Targeted silviculture in Drinking Water Protection Zones (DWPZ)

In drinking water protection zones (DWPZ) it may be necessary to transform forest stands which are not site-conform into more stable stands. During this process it can occur that the tree species which are not site-conform become a source of wood through the specific silvicultural transformation strategies. The amount of achievable wood is medium, as the timber-cutting activities have to be in line with the requirements for DWPZ. In Austria the main tree species in such situations will be Norway spruce (Picea abies). In DWPZ the amount of timber (wood) achievable through forest stand transformation strategies can be given but is limited as the guidelines for silviculture in DWPZ have to be applied. Hence no clear-cut activities are allowed there. Despite this fact it will be necessary to transform homogeneous spruce plantations into more stable forest stands. This process will release a limited amount of timber (wood). Cutting of Norway spruce in DWPZ which grows on sites which are not adequate for it in terms of forest ecosystem stability could yield medium amounts of wood. This process of cutting Norway spruce on sites of e.g. beech forest hydrotopes will last until the forest transformation is fulfilled. In all cases the guarantee of forest ecosystem stability is more important than the amount of timber yield. Hence the quantities of timber released in DWPZ will be limited in all cases.

DETAILS

ORIGIN OF WOOD

Forest

TYPE OF WOOD

Stemwood

KIND OF WOOD CONCERNED

Stemwood

IMPACT ON ENVIRONMENT & BIODIVERSITY

Positive

INCOME EFFECT

Less

EXPLOITATION POTENTIAL

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HUB

--

ECONOMIC IMPACT

Less

SPECIFIC KNOWLEDGE NEEDED

High

MOBILIZATION POTENTIAL

Less

SUSTAINABILITY POTENTIAL - VALUE

--

EASE OF IMPLEMENTATION

Difficult

EASE OF IMPLEMENTATION - EVALUATION

--

KEY PREREQUISITES

Hydrotop model

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

--

JOB EFFECT

Positive

COSTS OF IMPLEMENTATION (EURO - €)

--

MORE DETAILS

CHALLENGE ADDRESSED

--

DOMAIN

Forest management, ecosystem, resilience

Forest disturbances, risks

TYPE OF SOLUTION

--

KEYWORDS

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DIGITAL SOLUTION

No

INNOVATION

Yes

COUNTRY OF ORIGIN

Austria

SCALE OF APPLICATION

National

START AND END YEAR

2018 -

CONTACT DATA

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REFERENCES AND RESOURCES

MAIN WEBSITE

https://boku.ac.at/wabo

PROJECT WEBSITE

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PROJECT REFERENCE

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RESOURCES

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