

## Cost-effective short-wood logging cable way system for lowland stands

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**Abstract:**

*Today's cableway systems are still niche products because they are too expensive. Due to their long setting-up time they are also ineffective, because of using natural anchorage too dangerous, mechanical unbusy and, last but not least, because of their accompanying damages in anchor, towers and stands not sustainable usable.*

*Proper, cable way logging will be ideal for wet, lowland stands. The Project want's to develop a new cableway system, which is adapted for the lowlands and realises an easy short-wood or alternatively conventional tree-length logging. Thereby, the anchorages and the pylons are non-natural, also the dead-end tower in the stand! No one needs to climb a tree, so the setting-up time is estimated up to 2 hours. It will possible to calculate the system load capacity for not working with overdone machine components. Lower the load hauled in that way, that the cable crane's capacity is amounted to that of a harvester and by detaching the in lowlands not needed parts of security of the cableway carriage, it will possible to reach a length of rope up to 400 m – without any saddles between. Because of the secondary tower is able to set up in the stand, a 800 m wide stripe of wood could be served.*

*A common standard excavator with a grapple, but with no special forestry equipment helps to set up the main tower and the anchorages, that consists of a steel skid and so many concrete slabs, that are needed to ensure a secure working. The incoming short-wood is stacked by the flexible excavator with his grapple at a nearby woodyard or directly to a trailer. A new kind of cable way carriage and a method to bunch short-wood was developed. The logger prepares the next load, while the cable way is running, so no part of the system is waiting on another. Some new kind harvesting methods in co-operation with a special harvester for sensitive stands or manual timber harvesting is planned. Four patents was applied.*

**Keywords:** cableway lowland cost-effective

**Remark:** Full paper has not been submitted.