

Analyzing the Impact of Disaster Resilience and Disaster Perception on Life-Satisfaction

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Background

Researchers have employed various methodologies to measure disaster resilience. The concept of disaster resilience is complex and multifaceted, making it difficult to measure with a single indicator or statistic. It is necessary to consider using multiple indicators for this measurement

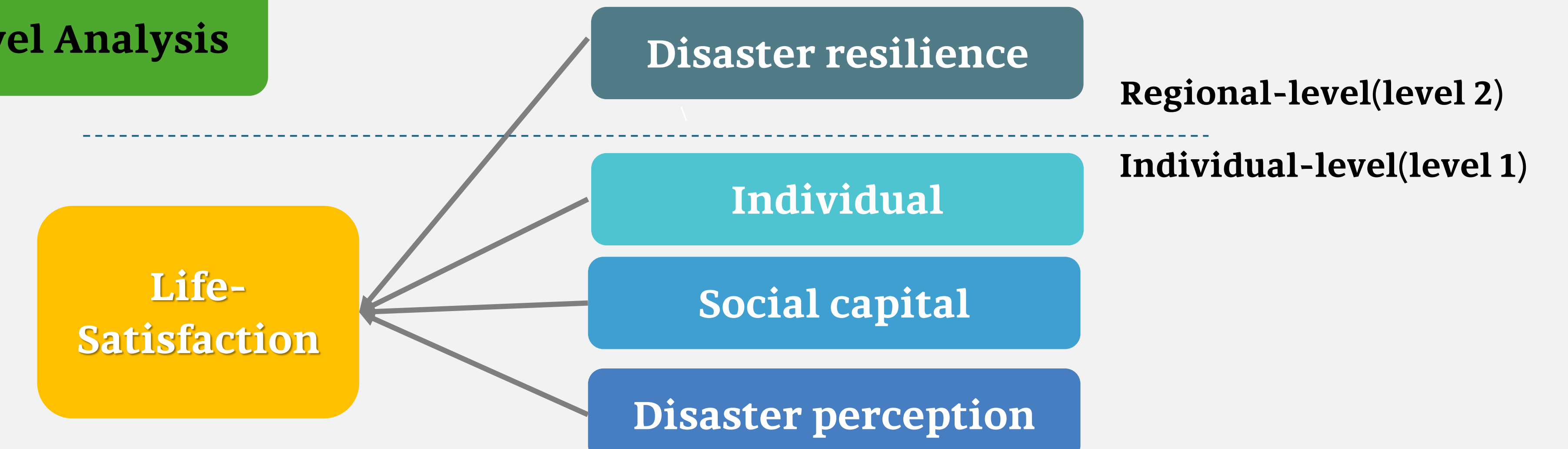
Research on socioeconomic factors and social capital affecting life satisfaction is being conducted, but studies simultaneously examining individual characteristics and contextual effects at the regional level are lacking

The purpose is to examine [how individual characteristics such as gender, income, social capital, and disaster Perception, as well as community characteristics of disaster resilience, affect life satisfaction.](#)

Methodology

Conducted an analysis using a multilevel model with individual-level and regional-level data for Busan Metropolitan City in 2020.

Multi-level Analysis

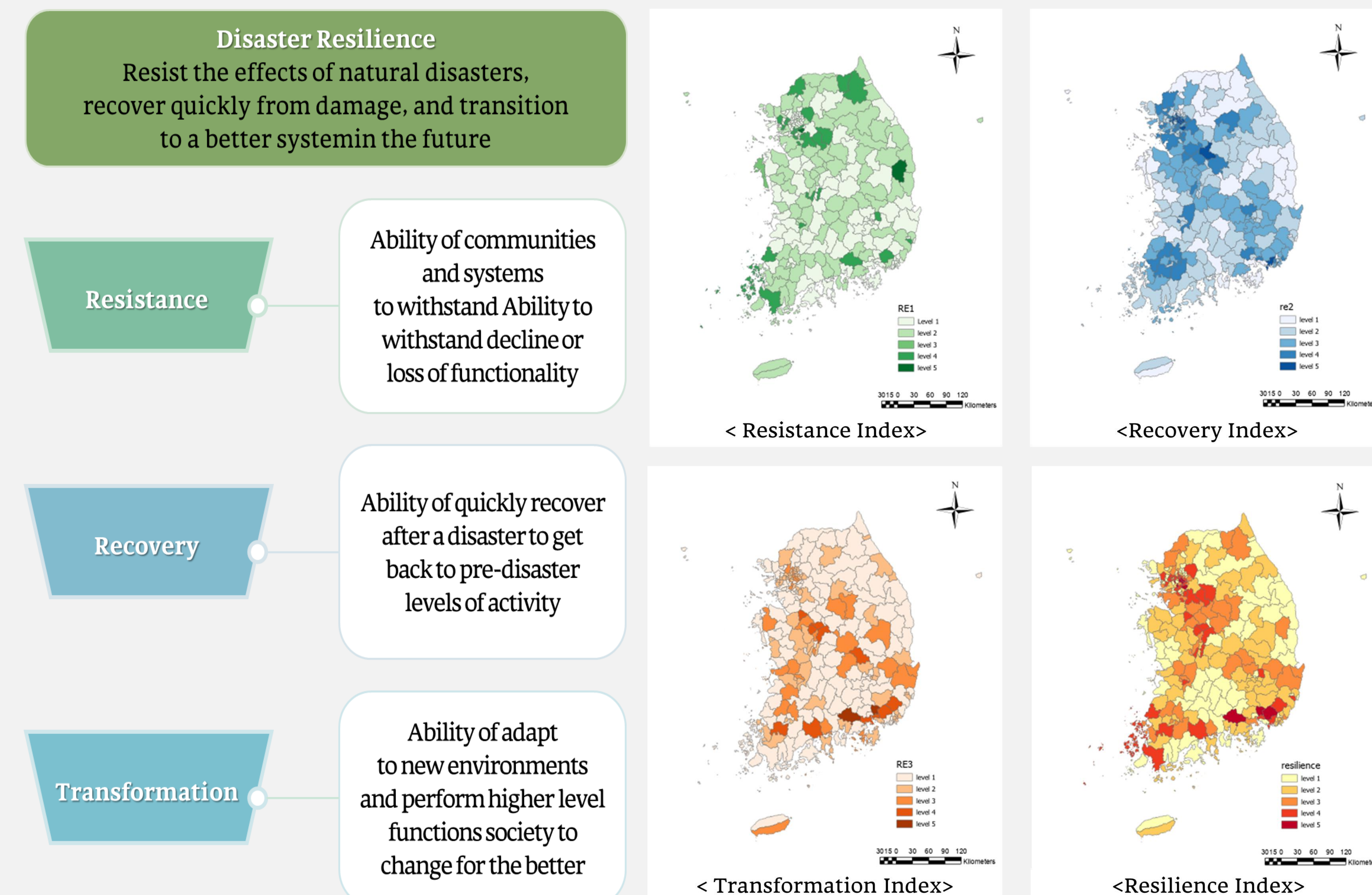


Result

Result 1 : Developing a disaster resilience index

Resistance Index, Recovery Index, Transition Index, and Disaster Resilience Index all show that there are very few Level 5 regions, which are the most resilient, and the country's resilience level is low.

Recovery Index shows the smallest regional disparity, while the Transition Index shows the largest regional disparity, indicating large regional differences in transition resilience.



Result 2 : The Impact of Disaster Resilience and Disaster Perception on Life-Satisfaction

For personal characteristics, gender, age, income, Home ownership, and subjective hierarchy are influential

For social capital characteristics, trust for general, trust for central government, trust for local government, Donation, volunteering, and pride of place are influential.

For disaster perception, the level of natural disaster perception is influential.
[Life satisfaction is higher when people feel safe from natural disasters such as typhoons and earthquakes in their ward or county.](#)

For the disaster resilience trait, the disaster resilience index affects life satisfaction

[The higher the disaster resilience of your city or county, the higher your life satisfaction.](#)

Fixed effects		Beta	Standard error	p-value
Independent variable				
Level 1				
	Intercept	-7.327	0.286	<0.001
Individual characteristics	Gender	0.192	0.039	<0.001
	age	0.121	0.014	<0.001
	Income	0.094	0.013	<0.001
	Home ownership	-0.141	0.037	<0.001
	Education level	0.015	0.042	0.730
	Marriage	0.007	0.043	0.878
	Subjective hierarchy	0.103	0.036	0.004
Social capital characteristics	Trust for general	-0.063	0.025	0.012
	Trust for Central government	0.054	0.032	0.091
	Trust for Metropolitan government	0.071	0.046	0.120
	Trust for Local Government	-0.162	0.038	<0.001
	Donations	0.094	0.045	0.038
	Volunteering	0.165	0.072	0.022
	Pride of place	0.062	0.022	0.004
Disaster perception characteristics	Disaster perception	-0.034	0.019	0.067
Level 2				
	Disaster resilience	4.859	0.019	0
Random effects	Standard deviation	Dispersion	freedom	p-value
Level 2	0.3	0.048	14.000	<0.001
Reliability	0.95			

Conclusion

A multilevel analysis was conducted to examine the relationship between local citizens' life satisfaction and disaster resilience in Busan Metropolitan City, Korea,

[disaster resilience affects individual life satisfaction: the more resilient a community is, the more satisfied individuals are with their lives](#)

[in addition, an individual's perception of disaster affects life satisfaction, with those who feel safe from natural disasters reporting higher life satisfaction than those who do not.](#)