

## Fostering Sustainable Livestock: Insights from Institutional Arrangements in Beef and Dairy Production Chains Across Mexican States

**Avalos Ileana<sup>1</sup>; Sepulveda Claudia ; Jimenez Antonio; Betanzos Juan; Perez Edwin & Escobedo, Adriana.**

*Affiliation: Tropical Agricultural Research and Higher Education Center*

### Introduction/ Background

Beef and dairy production in Mexico plays a vital role in the nation's economy but poses significant environmental and social challenges. To mitigate these issues, there's a pressing need to adopt sustainable livestock practices, requiring robust institutional arrangements to enforce positive changes in production. These arrangements are crucial as they define incentives, responsibilities, and relationships among stakeholders, influencing decision-making and the success of sustainable practices. The BioPaSOS project has been instrumental in examining institutional arrangements in beef and dairy production in Jalisco, Chiapas, and Campeche, providing insights into how stakeholder relationships impact sustainable farming promotion. Institutional arrangements vary widely, from hierarchical and market-based to community-based and collaborative models, each having distinct implications for sustainability. Tailoring strategies to specific contexts and bolstering effective institutional frameworks is imperative for advancing sustainable livestock practices and addressing environmental challenges in this vital industry.

Focusing on institutional arrangements is crucial for the Mexican livestock sector, providing the necessary frameworks for governing relationships, responsibilities, and decision-making among stakeholders. These arrangements include both formal rules and informal practices, influencing actor behavior within the livestock production system. By scrutinizing these frameworks, we can discern the distribution of roles, decision-making power, and the approaches taken to tackle environmental and social challenges. Understanding the range of institutional arrangements, from centralized and hierarchical to collaborative and community-based, allows for the identification of each model's strengths and weaknesses, fostering the development of more effective, context-specific solutions for sustainable livestock practices in Mexico and beyond.



Figure No. 1 Livestock Field School

### Methods/ Approach

This study is based on a neo-institutionalist perspective to investigate collaborative governance frameworks in the beef and dairy production chains in Jalisco, Chiapas, and Campeche. It utilizes the collaborative governance analysis by Ansell and Gash (2008) and the comprehensive definition of institutional arrangements by Ostrom (2005), emphasizing collaboration and cooperation while acknowledging the complexity of value chains, their interconnections with other economic sectors, and the inherent relational and power dynamics. Through a qualitative approach, the study analyzes these complexities, categorizing institutional arrangements into hierarchical, market-based, community-based, and polyarchic models. The aim is to contribute to sustainable livestock initiatives, policy development, and shared responsibility, with broader implications for the region.

### Results

The examination of institutional arrangements provides deep insights into the dynamics influencing the promotion of sustainable livestock farming. Hierarchical arrangements face challenges such as the potential exclusion of stakeholders and the need for effective coordination among regulatory institutions. Market-based arrangements show promise through economic dynamics and public-private partnerships, though they require improvements in implementation, fiscal incentives, and sustainable procurement policies. Community-based arrangements promote collaboration and connect livestock production with environmental conservation, emphasizing the empowerment of local communities. Polyarchic arrangements involve collaborative governance and the participation of multiple stakeholders in decision-making and resource management, facing challenges such as the need for binding agreements and financial sustainability. Recommendations include promoting local participation in hierarchical arrangements, enhancing institutional coordination in market-based models, supporting community management, and strengthening collaborative governance. Further research and contextual adaptation are necessary to address challenges and seize opportunities to promote sustainable livestock farming practices. These recommendations contribute valuably to the broader discourse on the role of institutional arrangements in mitigating environmental impacts and promoting responsible practices in the livestock sector.



Figure No. 2 Livestock Field School

### Conclusions/ Significance

This study underscores the significance of incorporating best practices in cross-institutional management for the successful adoption of sustainable livestock practices in the beef and dairy cattle production sectors of Jalisco, Chiapas, and Campeche. It highlights the value of adaptive, collaborative governance frameworks that engage diverse stakeholders and address environmental and production challenges. By emphasizing the need for context-specific strategies and the promotion of trust, mutual learning, and equitable solutions among stakeholders, this research contributes not only to the understanding of sustainable livestock agriculture in the Mexican context but also offers valuable insights applicable to similar regions worldwide. Recognizing the importance of robust governance structures in the transition to sustainable livestock agriculture, this work enriches the global discourse on the role of institutional arrangements in achieving a harmonious balance between livestock production and environmental conservation.

### References/ Links

- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543-571.
- Avalos, I., Lozano, C., Cabrales, M., Betanzos, J., & Sepulveda, C. (2023). Lessons Learned in the Construction of Collaborative Governance in the State of Jalisco, Costa Rica: Turrialba. CATIE (2023). BioPaSOS Project. About. Retrieved from <https://www.biopasos.com/>
- Ostrom, E. (1990). Understanding common-pool resources: Framework and findings. *Current Sociology*.
- Ostrom, E. (2005). *Understanding institutional diversity*. Princeton University Press.

13<sup>th</sup> GASL MSP, Chiang Mai, Thailand, 30 October to 03 November 2023

### Acknowledgements

We express gratitude to the BioPaSOS project, executed by CATIE in collaboration with IICA, AGRICULTURA, and CONABIO, funded by the German Federal Ministry for the Environment. We also extend appreciation to the producers, livestock unions, authorities, universities organizations, and civil society that contributed to our understanding of institutional arrangements and collaborative governance in the livestock sector, enriching this study with their valuable insights and experiences.

1. For additional information, please feel free to reach out to Ileana Ávalos at [ileana.avalos@catie.ac.cr](mailto:ileana.avalos@catie.ac.cr).