id. 2538

SP.13.3

DYNAMICS OF REFORESTATION IN COUPLED SOCIAL-ECOLOGICAL SYSTEMS: PRELIMINARY RESULTS FOR THE STATE OF SÃO PAULO, BRAZIL

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Introduction Since the 1990´s, several studies have demonstrated that different countries experienced a net increase in forest area. This forest transition has been mainly attributed to economic changes driving reforestation or forest regeneration. In the state of São Paulo, inventories have indicated a slight net forest area increase over the two last decades. Our study investigates if the forest area has increased on rural properties of selected municipalities and analyzes the factors contributing to this outcome. **Methods** From September to November, 2008, semi-structured interviews were performed in 601 rural establishments at six municipalities. Overlaying geographic position of each lot to satellite images and maps for roads and conservation units, the sampling strategy considered priority areas containing reforestation and/or natural vegetation patches. **Results** Approximately 60% of the interviewees declared that forest cover increased in their land over the past five years, summing a total area of almost 3,000 ha. In almost all municipalities, around 75% of the forest increase areas in the rural lots had up to 5 ha. However, the sum of all areas greater than 5 ha was responsible for more than 50% of the net increase. Land covers mostly converted to forests were pastures, riparian, and secondary vegetation. Aesthetical values and environmental conservation were frequently reported as important factors driving the increase in forest cover. Economic and governmental incentives were reported as of little importance. **Discussion** Our results corroborate the indication that forest area is increasing in the State of São Paulo, as reported by other inventories. These results will further be compared to forest mapping and digital elevation models, in order to establish the location, size, shape, and connectivity of forest patches. This will help to understand how land management decisions taken by individuals drive forest transition processes at local scale. The integration of detailed land-use and land-cover maps will also allow the evaluation of the relative importance of planted and native forests within the studied landscapes.

SP.13.4

METROPOLITANIZATION AND FOREST RECOVERY IN SANTA CATARINA, SOUTHERN BRAZIL: A MULTISCALE ANALYSIS

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Introduction As cities and metropolitan systems in Latin America continue to expand, what are the expected consequences for ecosystems, climate, and people? Can the processes and institutions that have contributed to deforestation, forest degradation, biodiversity loss, inequality, and injustice be reoriented towards social and land-use dynamics that instead restore forests and replenish biodiversity while fostering human well-being, social equity, and justice? To explore these questions, I present a multiscale analysis of anthropogenic landscape dynamics in the Florianópolis city-region, Santa Catarina, Brazil. This coastal region has experienced both ecosystem degradation and ecosystem recovery as interacting demographic, social, economic, political, institutional, and land-use changes have occurred. Its population faces the linked development challenges of managing accelerated urban growth, reducing social inequity and exclusion, adapting to climate variability and change, maintaining ecosystem services, and managing globalization. **Methods** To examine the dynamics of coupled human and natural systems at multiple scales, I integrate analysis of: census data, bibliographic documents, aerial photographs, interviews, participant observation, and site visits. **Results** I argue that the Florianópolis city-region has experienced a forest transition from a period of net deforestation caused by extractive and agricultural activities to a period of net forest recovery. A modernization pathway created conditions that allowed for the expansion and maturation of successional forests since the mid-1980s. Livelihoods have shifted away from extractive and agricultural activities toward urban employment. Rapid urbanization, real estate development, and in-migration from other cities have resulted in socioeconomic polarization and segregation. Legal land-use restrictions and new public, private, nongovernmental, and civil society institutional arrangements for ecosystem protection have been established. Private agricultural land area has declined while protected areas have expanded. The environmental services and amenities associated with the protected-area network have contributed to the ongoing viability of local tourism development and rising real estate prices in well-located neighborhoods. Middle- and upper-income housing construction accelerated, converting parcels to residential or commercial subdivisions in suburban and peri-urban landscapes. Low-income, informal settlements have emerged and expanded on steep slopes and low-lying lands. **Discussion** These land-use transitions have resulted in socioenvironmental injustices by reinforcing and exacerbating differential access to life opportunities and environmental services as well as differential exposure to environmental hazards including climate-related risks. As part of efforts to monitor, forecast, and develop scenarios of demographic, land-use, biodiversity, and ecosystem change in and around the cities of Latin