

respective conservation projects and initiatives), off-farm incomes, derived mainly from households' participation in Integrated Conservation and Development Projects (ICDP), has resulted in 23% less land clearance overall, with only a marginal difference in land cleared for farm extension. This finding suggests that ICDP interventions have an important inhibitory effect on households' cleared land expansion when they provide high economic returns to village participants. In light of our results, we discuss the limitations to current conservation strategies in the area, and we suggest policy elements that should be in place to strengthen them as soon as possible and going forward. This is critical right now, considering the governments explicit intention for infrastructure development in the region, which will intensify already existing drivers of land clearing, further threatening the socio-environmental integrity of the watershed and nullifying the positive impacts of the ICDP strategies.

From exploitation to management: a review of the context, life history and potential pathways to sustain and increase Brazil nut production

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Brazil nut (*Bertholletia excelsa*) has emerged as a cornerstone species of the Amazonian extractive economy, coinciding with creation of Brazilian extractive reserves. This alternative land use model attempts to balance biodiversity conservation with rural development. Traditional forest residents are assigned legal responsibility to co-manage these reserves and their resources, including Brazil nut, precipitating a shift from general nut exploitation to more conscious, intensive species management. Drawing heavily on our 25 plus years of research in the Brazilian state of Acre and surrounding tri-border region, we ask: (1) Are Brazil nut harvests sustainable in terms of fruit production patterns and resilience to nut (seed) collection? (2) In what ways might production be augmented and nut quality enhanced? We highlight that scientific evidence and local knowledge indicate that restrictions on current levels of nut harvests are not necessary to sustain populations of *B. excelsa* and its key seed disperser, *Dasyprocta* spp. Rather than concentrating on the fate of most seeds produced, the more pressing risk to *B. excelsa* populations is survival of existing large trees. Ample knowledge indicates possible futures to increase productivity by protecting and improving tree conditions: Cutting lianas from host tree crowns dramatically improves productivity; enrichment plantings and tending new recruits, particularly in abandoned agricultural fallows, is an extremely promising way to grow Brazil nut-rich forests. Nut quality and the Brazil nut market also have improved dramatically. Working together, researchers, local communities and progressive industries can promote understanding, sustainable use and conservation of standing Amazonian.

Açaí as a driving force of rural development in the communities of the Amazon river estuary

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The estuary of the Amazon River comprises the area with influence of the tides, where the Marajó archipelago is located with its many islands inhabited by traditional communities that live from agroextrativism. This region has one of the lowest Human Development Index (0.489) in Brazil and 87.28% of the population is vulnerable to poverty. In this context, the açaí (*Euterpe oleracea* Mart.) emerges as a product from the local biodiversity with immense importance in food security, having become the driving force for the Marajó socioeconomic development. Participatory research conducted in 2018, in the municipality of Afuá (Pará), with 135 families of Ilha do Meio Agroextractivist Settlement Project, showed that the açaí constitutes on average 94.5% of the families' income, with an annual revenue of about six thousand US dollars per family. However, 83% of the interviewed families do not have the habit of saving and at the end of the harvest season they are deprived of resources. On the other hand, the açaí economy has generated an improvement in the families' quality of life and consumption patterns. It has also changed their eating habits and the way they use the forest. As a main conclusion, the study points out the need to discuss new market strategies for the diversification of production in order to use other fruits, seeds and oils. Improvement of the financial planning knowhow of the community, by encouraging the habit of saving and creation of community funds is essential to improve the current vulnerability of these populations.

Traditional communities of the Xingu River accessing the timber market: challenges, risks, and opportunity / Comunidades tradicionais no Rio Xingú acessando o mercado madeireiro: desafio, risco e chance

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O presente artigo relata as experiências com a produção de madeira em tora de seis comunidades na Reserva Extrativista Verde para Sempre, no Rio Xingú, no estado do Pará. Empreendimentos florestais organizados por comunidades rurais com o intento de produzir para os mercados representam um novo ator no setor madeireiro que ainda não aparece em escala, mas tem um potencial importante, já que essas comunidades habitam em 60% das florestas públicas, numa área de 132 milhões de hectares (SFB 2009). Nos casos aqui relatados os comunitários recebem treinamento e capacitação do Instituto Floresta Tropical (IFT), apoiado pela Climate and Land Use Alliance. Adicionalmente, no âmbito do Projeto Bom Manejo, financiado pela Organização Internacional de Madeira Tropical (ITTO) a EMBRAPA Amazônia Oriental e o IFT desenvolvem junto às comunidades uma metodologia de monitoramento de critérios e indicadores técnicos, ambientais, sociais e econômicos do manejo florestal. Esse método deve servir como uma ferramenta de gestão para as comunidades e funciona com a introdução de ferramentas de manejo florestal sustentável desenvolvidas pelo Projeto Bom Manejo na sua primeira fase. Os primeiros resultados do referido monitoramento técnico-ambiental revelaram a vocação das comunidades para o manejo florestal que atende suas tradições. O desempenho produtivo se mostrou promissor e as análises preliminares indicam que os projetos de manejo são rentáveis. Os desafios para assegurar a sustentabilidade dos empreendimentos encontram-se na logística da colheita, na gestão do Plano de Manejo, nas negociações de serviços contratados e das condições de venda e o cumprimento dos contratos.

Management and governance of the use of timber resources by local populations in a floodplain area in Central Amazonia, Brazil / Gestão e governança do uso de recursos madeireiros por populações locais em uma área de várzea na Amazônia Central, Brasil

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