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.

ORIGIN OF WOOD	MOBILIZATION POTENTIAL
Forest	Less
TYPE OF WOOD	SUSTAINABILITY POTENTIAL - VALUE
Stemwood	
KIND OF WOOD CONCERNED	EASE OF IMPLEMENTATION
Stemwood	Difficult
IMPACT ON ENVIRONMENT & BIODIVERSITY Positive	EASE OF IMPLEMENTATION - EVALUATION
INCOME EFFECT	KEY PREREQUISITES
Less	Hydrotop model
EXPLOITATION POTENTIAL	TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED
HUB	JOB EFFECT
	Positive
ECONOMIC IMPACT	COSTS OF IMPLEMENTATION (EURO - €)
Less	
SPECIFIC KNOWLEDGE NEEDED High	

MORE DETAILS

CHALLENGE ADDRESSED	DOMAIN	TYPE OF SOLUTION
	Forest management, ecosystem, resilience	
	Forest disturbances, risks	
KEYWORDS	DIGITAL SOLUTION	INNOVATION
	No	Yes
COUNTRY OF ORIGIN	SCALE OF APPLICATION	START AND END YEAR
Austria	National	2018 -
CONTACT DATA		
OWNER OR AUTHOR	REPORTER	
roland.koeck@boku.ac.at		
REFERENCES AND RESOURCES		
MAIN WEBSITE	RESOURCES	
https://boku.ac.at/wabo		
PROJECT WEBSITE		
PROJECT REFERENCE		

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