

**DIGITALISATION AND CIRCULAR ECONOMY:
forestry and forestry-based industry implications**

12th International Scientific Conference WoodEMA 2019

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**The Process of Indexing
Working Comfort Factors
in Organizations of Wood
Processing Industry**



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Employment of Wood Processing Industry in Slovakia

Several facts:

- More than 48,000 employees work at wood processing industry.
- Wood processing production is an exposed area in terms of health risks.
- The employer is obliged to ensure the assessment of the health risk from exposure to the working factors.
- Factors cover physical, chemical, biological and psychosocial work load.

Wood Work Environmental Factors

- noise,
- vibration,
- ultraviolet radiation,
- infrared radiation,
- heat burden,
- cold burden,
- chemical factors,
- carcinogenic factors,
- biological factors,
- physical workload.

The National Health Promotion Programme

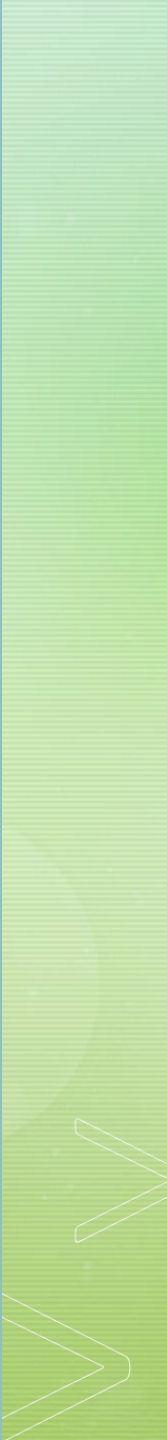
One of four main strategies ensuring the sustainability for the implementation of HEALTH 21 is *„The health development process associated with participation of relevant partners“* :

- workplace
- at local community
- country level

It promotes joint decision-making, implementation and performance deduction.



Assessment of Quality for Working Environment

- a) Subjective (sensory) assessment
 - b) Objective assessment (according to physical laws)
 - c) Regulatory assessment (determined by legislation and standards)
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Evaluation and Assessment of Quality for Working Environment

Principles, criteria and parameters, embedded in legislation and norms, create a base for analysis and assessment of working environment factors.

It is useful to pay attention to two basic approaches:

Two Basic Approaches

- 1st - Subjective assessment of non-measurable or very difficult to measure factors of job comfort - it is sufficient only an informative finding of the state of the environment based on which an improvement measure can be adopted
- 2nd - Objective assessment of measurable factors of working comfort using current measurement methods and techniques – in this case, there is the need to ensure accurate data by measuring and monitoring.

Possibilities and Methods for Assessing of Work Comfort Factors

In practice:

- a) Isolated assessment of work comfort factors - it is not possible to compare the quality of several environments with different parameters.

An unqualified person cannot assess whether an environment with high noise or a lack of light is worse.

Therefore, this assessment needs to be complemented by a comprehensive assessment that can generally point to environmental discomfort and define the impact of multiple critical factors.

Possibilities and Methods for Assessing of Work Comfort Factors

- b) Partial assessment methods of the working environment - these are based on the assessment of the effects of individual factors of the working environment on the basis of partial measurement and examination. The data should be reliable, but it cannot be said that they provide a picture of the overall working environment level.

Possibilities and Methods for Assessing of Work Comfort Factors

c) Assessment method of the working environment using the system of coefficients.

The principle is that to each level of the working environment factor is assigned a specific proportional quantity F_i according to specified criteria.

The F_i coefficient is a numerical representation of the factor level of the studied working environment and it is determined by comparing the actual followed level of factor P_i to its optimal value O_i .

The value of the coefficients belongs into the interval $< 0 ; 1 >$, whereas the value 0 means the unacceptable level of the evaluated factor and the value 1 corresponds to the optimal level of the evaluated parameter.

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Thank you for your
attention



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