



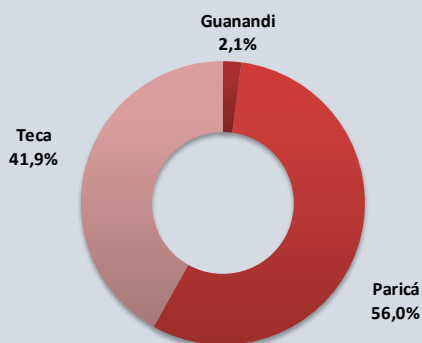
Forest Activity Risks

The recent awareness of environmental issues, the law modernization and the present strengthening of the respective inspection are doubtlessly relevant hindrances to the use of wood from native species. In a near future this perspective will be worsened significantly.

However, this scenario will doubtlessly bring new opportunities as well, especially to the plantation of species to replace the use of the so-called noble wood well consumed worldwide.

Presently there are some initiatives aiming at responding to this market niche as in the case of plantations of the Guanandi (*Calophyllum brasiliensis*), Parica (*Schizolobium amazonicum*) and Teak (*Tectona grandis*) species. Brazil currently has 143.2 thousand hectares planted with these species (Figure 1).

Figure 1. Planted Area Composition



For the fact that it is a light wood of clear color, the Parica is highly appreciated for veneer and special plywood production. Guanandi, on its turn, had a potential use in the furniture and naval industries.

Evidently Teak is the star among these species, mainly due to the high prices that this wood can achieve in the international market.

Estimates, there are around 6.0 million hectares with Teak planted worldwide, 5.5 million of them in Asia. In Brazil, forest plantations can be found mainly in the States of Mato Grosso, Amazonas and Acre, totalizing approximately 60 thousand hectares.

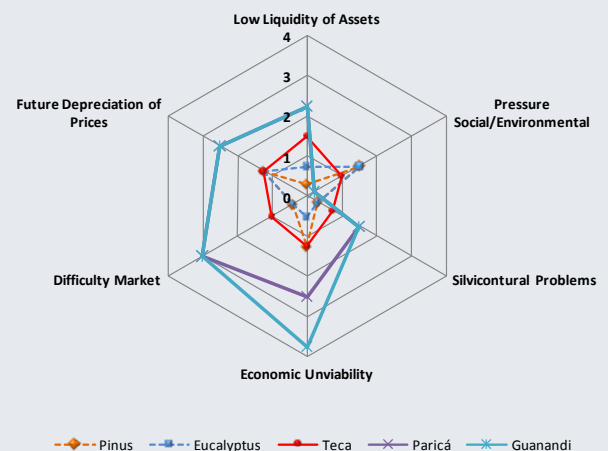
One of the main problems with the new investment opportunities is the deficient assessment of the risk to investment involved in the activity.

in examining the feasibility of business, risk analysis is important. Specifically in the forest sector, risk analysis is fundamental and presents a high level of difficult to be accomplished due to the time of maturation of the venture factor.

In this context, Silviconsult developed a model for risk assessment of forest investments, whether conventional (Pinus and Eucalyptus) or with species configuring new market opportunities. The model considers Productivity Variables, Implantation Costs, Market Prices among others.

The risk assessment shows that, in a 0-4 scale, an investment in Eucalyptus plantations is the forest activity-related business opportunity with the lowest risk (0.78) in Brazil, followed by the Pinus cultivation with an average risk of 0.83. The Teak plantation presents a mean risk rate around 1.13. Paricá and Guanandi are the alternatives with the highest risk: 1.61 and 1.93 respectively (Figure 2).

Figure 2. Risk Map by Species.



In addition to assisting in the feasibility analysis, this analysis can assist for determining the location of plantations and about the mix of species, minimizing the relationship risk x return.

In the corporate world, risk and return present limits between heaven and hell. We ought to be aware of which benefits are available from heaven and which ones are from hell.

Alex Sandro Nogueira, M. Sc. In Forest Economy, MBA in Finance from FAE Business School. Forest business consultant for Silviconsult.