

The success of the REDD initiative will depend on full involvement of local communities in the sustainable management of forest resources. In this sense, four key points need to be analyzed: (1) how to determine the available biomass in the *tapia* woodland, (2) trends of deforestation and degradation, (3) locations of these processes, and (4) needs of local communities in forest resources. This study combines multi-temporal remote sensing analysis integrating high resolution sensors combined with an inventory of biomass in the field with a stratified systematic random sampling at the forest level (forest class), and a socioeconomic study to identify the actors of deforestation/degradation and analyze their consumption practices of forest timber products. These analyses demonstrated that the *tapia* is a low biomass forest with an average of 20 ± 2 Mg/ha of dry biomass. Anthropogenic pressure on *tapia* woodland is high and is characterized by a continuous deforestation (a rate of 3% between 1990 and 2000 and 7% between 2000 and 2005). The surveys confirmed this trend and showed that local communities are the major actors of deforestation, mainly by firewood harvesting, charcoal production, construction, and conversion of forest land to cultivated land.

Integrating social science research class into the forestry curriculum: a case study of Forestry Engineering Program in Colombia. Rodriguez, S. (*Universidad Autónoma de Chihuahua, Mexico; sandra_osu@yahoo.com*), Villarraga, L. (*Universidad Distrital, Colombia; lizfvf@yahoo.es*).

Community-based sustainable forest management implies a commitment to understanding local sociocultural and economic aspects associated with resource management. Studies have shown that traditional knowledge is essential for forest management. Consequently, efforts have been done to encourage participatory practices to strengthen collaborative outcomes. However, little has been said about the challenges facing facilitators or professional foresters when communicating with forests' owners and indigenous populations of the forests. This study aims to investigate to what extent is the social dimension included in the forestry curriculums. An in-depth review of the undergraduate curriculums and class's syllabus with social component is conducted to determine the state of the art of the social dimension in those curriculums. A survey of 27 questions is administered to senior undergraduate students, professors, and professionals to explore the challenges faced when working with small-scale forests' owners and to assess perceptions about the importance of including formal classes on qualitative and quantitative social research. Data collection is in progress.

Forest research institutions and Caçador Model Forest: integrating local knowledge and scientific approaches to enhance rural livelihoods in Southern Brazil. Rosot, M. (*EMBRAPA, Brazil; augusta_rosot@hotmail.com*), Kellermann, B. (*National Council for Scientific and Technological Development (CNPq), Brazil; kdbetina@hotmail.com*), Radomski, M., Lacerda, A., Garrastazu, M. (*EMBRAPA, Brazil; maria.radomski@embrapa.br; andre.biscaia@embrapa.br; marilice.garrastazu@embrapa.br*), Cardoso, D. Mattos, P., Muñoz-Braz, E., Rosot, N., Oliveira, Y.M.

Though very restrictive, environmental laws—which prohibit any kind of management for timber production in Araucaria forest in southern Brazil—fail to prevent its conversion to other more profitable uses, mainly agriculture and livestock. Therefore, EMBRAPA Forestry, the forest branch of the Brazilian Agricultural Research Corporation, is putting much effort into demonstrating that the management of native forests can not only rehabilitate ecosystem functions but also contribute to increased rural incomes through alternative uses of forest resources. As a strategy to implement this paradigm shift, EMBRAPA has undertaken a 5-year process to create a model forest in the region of Caçador (Santa Catarina State), which features the typical landscape pattern of Araucaria forest remnants, including forest patches, crops, pasture, industrial areas, and urbanized areas as well as forest plantations. Despite an economy based on the service sector, commerce, agriculture, and a strong forest-based industry, the region has a low Human Development Index, poor income distribution, and environmental liabilities. Aiming at enhancing rural livelihoods within the model forest, EMBRAPA and other research institutions are developing projects that integrate the community's practical knowledge and scientific methods concerning sustainable forest management through participatory field-level methodologies, as well as facilitating cross-sector relationships involving forestry and agriculture.

Forest offenders become the protector of the forest: a case study from inland Sal forest, Bangladesh. Sadath, M. (*Khulna University, Bangladesh & Georg August University, Germany; mnsadath@yahoo.com*), Islam, M. (*University of Queensland, Bangladesh; wasiulislam7@yahoo.com*).

Forest encroachment by local forest users and indigenous people has been the root cause of inland Sal forest destruction in Bangladesh. The Madhupur National Park and adjacent forest areas have lost biodiversity and vegetation cover. Until 2008, frequent burning and illegal logging were common under the policing type of traditional forest management by the forest administration. This study examined the change in forest biodiversity and number of forest offences in the Madhupur region before and after implementation of the innovative Bangladeshi co-management model. Quantitative and qualitative content analysis, followed by interviews of relevant stakeholders, was used to analyse the social and political aspects of this forest area. Regeneration and forest biodiversity were assessed in 2006 and 2013. The study found that the status of forest vegetation and biodiversity improved, and the number of forest violations has decreased, dropping from 276 offences in 2003–2004 to only 23 in 2011–2012. This study shows that when the forest offenders were made the protector of the forest in the Madhupur region, the co-management strategy was successful.

Evaluation of the tree mortgage system in traditional agroforestry management in Moluccas, Indonesia. Salampessy, M. (*Pattimura University, Indonesia; meis_forester@yahoo.com*), Febryano, I. (*Lampung University, Indonesia; indragumay@yahoo.com*), Suharti, S. (*Ministry of Forestry, Indonesia; suharti23@yahoo.co.id*).

The agroforestry system in land management has been carried out traditionally by the societies in Maluku, Indonesia. The practice is known as “Dusung,” and one of the plants cultivated is nutmeg. Although currently world demand for nutmeg is extremely high, this demand has no effect on farmers' welfare. Farmers face a number of problems, one of which is a system of debt bondage that causes heavy losses to farmers. This study aims to explain the involvement of farmers with the debt bondage system, namely “the tree mortgage system.” The method used in this research is a case study, where data are collected by interviewing and observing participants. The collected data were analyzed using principal agent theory. The results showed that