

Management recommendations according to Management Sets and Sub-sets

**Decree No. 83/1996 Coll. on the elaboration of Forest
Development Regional Plans Regional Plans of Forests
Development and on the specification of Management Sets**

Amended by Decree 298/2018 Coll.

An English version of both Degrees valid parts

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2020

Czech version originally
Editor of Czech text (version): Dipl. Ing. Vladimír Zatloukal
1st edition
Supplement of the journal Lesnická práce vol. 76, No 1

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All text haven't been English corrected

Prague, 2020

Published on www.infodatasys.cz

Translator's preface

I often meet articles where authors commonly operate by the term Management Set(s), sometimes even by their numerical designation. When these articles are for Czech or Slovak readers it could be understandable. Most of these readers know what it is. However, it is unforgivable in English articles - intended for the wider scientific community. Therefore, I decided to translate all available information about the Management Set(s) so that potential foreign interested persons could be informed in more detail.

The text part is based on Decree No. 83/1996 Coll. as well as a graphical table. Target Management Sets (TMSs) No. 31 and 35 were deleted after 2018 and their content was moved to TMSs 41 and 45 resp. This fact will be also shown in Table 1 and Fig. 2. The table part is already in the wording of the currently valid Decree No. 298/2018 Coll.

Preface

The submitted "Management recommendations according to the Management Sets and Sub-sets" are elaboration of Annexes 2, 3 and 4 to Decree No. 83/1996 Coll. on the elaboration of Regional Forest Development Plans and on the definition of the Management Sets.

The aim of this publication is to provide mainly forest owners and their professional forest managers, but also other forestry public with a tool to facilitate them to make good management decisions differentiated according to natural conditions and forest state.

The use of edaphic sub-categories is not a change of the valid Czech Forest (Site) Ecosystem Classification. It is merely a more detailed allowing the target management sets to be subdivided into sub-sets. Thus, it creates conditions for finer management differentiation, respecting better natural conditions and natural relations of the forest ecosystems development.

Abbreviations

CF(S)EC	the Czech Forest (Site) Ecosystem Classification
FVZ	Forest vegetation zone
TMS	Target management set
TMSS	Target management sub-set

Definition of target management sets and sub-sets in ecological network

1. Target Management Set

It is defined by Forest Site Type Complexes, or parts thereof that are related by its management and for which basic management recommendations can be established.

In order to precisely determine some of the management targets, especially the target tree species composition, this publication divides most of the target management sets into sub-sets.

The Target management sets (TMSs) and Sub-sets (TMSSs) are mostly defined in climax communities within a framework that consists of combining two related vegetation zones into a vegetation location and further subdivided according to ecological series.

TMSs are identified by a two-digit symbol. The first digit indicates the vegetation location, the second digit the ecological series (e.g. 23). In the case of a TMSS, the lower-case letter symbol is additionally assigned to the digit symbol (e.g. 23a).

2. Forest Site Type Complexes

Forest Site Type Complexes (or parts thereof) associated in a TMS or TMSS do not lose their importance in forest management planning. They are defined by the vegetation zone and the edaphic category (or sub-category) in the ecological network approved of the CF(S)EC. Details of the all CF(S)EC are presented by VIEWEGH ET AL. 2003 and VIEWEGH 2005.

3. Ecological series

Ecological series are very similar to those of the CFSEC. Exposed series is newly created. The maple series (enriched by humus [eutrophic]) was deleted and all categories belonging to it were included in other series (will be highlighted in the text). It will be also highlighted on other changes from the CFSEC in the following text. All detail categories descriptions (e.g. division into Forest Site Complexes and Forest Site Types) are in VIEWEGH ET AL. 2003 and VIEWEGH 2005.

a) Extreme series

J – category (talus) (*Categoria acerosa saxatile*) it was one of the categories of its own maple series, in the CF(S)EC.

X – category (xerothermal) (*Categoria xerothermica*).

Z – category (scrub) (*Categoria humilis*).

Y – category (skeletal) (*Categoria saxatilis*).

b) Exposed series

It is newly purpose-made and it is not part of the CF(S)EC. The series was created to define exposed TMSs and TMSSs. It associates exposed edaphic categories at habitats where besides the production function, the soil conservation function of the forest is very important. These edaphic

categories were separated from ecological series of the CF(S)EC. Forests included in the TMSs of the exposed series belong to the category of commercial forests, but they form the transition to protective forests.

N – category (slope-stony acidic) (*Categoria lapidosa acidophila*) was taken over from the acidic (oligotrophic) series of the CF(S)EC.

F – category (slope-stony mesotrophic) (*Categoria lapidosa mesotrophica*) - was taken over from the nutrient rich (mesotrophic) series of the CF(S)EC.

A – category (stony colluvial) (*Categoria acerosa lapidosa*) - was taken over from maple series (nutrient enriched by humus – eutrophic) of the CF(S)EC.

C – category (water-deficient mesotrophic) (*Categoria subxerothermica*) – was taken over from the nutrient rich (mesotrophic) series of the Czech Forest (Site) Ecosystem Classification.

c) Acidic (oligotrophic) series

M – category (nutrient very poor) (*Categoria oligotrophica*).

I – category (compacted acid Luvisols) (*Categoria illimerosa acidophila*).

K – category (acidic) (*Categoria acidophila*).

d) Nutrient rich (mesotrophic) series

S – category (nutrient medium) (*Categoria oligo-mesotrophica*).

H – category (loamy loess) (*Categoria illimerosa mesotrophica*).

B – category (nutrient rich) (*Categoria mesotrophica*).

D – category (nutrient enriched colluvial) (*Categoria deluvia*) was taken over from maple series (nutrient enriched by humus – eutrophic) of the CF(S)EC.

W – category (limestone) (*Categoria calcaria*).

e) Stagnic (gleyed) series

V – category (moist-to-wet) (*Categoria humida*) was taken over from ash (floodplain) series (nutrient enriched by water and humus – humid eutrophic) of the CF(S)EC.

O – category (nutrient-medium stagned soils) (*Categoria variohumida mesotrophica*).

P – category (acidic stagned soils) (*Categoria variohumida acidophila*).

Q – category (nutrient- poor Stagnic Podzols) (*Categoria variohumida oligotrophica*).

f) Wet series

T – category (nutrient poor Gleysols) (*Categoria paludosa oligotrophica*).

G – category (nutrient-medium Gleysols) (*Categoria paludosa mesotrophica*).

g) Peat series

R – category (peats) (*Categoria turfosa*) was taken over from wet series of the CF(S)EC.

L – category (alluvial soils of floodplains) (*Categoria alluvialis*).

U – category (soils of ravines and gulleys) (*Categoria vallidosa*).

4. Edaphic sub-categories

Edaphic sub-categories were published by MIKESKA (2000) first time. They express the transition from one edaphic category to the other. The symbol of the edaphic sub-category is

consisting of the basic edaphic category symbol, to which is added category symbol, to which the transition is expressed. The sub-category symbol is indicated by lower-case letters of the alphabet (e.g. Va).

The following sub-categories were used:

Me, Ke, Se, Be and De – sloped: the slope is usually higher than 40%. They are included in the exposed series.

Nm, Km and Im – poorer: transitions to nutrient very poor category M.

Sc and Ac – drier: transitions to water-deficient mesotrophic C.

Cw – water-deficient on carbonate parent rocks.

Aw – stony colluvial on carbonate parent rocks.

Gt – poorer: transitions to nutrient poor Gleysols category T.

Rt – nutrient poorer peats (of the R category).

Va and Ua – stony: transitions to stony colluvial category A.

Gl and Tl – more muddy: willow-, (Norway) spruce- and birch-alder habitats (*Saliceto-Alneta*, *Piceeto-Alneta* and *Betuleto-Alneta*).

Lg – flooded: poplar- and willow-poplar-floodplains (*Populeta* and *Saliceto-Populeta*).

Ju – gulched: maple stands in gulches.

Vg – waterlogged: Stands close the spring waters and brooks.

Mz and Qz – extremely nutrient poor: transitions to Z category.

5. Altitude (vegetation) position

Altitude (vegetation) position is based on differentiated 10 FVZ (9 zonal + 1 azonal) (VIEWEGH ET AL. 2003 and VIEWEGH 2005). Some nearby forest vegetation zones are united and marked as low, medium, higher and mountain (+ possibly subalpine) positions in their determination. 1st and 2nd FVZ are united to Low position according to sessile oak habitats dominance, 3rd and 4th FVZ are united to Middle position according to European beech habitats dominance, 5th and 6th FVZ are united to Higher position according to coniferous-European beech habitats and 7th and 8th FVZ are united to Mountain position according to the Norway spruce habitats dominance. Exceptions are subalpine habitats and many habitats influenced by the high water table.

6. Protective forests in the highest mountain altitudes

Dwarf tree growth in the highest mountain altitudes is due to extremely harsh climatic conditions. The influence of some ecological factors is suppressed, especially the influence of the parent rock.

7. Alternative definition of Target Management Sets

Fig. 1 shows the Management sets in the ecological network consisting of the Vegetation position and the Ecological series. The alternative definition of the TMSs can be seen here, where they exceed both individual Vegetation positions and Ecological series.

Literature cited

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Attachments

Table 1. General definition of target management sets

Table 2. Explanation of tree species abbreviations

Table 3. Designation of target management sets

Table 4. Indices used to indicate other determining characteristics of management sets

Table 5. Natural forest regions of the Czech Republic

Figure 1. Natural forest regions of the Czech Republic

Table 6a. Basic managerial recommendations according to the management sets for deriving an obligatory determination of the maximum total cut amount – commercial (managed) forests

Table 6b. Basic managerial recommendations according to the management sets for deriving an obligatory determination of the maximum total cut amount – protective forests

Figure 2. Management sets and sub-sets demarcation in ecological network

Table 1. General definition of Target Management Sets

Target Management Sets (TMS) determination				General determination of the stands species composition ¹³					
Target Management Set (TMS) and Sub-set (TMSS)			Ameliorating and reinforcing tree species minimum proportion (%)	Ameliorating and reinforcing tree species recommended proportion (%)	Basic Tree species		Ameliorating and reinforcing tree species (ARTS)		
TMS sign	TMS name	STMS sign			TMS and TMSS habitat conditions; Forest Site Type Complexes and their parts (specific Forest Site Tapes)	Basic targeted tree species (BTTS)		Basic pioneer tree species (BPTS)	
13	natural (Scotch) pine habitats	a	0M (apart from 0M2, 0M9) 0K 0N (apart from 0N2)	5	5 15 10	BO	BK, MD, OS	BK, BR, DB, DBZ, DG, JD ⁴ , JR, MD, OS	
		b	0O 0P 0Q (apart from 0Q4)	10	30 15 15			BR, DB, DBZ, DG, JD ⁴ , OS	
		c	0C (apart from 0C4)	5	5			BR, BK, DB, DBZ, DG, JD ⁴ , OS	
		d	1M	30	50			BO, DBZ	BR, BK, DB, DBZ, DG, HB, JR, LP, MD, OS
19	floodplain habitats (lower positions)	a	1L (apart from 1L5, 1L7, 1L8)	50	100	OL, TP, TPC, VR	OL, TP, TPC, VR	DB, ORC, TP, TPC, TPS	BB, DB, HB, JL, JLV, JV, JS, JSU, KL, LP, OL, TP, TPC
		b	1L7, 1L8	50	100			DB, TP, TPC, TPS	DB, JL, JLV, JS, JSU, JV, KL, LP, OL, TP, TPC, VR
		c	1L5 2L	50	100			DB, JS	BB, DB, HB, JL, JLV, KS, JSU, JV, KL, LP, OL
21	exposed habitats of the lower positions	a	1N 2N 1Ke 2Ke 2Me	50	70 65 70 65 60	BO, DBZ	BR, MD, OS	BK, BR, DBZ, LP, MD, OS	
		b	1C (apart from 1C6, 1C9) 2C (apart from 2C7) 2F 1Se 1Se 2Se	50	80 70 80 70 75 70			BB, BK, BR, BRK, DB, DBZ, HB, JS, JV, KL, LP, MD, MK, OS, TR	
		c	1A (apart from 1A9) 2A (apart from 2A8, 2A9) 1Be 1De 2D9, 2De 2Be 2He	50	80 70 80 80 70 70 70			BB, BK, BRK, DB, DBZ, DG, HB, JD ⁴ , JL, JLH, JS, JV, KL, LP, LPV, MD, MK, OS, TR, TS	
		d	1C9 1C6 2C9 1A9 2A8, 2A9 2We	50	80 80 70 80 70 70			BB, BK, BRK, DB, DBP, DBZ, DG, HB, JD, JL, JLH, JS, KL, LP, LPV, MD, MK, OS, TR, TS	
23	acid habitats of the lower positions	a	1K (apart from 1Ke) 2K (apart from 2Ke) 1I 2I 2M (apart from 2Me)	45	70 65 70 65 60	BO, DBZ	BR, MD, OS	BK, BR, DBZ, DG, HB, JD ⁴ , LP, MD, OS	
		b	1S1 1S2 1S9 2S2 2S4	50	75 75 75 70 70			Bo, DBZ, (CER ⁶)	BK, BR, DB, DBZ, DG, HB, LP, MD, OS, CER ⁶
25	nutrient habitats of the lower positions	a	1S (apart from 1S1, 1S2, 1S9, 1Se) 2S (apart from 2S2, 2S4, 2Se)	45	80 70	DB, DBZ	BR, MD, OS	BB, BK, DBZ, HB, JV, KL, LP, OS, CER ⁷	
		b	1O 1H 1B (apart from 1Be) 1D (apart from 1De) 2H (apart from 2He) 2D (apart from 2D9, 2De) 2W (apart from 2We) 2B (apart from 2Be)	45	80 80 80 80 70 70 70 70			BB, BK, BRK, DB, DBZ, DG, HB, JD ⁴ , JL, JLH, JLV, JS, JV, KL, LP, LPV, MD, OL, OS, TR	
		c	1V 2V		80 70				
		d	2O		70				
27	stagned nutrient poor habitats of the lower and middle positions	a	1P 1Q	35	60 70	BO, DB, DBZ	BR, OL, OS	BK, BR, DB, DBZ, JD, LP, OL, OS	
		b	2P 2Q 3Q		65 60 45				
		c	4Q		45				
29	alder and ash habitats on wet and floodplain soils	a	1G	80	100	OL	BR, OL, OS	DB, JS, OL, OLS, OS, TP, TPC, VR	
		b	1T	80	90			BR, BRP, DB, OL, OLS, OS	
		c	1R	80	90			BR, BRP, DB, OL, OS, VR	
		d	3L	80	100			OL with JS	DB, JLH, JLV, JS, JV, KL, OL, OS, VR
		e	4L1	80	100	JS with JV, KL	BR, OLS, OS	JLH, JLV, JS, JV, KL, LP, LPV, OLS, OS	
		f	5L	80	95	OL with JS	BR, OL, OS	JLH, JS, KL, OL, OLS, OS	
		g	3U (apart from 3U7)	80	100	JS with DB		BB, BK, DB, HB, JD, JL, JLH, JLV, JS, JV, KL, LP, LPV, OL, OS	
		h	5U5	80	90	JV, JS, KL, OL, SM		BK, KD, JLH, JS, JV, KL, LP, LPV, OL, OLS, OS	

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Target Management Sets (TMS) determination				General determination of the stands species composition ¹³					
Target Management Set (TMS) and Sub-set (TMSS)			Ameliorating and reinforcing tree species minimum proportion (%)	Ameliorating and reinforcing tree species recommended proportion (%)	Basic Tree species		Ameliorating and reinforcing tree species (ARTS)		
TMS sign	TMS name	STMS sign			TMS and TMSS habitat conditions; Forest Site Type Complexes and their parts (specific Forest Site Tapes)	Basic targeted tree species (BTTS)		Basic pioneer tree species (BPTS)	
39	nutrient poor wet habitats of the lower nad middle positions	a	0T 0G2, 0G7	5	5 5	BO	BR, BRP, DB, JD, OL, OLS, OS		
		b	2T 3T 4T 5T	25	70 45 45 40	BO, DB, JD			
		c	3R 5R	5	5 5	SM with BO		BR, BRP, OL, OLS, OS	
41	exposed habitats of the middle position	a	3N 3Ke 3Me	40	60 60 50	BK, BO, DB, DBZ, JD, SM ¹¹	BK, BR, DB, DBZ, DG, HB, JD, JR, KL, LP, MD, OS		
		b	4N 4Ke 4Me	40	60 60 50	BK, BO, JD, SM ¹¹			
		c	3F 3Se 3He	40	60 60 50	BK, DB, DBZ, JD SM ¹¹		BK, BR, DB, DBZ, DG, HB, JD, JL, JLH, JLV, JR, JS, JV, KL, LP, LPV, MD, OS, TR, TS	
		d	4F 4Se 4He	40	60 60 50	BK, JD, SM ¹¹			
		e	3C ⁵ (apart from 3C9) 4C ⁵ (apart from 4C9) 5C ⁵ (apart from 5C9)	45	60 60 60	BK, BO, DB, DBZ		BO, BR, JR, MD, OLS, OS, SM	BK, BRK, DB, DBZ, DG, HB, JD, JR, JV, KL, LP, LPV, MD, OS, TR
		f	3C9 4C9 5C9	45	60 60 60				BB, BK, BRK, DB, DBZ, DG, HB, JD, JR, JS, JV, KL, LP, LPV, MD, MK, OS, TR
		g	3A (apart from 3A9) 4A (apart from 4A9) 3Be 4Be 3D9, 3De 4D7, 4D9, 4De	45	60 60 60 60 60 60	BK, DB, DBZ, JD, SM ¹¹			BB, BK, BRK, DB, DBZ, DG, HB, JD, JL, JLH, JLV, JR, JS, JV, KL, LP, LPV, MD, OS, TR, TS
		h	3We ⁵ 4We ⁵ 3A9 4A9 5A9	45	60 60 60 60 60	BK, DB, DBZ			BB, BK, BRK, DB, DBZ, HB, JD, JL, JLH, JLV, JR, JS, JV, KL, LP, LPV, MD, MK, OS, TR, TS
		i	3U7	60	100	BK, DB, DBZ, JV, JS, KL		BO, BR, MD, OLS, OS, SM	BB, DB, DBZ, HB, JD, JL, JLH, JLV, JR, JS, JV, KL, LP, LPV, OL, OS
43	acid habitats of the middle position	a	3K (apart from 3Ke, 3K2) 3I (apart from 3I2, 3I8) 3S2	35	50 50 50	BK, BO, DB, DBZ, JD, SM ¹¹	BK, BR, DB, DBZ, DG, JD, JR, KL, LP, MD, OS		
		b	4K (apart from 4Ke, 4K2) 4I (apart from 4I2) 4S2	35	45 45 50	BK, BO, DB, DBZ, JD, SM ¹¹			
		c	3M (apart from 3Me) 3K2 3I2, 3I8	35	45 50 50	BK, BO, DB, DBZ, JD, SM ¹¹			
		d	4M (apart from 4Me) 4K2 4I2	35	45 45 45	BK, BO, JD, SM ¹¹			
45	nutrient habitats of the middle positions	a	3S (apart from 3S2, 3Se) 3H (apart from 3He) 3B (apart from 3Be) 3D (apart from 3D9, 3De)	35	50 50 50 50	BK, DB, DBZ, JD, SM ¹¹	BR, JV, JS, JR, KL, MD, OS, OLS, SM		
		b	4S (apart from 4S2, 4Se) 4H (apart from 4He) 4B (apart from 4Be) 4D (apart from 4D7, 4D9, 4De)	35	50 50 50 50	BK, JDM SM ¹¹			
		c	3W ⁷ (apart from 3We) 4W ⁷ (apart from 4We)	35	50 50	BK		BR, MD, OS	BB, BK, BRK, DB, DBZ, HB, JD, JL, JLH, JLV, JS, JV, KL, LP, LPV, MD, MK, OS, TR
47	stagned habitats of the middle positions	a	3V (apart from 3V9) 4V (apart from 4V9) 3O 4O	35	50 50 50 50	BK, DB, DBZ, JD, SM ¹¹	BO, BR, JR, OL, OLS, SM		
		b	3P 4P	35	45 45	BO, DB, DBZ, JD, SM ¹¹		BK, BR, DB, DBZ, JD, JR, LP, MD, OL, OLS, OS	
		a	5N (apart from 5N2) 5Ke	35	55 55	BK, BO, JD, SM	BK, DB ¹² , DBZ ¹² , BR, DG, JD, JR, KL, LP, MD, OS		
		b	6N (apart from 6N2, 6N9) 6Ke	35	35 35				
		c	5N2 6N2, 6N9 5Me 6Me	35	55 35 50 35			BK, DB ¹² , DBZ ¹² , BR, DG, JD, JR, MD, OS	

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Target Management Set (TMS) and Sub-set (TMSS)			TMS and TMSS habitat conditions; Forest Site Type Complexes and their parts (specific Forest Site Tapes)	Ameliorating and reinforcing tree species minimum proportion (%)	Ameliorating and reinforcing tree species recommended proportion (%)	Basic Tree species		Ameliorating and reinforcing tree species (ARTS)	
TMS sign	TMS name	STMS sign				Basic targeted tree species (BTTS)	Basic pioneer tree species (BPTS)		
51	exposed habitats of the higher positions	d	5F 5A (apart from 5A9) 5Se 5Be 5D7, 5D9, 5De	40	60 60 60 60 60	BK, JD, SM	BO, JR, MD, OLS, OS, SM	BK, DB ¹² , DBZ ¹² , DG, JD, JLH, JR, JS, JV, KL, LP, LPV, MD, OS, TR, TS	
		e	5We		60 45				
		f	6F 6A 6Se 6Be 6De		50 40 40 50 50				
		g	5U7	60	90	BK, JV, JS, KL	BK, DB, DBZ, JD, JLH, JR, JS, JV, KL, LP, LPV, PL, OLS, OS		
53	acid habitats of the higher positions	a	5K (apart from 5Ke, 5K2) 5I (apart from 5I2) 5S2	30	45 45 50	BK, JD, SM	BR, JR, MD, OLS, OS, SM	BK, BR, DB ¹² , DBZ ¹² , DG, JD, JR, KL, LP, MD, OS	
		b	6K (apart from 6Ke, 6K2) 6I 6S2		30 30 35				
		c	5M (apart from 5Me) 6M (apart from 6Me) 5K2 6K2 5I3	30	45 30 45 30 45	BO, BK, JD, SM	BK, BR, DB ¹² , DBZ ¹² , DG, JD, JR, MD, OS		
55	nutrient habitats of the higher positions	a	5S (apart from 5S2, 5Se) 5H 5B (apart from 5Be) 5D (apart from 5D7, 5D9, 5De)	35	50 50 50 50	BK, JD, SM	BR, JR, JV, JS, KL, MD, OLS, OS, SM	BK, DB ¹² , DBZ ¹² , DG, JD, JLH, JR, JS, JV, KL, LP, LPV, MD, OS, TR, TS	
		b	5W ¹⁷ (apart from 5We) 6S (apart from 6S2, 6Se)		50 35				
		c	6H 6B (apart from 6Be) 6D (apart from 6De)	30	40 40 40				
57	stagned habitats of the higher positions	a	5V (apart from 5V9)	35	45	BK, JD, SM	BR, JR, OL, OLS, OS, SM	BK, BR, DB ¹² , JD, JLH, JR, JS, JV, KL, LP, LPV, MD, PL, OS	
		b	5O		45				
		c	5U (apart from 5U5, 5U7)	45	90				
		d	6V (apart from 6V9) 6O	35	35 35				
		e	5P 6P 5Q 6Q	30	45 30 40 30	JD, SM, SM with BO	BK, BR, DB ¹² , JD, JR, MD, OL, OLS, OS		
59	wet habitats of the middle and higher positions	a	2G 3G 4G 3v9 4v9	35	70 50 50 50 50	DB, JD, SM	BR, OL, OLS, OS, SM	BK, DB, JD, JS, JV, KL, LP, LPV, OL, OS	
		b	5G 5V9 6V9		25				40 45 35
		c	0G (apart from 0G2, 0G7)	5	5	BO, SM	BR, BRP, DB, JD, JR, OL, OLS, OS		
		d	6T 6G	15	25 25	JD, SM	BR, BRP, JR, OL, OLS, OS, SM		BR, BRP, JD, JR, OL, OLS, OS
		e	4R 6R	10	10 10	SM			
71	exposed habitats of the mountain positions	a	7N 7Me 7Ke 7Se	20	25 25 25 25	BK, SM	BR, JR, MD, OS	BK, BR, BRC, JD, JR, KL, MD, OS	
		b	7F 7A		25 30				
73	acid habitats of the mountain positions	a	7M (apart from 7Me) 7K (apart from 7Ke)	20	25 25	BK, SM	BR, JR, MD, OS	BK, BR, BRC, JD, JR, KL, MD, OS	
75	nutrient habitats of the mountain positions	a	7S (apart from 7Se)	20	25	BK, SM	BR, JR, MD, OS	BK, BR, BRC, JD, JR, KL, MD, OS	
77	stagned habitats of the mountain positions	a	7V (apart from 7V9) 7O 7P 7Q	15	25 25 20 20	SM	BR, BRP, JR, OLS, OS	BK, BR, BRP, JD, JR, KL, OLS, OS	
		b	8V (apart from 8V9) (at 7 th FVZ) 8O 8P 8Q	5	5 5 5 5				
		c	7L1		10				
79	wet habitats of the mountain positions	a	7T 7G 7V9	10	15 15 25	SM	BR, BRP	BK, BR, BRP, JD, JR, KL, OLS, OS	
		b	8G (at 7 th FVZ) 8Q9 (at 7 th FVZ) 8V9 (at 7 th FVZ)		5 5 5				
		c	7R (apart from 7R9)		5				

Table 1. General definition of Target Management Sets

Target Management Sets (TMS) determination			General determination of the stands species composition ¹³							
Target Management Set (TMS) and Sub-set (TMSS)		TMS and TMSS habitat conditions; Forest Site Type Complexes and their parts (specific Forest Site Tapes)	Ameliorating and reinforcing tree species minimum proportion (%)	Ameliorating and reinforcing tree species recommended proportion (%)	Basic Tree species		Ameliorating and reinforcing tree species (ARTS)			
TMS sign	TMS name				STMS sign	Basic targeted tree species (BTTS)		Basic pioneer tree species (BPTS)		
03	extremely unfavorable habitats	a	0X	10	15	BO	BO, BR, KR, OS	BB, BK, BRK, DBP, DBZ, HB, LP, MK, OS		
		b	0Z	5	5			BK, BR, DBZ, OS		
		c	0Y	5	10	BO with SM		BK, BR, BRC, DBZ, JD, OS		
		d	0M2, 0M9 0N2	5	5	BO	BO, BR, OS	BK, BR, DBZ, OS		
		e	0Q4	5	5			BR, DB, DBZ, JD, OS		
		f	0C4	5	5			BK, BR, DBZ, OS		
		g	1X	90	100	DBP, DBZ	BR, KR, OS	BB, BRK, DBP, DBZ, HB, JL, JS, JV, LP, MK, OS		
		h	2X	90	100	DBZ	BR, JV, KR, OS	BB, BK, BRK, DB, DBP, DBZ, HB, JL, JS, JV, LP, MK, OS		
		i	3X 4X	80	100 10	BK, DBZ	BR, JV, OS	BB, BK, BRK, DB, DBZ, HB, JD, JL, JS, JV, KL, LP, LPV, MK, OS, TS		
		j	1Z	80	90	DBZ	BR, KR, OS	BR, BRK, DBZ, HB, LP, MK, OS		
		k	2Z 2Y	70	90 90		OS	BK, BR, DBZ, HB, JV, LP, OS		
		l	3Z 4Z 3Y 4Y	60	90 90 90 90	BK, BO, DBZ	BO, BR, OS	BK, BR, DB, DBZ, HB, JD, JV, KL, LP, OS		
		m	5Z 5Y	50	90 90	BK, SM	BR, JR, KL, OS	BK, BR, JD, JR, JV, KL, LP, OS		
		n	6Z 6Y	50	60 60			BK, BR, BRC, JD, JR, KL, OS		
		o	7Z 7Y	20	30 30	SM				
		p	1J	90	100	DBZ with JV	KR, OS	BB, BRK, DB, DBZ, HB, JL, JS, JV, KL, LP, MK, TR, OS, TS		
		q	3J	90	100	DB, DBZ, BK with JV, KL	OS	BK, BRK, DB, DBZ, HB, JD, JLH, JS, JV, KL, LP, LPV, MK, OS, TS		
		r	5J	80	100	BK with JV, KL		BK, JD, JLH, JS, JV, KL, LP, LPV, OS, TS		
		s	6J	70	80	BK with KL		BK, JD, JLH, JS, KL, OS		
		t	4L9	90	100	VRE, VRN	OLS, VRE, VRN	OLS, VR, VRH, VRE, VRN		
		u	6L	70	80	OLS	OS	BR, BRP, JD, JLV, JR, JS, KL, OL, OLS, OS		
		v	7L9	5	10	SM	OLS, OS	BR, BRP, JD, JLV, JR, KL, OL, OLS, OS		
		w	0R (apart from 0R4, 0R5, 0R9)	5	10	BO	BO, BRP, OS	BL, BRP, JR, OS		
		x	0R4, 0R5 0R9	+	10 10	BL		BRP, KOS, OS BRP		
		y	8T (at 7 th FVZ) 8R (at 7 th and lower FVZ) 7R9	+	5 5 5	SM	BRP, JR	BRP, JR, KOS		
		z	9R (at 8 th and lower FVZ) 9R6	+	2 2	KOS		BRP, JR		
		02	natural alpine Norway spruce habitats below the timber line	a	8Z 8Y	+	5 5 5 5 5 5	SM	BRC, JR	BK, BRC, JD, JR, KL
				b	8N 8F 8M 8K 8S					
c	8V (at 8 th FVZ) 8O (at 8 th FVZ) 8P (at 8 th FVZ) 8Q (at 8 th FVZ)									
d	8G (at 8 th FVZ) 8V9 (at 8 th FVZ) 8Q9 (at 8 th FVZ)									
e	8T (at 8 th FVZ) 8R (at 8 th FVZ)									
01	the dwarf mountain pine and alpine zones habitats	a	9K	+	2	SM and KOS	JR	BRC, JR		
		b	9Z	+	+	KOS	JR, KR, VR			
		c	9R	+	2	KOS, BL				

- 1) With regard to possible climate change, the Norway spruce silviculture as a basic target tree species is risk at the habitats of the 4th FVZ and high risk at the habitats of the 3rd FVZ; therefore its regeneration is permissible only in habitats corresponding to its ecological requirements (e.g. inverse localities and water-influenced habitats; especially on sites where Norway spruce naturally regenerates)
- 2) Silviculture is recommended only at the 5th Forest Vegetation Zone (FVZ)
- 3) Tree species abbreviations are in Table 2
- 4) Only at 2nd and higher FVZs
- 5) According to the earlier Decree (83/1996 Coll.) were listed in the Target Management Set (TMS) 31
- 6) CER only at Natural Forest Regions (NFRs) 33 and 35
- 7) According to the earlier Decree (83/1996 Coll.) were listed in the Target Management Set (TMS) 35

Table 2. Explanation of tree species abbreviations

abbreviation	scientific name	Czech name	English name
AK	<i>Robinia pseudacacia</i> L..	trnovník akát	black locust
BB	<i>Acer campestre</i> L.	javor babyka	field maple
BK	<i>Fagus silvatica</i> L.	buk lesní	European beech, common beech
BKS	<i>Pinus banksiana</i> Lamb.	borovice Banksova (banksovka)	jack pine, grey pine, scrub pine
BAS	<i>Pinus x ascendens</i> Businský	borovice rašelinná	-
BL	<i>Pinus rotundata</i> Link.	borovice blatka (b. bažinná)	-
BO	<i>Pinus sylvestris</i> L.	borovice lesní	Scotch pine
BOC	<i>Pinus nigra</i> Arnold	borovice černá	Austrian pine, black pine
BOP	<i>Pinus contorta</i> Loudon	borovice pokroucená	lodgepole pine, short pine, twisted pine, contorta pine
BOX		borovice ostatní	other pines
BR	<i>Betula pendula</i> Roth	bříza bělokorá (b.bradavičnatá)	silver birch, warty birch, European white birch, East Asian white birch
BRC	<i>Betula carpatica</i> Waldstein et Kiaibel	bříza karpatská	-
BRK	<i>Sorbus torminalis</i> (L.) Crantz	jeřáb břek, břek	wild service tree, checker tree, checquers
BRP	<i>Betula pubescens</i> Ehrh.	bříza pýřitá	downy birch, moor birch, European white birch, hairy birch
CER	<i>Quercus cerris</i> L.	dub cer	Turkey oak, Austrian oak
DB	<i>Quercus robur</i> L.	dub letní	pedunculate oak, common oak, English oak, European oak
DBB	<i>Quercus palustris</i> Muenchh.	dub bahenní	pin oak, swamp Spanish oak
DBC	<i>Quercus rubra</i> L.	dub červený	nothern red oak, red oak, champion oak
DBP	<i>Quercus pubescens</i> Willd.	dub pýřitý (šipák)	downy oak, pubescent oak
DBS	<i>Quercus robur</i> L.f. slavonica Gayer	dub letní slavonský	Slavonic pedunculate oak
DBX		duby ostatní	other oaks
DBZ	<i>Quercus petraea</i> (Mattyschka) Liebl.	dub zimní	sessile oak, Cornish oak, durmast oak
DG	<i>Pseudotsuga menziesii</i> (Mirbel) Franco	douglaska tisolistá	Douglas-fir, Oregon pine, Columbian pine
HB	<i>Carpinus betulus</i> L.	habr obecný	(European) common hornbeam
HR	<i>Pyrus pyraeaster</i> (L.) Burgsd.	hrušeň planá	European wild pear
JAL	<i>Juniperus communis</i> L.	jalovec obecný	common juniper
JB	<i>Malus sylvestris</i> Mill.	jabloň lesní	European crab apple
JD	<i>Abies alba</i> Mill.	jedle bělokorá	(European) silver fir
JDJ	<i>Abies concolor</i> (Gord.) Hildebr.	jedle ojněná	white fir
JDK	<i>Abies nordmanniana</i> (Steven) Spach.	jedle kavkazská	Nordmann fir, Caucasian fir
JDO	<i>Abies grandis</i> (Douglas) Lindl.	jedle obrovská	grand fir, giant fir, lowland white fir, grat silver fir, western white fir, Vancouver fir, Oregon fir
JDV	<i>Abies procera</i> Rehder	jedle vznešená	noble fir, red fir, Christmastree
JDX		jedle ostatní	other firs
JIV	<i>Salix caprea</i> L.	vrba jiva	goat willow, pussy willow, grat willow
JL	<i>Ulmus minor</i> Mill.	jilm habrolistý	field elm
JLH	<i>Ulmus glabra</i> Hudson	jilm horský	wych elm, Scotch elm, Scot elm
JLV	<i>Ulmus laevis</i> Pallas	jilm vaz	European white elm, fluttering elm, sprading elm, stately elm, Russian elm
JR	<i>Sorbus aucuparia</i> L.	jeřáb ptačí	rowan, mountain-ash
JS	<i>Fraxinus excelsior</i> L..	jasan ztepilý	European ash, common ash
JSA	<i>Fraxinus americana</i> L.	jasan americký	white ash, American ash
JSU	<i>Fraxinus angustifolia</i> Vahl	jasan úzkolistý	narrow-leaved ash
JV	<i>Acer platanoides</i> L.	javor mléč	Norway maple
JVJ	<i>Acer negundo</i> L.	javor jasanolistý	box alder, bexelder maple, Manitoba maple, ash-leaved maple
JVX		javory ostatní	other maples
JX		ostatní jehličnaté	other coniferous
KJ	<i>Castanea sativa</i> Mill.	kaštanovník jedlý	sweet chestnut, Spanish chestnut, chestnt
KL	<i>Acer pseudoplatanus</i> L.	javor klen	sycamore (sycamore maple)
KOS	<i>Pinus mugo</i> Turra	borovice kleč, kosodřevina	bog pine, creeping pine, dwarf mountain pine, mugo pine, mountain pine, scrub mountain pine, Swiss mountain pine
KR		keře	shrubs
KS	<i>Aesculus hippocastanum</i> L.	jírovec maďal	horse-chestnut, conker tree
LMB	<i>Pinus cembra</i> L.	borovice limba	Swiss pine, Swiss stone pine, Arolla pine, stone pine
LMX		ostatní listnaté měkké	other deciduous soft
LP	<i>Tilia cordata</i> Mill.	lípa malolistá (lípa srdčitá)	small-leaved lime, littleleaf linden
LPS	<i>Tilia tomentosa</i> Moench	lípa stříbrná (lípa plstnatá)	silver linden, silver lime
LPV	<i>Tilia platyphyllos</i> Scop.	lípa velkolistá	large-leaved lime, largeleaf linden

abbreviation	scientific name	Czech name	English name
LTX		ostatní listnaté tvrdé	other deciduous hard
MD	<i>Larix decidua</i> Mill.	modřín opadavý (m. evropský)	European larch
MDX		modřín ostatní	other larches
MK	<i>Sorbus aria</i> (L.) Crantz	jeřáb muk, muk	whitebeam, common whitebeam
OL	<i>Alnus glutinosa</i> (L.) Gaertner	olše lepkavá	cammon alder, European alder, black alder
OLS	<i>Alnus incana</i> (L.) Moench	olše šedá	gray alder, speckled alder
OLZ	<i>Duscheckia alnobetula</i> (Ehr.) Pouzar	křestice zelená, olše zelená	green alder
OR	<i>Juglans regia</i> L.	ořešák královský	Persian walnut, English walnut, Carpathian walnut, Madeira walnut, common walnut
ORC	<i>Juglans nigra</i> L.	ořešák černý	eastern American black walnut
OS	<i>Populus tremula</i> L.	topol osika, osika obecná	cammon aspen, Eurasian aspen, European aspen, quaking aspen
PJ	<i>Ailantus altissima</i> (Miller) Swingle	pajasán láznatý	tree of heaven, varnish tree, chouchun
SM	<i>Picea abies</i> (L.) Karsten	smrk ztepilý	Norway spruce
SMC	<i>Picea mariana</i> (Muller) B. S. et P.	smrk černý	black spruce
SME	<i>Picea engelmannii</i> Engelm.	smrk Engelmannův	Engelmann spruce, white spruce, mountain spruce, silver spruce
SMO	<i>Picea omorica</i> (Pančič) Purkyně	smrk omorika	omorica spruce
SMP	<i>Picea pungens</i> Engelm.	smrk pichlavý	blue spruce, green spruce, Colorado spruce, Colorado blue spruce
SMS	<i>Picea glauca</i> (Moench) Voss	smrk sivý	white spruce
SMX		smrky ostatní	other spruces
STR	<i>Prunus padus</i> L.	střemcha obecná	bird cherry, hackberry, hagberry, Mayday tree
TP	<i>Populus alba</i> L.	topol bílý (linda)	silver poplar, silverleaf poplar, white poplar
TPC	<i>Populus nigra</i> L.	topol černý	black poplar (cottonwood poplar)
TPS		topoly šlechtěné	bred poplars
TPX		ostatní topoly nešlechtěné	other poplars non-bred
TR	<i>Cerasus avium</i> (L.) Moench	třešeň ptačí	wild cherry, sweet cherry, gean
TS	<i>Taxus baccata</i> L.	tis červený	common yew, English yew, European yew
VJ	<i>Pinus strobus</i> L.	borovice vejmutovka	eastern white pine, northern white pine, white pine, Weymouth pine, soft pine
VR	<i>Salix alba</i> L.	vrba bílá	white willow, crack willow, brittle willow
VRC	<i>Salix myrsinifolia</i> Salisb.	vrba černající	dark-leaved willow, myrsine-leaved willow
VRD	<i>Salix bicolor</i> (Ehrh.) Willd.	vrba dvoubarvá	-
VRK	<i>Salix viminalis</i> L.	vrba košíkařská	basket willow, common osier
VRH	<i>Salix fragilis</i> L.	vrba křehká	crack willow, brittle willow
VRL	<i>Salix daphnoides</i> Vill.	vrba lýkocová	European violet willow
VRN	<i>Salix purpurea</i> L.	vrba nachová	purple willow, purpleosier willow, purple osier
VRP	<i>Salix pentandra</i> L.	vrba pětimužná	-
VRO	<i>Salix cinerea</i> L.	vrba popelavá	common willow, gray willow, gray willow, grey willow, grey-leaved willow, large gray willow, pussy willow, rusty willow
VRS	<i>Salix silesiaca</i> Willd.	vrba slezská	-
VRE	<i>Salix eleagnos</i> Scop.	vrba šedá	bitter willow, olive willow, hoary willow, rosemary willow, elaeagnus willow
VRT	<i>Salix triandra</i> L.	vrba trojmužná	almond willow, almond-leaved willow
VRU	<i>Salix aurita</i> L.	vrba ušatá	eared willow

Table 3. Designation of management sets

Forest category	Management Set		
	Target Management Set		3 rd number
	1 st number	2 nd number	
	altitude position	ecological series	Stand (site) type
Managed (commercial)	2, 4, 5, 7	1 - exposed	1 - Norway spruce
	1, 2, 4, 5, 7	3- acid	2 - white fir
	2, 4, 5, 7	5 - nutrient	3 - Scotch pine
	2, 4, 5, 7	7 -stagned	4 - other conifers
	1, 2, 3, 5, 7	9 - wet	5 - oak
Special purposes	2, 4, 5, 7	0 - exposed	6 - European beech
	1, 2, 4, 5, 7	2 - acid	7 - other deciduous
	2, 4, 5, 7	4- nutrient	8 - basic pioneer tree species
	2, 4, 5, 7	6 -stagned	9 - coppice forest
	1, 2, 3, 5, 7	8 - wet	
Protected	0	1 - extremely unfavorable habitats	
	0	2 - alpine forests	
	0	3 - dwarf pine zone	

Table 4. Indices used to indicate other determining characteristics of management sub-sets

index)*	Management Sets other determining characteristics	
	the stand site type determining characteristic	the functional specification determining characteristics
a	black locust	
b		spa forests
c		suburban forests and other forests with increased recreational activity
d		scientific forests, University and School Training forests
e		forests with increased soil protection, water protection, climatic or landscaping function
f		forests needed to preserve biological diversity (especially gene bases, reproductive material certified units for the collection, Ecological Stability Territorial Systems, European important localities, bird areas)
g		forests in game preserves and separate pheasantries
h		forests in which another important public interest requires a different management method
i	endangered - stands endangered by climate change (especially Norway spruce stands on unsuitable habitats)	
j	ash	
k	quality	
l		forests at the 1 st zones of Landscape Protected Areas, Nature Reserves, Natural Monuments and National Natural Monuments
m		forests at the natural healing and table mineral water sources protection zones
n	poor-quality	
o	alder	
p	damaged - stands with commercially significant damage (especially damage caused by direct or chronic air pollution, insects, game, rot, drought, wind, snow, frost, non-specific causal death)	
r	resonant	
s	non-incrementable	
t	poplar	
u		forests of the National Parks and National Nature Reserves
v		forests at the 1 st level zones of water resources hygienic protection
x	coppice hard	
y	coppice soft	
z	first afforestation of the non-forest localities	

*) indices of determining characteristics can be combined to each other with regard to the functional focus, stand condition and the owner preferred management intentions

Table 5. Natural Forest Regions of the Czech Republic

1	Krušné hory
2	Podkrušnohorské pánve
3	Karlovarská vrchovina
4	Doupovské hory
5	České středohoří
6	Západočeská pahorkatina
7	Brdská vrchovina
8	Křivoklátsko & Český kras
9	Rakovnicko-Kladenská pahorkatina
10	Středočeská pahorkatina
11	Český les
12	Předhoří Šumavy & Novohradských hor
13	Šumava
14	Novohradské hory
15	Jihočeské pánve
16	Českomoravská vrchovina
17	Polabí
18	Severočeská pískovcová plošina & Český ráj
19	Lužická pískovcová vrchovina
20	Lužická pahorkatina
21	Jizerské hory & Ještěd
22	Krkonoše
23	Podkrkonoší
24	Sudetské mezihoří
25	Orlické hory
26	Předhoří Orlických hor
27	Hrubý Jeseník
28	Předhoří Hrubého Jeseníku
29	Nízký Jeseník
30	Drahanská vrchovina
31	Českomoravské mezihoří
32	Slezská nížina
33	Předhoří Českomoravské vrchoviny
34	Hornomoravský úval
35	Jihomoravské úvaly
36	Středomoravské Karpaty
37	Kelečská pahorkatina
38	Bílé Karpaty & Vizovické vrchy
39	Podbeskydská pahorkatina
40	Moravskoslezské Beskydy
41	Hostýnskovsetínské vrchy & Javorníky

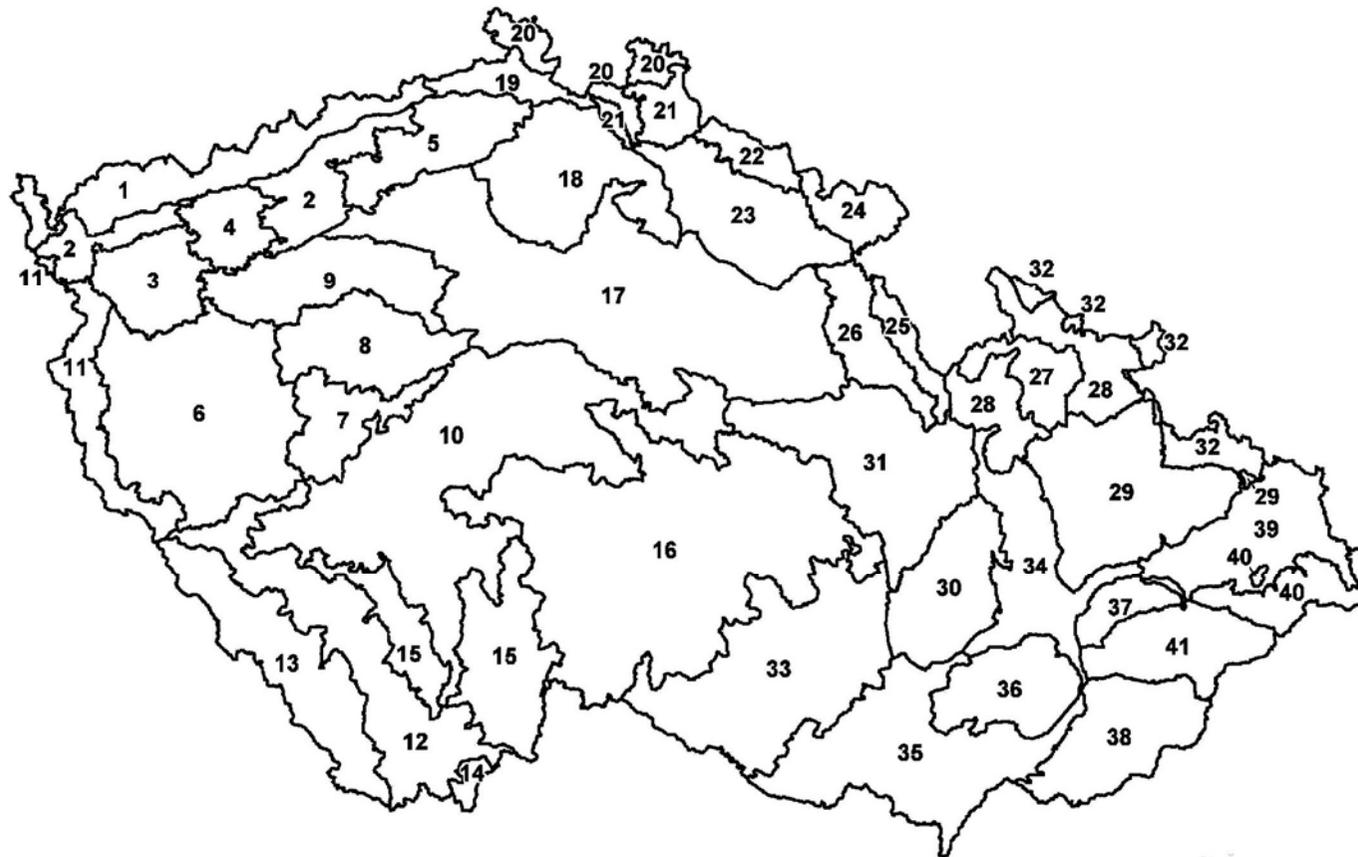


Fig. 1. Natural Forest Regions of the Czech Republic. Details in Table 5.

Table 6a. Basic managerial recommendations according to the Management Sets for deriving an obligatory determination of the maximum total cut amount

Commercial (managed) forests

Target management set		Management set		rotation period (years)	regeneration period (years)
		Stand (site) type			
13 natural (Scotch) pine habitats (and <i>Pineto-Querceta</i>)	1	i	SM ¹ endangered	60 - 80	20 - 30
	3	k	BO high quality	130 (110 - 140)	20
	3		BO normal quality	100 (90 - 130)	20
	3	s	BO non-incremantable	110 (90 - 140)	20
	5		DB normal quality	130 (120 - 150)	20 - 30
	7		deciduous	70 (60 - 80)	20
	7	a	AK	70 - 80	20
	8		basic pioneer tree species (BPT) normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10
19 floodplain habitats (lower positions)	1	i	SM endangered	60 - 80	20 - 30
	5	k	DB high quality	150 (130 - 180)	20 - 30
	7	k	deciduous high quality	110 (80 - 130)	20
	7		deciduous	70 (50 - 90)	20
	7	o	OL	80 (70 - 90)	20
	7	j	JS	90 (80 - 120)	20
	7	t	TP	30 - 40	10
	9	x	coppice hard	20 (20 - 40)	10
	9	y	coppice soft (incl. VR and BPT)	10 - 20	10
21 exposed habitats of the lower position	1	i	SM endangered	60 - 80	20 - 30
	3		BO normal quality	120 (100 - 130)	20 - 30
	5		DB normal quality	130 (110 - 150)	20 - 30
	5	n	DB poor quality	110 (80 - 120)	20 - 30
	7		deciduous	80 (60 - 90)	20
	7	a	AK	60 - 80	20
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10
23 acid habitats of the lower positions	1	i	SM endangered	60 - 80	20 - 30
	3		BO normal quality	110 (90 - 130)	20 - 30
	5		DB normal quality	130 (110 - 150)	20 - 30
	5	n	DB poor quality	110 (80 - 120)	20 - 30
	7		deciduous	70 (60 - 90)	20
	7	a	AK	60 - 80	20
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10

Management set				rotation period (years)	regeneration period (years)
Target management set	Stand (site) type				
25 nutrient habitats of the lower position	1	i	SM endangered	50 - 80	20 - 30
	3		BO normal quality	100 (90 - 120)	20 - 30
	5	k	DB high quality	160 (130 - 180)	20 - 30
	5	n	DB poor quality	120 (100 - 130)	20 - 30
	7		deciduous	70 (60 - 90)	20
	7	a	AK	50 - 70	20
	7	t	TP	40 - 50	10 - 20
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10
27 stagned nutrient poor habitats of the lower and middle positions	1	i	SM endangered	60 - 80	20 - 30
	3		BO normal quality	120 (100 - 130)	20 - 30
	5		DB normal quality	130 (110 - 140)	20 - 30
	7		deciduous	70 (60 - 90)	20 - 30
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10
29 alder and ash habitats on wet and floodplain soils	1		SM normal quality	90 (80 - 100)	20 - 30
	7	o	OL	80 (70 - 100)	20
	7	j	JS (DB, JV, heavy hard-woods)	110 (80 - 130)	20
	7	t	TP (VR)	40 (30 - 50)	10 - 20
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10
39 nutrient poor wet habitats lower and middle positions	1		SM (with BO) normal quality	100 (90 - 120)	30
	3		BO (with SM) normal quality	100 (90 - 120)	30
	7	o	OL (BR, OS)	70 - 80	20
	8		BPT normal quality	20 - 50	20
41 exposed habitats of the middle positions	1		SM normal quality (DG)	100 (9 - 130)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	3		BO normal quality	120 (110 - 130)	30
	5		DB normal quality	140 (120 - 150)	30 - 40
	6		BK normal quality	120 (100 - 130)	30 - 40
	7		deciduous	80 (60 - 90)	20 - 30
	8		BPT normal quality	20 - 50	20
	9	x	coppice hard	20 (20 - 40)	10

Management set			rotation period (years)	regeneration period (years)	
Target management set	Stand (site) type				
43 acid habitats of the middle positions	1		SM normal quality (DG)	100 (90 - 130)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	2		JD normal quality	120 (110 - 140)	40
	3	k	BO high quality	120 - 130	30
	3		BO normal quality	110 (100 - 130)	20 - 30
	3		BO (with SM) normal quality	110 (90 - 130)	20 - 30
	5		DB normal quality	130 (120 - 140)	40 - 40
	6		BK normal quality	120 (100 - 130)	30 - 40
	7		deciduous	70 (60 - 90)	20 - 30
	8		BPT normal quality	20 - 50	20
45 nutrient habitats of the middle positions	1		SM normal quality (JDO)	100 (90 - 120)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	2		JD normal quality	120 (110 - 140)	40
	3	k	BO normal quality	100 (90 - 120)	20 - 30
	5		DB high quality	160 (130 - 180)	30
	5		DB normal quality	130 (120 - 140)	30
	6		BK normal quality	120 (100 - 130)	30 - 40
	7		deciduous	70 (50 - 90)	20 - 30
	7	t	TP	50 - 60	20
	8		BPT normal quality	20 - 50	20
47 stagned habitats of the middle positions	1		SM normal quality (JDO)	100 (90 - 130)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	3	k	BO high quality	120 - 130	30
	3		BO normal quality	110 - 120	30
	5	k	DB high quality	160 (130 - 180)	30
	5		DB normal quality	130 (120 - 140)	20 - 30
	6		BK normal quality	120 (100 - 130)	30 - 40
	7		deciduous	70 (60 - 90)	20 - 30
	7	t	TP	50 - 60	20
	8		BPT normal quality	20 - 50	20
51 exposed habitats of the higher positions	1	r	SM resonant	160 (150 - 170)	40 - 50
	1	k	SM high quality	130 (110 - 140)	40 - 50
	1		SM normal quality (DG)	120 (100 - 130)	30 - 40
	1	p	SM damaged	90 (80 - 110)	20 - 30
	2		JD normal quality	120 (110 - 140)	40
	3		BO normal quality	120 (110 - 130)	30
	6		BK normal quality	120 (100 - 140)	30 - 40
	7		deciduous	80 (60 - 90)	20 - 30
8		BPT normal quality	50 (40 - 80)	20	

Management set				rotation period (years)	regeneration period (years)
Target management set	Stand (site) type				
53 acid habitats of the higher positions	1	r	SM resonant	160 (150 - 170)	40 - 50
	1	k	SM high quality	120 (110 - 140)	40 - 50
	1		SM normal quality (DG)	110 (100 - 130)	30 - 40
	1	p	SM damaged	90 (80 - 100)	20 - 30
	3		BO normal quality	120 (100 - 130)	30
	6		BK normal quality	120 (100 - 140)	30 - 40
	7		deciduous	70 (60 - 80)	20 - 30
	8		BPT normal quality	50 (40 - 60)	20
55 nutrient habitats of the higher positions	1	r	SM resonant	160 (150 - 170)	40 - 50
	1	k	SM high quality	120 (110 - 130)	30 - 40
	1		SM normal quality (JDO)	110 (100 - 130)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	2		JD normal quality	120 (110 - 140)	40
	3		BO normal quality	110 (90 - 120)	30
	6		BK normal quality	120 (100 - 140)	30 - 40
	8		BPT normal quality	50 (40 - 60)	20
57 stagnated habitats of the higher positions	1	r	SM resonant	160 (150 - 170)	40 - 50
	1	k	SM high quality	120 (100 - 130)	40
	1		SM normal quality (JDO)	110 (90 - 130)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	3		BO normal quality	110 (100 - 130)	30
	6		BK normal quality	120 (100 - 140)	30 - 40
	7		deciduous	70 (60 - 90)	20 - 30
	8		BPT normal quality	50 (40 - 80)	20
59 wet habitats of the middle and higher positions	1	k	SM high quality	110 (100 - 130)	40
	1		SM normal quality (BO)	100 (90 - 120)	30 - 40
	1	p	SM damaged	80 - 90	20 - 30
	7		deciduous	80 (60 - 90)	20 - 30
	8		BPT normal quality	50 (40 - 60)	20
71 exposed habitats of the mountain positions	1		SM normal quality	130 (120 - 150)	30 - 40
	1	p	SM damaged	100 (80 - 120)	20 - 30
	6		BK normal quality	140 (120 - 150)	30 - 40
	8		BPT normal quality	50 (40 - 60)	20
73 + 75 acid + nutrient habitats of the mountain positions	1	r	SM resonant	160 - 170	40 - 50
	1		SM normal quality	130 (110 - 140)	30 - 40
	1	p	SM damaged	100 (80 - 120)	20 - 30
	6		BK normal quality	140 (120 - 150)	30 - 40
	8		BPT normal quality	50 (40 - 60)	20
77 stagnated habitats of the mountain positions	1	r	SM resonant	160 - 170	40 - 50
	1		SM normal quality	130 (110 - 140)	30 - 40
	1	p	Sm damaged	100 (80 - 120)	20 - 30
	8		BPT normal quality	50 (40 - 60)	20

Management set				rotation period (years)	regeneration period (years)
Target management set	Stand (site) type				
79 wet habitats of the mountain positions	1		SM normal quality	120 (110 - 140)	30 - 40
	1	p	SM damaged	100 (80 - 110)	30
	8		BPT normal quality	50 (40 - 60)	20

)1 abbreviations of tree species are in Table 2

Table 6b. Basic managerial recommendations according to the management sets for deriving an obligatory determination of the maximum total cut amount

protective forests

Management set			rotation period (years)	regeneration period (years)	
TMS ⁴	Forest Site Type Complexes (FSTC) and their parts (specific Fotes Site Type - FST)	Stand (Site) Type			
03 - extremely unfavourable habitats	0X	basic dwarf SCOTCH PINE stands	BO ¹	150 ³	□ ²
	0Z	dwarf SCOTCH PINE stands	BO		
	0Y	skeletal SCOTCH PINE stands	BO with SM		
	0Y9	skeletal Scotch PINE -Norway spruce stands			
	0N2	acid stony Scotch PINE poorer stands	BO		
	0M2, 0M9	nutrient poor SCOTCH PINE poorer stands; specific on dunes			
	0O4	stagned nutrient poor SCOTCH PINE drier stands			
	0C4	serpentine SCOTCH PINE drier stands	BO		
	1X	basic dwarf OAK stand	DB, DBP		
	2X	basic dwarf European beech - OAK stands	DB, DBP		
	3X	basic dwarf oak - EUROPEAN BEECH stands	BK		
	4X	basic dwarf EUROPEAN BEECH stands			
	1Z	dwarf OAK stands	DB		
	2Z	dwarf European beech - OAK stands			
	2Y	skeletal European beech - OAK stands			
	3Z	dwarf oak - EUROPEAN BEECH stands	BK, BO		
	4Z	dwarf EUROPEAN BEECH stands			
	3Y	skeletal oak - EUROPEAN BEECH stands			
	4Y	skeletal EUROPEAN BEECH stands	BK, SM		
	5Z	dwarf white fir - EUROPEAN BEECH stands			
	5Y	skeletal white fir - EUROPEAN BEECH stands			
	6Z	dwarf Norway spruce - EUROPEAN BEECH stands	SM		
	6Y	skeletal Norway spruce - EUROPEAN BEECH stands			
	7Z	dwarf European beech - NORWAY SPRUCE stands	SM		
	7Y	skeletal European beech - NORWAY SPRUCE stands			
	1J	humus enriched skeletal common hornbeam - MAPLE stands	DB with JV		
	3J	humus enriched skeletal lime - Maple stands	BK with JV		
	5J	humus enriched skeletal eml-aommon ash - MAPLE stands			
	6J	humus enriched skeletal alm-Norway spruce - MAPLE stands	SM, BK with KL		
	4L9	submountain FLOODPLAIN stands - initial natural phases	VR		60 ³
	6L	gray alder FLOODPLAIN stands	OLS		100 ³
	7L	Norway spruce FLOODPLAIN skelatal stands	SM		120 ³
	0R (apart from 0R4, 0R5. 0R9)	peat SCOTCH PINE stands	BO		130 ³
0R4, 0R5	peat SCOTCH PINE - <i>Pinus rotundata</i> stands	BL			
0R9	peat SCOTCH PINE - peat <i>Pinus rotundata</i> -SILVER BIRCH stands	BO, BL			
7R9	acid peat dwarf Norway spruce stands	SM	150 ³	□ ²	
8T (at 7 th FVZ) ⁵	gley nutrient poor dwarf Norway spruce stand				
8R (at 7 th and lower FVZ) ⁵	raised bog NORWAY SPRUCE stands				

Management set			rotation period (years)	regeneration period (years)	
TMS ⁴	Forest Site Type Complexes (FSTC) and their parts (specific Fotes Site Type - FST)		Stand (Site) Type		
	9R (at 8 th and lower FVZ ⁵)	RAISED BOG dwarf mountain pine stands	KOS	200 ³	□ ²
	9R6 (at 8 th and lower FVZ ⁵)	RAISED BOG with <i>Pinus x ascendens</i>	BAS		
02 - natural alpine Norway spruce habitats below the timber line	8Z, 8Y, 8N, 8F, 8M, 8K, 8S	climax Norway spruce stands and	SM	140 ³	40 - □ ²
	for 8 th FVZ ⁵ : 8V, 8O, 8P, 8Q, 8G, 8V9, 8O9, 8T, 8R	Norway spruce stands on water influenced soils of the 8 th FVZ ⁵	SM genetically inappropriate	110-130	40
the dwarf mountain pine and alpine zone habitats	9K	dwarf alpine pine NORWAY SPRUCE stands	SM and KOS	by physical age	□ ²
	9Z	DWARF ALPINE PINE stands			
	9R (at 9 th FVZ ⁵)	RAISED BOG dwarf mountain pine stands	KOS		

)1 abbreviations of tree species are in Table 2

)2 rotation period is continuous

)3 physical age of the stand

)4 Targeted Management Set

)5 Forest Vegetation Zone

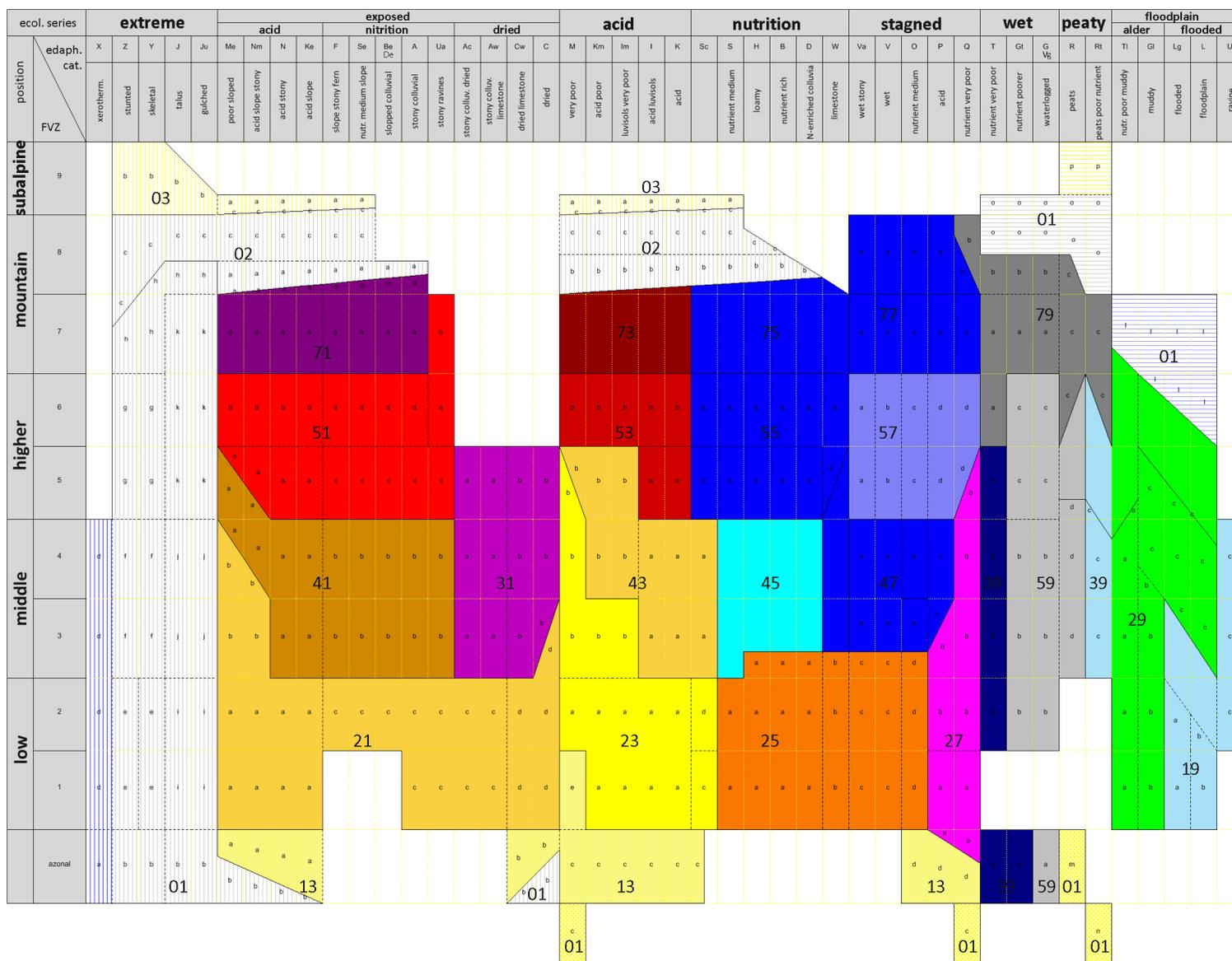


Fig. 2. Management sets and subsets demarcation in ecological network according to Decree No. 83/1996 Coll.
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