## **BestHarvest** -

# **Best Practice Harvesting Procedures to Meet Nature Protection Requirements in Germany**

Ute Seeling, Hans-Ulrich Dietz, Marius Kopetzky

Kuratorium fuer Waldarbeit und Forsttechnik e.V. (KWF)

### Introduction

## Objectives

Forests in Germany are increasingly characterised by

- higher proportions of hardwood  $\bullet$
- increased stem diameters
- higher deadwood volumes

The objective is to find and define universal structural peculiarities of protected forest areas in Germany. For these areas best practice harvesting procedures will be developed, tested, evaluated and compared. Comparison will concern economical, ecological and ergonomic criteria to allow forest managers a fully knowledge-based choice of harvesting procedure for certain protected forest areas.

mosaic-like arranged and overlapping protection status with different kinds of requirements and restrictions

#### Method

- Research existing forest protection status and scan for effects on forest structure
- Interview practitioners to compile harvesting procedures for protected forest areas  $\bullet$
- Discuss and improve gathered harvesting procedures with an experts committee
- Do time studies of chosen harvesting procedures to collect data on economical, ecological and ergonomic aspects
- Benchmark harvesting procedures for easy comparison in day-to-day decision making lacksquare

#### **Results - Preliminary**

Forest structure in protected areas is often determined by scattered natural regeneration, wood debris, habitat trees and extended distances between skid trails (40 metres). Therefore mainly standard harvesting machinery (harvester and forwarder) and procedures are used in protected forest areas. But with an increased ratio of motor manual felling and support of small machinery (see Figure 1) to pull stems to the next skid trail.



Figure 1: Mini forestry crawler supporting a harvest in Germany

#### **Conclusion - Preliminary**

Scattered natural regeneration, coarse wood debris, habitat trees and extended distances between skid trails are often found forest structures in protected areas. They are mainly handled with standard harvesting procedures supported by motor manual felling and small machinery. This leads to higher risks of injury and to changes in costs, output, effect on the environment and personnel. Effects on economical, ecological and ergonomic aspects of standard harvesting procedures have yet to be examined in time studies.

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Fachagentur Nachwachsende Rohstoffe e.V.



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