

Tuesday, 7 January / Martes 7 de enero

16:00-17:30: Salón Topacio

## **Political Ecology / Ecología política**

*Chair: David Salisbury*

### ***Village networks and traditional agriculture in the District of Mazán, Napó River, Peruvian Amazon***

Christian Abizaid\*, Yoshito Takasaki\*\*, Oliver T. Coomes\*\*\* Pablo Arroyo \*\*\*

*\*University of Toronto, \*\*University of Tsukuba, \*\*\*McGill University*

E-mail: christian.abizaid@utoronto.ca

Social networks facilitate access to productive resources and information that are key to peasant livelihoods and natural resource use. To date, studies on social networks in Amazonia have examined within-community social networks. This paper reports on initial findings from a study on village networks in the Peruvian Amazon. We use data from 69 rural communities along the Napo river (District of Mazán), collected as part of the Peruvian Amazon Rural Livelihoods and Poverty (PARLAP) Project, to examine the structure and spatial distribution of village-level networks (soccer, seeds, labor, and trade), based on key village characteristics (i.e., access to different land types and village, age, size and ethnic denomination). Implications for our understanding of traditional agriculture and livelihoods in Amazonia are discussed.

*Keywords:* social networks, agriculture, indigenous and folk peoples, Amazonia, Peru

### ***Bees, trees, and social unease in the Amazon***

Christopher J. Brown

*University of Kansas*

E-mail: jcbrown2@ku.edu

Geographers and anthropologists working in cultural and political ecology have long been interested in studying bees and beekeeping as a window on human environment dynamics. This paper reviews that literature in light of more recent questions about development in South America: What is the importance of degraded lands as targets for land use intensification? What role is there for indigenous knowledge in development? What is the relationship between development and maintenance of biodiversity? The paper also summarizes recent on the impact development on stingless and orchid bee species.

*Keywords:* bees, forests, development, Brazil

***Payment for ecosystem services, land use, and carbon storage  
in the Ecuadorian Andes***

Kathleen A. Farley,\* Leah L. Bremer\*\* and Carol P. Harden\*\*\*

\*San Diego State University, \*\*Stanford University, \*\*\*University of Tennessee, Knoxville

E-mail: kfarley@mail.sdsu.edu

Páramo grasslands have rapidly become the focus of Payment for Ecosystem Services (PES) due to their large water-holding capacities and soil carbon stores, as well as their high levels of plant diversity and endemism. These programs have promoted transition towards land uses seen as compatible with conservation or away from other land uses that are seen as degrading. However, limited information exists on the relationships between dominant land uses in the páramo and the production of ecosystem services. Through key informant interviews and field sampling of soil carbon and biomass, we evaluated the types of PES programs being developed, the types of land-use change and ecosystem services they promote, and the effects of a set of incentivized land uses on carbon storage in páramos. Our results provide insight into the role of páramo grasslands in climate change mitigation and the potential for PES to support working landscapes within conservation programs.

*Keywords:* Conservation, payment for ecosystem services, carbon, Andes, Ecuador

***Mapping International Development in the Andean Amazon: Power,  
Participation, and Process***

Thomas Dillon Massey

*University of Richmond*

E-mail: Dillon.Massey@richmond.edu

The use of geospatial technologies, especially the use of geographic information systems (GIS), may be improved in the environmental conservation and development work associated with the USAID funded Initiative for the Conservation of the Andean Amazon (ICAA). This paper analyzes the technical and political challenges to using geospatial technologies under ICAA with particular attention to the sharing of geospatial data among multiple stakeholders and across multiple scales. Further analysis addresses the appropriate use of web-based geo-visualization and cloud-based data storage for international initiatives. Research results stem from a USAID internship and discussions with geospatial technicians of ICAA's primary conservation and development partners. A critical cartography lens proves helpful in identifying the challenges to overcome if geospatial data is to be appropriately used to improve conservation outcomes in an environmentally sensitive region.

*Keywords:* GIS, Amazonia, conservation, development, cartography

## ***Concejos Territoriales: New Functional Indigenous Territorial Jurisdictions of the Honduran Muskitia***

Herlihy, Peter, H. Taylor Tappan, John H. Kelly, Andrew M. Hilburn and Jerome E. Dobson  
*University of Kansas*

Struggles over land tenure and territorial control in Central America bring stability or instability to the *municipios* where indigenous peoples live. In northeastern Honduras, the encroachment of non-indigenous colonists into the indigenous Honduran Muskitia vernacular region has resulted in heightened tensions among colonists and indigenous communities, as well as accelerated rates of deforestation along active colonization fronts. In response, indigenous leaders, especially from the Miskitu and Tawahka populations, opened dialogues with the Honduran government and NGOs on behalf of their communities to acquire collective ownership of their ancestral homelands. In 2012 the Honduran government initiated revolutionary changes to indigenous land tenure in the Honduran Muskitia. Innovative land titling processes at the intercommunity levels now provide new possibilities for indigenous territorial control. This research documents the background leading to these changes in indigenous/campesino land tenure regimes and discusses a cautiously optimistic future for these new *concejos territoriales* as indigenous territorial jurisdictions.

*Keywords:* Honduras, indigenous, *concejos territoriales*, Mosquitía, Miskitu, territoriality

## ***The Political Ecology of Indigenous Land Claims in the Amazon Borderlands***

David S. Salisbury and Diego B. Leal  
*University of Richmond*  
E-mail: dsalisbu@richmond.edu

Indigenous homelands in Amazon border zones are increasingly targeted for development and conservation. This paper documents over ten years of struggle of a Peruvian community of borderland Ashéninka to obtain legal title for their homelands. Competing land and resource claims overlap the Ashéninka homeland even as illegal extractors and traffickers conduct their business with impunity. To combat official and illegal interlopers the community utilizes a spectrum of strategic initiatives ranging from hosting a National Geographic expedition to proposing a communal conservation forest. The community resorts to international networks and initiatives perceived as contradictory to post-colonial theorists in order to overcome legal and political hurdles such as fraudulent land claim documentation and institutional politics. This case study uses an activist research approach to analyze the opportunities, limitations, and contradictions of scale and networks to assist in obtaining state recognition and legal title in the shifting political and legal spaces of Amazonia.

*Keywords:* Indigenous, Amazonia, territory, conservation, Peru

