

Comparative analysis of sustainable productive systems in the Hondurian Mosquitia

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Introduction

- The Rio Platano Biosphere Reserve (RPBR) extends over 832 thousand ha in the Mosquitia Region of Honduras, and is one of the most important protected areas of the Mesoamerican biological corridor.
- Inhabited by indigenous, afro descendant, “colonos” and mestizo communities, who rely on hunting, fishing, livestock, agricultural production and forest use for their livelihoods.
- The population faces several challenges such as seclusion, lack of access to basic services, tensions between native and incoming communities, land grabbing, deforestation and presence of illicit activities related to drug traffic.
- The government, NGOs and international cooperation have carried out projects for the development and protection of the region, but the community needs and increasing threats of deforestation are prevalent.

Results

Criteria	Staples	Cacao	Allspice	Timber	Swa oil	Fruit trees
Market potential	2.00	2.33	2.33	2.33	1.67	1.33
Community preferences	3.00	2.33	1.67	2.00	2.00	2.00
Income generation	1.75	1.50	1.25	2.00	1.75	1.00
Environment	2.00	3.00	3.00	1.50	2.50	3.00
Social Equity	2.50	2.50	2.50	2.00	3.00	2.00
Enabling environment	2.00	2.00	1.75	1.75	1.75	1.75
Food security	3.00	1.00	0.00	0.00	0.00	2.00
TOTAL SCORE	2.41	2.29	2.05	2.00	1.99	1.85

Market potential: The region presents major logistic and infrastructure limitation, hindering competitiveness for any commercially oriented agricultural activity. Only cacao, allspice and timber stand out among the alternatives due to unmet and growing demand, as well as expressed interest from buyers.

Community preferences: Production systems in the region are subsistence oriented, and food security is among their top priorities. Cocoa provides additional cash income, but past organizational problems have hindered its potential.

Income generation: At current levels, most of the activities generate little to no profits. Timber production has focused on mahogany, which is profitable and currently active, but other woods present major competitiveness challenges due to large illegal timber extraction.

Environment: Due to low environmental enforcement capacity, increasing demand for local timbers may increase pressure in the forest. Other systems are synergistic or compatible with forest conservation.

Social Equity: Women and indigenous communities participate and/or expressed preferences for staples, swa, cacao and allspice.

Enabling Environment: The region presents serious limitations to support services such as financing, technical assistance, inputs and logistic.

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Objectives and methodology

- To assess, compare and identify challenges and opportunities for different sustainable production alternatives for the communities of the RPBR.
- **6 production systems:** i) local staples (rice, beans and corn), ii) cocoa, iii) native timber species, iv) Swa oil (*Carapa guianensis*), v) allspice (*Pimenta dioica*) and vi) fruit trees.
- Compared their performance and potential in the region using 7 criteria: market potential, community preferences, income generation potential, environmental synergies, social equity, enabling environment and food security
- Literature review, semi-structured interviews with 12 organizations, and 3 focus group discussions with 31 actors including community leaders, project representatives and community members.

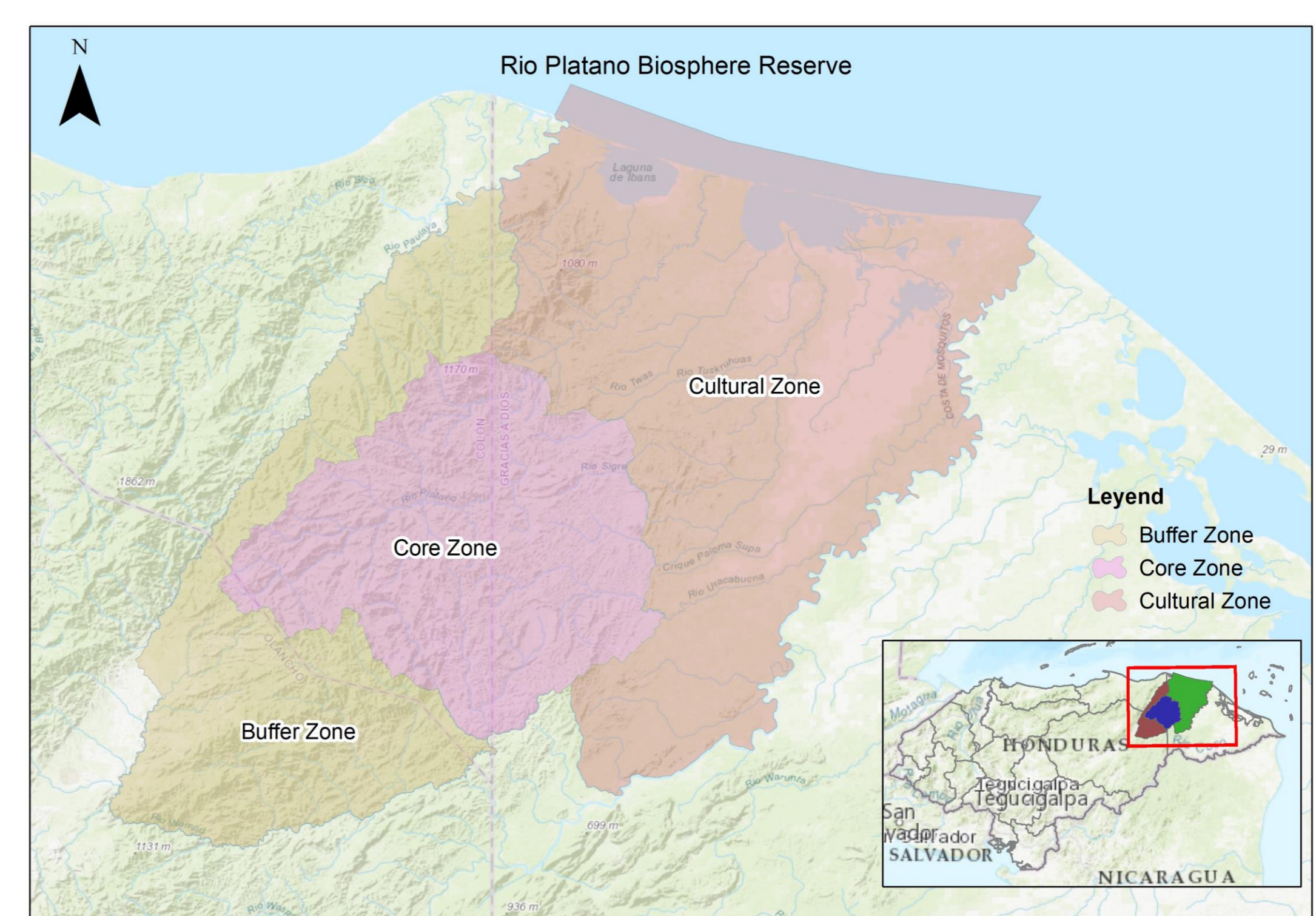


Figure 1. Rio Platano Biosphere Reserve.

Conclusions

- The seclusion of the region from other populated centers hinders the commercial development of any productive system. Forest pressures are led through colonization and expansion of cattle production, and feasible livelihood alternatives are in need.
- Food security remains a priority, specially in face of extreme weather events which threaten the communities subsistence. Therefore, emphasis on interventions aimed at this goal are encouraged.
- Cacao presents as the most environmentally safe and commercially feasible income generation activity, nevertheless its capacity to provide a livelihood is limited and should be seen as a complementary strategy for income diversification.
- Allspice is interesting for exploration, but further research is needed to assess forest supply and define management plans. Swa has a limited potential due to limited local demand and competition from foreign products at lower price.
- Fruit trees and other food products could be promoted as backyard, traditional gardens for domestic consumption through community seed banks and trainings.

Further Reading

Claros, L., Bucardo, E.M., Charry, A., Wiegel, J. (2023). Análisis y priorización de alternativas de producción sostenible para las comunidades de la Mosquitia en Honduras [Manuscript in preparation]. CIAT.

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