

Хазард од клизишта у Србији у 21. веку

Biljana Abolmasov



Дигитални репозиторијум Рударско-геолошког факултета Универзитета у Београду

[ДР РГФ]

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LECTURE SERIES

Book 5

GEOHAZARD IN SERBIA
IN THE 21 CENTURY

KNOWLEDGE IS THE BEST BASTION
AGAINST THE NATURAL DISASTERS

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Physics and Geosciences on 24 May 2019

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BELGRADE 2019

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МЕТОДОЛОГИЈА ИСТРАЖИВАЊА КЛИЗИШТА



> 1.

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2.

> Landslides

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		> (. type of material)	
(. type of movement)		(.)rock	(.)soil
		(. debris(.)soil	
(. falling / .)		(. rock fall	(. debris fall(. earth fall
(. toppling		(. rock topple	(. debris)topple . earth)topple
(.)slide		(. rock slump	(. debris)slump . earth)slump
		(. rock slide	(. debris) slide . earth) slide
spreading (. lateral		(. rock spread	(. debris(. earth spread
(. flowing		(. rock flow;	(. debris) flow(. earth) flow
		deep creep	(. soil creep)
> > (. complex movement)		>	

> , > >

[8], [9], [10], [11], [12], [13], [14]

[8]

$$R = H \times V_R$$

(Landslide Hazard)

$$H = p_A \times p_N \times S$$

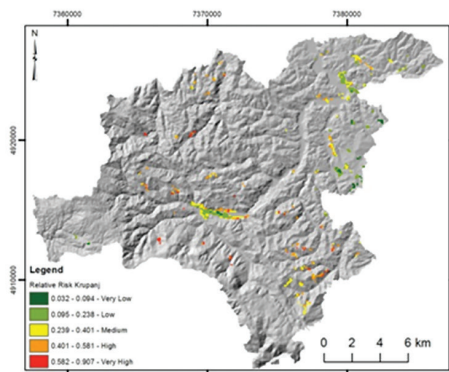
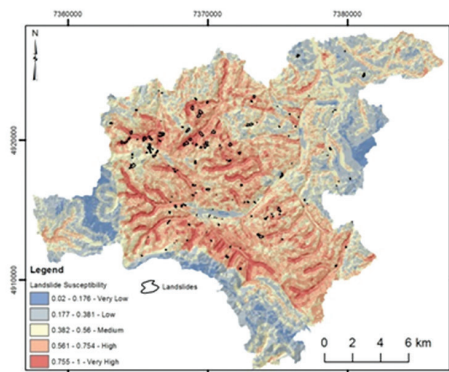
(Landslide) Susceptibility

(Exposure)

(Vulnerability)

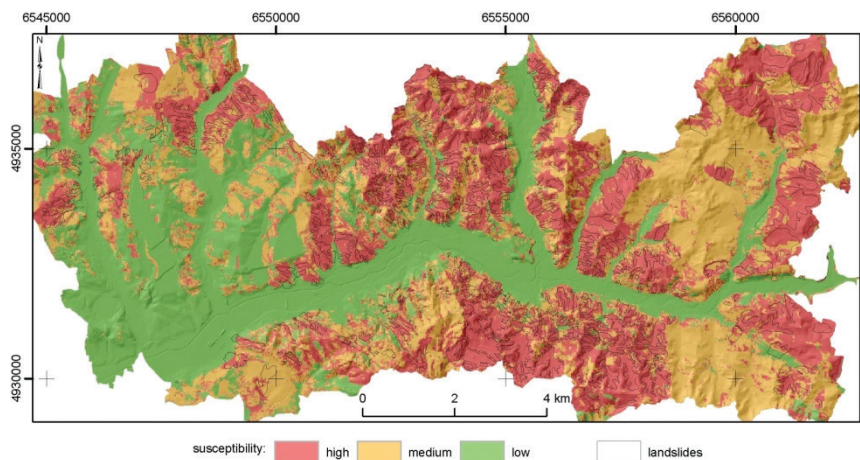
(Landslide) Risk

(R)



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> 3.

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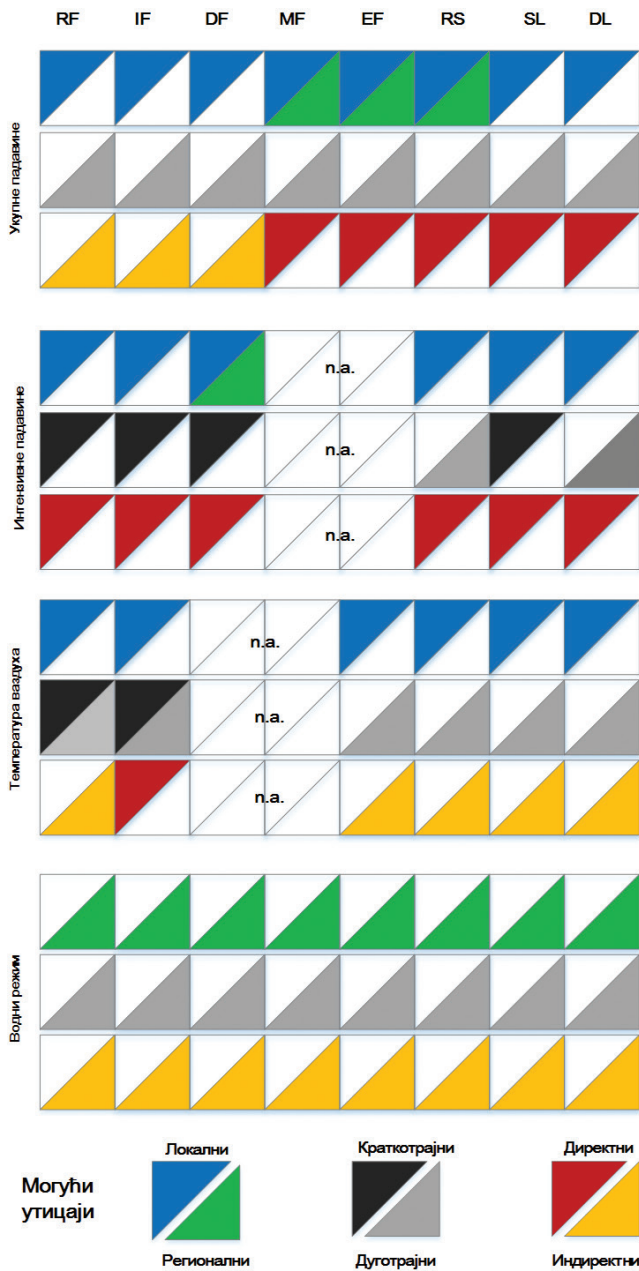
[7].



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landslides >



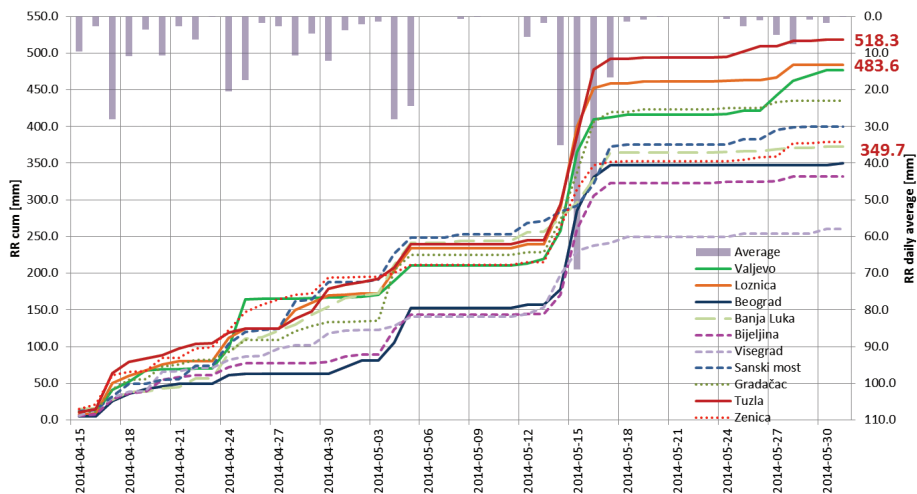
> 5. : RF , IF , DF , EF , RS , SL , DL

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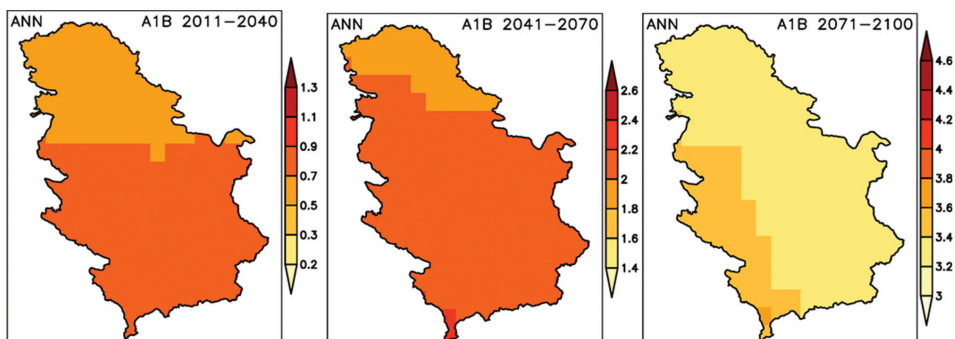
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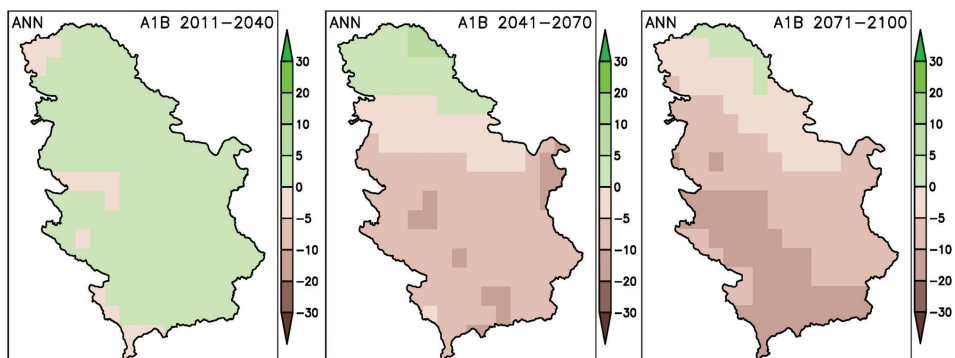
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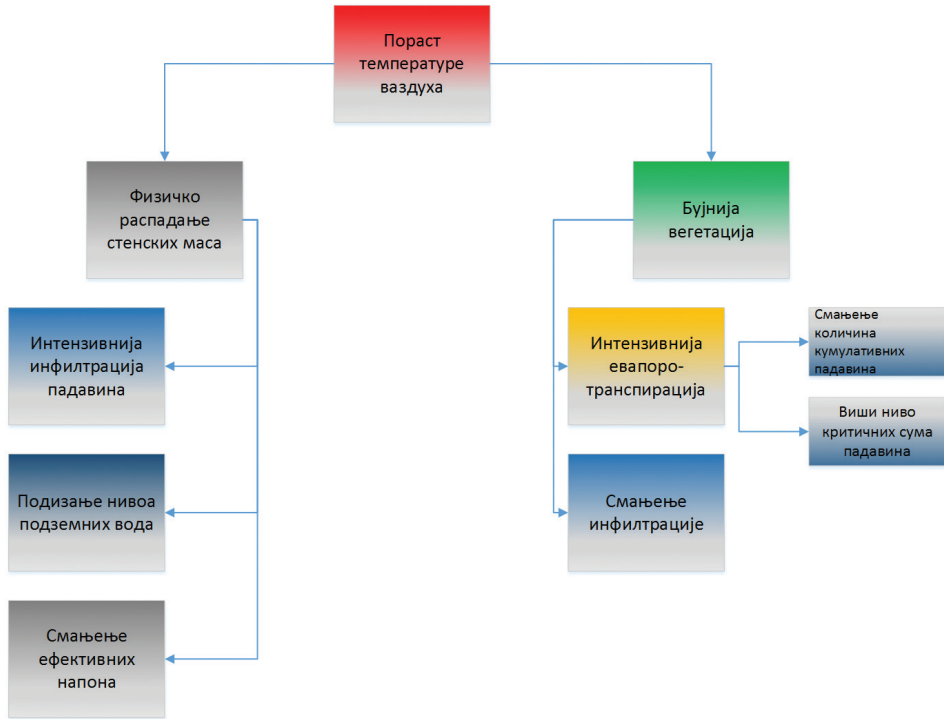


> 7. >
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> 8. >
 () 2011 2040, 2014 2070. 2071 2100. 1
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1961 1990. , 2011 2040, 2040. (7 8).



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Miko M., Verbov ek T., Geological Survey of Slovenia. Vol. 1:95

Biljana Abolmasov

LANDSLIDE HAZARD IN SERBIA IN THE 21ST CENTURY

S u m m a r y

In recent years, Serbia has been vulnerable to natural hazards: floods, torrential floods and landslides. Landslides are one of the most serious hazards in Serbia (according to the international classification of areas prone to landslides are covering more than 16% of the territory) (according to a rough estimation and published scientific research). In the type of movement more common types are slides, flows and falls. In the type of material involved there are all types of material: rocks, clays, etc.

Landslides can be caused by one or more factors of which morphological, geological and engineering geological are main causal factors. Other factors are terrain characteristics, further to lithological are their composition and structure influence on the occurrence of instabilities. The most landslides are triggered by precipitation rainfall and snowmelt, or a combination of these factors.

Landslide risk assessment unfolds gradually, starting from inventory, selection of conditioning and triggering factors, landslide hazard assessment, mapping elements at risk, and landslide vulnerability. All these segments and their techniques depend on the choice of complexity of the case, i.e. the type of the landslide phenomenon of analysis.

According to the Fifth Report of the Intergovernmental Panel on Climate Change, an increase in the frequency and the intensity of extreme events is expected in the south-eastern Europe. Among different impacts, this increase is a variation in the frequency and the spatial distribution of landslides (landslide hazard). The influence of climate variability and its variations on landslide hazard should be analyzed by taking into account the Serbian National Climate Scenario Models up to 2100.