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Pros and cons of wood utilization mechanization in Poland-ergonomic point of view

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Abstract: *The mechanization within the scope of forest work in Poland is very rapid nowadays. Modern employees with their growing expectations need ergonomics just close to their working environment.*

The main pros of mechanization in forestry are: independence from the influence of weather; relatively low risk of accidents at work, low energy expenditure at work, significant reduction of risks to the operator's ear; high demands on the skills and knowledge to support, high autonomy in decision-making, ability to organize and matching in the working groups. The main cons are: monotony of the work, forced automation movements, long-term, uninterrupted activity of almost always the same muscle groups, high static load, whole body vibration exposure over long periods of time, prolonged exposure to inappropriate conditions of the microclimate in the cabin (domination of used and not fully equipped machines in Polish forestry enterprises), the complexity of the performed work activities (specific requirements for cognitive and perceptual characteristic of operators), psychological stress combined with the phenomenon of monotony, long working hours or shift work. Paper presents results obtained from the ergonomic research done during years 2003-2010 on operators of logging machines and the machines too.