

**EVALUATION OF HAUL ROAD NETWORK
IN RPH KLAPANUNGGAL, BKPH BANTARSARI,
KPH PEMALANG**

ABSTRACT



Forest opening up is closely related to problems of infrastructure availability in form of haul roads. The study's objective is to find characteristics and haul road network optimalization, whether for long term forest opening up and forest opening up for forest product extraction at RPH Klapanunggal, BKPH Bantarsari, KPH Pemalang that has a company class of teak (*Tectona grandis*) which has a relief of plains. Increment at RPH Klapanunggal is 3.126 m³/Ha/year. Costs that were used are road construction cost (RCC), road maintenance cost (RMC) and skidding cost (SC). Skidding techniques used are by human powered (carried aloft).

Haul road characteristics consists of several parameters such as : road density (RD), road spacing (RS), theoretical mean skidding distance (MSDo), shortest mean skidding distance (MSDt), field mean skidding distance (MSDI), and percentage of opening up (Erschliessungsprozent/E%). Optimum haul road network is known based on the values of optimum road density (ORD) and optimum road spacing (ORS) focused upon forest potential, skidding costs, also road construction and maintenance costs. ORD and ORS values are calculated using the minimal total cost method using tables.

Study shows that the characteristics and optimum haul road network for long term forest opening up as : RD = 37.9 m/Ha; RS = 263.8 m; MSDo = 65.9 m; MSDt = 108 m; E% = 60.98 %; ORD = 6 m/Ha; ORS = 1,666.7 m. As for forest opening up for forest product extraction is RD = 80.3 m/Ha; RS = 124.5 m; MSDo = 31.1 m; MSDt = 86.7 m; MSDI = 88.5 m; E% = 44.73 %; ORD = 23 m/Ha; ORS = 434.8 m. Generally the haul road network in RPH klapanunggal if compared between actual RD with ORD, is considered optimum, there is even an abundance of roads if based on E% that is still less than 65 % (not benefitable) meaning that there is only a problem in road distribution resulting in un-even forest opening up.

Key words : Forest opening up, haul road network, road network characteristics, optimum road network, KPH Pemalang.