

Analyst Tools – *Extract by Mask* by resulting a new raster (ExtractCLC01).

This raster will be classified in order of the cell values resulted from 10 in down, because the production of an avalanche is more probable in open spaces than in urban where the snow is cleaned. The reclassification is made as follows:

- Urban: value 112 - class 10
- Arable: value 211 - class 9
- Bushes: value 324 - class 3

Fig. 13 Reclassification of Euclidian raster

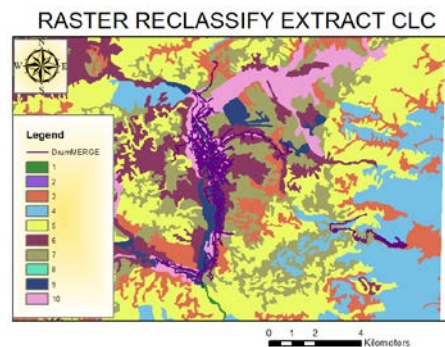
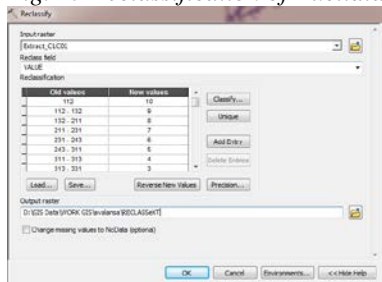


Fig. 14 Raster map of the categories for using the field into the studied reclassified area

2. RESULTS AND DISCUSSIONS

Overlay analyze

In order to create an overlay, it will choose from **ArcToolbox - Spatial analyst tools** – *Overlay - Weighted overlay* and gradually the reclassified layers will be added as follows INPUT(1)= SlopeReclass, INPUT(2)= RECLASSEXT.

For each of them from the field *Influence* there will be introduced the correspondent percentages as follows: slope - 50%, the field usage – 50%. The final result will be „Weight_Slope”, which means the map containing the most affected areas in case of avalanche having the values from 1 to 9, 1 being without any risk of avalanche and 9 representing the areas with maxim risk of avalanche.

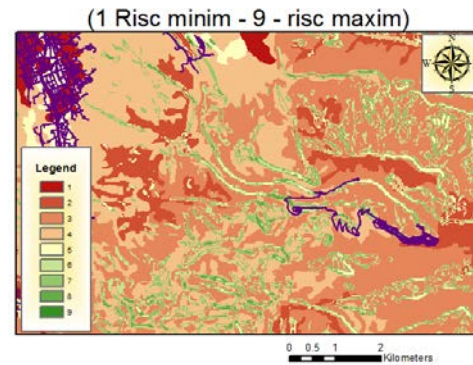


Fig. 15 Map of risk of avalanche in Parang Mountains

3. CONCLUSIONS

The overlay analyze allow to be analyzed the relations between the data sets that are localized in the same area. The different types of overlay analyze may be used for being solved some problems of complex spatial analyze. The reclassification of raster data and using the ponderers of each of them allow to be made the operations on layers with different influences. Other spatial operations, as the buffer, may facilitate the obtaining some input data based on the field data.

REFERENCES

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