DAMAGE FROM LOGGING OF NA EARTH RAIN FOREST IN BRAZILIAN AMAZON

"DANOS CAUSADOS PELA EXPLORAÇÃO DA FLORESTA TROPICAL DE TERRA FIRME NA AMAZÔNIA BRASILEIRA"

JOÃO OLEGÁRIO PEREIRA DE CARVALHO*

JOSÉ NATALINO MACEDO SILVA*

JOSÉ DO CARMO ALVES LOPES**

ABSTRACT

The amount of damage caused by logging depends markedly on felling planning and intensity of cutting as well as the control exercised during the logging operations. The present study deals with damage from logging of a 144 ha area at the Tapajós National Forest in the State of Pará. Two intensities of logging were done; Intensity I (logging of trees with dbh (45 cm) and Intensity 2 (logging of trees with dbh (55 cm). Special care was taken over the consequences of logging on natural regeneration. In Intensity 1 fourteen trees per hectare (1,3 %) were felled corresponding to 15% of the basal area and 23% of timber volume. The damage caused amounted to 15,7% of the number of trees, corresponding to a basal area of 13% and a volume of 15 %. In Intensity 2 eleven trees per hectare were cut (0,9%), reducing basal area by 18% and volume by 26%, and damaging by 9,1% the number of trees, that is 6% in basal area and 4% in volume of timber. Damage from logging could not be considered destructive if compared with other cutting trials elsewhere.

^{*} Eng. Ftal., Ph.D., Pesquisador da EMBRAPA - CPATU, C.P.48, FAX (091) 226.9545, CEP 66.095/100 - Belém - Pará - Brasil.

^{**} Eng. Ftal., M. Sc., Pesquisador da EMBRAPA - CPATU, C.P.48, FAX (091) 226.9545, CEP 66.095/100 - Belém - Pará - Brasil