Silvipastoral systems on Amazon river floodplains: identification of multipurpose forest species based on traditional knowledge of riverside inhabitants

The floodplains along the Amazon River and tributaries, in the Lower Amazon Region, State of Pará, Brazil, are characterized by a hot and humid climate and by annual flooding of their banks. This floodplain system is highly specific, with its use essentially based on ecological management. However, agriculture followed by ranching has led to a reduction of tree cover, which alters the characteristics of that ecosystem. Traditional populations make use of a significant part of natural resources in gallery forest, where extractivism has proven itself strategic in terms of maintaining sustainability. Nonetheless, with the floodplain areas deforested, those populations find themselves deprived of important sources of food and other uses. Recuperating the ecosystem by introducing trees into pastures (silvipastoral systems) represents not only a sustainable alternative but also a cultural challenge due to regional traditions, which are a strong inheritance from older practices. Given that understanding on human perception by local populations is vital for planning and implementing sustainable practices, a participatory diagnosis was carried out, seeking to recover this traditional knowledge related to forest resources and their use in these periodically flooded areas. The diagnosis recorded 21 species consumed by humans, domestic and wild animals and fish, under different forms of use. The grouping analysis brought together the forest species cited by producers and placed them into five groups according to use: 1) fruit trees predominantly for human use (*Inga edulis*, *Spondias mombin*, *Piranhea trifoliata*, *Lecythis Pisonis camb.*, *Crescentia cuiete*); 2) fruit trees that are widely used by humans, domestic and wild animals and fish (*Platonia insignis*, *Eugenia brachypoda*, *Genipa americana*); 3) fruit trees used by wild animals and fish, considered a group with an ecological function (*Crataeva benthamii*, *Cordia tetrandra*, *Ficus sp*, *Astrocaryum jauari*, *Bombax munguba*, *Couroupita guianenses*); 4) forest species for multiple timber use, focused on use of wood and bark by humans (*Cecropia sp*, *Andira inermis*, *Corallodendron fuscum*, *Hura crepitans*); 5) forest species with a timber focus and specific use by humans (*Schizolobium amazonicum*, *Tachigalia paniculata*, *Pentaclethra macroloba*).