



# Adopting when everything crumbles: experiences of silvo-pastoral systems in Caquetá, Colombia

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## Introduction

- ▶ In Colombia, the adoption of silvo-pastoral systems (SPS) and associated practices, such as paddock division, the use of improved pastures, and living fences, among others, stands as an urgent and viable alternative to mitigate the impacts of cattle farming in the Amazon piedmont.
- ▶ Despite its importance, studies on the impact of SPS and analyses of the factors that limit or promote their adoption are still scarce. Furthermore, most of these readings focus on the difficulties in adopting and effectively implementing SPS, highlighting the challenging access to credit for producers (or the absence of specific credit lines), their economic uncertainty, and the difficult and interrupted access to reliable and affordable sources of information (Lee et al., 2020; Jara-Rojas et al., 2020; Oliva et al., 2018). Societal and cultural causes, such as instability, migration, and violence, remain largely unexplored.

This work investigates the importance of these "other" causes, which,

- ▶ although marginal in specialized literature, play a leading role in enabling or restricting the adoption of SPS. They include the presence of armed actors, territorial instability, and the surrounding violence in a disputed territory: Caquetá.

## Objectives and Methodology



Figure 1. Location of Puerto Rico and San Vicente in Caquetá, Colombia. Source: Milenioscuro (CC BY-SA)

- ▶ Taking cattle producers in the municipalities of Puerto Rico and San Vicente del Caguán as a case study, this analysis explores how the conflict is a determining factor in whether producers adopt SPS and other climate change adaptation strategies. The unstable context of Caquetá has favored the predominance of extractive economies and practices (rubber, mining, coca, livestock), exacerbating poverty and limiting the access of local producers to sustainable production methods, thus slowing the transition to adaptive and sustainable livestock farming (Duarte et al., 2019; Tobón, 2018).
- ▶ Therefore, using participatory methodologies (workshops, focus groups, and in-depth interviews), this research seeks to explore how the implications and reverberations of the armed conflict in the mentioned municipalities affect their capacity and possibility to adopt sustainable production technologies, such as SPS.
- ▶ The first stage of the research focuses on 32 cattle-farming families in the municipality of Puerto Rico, where extensive cattle ranching predominates, with a documented animal stocking rate of 0.73 animals/hectare (Torrijos, 2022). The goal is to promote the conversion of cattle-farming systems towards sustainable resource use in the region and to understand how conflict dynamics hinder this transition.

## Results

- ▶ Through ethnographic approaches in the qualitative work with men and women producers from Puerto Rico, it was found that dynamics such as forced migration, dispossession, the presence of armed groups, and the increase in illicit crops play a decisive role in the adoption and effective implementation of SPS in areas where it is urgently needed.
- ▶ The collective identification of the main events related to the armed conflict, the proposed methodology captures how these events affect producers at the family and productive levels in terms of SPS implementation, tree planting, production, input procurement, marketing, and market access, among others.
- ▶ It was also found that the confluence of inequality factors, such as the gender gap and victim status, constitutes determinants when it comes to facilitating technological adoption processes, finding that women and young people are more severely affected by the effects of war on cattle production and SPS adoption.



Figure 2. Workshops in Puerto Rico and San Vicente. Photos: V Rivera / CIAT

## Conclusions

The preliminary findings of this ongoing project suggest that specialized literature on SPS gives little consideration to the role of contextual factors and social shocks such as war in the adoption and use of such practices. This gap hinders the development of methodologies that allow us to understand the difficulties faced by cattle producers in implementing SPS.

Inhabiting contested territories, for example, makes it difficult to access timely information, participate in sustainable technology training, operate in markets, and therefore, hinders producers' willingness to adopt.

Another long-overlooked factor is displacement, as it considers how feasible it is for cattle producers in high-deforestation areas with the presence of illicit crops to properly implement SPS or decide to introduce them into their production systems, given the complicated tenure of the land they work.

Studies like this suggest that, in addition to examining generalizable factors we already know and their impact on the adoption of sustainable cattle production methods, specific but highly influential contingencies should be considered, such as practicing cattle farming in the intersection between conflict and the elusive transition to peace.

## References

- Duarte et al., (2019) Análisis de percepción sobre las medidas de adaptación al cambio climático en predios ganaderos mediante la incorporación de sistemas silvopastoriles en 10 Municipios del Piedemonte Orinocense del Departamento del Meta. (Tesis de Maestría) Universidad de Manizales, Manizales (Colombia). <https://ridum.umanizales.edu.co/xmlui/handle/20.500.12746/3574>
- Jara-Rojas R, et al. 2020. Factors Affecting the Adoption of Agroforestry Practices: Insights from Silvopastoral Systems of Colombia. *Forests*. 11(6):648. <https://doi.org/10.3390/f11060648>
- Lee S, et al. 2020. Adoption potentials and barriers of silvopastoral system in Colombia: Case of Cundinamarca region. *Cogent Environmental Science* 6(1):1823632. <https://doi.org/10.1080/23311843.2020.1823632>
- Oliva M, et al. 2018. Factores que influyen en la adopción de tecnologías silvopastoriles con la especie nativa *Alnus acuminata* (aliso). *Agrociencia Uruguay* 22(2):e23. <https://doi.org/10.31285/AGRO.22.2.12>
- Tobón, Marco. (2018). "Nuestro futuro es nuestro pasado". Explotación de oro, medioambiente y resistencia indígena en el medio río Caquetá. *Maguaré* 32(1):139-170. <https://doi.org/10.15446/mag.v32n1.76167>
- Torrijos, R. (2022). *Cifras del contexto ganadero Caquetá 2022*. Florencia (Colombia): Comité Departamental de Ganaderos-CDG. [https://issuu.com/rafaeltorrijos/docs/contexto\\_2022\\_imp](https://issuu.com/rafaeltorrijos/docs/contexto_2022_imp)

## Acknowledgments

This work was conducted as part of the CGIAR Initiative on Livestock and Climate. We thank all donors who globally support our work through their contributions to the CGIAR System. This work was conducted as part of the Rutas PDET Program funded by the European Fund for Peace and implemented by Red Adelco, Alliance of Bioversity International and CIAT and ICCO Conexión. Its content and/or production does not necessarily reflect the views of the European Union.



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Financiado por la  
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