

Drivers and Barriers for Effective Health Protection and Accident Prevention in Small and Micro Service Enterprises in Forest Operations

Edgar Kastenholz ¹
Henrik Habenicht ²
Jana Kampe ²
Karl Klöber ³
Silke Paritschkow ³
Francesca Zahnreich ⁴
Joachim Morat ¹
Ute Seeling ¹

¹ Kuratorium für Waldarbeit und Forsttechnik e.V. (KWF)

² Friedrich- Schiller Universität Jena, Arbeits-, Betriebs- und Organisationspsychologie

³ Technische Universität Dresden, Professur für Arbeitswissenschaft

⁴ RAL-Gütegemeinschaft Wald- und Landschaftspflege

Kastenholz, Habenicht, Kampe, Klöber, Paritschkow, Zahnreich, Morat, Seeling

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(KWF)**



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Betriebs- und Organisationspsychologie**

Lehrstuhl für
Arbeits-, Betriebs- und
Organisationspsychologie



**Technische Universität Dresden,
Professur für Arbeitswissenschaft**



**Gütegemeinschaft Wald- und Landschaftspflege
(GGWL e.V.)**



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Drivers and Barriers for Effective Health Protection and Accident Prevention ...

Background:

Many measures to prevent accidents and to protect and promote the health of forest workers are available

- on **technical**, **organisational**, and **personal** level.

Forestry work – despite extensive knowledge about risks and prevention measures and despite huge efforts to improve safety and health – continues to be characterised by

- high accident risks and high physical strain (mainly in motor-manual work)
- mental and one-sided physical strain due to monotonous and repetitive tasks (mainly in mechanised work).

Reducing accident and health risks and promoting workers' health is a crucial task and an ongoing challenge for research and practice!

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This presentation is based on interim results of the project **proSILWA***

The objective of the recent first project phase is:

to assess the actual situation in forest enterprises to identify connecting factors for effective implementation of prevention measures

The objective of the analysis leading to this presentation is:

to identify Drivers and Barriers for Effective Health Protection and Accident Prevention

* proSILWA – Prävention für sichere Waldarbeit – a joint research project funded by the German Federal Ministry of Science (BMBF). <http://prosilwa.kwf-online.de>

Target group of the proSILWA Project:

Forest enterprises

Mainly micro and small family enterprises – they are the most vulnerable part of the forestry workforce due to

- their limited management and economic capacities,
- their limited access to information and support,
- permanent economic pressure and struggle to survive on a highly competitive market.*

* Kastenholz, E., Lewark, S., 2005. Gesundheitsschutz in kleinstbetrieblichen Arbeitsformen – eine Herausforderung für eine zukunftsfähige forstliche Arbeitswissenschaft. In: GfA (ed.): Personalmanagement und Arbeitsgestaltung. Bericht vom 51. Kongress der Gesellschaft für Arbeitswissenschaft, 713-716.

Extensive interviews in 12 forest enterprises including entrepreneurs and workers.

Partner enterprises were selected based on their willingness to

- partake in an extensive assessment of the health and safety situation in the enterprise,
- participate in testing different prevention measures,
- contribute to the evaluation of the effectiveness of prevention measures.

The enterprises are exemplary for the diversity of the sector

- Size: from one-man companies to an enterprise with 30 workers
- Task areas: from motor-manual work to mechanised harvesting
- Locations: scattered all across Germany

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Drivers: Factors which contribute to working safe and health and to apply prevention measures

Barriers: Factors which hinder safety and health and the implementation and effectiveness of prevention measures

Drivers and Barriers can be internal and external factors.

	Drivers	Barriers
internal	<ul style="list-style-type: none"> ■ competences ■ motivation ■ job satisfaction ■ risk awareness ■ good management and organisation ■ ... 	<ul style="list-style-type: none"> ■ lack of skills and knowledge ■ unclear organisational structures ■ lack of financial resources ■ high risk acceptance ■ ...
external	<ul style="list-style-type: none"> ■ control ■ sanctions ■ support ■ reward ■ ... 	<ul style="list-style-type: none"> ■ economic constraints ■ communication deficits ■ insufficient information from customers ■ ...

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Competences Generally, the technical skills of forest workers and entrepreneurs in our partnership are – with a grain of salt – appropriate for the tasks they carry out.

(formally trained forest workers or at least holding an European Chainsaw Certificate)

Motivation A motivation to work safely in terms of „We want to return home healthy“ is stated by all interview partners.

Risk awareness Risks are generally known and are assessed and understood in work-sites.

Job Satisfaction

All interview partners expressed a very high satisfaction with their job and the tasks they are fulfilling.

Assessed against the dimensions of the Job Characteristics Model ¹

- Skill variety
- Task identity
- Task significance
- Autonomy
- Feedback from the job

working in forest enterprises offers a high potential for a „sense of coherence“ which is the core element of the concept of Salutogenesis ².

¹ Hackman, Richard; Oldham, Greg R.: Development of the job diagnostic survey. In: Journal of Applied Psychology 60(1975)2, S. 159 - 170.

² Antonovsky, Aaron (1987). Unravelling the Mystery of Health. San Francisco: Jossey-Bass Inc.

Unclear organisational structures In most enterprises **no** systematic safety and health organisation structure could be identified.

Lack of financial resources The problem does not seem to be the lack of resources to invest in safety and health. It is rather the lack of ideas, how to spend resources for safety and health.

High risk acceptance Entrepreneurs and workers seem to have a rather high level of risk acceptance which encourages them – deliberately – to engage in unsafe actions or to neglect health consciousness.

Inspection, control and sanctioning of unsafe or unhealthy conditions could not be identified.

A core reason is that the labour inspectorate (i.e. primarily the accident compensation insurance) does not have the staff capacity to carry out a close inspection in German forestry.

Support Systematic support structures are rare. Some entrepreneurs mentioned that they have regular contact to inspectors from the accident compensation insurance and that they get advice and support from this side.

Economic constraints Many entrepreneurs highlight that the prices for services do not cover measures for safety and health.

Communication deficits The communication between customers and enterprises lacks addressing safety and health issues. It was mentioned that there are even different assumptions about risks related to specific tasks between foresters and forest workers.

Insufficient information from customers

In many cases the information about stand specific risks provided in contracts are insufficient or totally missing.

The specificity of drivers and barriers varies from one enterprise to another.

Identifying drivers and barriers in individual enterprises provides a basis for enterprise-specific prevention.

In our recent studies it was found that prevention measures promise to be effective and will be accepted by enterprises when they

- will be connected to the positive personal factors (job satisfaction and technical skills)
- improve the efficiency of supporting organisations
- overcome communication and information deficits between enterprises and their customers.

Further, prevention measures will have to aim at

- reducing the level of general risk acceptance in the sector
- increase the awareness for general health care (e.g. encourage sports and healthy nutrition.)

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<http://prosilwa.kwf-online.de>

contact:
edgar.kastenholz@kwf-online.de



Kuratorium für Waldarbeit
und Forsttechnik e.V.
Spremberger Str. 1
64823 Groß-Umstadt

Tel.: +496078-785-00
Fax: +496078-785-39

info@kwf-online.de
www.kwf-online.de

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