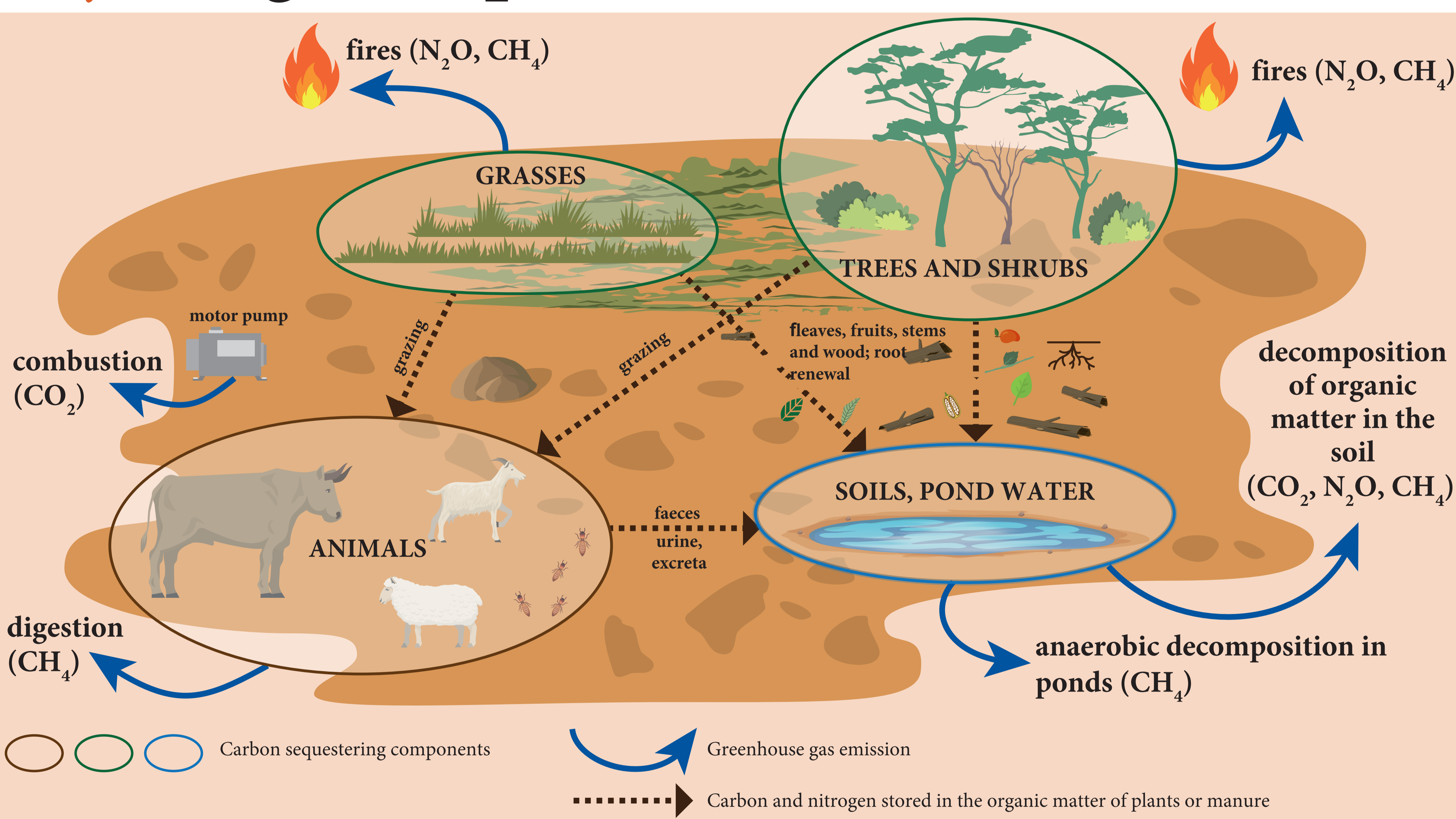


A project against preconceived ideas

This model illustrates, on the one hand, the different compartments of (agro) silvopastoral ecosystems, namely the soil, the vegetation (grasses and woody plants) and the animals. And, on the other hand, all the flows of carbon and nitrogen generated in these ecosystems. Considering the mobility of animals in these ecosystems, a territorial approach was adopted.

Thus, based on this model used in a study conducted in the Ferlo silvo-pastoral region in northern Senegal (Assouma et al. 2019), the Cassecs project aims to study the overall ecological functioning of a given territory in order to calculate its carbon footprint.

For this purpose, all flows or exchanges are counted, i.e., both the emissions of greenhouse gases into the atmosphere and the storage of carbon in the ecosystem.



Simplified model of greenhouse gas emissions and carbon storage in a Sahelian pastoral territory. Assouma et al., 2020

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Information

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