

Indigenous Rights, Knowledge & Land Use

Introducing Adaptive Co-Management in Costa Rica: Risks and Opportunities

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In the past three decades environmental management has experienced a radical change with the introduction of adaptive approaches that offer an alternative way of dealing with uncertainty in complex adaptive systems. In my doctoral studies I am examining the interplay between environmental management actions, resilience and livelihood strategies in the watershed of the Peñas Blancas River (San Jose, Costa Rica) using an adaptive co-management framework. The Peñas Blancas River runs along the Pacific slope of the Talamanca mountain range between two conservation areas: York University's Las Nubes Biological Reserve and Los Cusingos Bird Sanctuary. The area is of ecological significance for its biodiversity and the potential to reap benefits from carbon sequestration, among other functions. The main sources of revenue for communities within the watershed are in the form of agriculture, mostly coffee and sugar cane, and animal husbandry. Community members, local organizations, co-operatives, not-for-profits and universities have emphasized the need to balance ecological integrity with the development of livelihood strategies. Adaptive co-management can provide a suitable framework to achieve multiple environmental and social objectives. However, while adaptive co-management has been applied with some success in Canada, its application is much more limited in Latin America. My paper will review the trajectory of resource management in Costa Rica and it will explore the appropriateness of introducing adaptive co-management in the Peñas Blancas River watershed, focusing on the risks and opportunities that such an approach can bring to small agricultural communities in the Latin American context.

From Entangled Encounters to Processes of Cross-fertilization: A Study on Collaborative Wildlife Conservation in Guyana

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Although shaped and nourished by diverse ecosystems of immense beauty and ecological significance, Guyana's diverse peoples have been historically locked into material, political and social struggles that have created devastating impacts on human communities and ecosystems, and the relationships between them. The past two decades have seen the emergence of a new political phenomenon in the conservation domain: the collaboration between Indigenous communities and conservationists - particularly where protected areas overlap Indigenous territories.

As such, collaborative conservation discourses and projects have become sites where Indigenous struggles have become entangled with conservation initiatives. Local engagement with the cultural politics of conservation encounters in places such

as the Iwokrama Forest, Guyana, reveal that conservation projects have become significant zones of contact between: i) Indigenous peoples and external actors (such as conservationists) and ii) humans, animals and natural landscapes. In defining their contemporary wildlife knowledge, rights and management practices within such contact zones, Makushi Indigenous communities and institutions in the North Rupununi have begun to engage with both locally embedded, and external discourses and frameworks.

My paper will examine how conservation sites such as the Iwokrama Forest have the potential to emerge as strategically important and dynamic sites for promoting human-animal interactions, integrative knowledge-building and conservation alliances. Thus, I will explore the transformational potential of conservation sites to facilitate differentially situated, yet relationally connected groups to collaborate with one another in integrative and cross-fertilizing processes. With the purpose of re-envisioning wildlife conservation knowledge and practice within a more locally-embedded paradigm, the concept of 'syncretism' is used to embody the work of Indigenous peoples and conservation researchers in Guyana who are attempting to critically engage and synthesize their different worldview and knowledge frameworks into sustainable and equitable conservation strategies.

The Right to Use or Rightly Using the environment in El Cuyo, Ría Lagartos Biosphere Reserve, Yucatán, Mexico

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Biosphere Reserves, part of UNESCO's Man and the Biosphere program, have grown in numbers and land cover all over Mexico and Latin America. They advocate for strict conservation zones where no human activities are permitted, combined with zones for sustainable use of natural resources for local populations. The politics put in place by these Biosphere Reserves diffuse particular ways of defining, delimiting, understanding, and using the environment. They also promote mechanisms that encourage local participation in conservation initiatives. This impacts the members of communities that live in and around these regions, who respond in various different ways to the new conservation spaces. While some «participate» by developing new sustainable developments such as ecotourism, others feel they are being left out. Many activities, such as hunting, cutting trees, or simply going to certain areas have been prohibited, inflicting greater difficulties for residents who are already trying to cope with the diminishing local resources.

This communication is based on my M.A research in social anthropology and aims at presenting how the politics of environmental conservation tend to accentuate the disparities already present in the community of El Cuyo, Ría Lagartos Biosphere Reserve, Yucatán. I also wish to challenge the notion of «participation» and take a deeper look and who participates and why. This critical stance on environmental conservation and the concept of participation is useful to anyone who seeks to better understand how global politics affect the local communities were they are put in place.

From Crisis to Environmental Disaster: Native Agriculture & the Making of a Ruined Landscape in North-Central Tlaxcala, Mexico, 1690 - 1710

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This paper explores the ecological consequences of the great mortality of the 1690s in the colonial province of Tlaxcala. The crisis was actually a prolonged series of epidemics and harvest failures. I argue that this crisis set off a series of deleterious environmental impacts and that such degradation was the unintended bi-product of pulque production. Tlaxcalans supplied pulque to local urban markets. For this, maguey was planted on highly sloped marginal lands with thin soils. This situation proved economically and ecologically viable during periods of demographic and climatic stability, that is, when maguey plants were cared for and replanted. Yet, when subsistence crises struck, and when epidemics and climate-induced crop failures limited both the consumption and marketing of pulque, upslope maguey fields were often abandoned, exposing friable soils on open slopes to the forces of wind and rain, thereby transforming soil and water regimes.

This argument challenges the notion that the Spanish biotic community enacted a kind of "ecological imperialism" in the central Mexican highlands. But even more so, it demonstrates that environmental transformations could be enacted by natives and by traditional, native agricultural species. Even old, noble cultivars such as the maguey could have unexpected and damaging impacts on the environment when placed within the new climatic, demographic and economic regime of 17th century Mexico. The sources used for this paper are mainly local land documents and indigenous annals, written in Spanish and the indigenous language Nahuatl and were found in regional and national archives in Mexico.