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## Just time for implementing operational harvest plans

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Abstract: The growing concerns about forest ecosystem, worker safety and health, managing of material, process, and products dictate that the forestry operations should be effectively carried out in environmentally soundly manner. The development on tactical level and multi functional forest management plans recent decades indicates that it is time to implement operational plans that can be integrated into the management plans. This study aimed to introduce the conceptual framework of operational harvest planning model from stand to storage. In this concept, it was exposed how a planning strategy was to be developed targeting cost minimization subject to technical, environmental and socio-economical constraints. So, it was exemplified a planning procedure based on quantitative and qualitative data belonging a forest planning unit through operations management methods. To test the planning model, it was used the data about stand, budget, employment, machinery, and local harvesting technology of a forest district. Operational decisions focused on which compartment should be harvested, when it should be harvested, which harvesting system should be used, where the landing should be located, where the products should be stored, which forest road should be used, etc. In case of using an operational plan, it was calculated that this model could minimize the annual average unit cost from %4 to % 30 as directly and indirectly, as well. Thus, the planning methodology could represent an operational harvest plan that was technically available, economically acceptable, environmentally sensitive, and societal utilizable.

Keywords: Operational planning, Wood harvesting, Modelling, Operations research