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*Linking global tourism and community forests: governance adaptations and local resilience in the face of emerging markets for tropical resort architecture*

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Globally tourism represents \$7.6 trillion USD, 9.8 % of the world's GDP. In spite tourism's importance, the impact on natural resources has been only partially explored. Globally tropical forest products are used in thatched huts and other rustic structures crafting an idyllic image of paradise in beach destinations. Here, we analyze for the Mexican Caribbean, the largest tourism destination in Latin America, how markets as well as management and governance of plant products used in tourism construction, have evolved over time. We consider shifting construction material preferences and hurricane impacts as co-variables to explain change.

We analyze changes (1984-2014) for the three most salient forest products commercially used as constructions materials: thatching, polewood, and sapodilla (*Manilkara zapota*) posts. Fieldwork and archival inquiry informed our analyses and include participant observation of harvest operations, key informant interviews; onsite assessment of forest products used in three resort towns tailored to different tourist markets, and finally, review of forest management plans, timber bills, construction statistics, and official communications between communities and environmental authorities. Our comprehensive dataset allowed us to cross-check evidence. We show that tourism has not only represented a scale-up in the use of forest products traditionally used, but it reoriented local architecture using materials that were rarely used historically. Thatching material is a paradigmatic example of these trends whereby change in preferences and overregulation of non-timber forest products resulted in a shift from use of local palm leaves (a forest product) to a cultivated invasive grass species.

Polewood is an officially regulated, loosely defined group of > 80 tree species harvested at small diameters. Polewood governance has evolved with emergence of rules and norms reducing conflicts of use between polewood and timber. Additionally, the official ban on forest product harvests (i.e., polewood and palm thatch) from agricultural fallows curtails what could be a complementary use of communal landscapes.

Large scale logging of sapodilla represents a major change in regional forest management. Once off-limits, this forest dominant uniquely produces chicle, central to traditional livelihoods and of historical importance in global chewing gum production. Official forest regulations have alternately authorized and banned sapodilla harvests, while local norms increasingly accept its unprecedented felling. Hurricane impacts on coastal resort areas temporally skyrocket forest product demand and price during reconstruction periods, while inversely, salvage logging operations generate oversupply and depress prices. Additionally, onsite assessment of forest product use in three resort towns revealed divergent construction trends. Where mass tourism dominates, rustic architecture is present, but forest products and uses deviate significantly from traditional ones. In contrast, in destinations where alternative developments coexist with mass tourism, traditional species and uses are more common.

Production and management of rustic construction materials emerged as an important livelihood for forest and agricultural communities. Changes in resource governance and management may be interpreted as successful examples of local adaptation to unpredictable and constantly evolving markets and external impacts. However these observations also raise questions of how to include change in communal forest management plans and which changes should be embraced.