

Differences between Individual MCA Variants

Differences between the Theorists variant and other variants

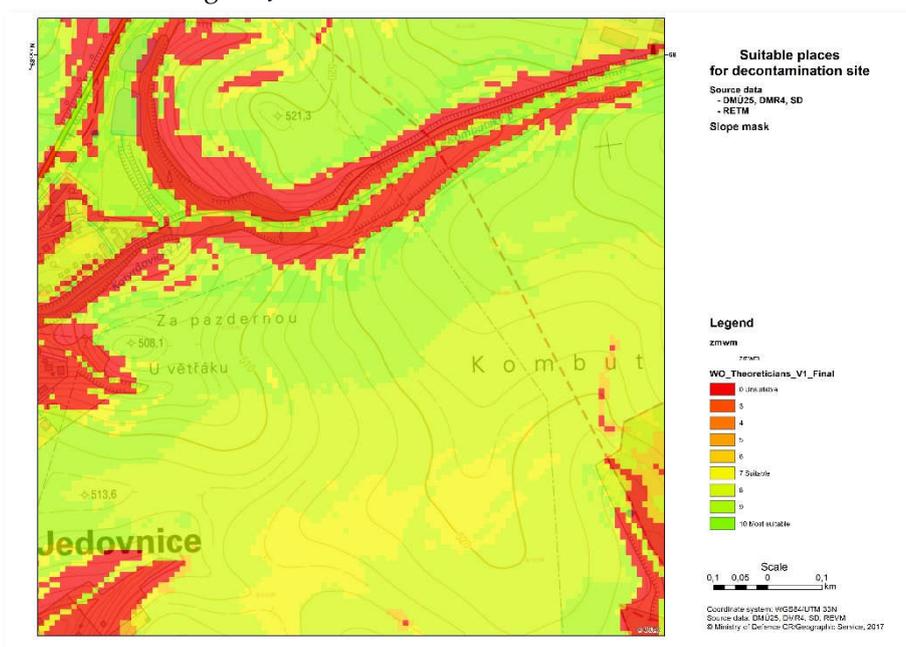
In the same way, the differences were compared against the second chosen standard - the variant Theorists. Numerical data are given in the table (Table 1), the spatial distribution of differences is on the maps (Figure 1).

Table 1. Absolute numbers and percentage share of differences from all pixels in the Jedovnice area for individual MCA variants related to the Theorists variant

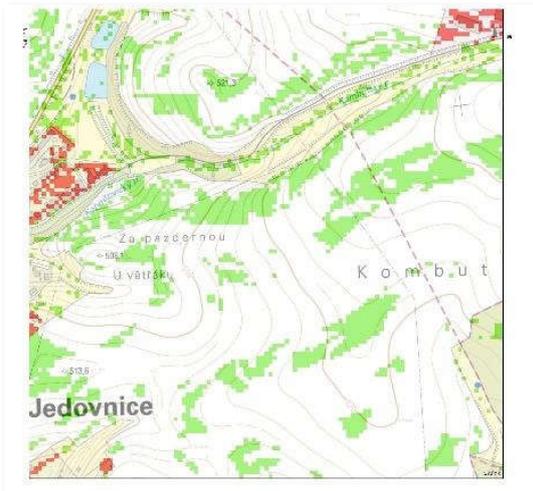
Difference	Theorists - Experts		Theorists - Variant 3		Theorists - Pairs		Theorists - MES		Theorists - Saaty	
	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells
-1	257	1.83	516	3.68	88	0.63	360	2.56	397	2.83
0	11273	80.31	11615	82.75	12516	89.17	9734	69.35	10942	77.96
1	2506	17.85	1905	13.57	1432	10.20	3942	28.08	2697	19.21
Cells total	14036	100.00	14036	100.00	14036	100.00	14036	100.00	14036	100.00

From the table (Table 1) it is clear that the variant Theorists quite significantly overestimates the suitability of the environment in relation to other variants of the MCA. The highest overestimation occurs in comparison with the MES variant, when almost 30% of the location area is rated better in this variant. However, it does not show greater conformity with any variant. This fact is also evident from the figures (Figure 1).

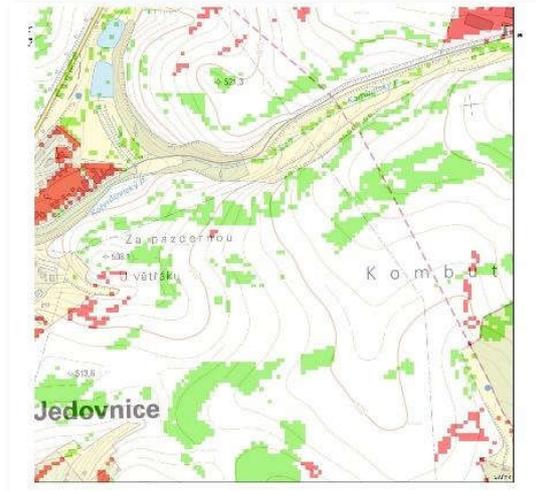
All significant differences are located mainly in the open landscape in the southern half of the assessed area. With the exception of the Pairs variant, there is also an underestimation in the built-up areas on the north-eastern edge of Jedovnice.



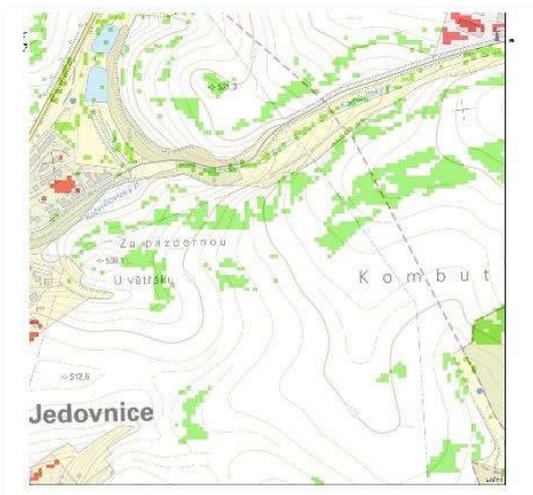
(a)



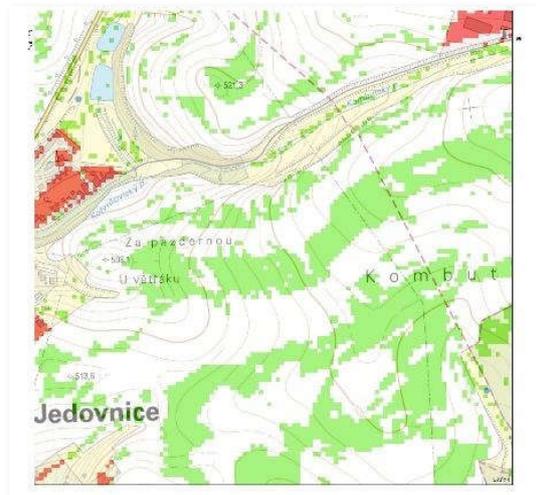
(b)



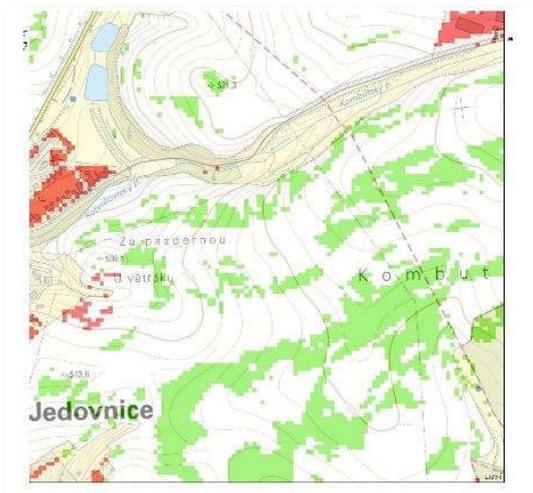
(c)



(d)



(e)



(f)

Figure 1. Differences in cost maps of landscape potential for DS deployment for the MCA variants from the Jedovnice area in relation to the Theorists variant – (a) Theorists cost map, (b) differences with the Experts variant, (c) differences with the Var. 3, (d) differences with the Pairs variant, (e) differences with the MES variant, (f) differences with the Saaty variant. Legend: red indicates the difference -1, green the difference +1, white identical areas.

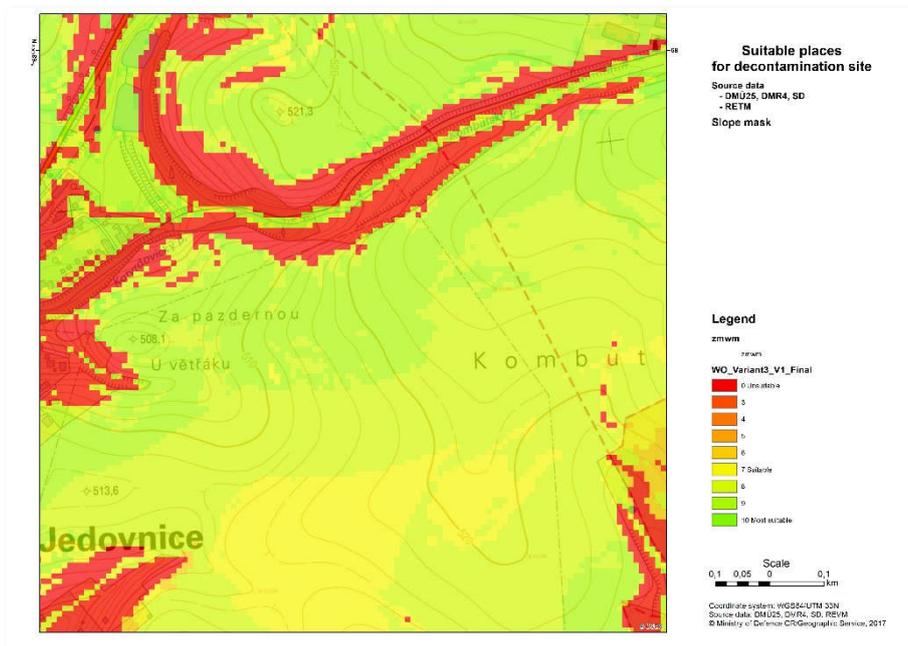
Differences between the Variant 3 and other variants

Variant 3 shows a relatively high conformity in the evaluation with all remaining variants, with the exception of the Theorists and MES variants. Compared to the Theorists variant, the assessed variant slightly underestimates the space, on the contrary, in comparison with the variant MES, the assessed variant quite significantly overestimates the suitability of the space, as is clear from the absolute numbers given in the table (Table 2).

Table 2. Absolute numbers and percentage share of differences from all pixels in the Jedovnice area for individual MCA variants related to the Variant 3

Difference	Variant 3 - Experts		Variant 3 - Theorists		Variant 3 - Pairs		Variant 3 - MES		Variant 3 - Saaty	
	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells
-1	441	3.14	1905	13.57	601	4.28	83	0.59	346	2.47
0	12294	87.59	11615	82.75	12879	91.76	11677	83.19	12433	88.58
1	1301	9.27	516	3.68	556	3.96	2276	16.22	1257	8.96
Cells total	14036	100	14036	100	14036	100	14036	100	14036	100

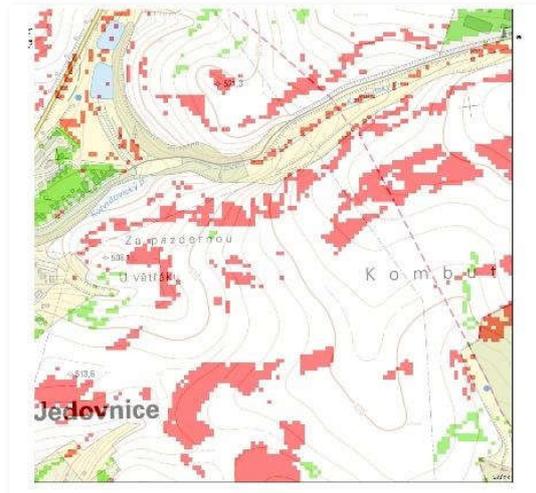
If the areas, in which the individual differences are concentrated, are identified (Figure 2), it is again clear that this is mainly open terrain, or the immediate vicinity of the Kombutský and Kotvrdovický streams, where slopes with a greater inclination are concentrated.



(a)



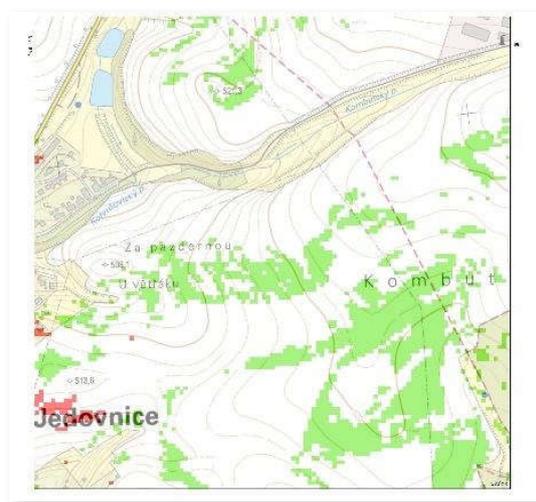
(b)



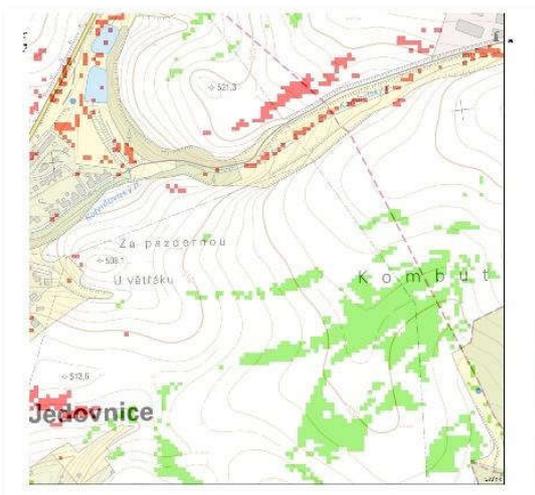
(c)



(d)



(e)



(f)

Figure 2. Differences in cost maps of landscape potential for DS deployment for the MCA variants from the Jedovnice area in relation to the Variant 3 variant – (a) Variant 3 cost map, (b) differences with the Experts variant, (c) differences with the Theorists variant, (d) differences with the Pairs variant, (e) differences with the MES variant, (f) differences with the

Saaty variant. Legend: red indicates the difference -1, green the difference +1, white identical areas.

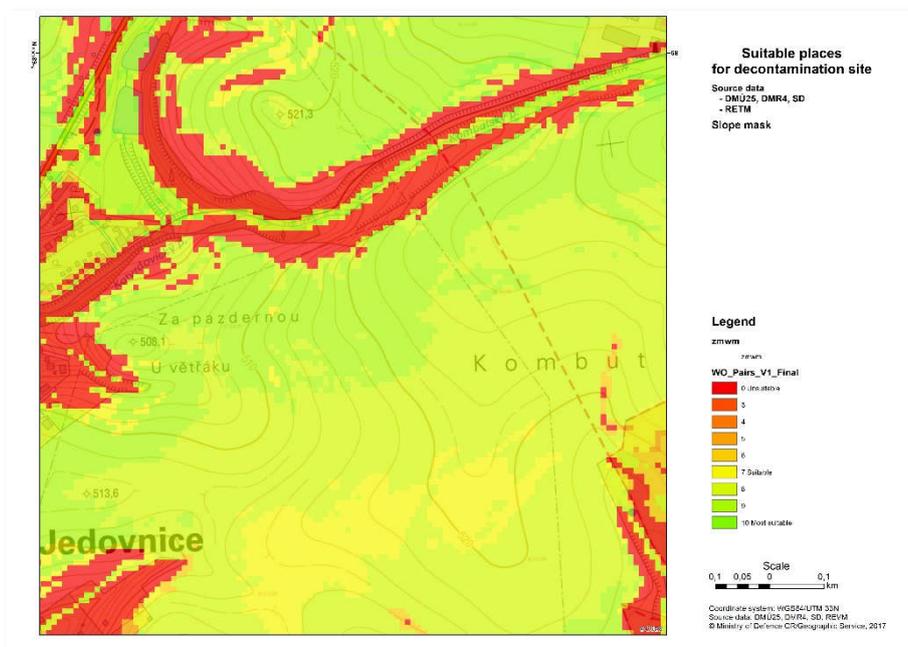
Differences between the Pairs variant and other variants

The Pairs variant shows a relatively high conformity with the Experts and Variant 3 variants (Table 3). Compared to the Theorists variant, the assessed variant slightly underestimates the area, while in comparison with the MES and Saaty variants, on the contrary, it overestimates the area, especially relatively strongly in comparison with the MES.

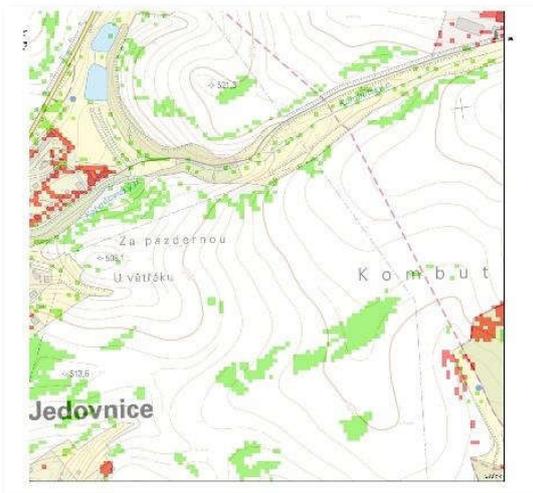
Table 3. Absolute numbers and percentage share of differences from all pixels in the Jedovnice area for individual MCA variants related to the Pairs variant

Difference	Pairs - Experts		Pairs - Theorists		Pairs - Variant 3		Pairs - MES		Pairs - Saaty	
	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells
-1	275	1.96	1432	10.20	556	3.96	289	2.06	648	4.62
0	12581	89.63	12516	89.17	12879	91.76	11220	79.94	11784	83.96
1	1180	8.41	88	0.63	601	4.28	2527	18.00	1604	11.43
Cells total	14036	100	14036	100	14036	100	14036	100	14036	100

In terms of the spatial distribution of evaluation differences, the changes are concentrated both in the open landscape, and also relatively significantly in the built-up area and the surroundings of the Kombutský and Kotvrdovický streams. In these areas, the Pairs variant underestimates the space, which is evident from the maps in the figure (Figure 3).



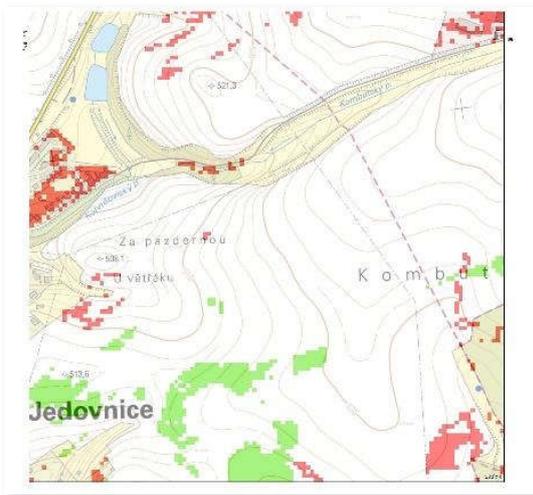
(a)



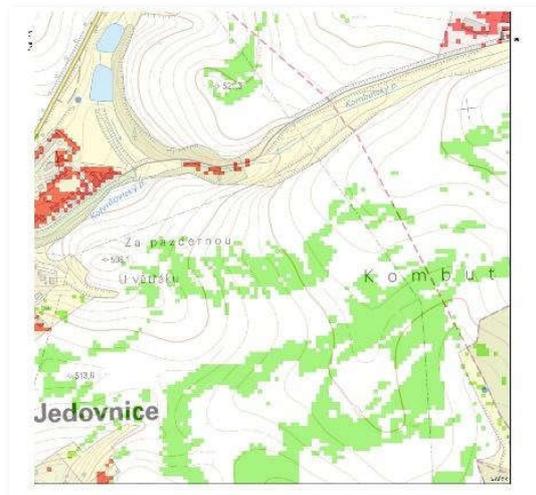
(b)



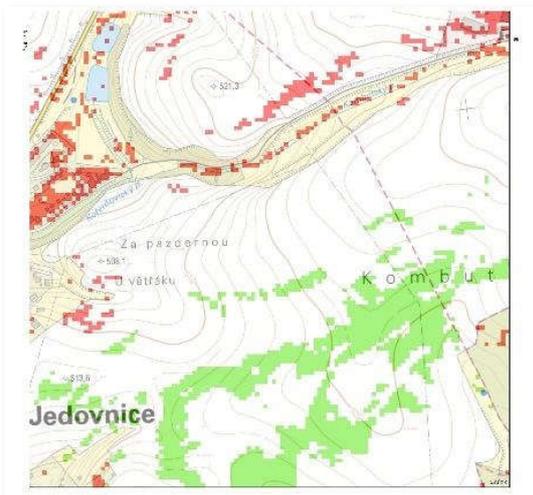
(c)



(d)



(e)



(f)

Figure 3. Differences in cost maps of landscape potential for DS deployment for the MCA variants from the Jedovnice area in relation to the Pairs variant – (a) Pairs cost map, (b) differences with the Experts variant, (c) differences with the Theorists variant, (d) differences

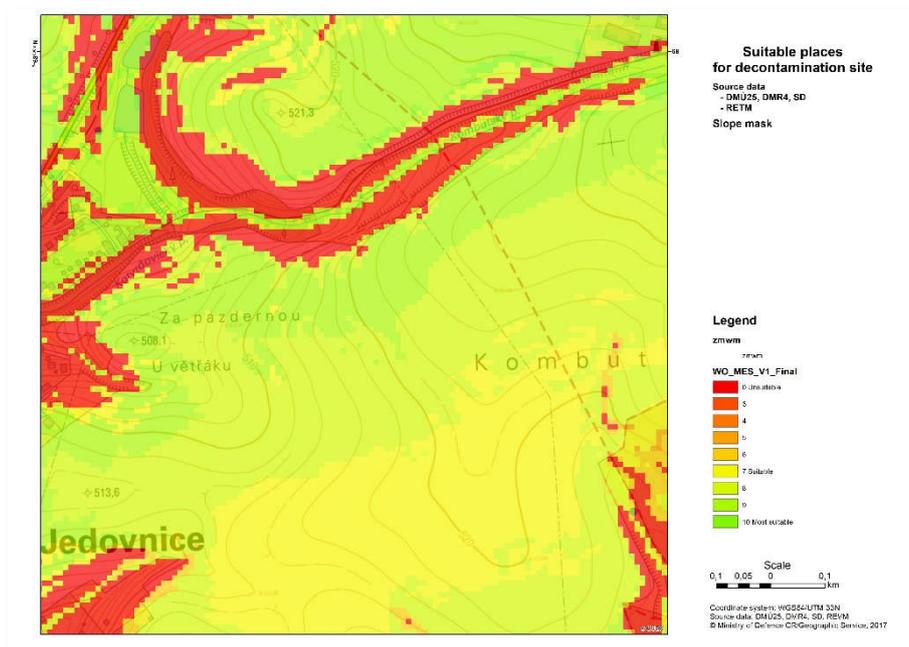
with the Variant 3 variant, (e) differences with the MES variant, (f) differences with the Saaty variant. Legend: red indicates the difference -1, green the difference +1, white identical areas.

Differences between the MES variant and other variants

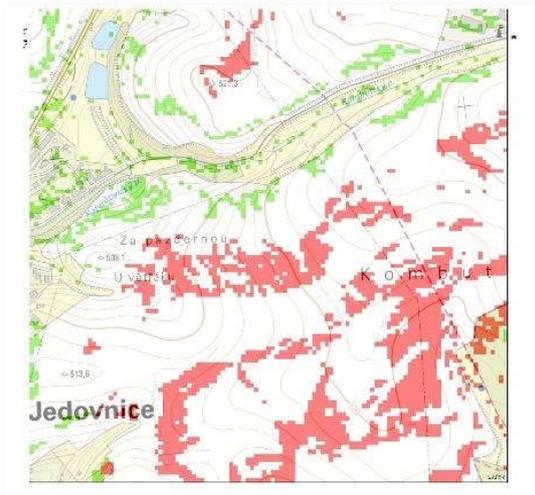
In comparison with all other variants, the MES variant basically underestimates the suitability of the whole space (Table 4). The biggest differences occur in comparison with the Theorists variant, and the smallest differences in comparison with the Saaty variant. In principle, there is no significant overestimation of the suitability of the space. All significant changes mainly concern the open terrain in the southern half of the assessed area (Figure 4).

Table 4. Absolute numbers and percentage share of differences from all pixels in the Jedovnice area for individual MCA variants related to the MES variant

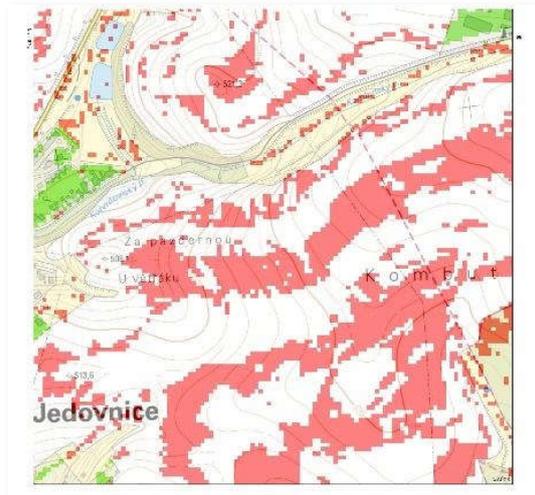
Difference	MES - Experts		MES - Theorists		MES - Variant 3		MES - Pairs		MES - Saaty	
	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells
-1	2086	14.86	3942	28.08	2276	16.22	2527	18.00	1300	9.26
0	11197	79.77	9734	69.35	11677	83.19	11220	79.94	12718	90.61
1	753	5.36	360	2.56	83	0.59	289	2.06	18	0.13
Cells total	14036	100	14036	100	14036	100	14036	100	14036	100



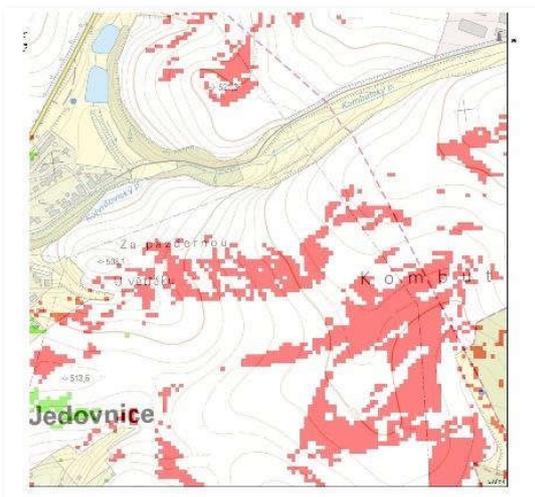
(a)



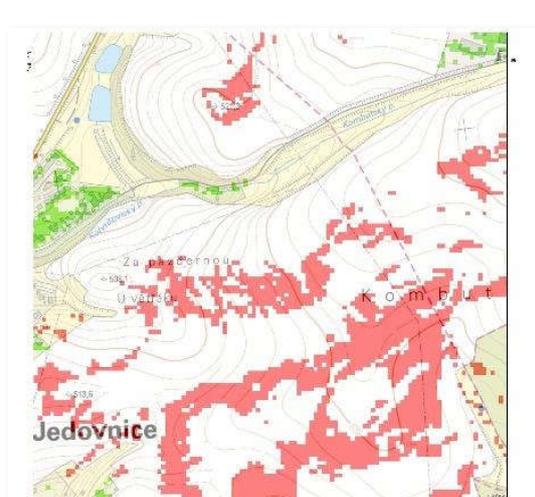
(b)



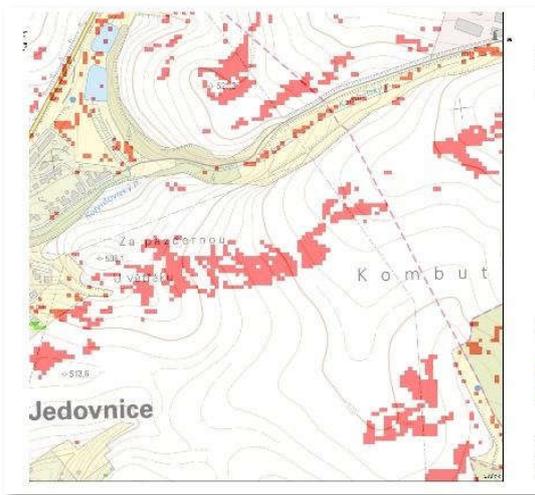
(c)



(d)



(e)



(f)

Figure 4. Differences in cost maps of landscape potential for DS deployment for the MCA variants from the Jedovnice area in relation to the MES variant – (a) MES cost map, (b) differences with the Experts variant, (c) differences with the Theorists variant, (d) differences

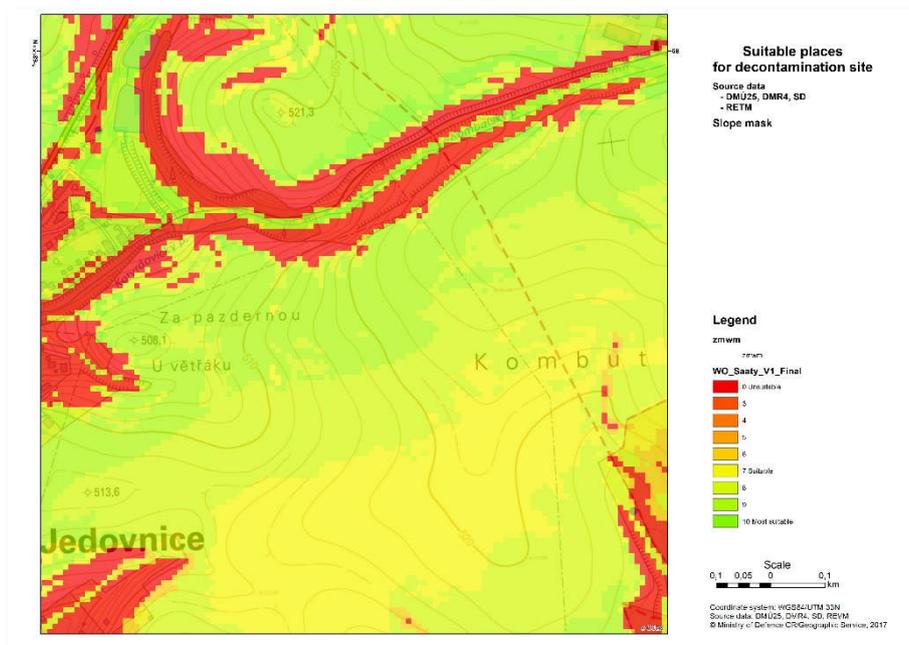
with the Variant 3 variant, (e) differences with the Pairs variant, (f) differences with the Saaty variant. Legend: red indicates the difference -1, green the difference +1, white identical areas.

Differences between the Saaty variant and other variants

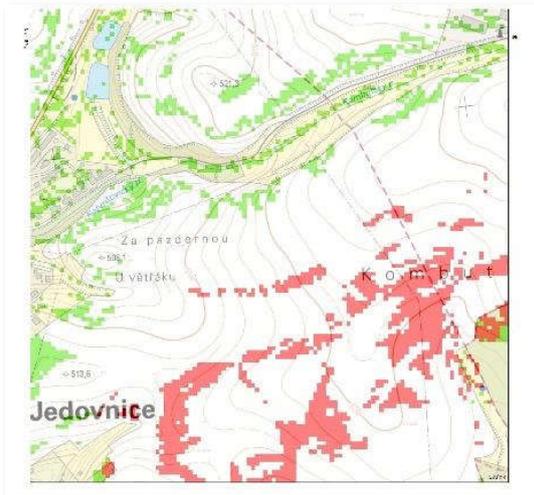
The last variant considered was the Saaty variant. According to the assessment of the absolute numbers of different pixels (Table 5), it is clear that with the exception of the variant Theorists, this variant has no significant differences in the evaluation of suitability with other variants, and basically evaluates the suitability of the space similarly (Figure 5). The biggest differences occur in the surroundings of the Kombutský and Kotvrdivický streams and the built-up area on the north-eastern edge of Jedovnice, where the assessed variant rather overestimates the area in comparison with other variants. However, there are larger differences when compared to the Theorists variant. The Saaty variant significantly underestimates the area, especially in open space, which is a consequence of the lower weight of the terrain relief factor.

Table 5. Absolute numbers and percentage share of differences from all pixels in the Jedovnice area for individual MCA variants related to the Saaty variant

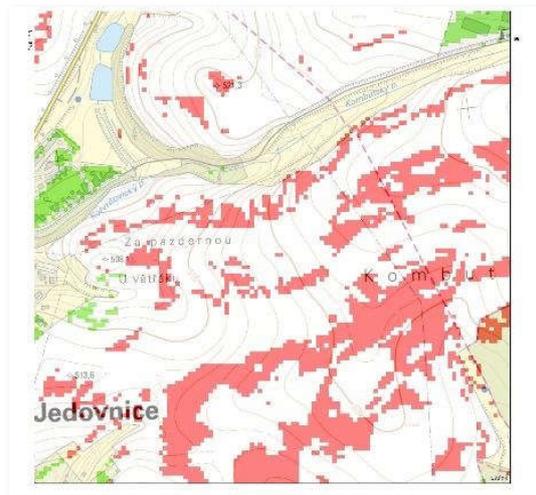
Difference	Saaty - Experts		Saaty - Theorists		Saaty - Varianta 3		Saaty - Pairs		Saaty - MES	
	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells	Cells num.	% of all cells
-1	1260	8.98	2697	19.21	1257	8.96	1604	11.43	18	0.13
0	11567	82.41	10942	77.96	12433	88.58	11784	83.96	12718	90.61
1	1209	8.61	397	2.83	346	2.47	648	4.62	1300	9.26
Cells total	14036	100	14036	100	14036	100	14036	100	14036	100



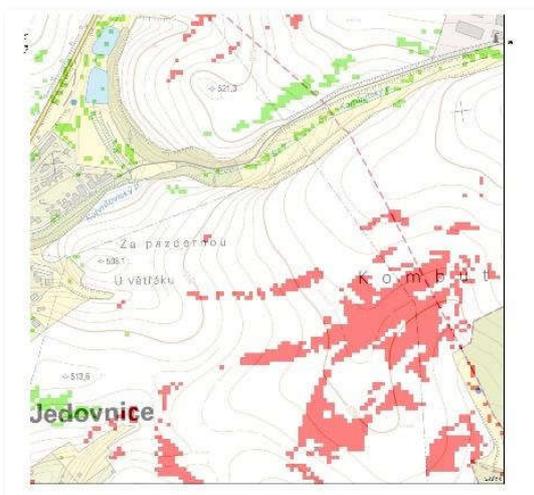
(a)



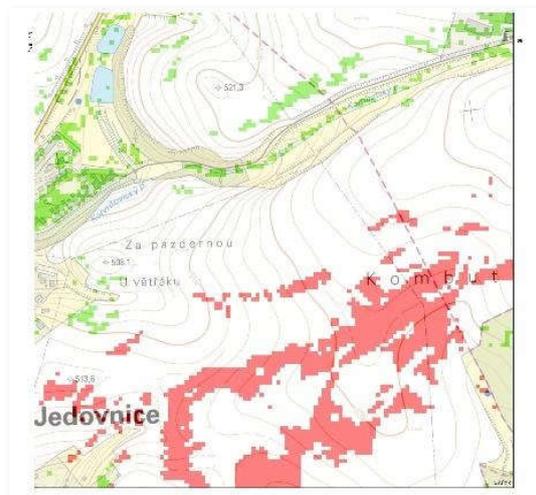
(b)



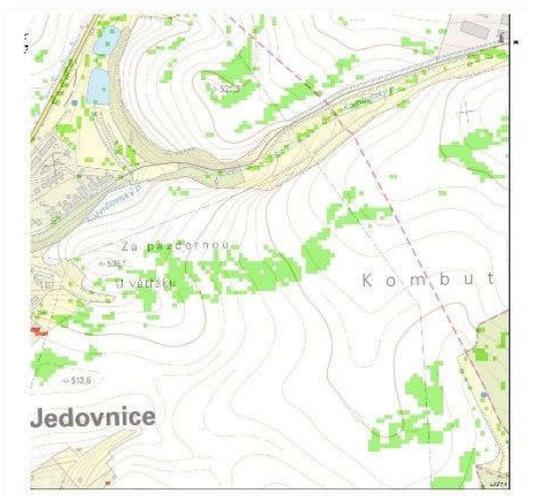
(c)



(d)



(e)



(f)

Figure 5. Differences in cost maps of landscape potential for DS deployment for the MCA variants from the Jedovnice area in relation to the Saaty variant – (a) Saaty cost map, (b) differences with the Experts variant, (c) differences with the Theorists variant, (d) differences with the Variant 3 variant, (e) differences with the Pairs variant, (f) differences with the MES variant. Legend: red indicates the difference -1, green the difference +1, white identical areas.