
**MANAGEMENT BY SPECIES THE NEXT ADVANCE
IN IMPROVED FOREST MANAGEMENT IN THE
EASTERN AMAZON**

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Traditional logging in the Eastern Amazon has largely been a land preparation tool for agriculture. However, even in areas where the objective was to maintain a productive forest, traditional management was driven by market concerns. That is the total volume extracted and its distribution by species was determined by the market information available to the operator.

Efforts to improve this scenario have focussed on making industry develop its raw material supply from areas under forest management, the introduction of reduced impact logging techniques, and the limitation of the total harvest volume within a polycyclic silvicultural system. However management rules take account only of commercial species and the impact at species level is only considered in the rule that seed trees must be identified comprising at least 10% of the commercial stock of each species.

In this paper we argue that the impact of logging on forest species and hence on the ecosystem and its sustainability, will vary depending on intrinsic characteristics of the species, on the characteristics of the specific forest area, and on the scale of its exploitation. Therefore the next step in this gradual evolution towards sustainable forest management is the consideration of individual species in silvicultural decisions and especially in the selection of trees for harvesting. This paper reviews existing knowledge for ten important species from the Eastern Amazon region of Brazil and using available information on commercial exploitation assesses their likely vulnerability to current exploitation levels. The implications for silviculture and management are discussed.