The 12,000 kilometers of international boundaries within the Amazon’s lowland rainforest biome form the axis of a borderland region shared by the nine states of Amazonia (Figure 1). These Amazon borderlands contain high concentrations of extraction units and indigenous territories to preserve the transboundary region’s rich ecological and cultural diversity (Figures 2 & 3). However, this biocultural diversity is increasingly threatened by advancing development frontiers and a growing global demand for Amazonian resources.

Transboundary Political Ecology

Here we define transboundary political ecology (TPE) as a necessarily multi-scale framework suitable for investigating the interactions between local people, the environment, and policy across political borders. This definition sits within our inclusive understanding of political ecology as a vibrant expanse of cultural-religious, material, and environmental production that expands across the Amazon’s growing regions along the eastern slopes of the Andes. The establishment of coca fields in the borderlands encourages local land managers to invest in a coca crop capable of making five times the earnings of the most lucrative legal alternative. While coca cultivation improves income, transportation networks, and education for the residents of caseríos cocaleros, cultivation also brings negative social impacts such as increased violence, prostitution, gambling, and drug use, in addition to negative environmental impacts such as forest fragmentation and chemical contamination. However, the greatest negative impact to a transboundary political ecology framework may prove helpful in reconciling conservation and development in the bioculturally diverse political borderlands of Amazonia.

Introduction to the Amazon Borderlands

Case Study 1: Forest Management and Sustainable Logging

The 2000 Peruvian forest law, #22708, created a new system of forestry concessions in the Peruvian Amazon based on the sustainable harvesting of timber for global and domestic markets. However, government officials map these concessions a priori in Lima onto lands containing colonists, illegal loggers, drug traffickers, indigenous peoples, and forests without the valuable historical knowledge and resource management practices of local and borderland residents. This flawed forestry system encouraged loggers to seek the maximum richly timbered plots on the people, and harvest mahogany and tropical cedar up to the international boundary and beyond (Figure 4). Loggers used bogus management plans and false transportation permits to launder high value timber chain-sawn into planks inside Brazilian protected areas, carried across the international boundary, and re-sawn on sawmills called impusill mallocs (Figure 5). In some cases, transboundary entrepreneurial networks facilitated the illegal logging, in others Peruvian residents earned family and friends money in Brazil. The Brazilian Ashaninka, for example, warned by their Peruvian cousins, mobilized the Brazilian military to capture over 150 loggers destroying protected forests within Brazilian territory (Figures 6 & 7). These invasions and the subsequent imprisonment of Peruvians required diplomatic negotiations between Brazil and Peru and cast a negative light on South American integration efforts.

Case Study 2: Coca Cultivation and Eradication

Global demand for coca based derivatives fuels the continued cultivation and trafficking of coca in Peru, Ecuador, and Bolivia, coca cultivation has expanded into the Amazonian borderlands of Peru, Brazil, Ecuador and Colombia. Coca cultivation in the borderlands of Amazonia is a multi-scale problem with social, economic, political, and environmental dimensions. The cultivation of coca has been very profitable for colonists, illegal loggers, drug traffickers, and indigenous peoples inhabiting the neighboring national parks.

The Changing Context and Transboundary Dynamics of Reconciling Conservation and Development in the Amazon Borderlands

Case Study 3: Border Military Settlement Projects

Brazil and Peru’s geopolitical vision for the Amazon included the establishment of military settlement projects, fronteras visuales (Figure 11), to populate their respective borderlands and dissuade encroachment from neighboring countries (Figure 12). Thus, the rational resource management strategies of colonists bought to protect and propel the Peruvian border included trespassing, treating, and smuggling from neighboring Brazil, potentially and actually resulting in diplomatic damage control, and exposing fronteras visuales as a geopolitical liability (Figure 13).

Our data in one such isolated Peruvian outpost revealed the isolated and largely abandoned colony, reigned to not receiving promised services, roads, and land titles, to rely mostly on illicit forest income (67%) centered on the illegal harvesting of natural resources (timber, skins, and bush meat). The colony’s harvesting of natural resources took place in both Peru and Brazil while resource trade engaged smugglers and guerrillas inhabiting the neighboring national park.

Conclusions

These three case studies demonstrate the transboundary impacts of national policies on local natural resource management in the Amazon borderlands. Local land managers on both sides of the border make rational decisions according to the opportunities and constraints presented by these policies in a borderland context. Transboundary networks of friends, family, and entrepreneurial connections, in addition to borderland resource knowledge help local people use the presence of the political boundary and multiple policies and political systems to their advantage. However, these local borderland adaptations to national policies may also have connotations at the international scale due to the provocative political nature of transboundary impacts. These impacts and adaptations promise to increase as developing and developed nations further penetrate protected areas on the Amazon borderlands. A transboundary political ecology framework may prove helpful in reconciling conservation and development in the bioculturally diverse political borderlands of Amazonia.

References


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