MOVING
MOuntain Valorisation through INterconnectedness and Green growth

Stara Planina

Vulnerability Matrix & Index

2024

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What will you find?

The MOVING (MOuntain Valorisation through INterconnectedness and Green growth) project stands at the forefront of climate resilience, aiming to fortify the sustainability of mountain areas against climate change. A key outcome of the project is the creation of tools that show susceptibility and vulnerability, ready to be used by both experts and the general audience[1].

This document synthesises crucial information for the **Stara Planina Region,** particularly focusing on the Participatory Vulnerability Matrix

Using a participatory approach, the Vulnerability Matrix allows to downscale relevant information to the local level, offering a detailed view of how drivers of change impact this territory. Understanding that areas within the Stara Planina Region are not equally vulnerable to identical threats, the Spatial Vulnerability Index emerges as a critical tool. It showcases the varied susceptibility across the region, paving the way for more effective, targeted adaptation strategies.

Mountain Reference Region: Stara Planina

Mountain Reference Landscape: Western Balkan Mountains

Value Chain: Public goods from High Nature Value farmland

Land-use system: Mosaic (semi-) natural system

Reference variable: "Farmland biodiversity" – specifically the "*presence of priority habitats of European significance that are dependent upon the continuation of traditional agriculture*".

[1] Extended outputs are accessible through the following documents: 'Land Use Systems and Land Cover Map in 23 Reference Regions' and'Land use system vulnerability matrixes and vulnerability maps for the 23 reference regions'

1. Participatory Vulnerability Matrix

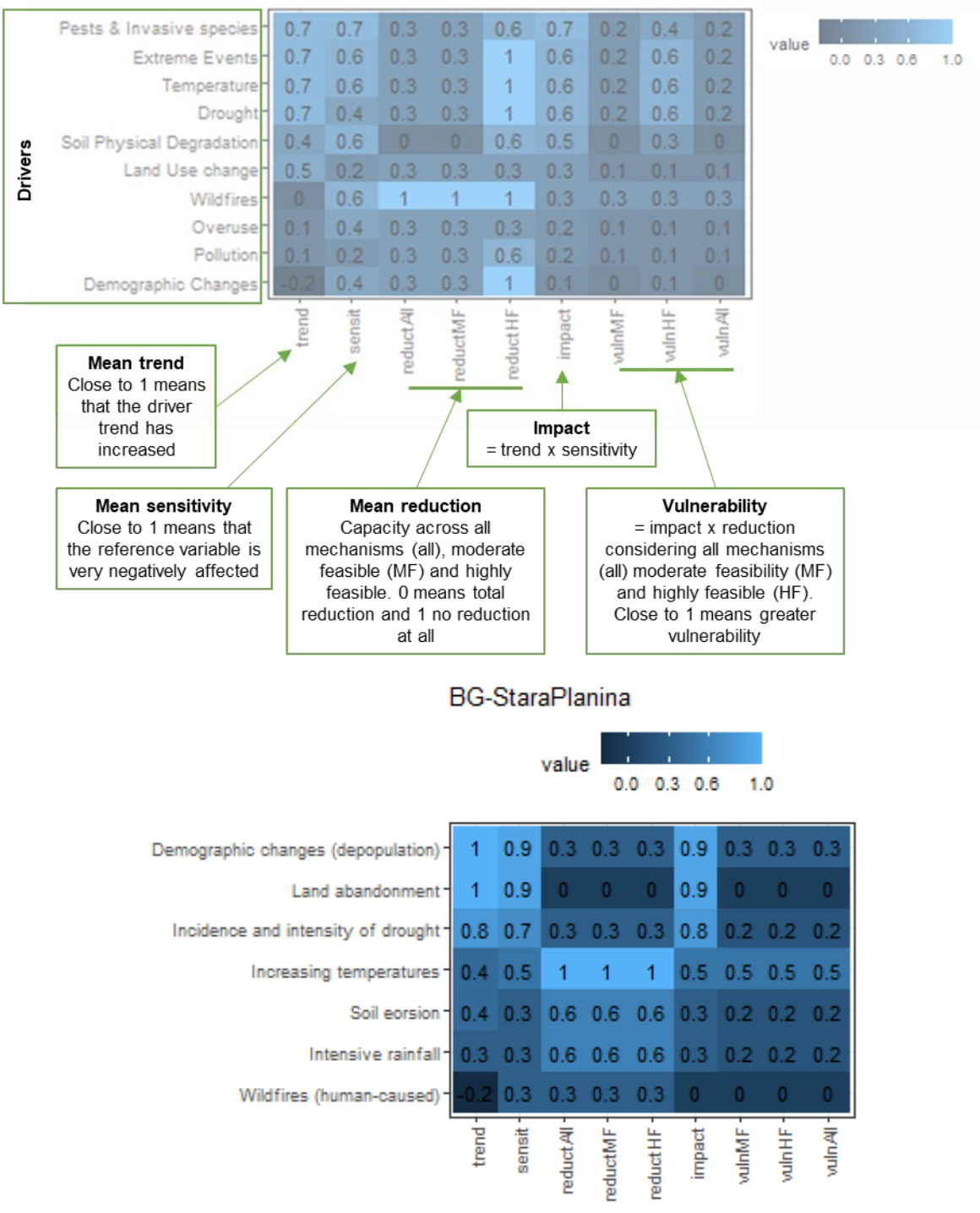

Figure 1. Vulnerability Matrix for Stara Planina MRL (below) and how to read it (above).
Source: MOVING H2020

Depopulation, land abandonment and drought, are the main factors, with a very high impact factor (0.9 and 0.8 out of 1). Only one of the top three factors is climatic. Already at medium values we see temperature increase, soil erosion and intensive rainfall (erosion to a large extent comes from intense rainfall), the climatic values are more appreciated. The overall impact of the system is quite high (0.6) considering that it is a medium value, but it seems that there is also a high adaptive capacity of highly feasible mechanisms, with less potential to reduce the impact on the climate drivers.

1.1. List of adaptative mechanisms suggested by consulted stakeholders

- Increased eligibility of semi-natural grasslands for CAP Pillar 1 payments
- Improved targeting of CAP Pillar 2 payments
- Stronger advisory and innovation support services for HNV farmers
- Improved governance of common grazing
- Greater support for new entrants / young farmers
- Regional/local branding and marketing schemes
- More multi-funded (and community-led) local development

2. Spatial Vulnerability Index

Vulnerability drivers:

- Land abandonment
- Demographic changes (depopulation)

Spatial explicit factors:

- SAPS – income support payments (CAP Pillar 1)
- Agri-enviornment payments (CAP Pillar 2)

Table 1. Spatial Vulnerability Index for Mosaic (semi) natural system in the Stara Planina MRL.

Spatial Vulnerability Index			Spatial Explicit Factor 1	
			SAPS income support payments (CAP Pillar 1)	
			Eligible (< 100 trees and/or shrubs per ha)	*Not eligible (> 100 trees and/or shrubs per ha)*
Spatial Explicit Factor 2	Agri-environment payments (CAP Pillar 2)	*Eligible for SAPS and HNV support payment*	**1**	**2**
		Only eligible for HNV support payment	**3**	**3**
		Only eligible for SAPS support payment	**4**	**5**

Vulnerability levels: 1 – very low, 2 – low, 3 – medium, 4- high, 5 – very high.
Source: MOVING H2020