

UNBREAKABLE

» Building the Resilience of the Poor in the Face of Natural Disasters



GFDRR

Global Facility for Disaster Reduction and Recovery



WORLD BANK GROUP

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ESSENTIAL QUESTIONS

1. How do we measure the costs of disasters?
 - Value of destruction would suffice, if we could immediately restore everything that was lost.
 - What costs emerge when recovery takes time?
2. How can we reduce the costs of disasters?
 - Not just property, but also livelihoods are affected.
 - How to protect those who had little to begin with, as well as those who lose a lot?
3. How do we build resilience to disasters?
 - How can we ease & speed recovery, when disasters cannot be prevented?

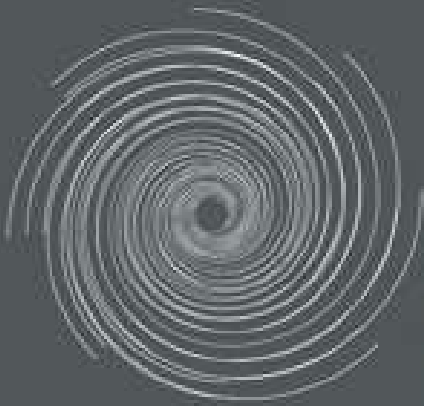
How do we measure the costs of disasters?

Traditional risk assessments focus on asset losses

What types of events can occur?
What types of assets are exposed?
What happens when they interact?

ASSET LOSSES

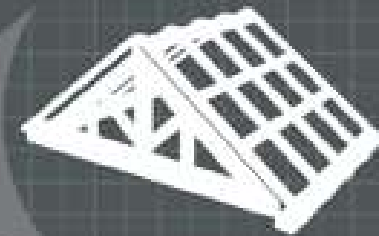
1. Hazard



2. Exposure



3. Vulnerability

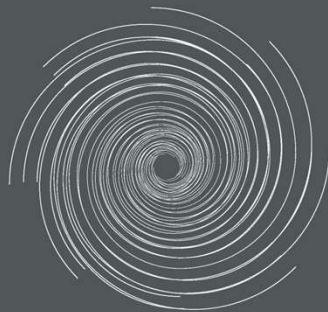


How do we measure the costs of disasters?

We should also consider who is affected, and their **resilience**—that is, their capacity to cope with and recover from the shock

ASSET LOSSES

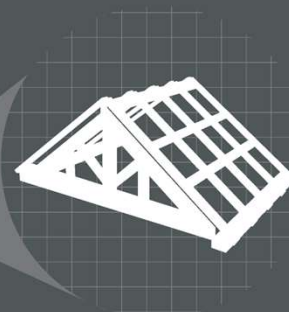
1. Hazard



2. Exposure



3. Vulnerability



WELL-BEING LOSSES

1. Hazard

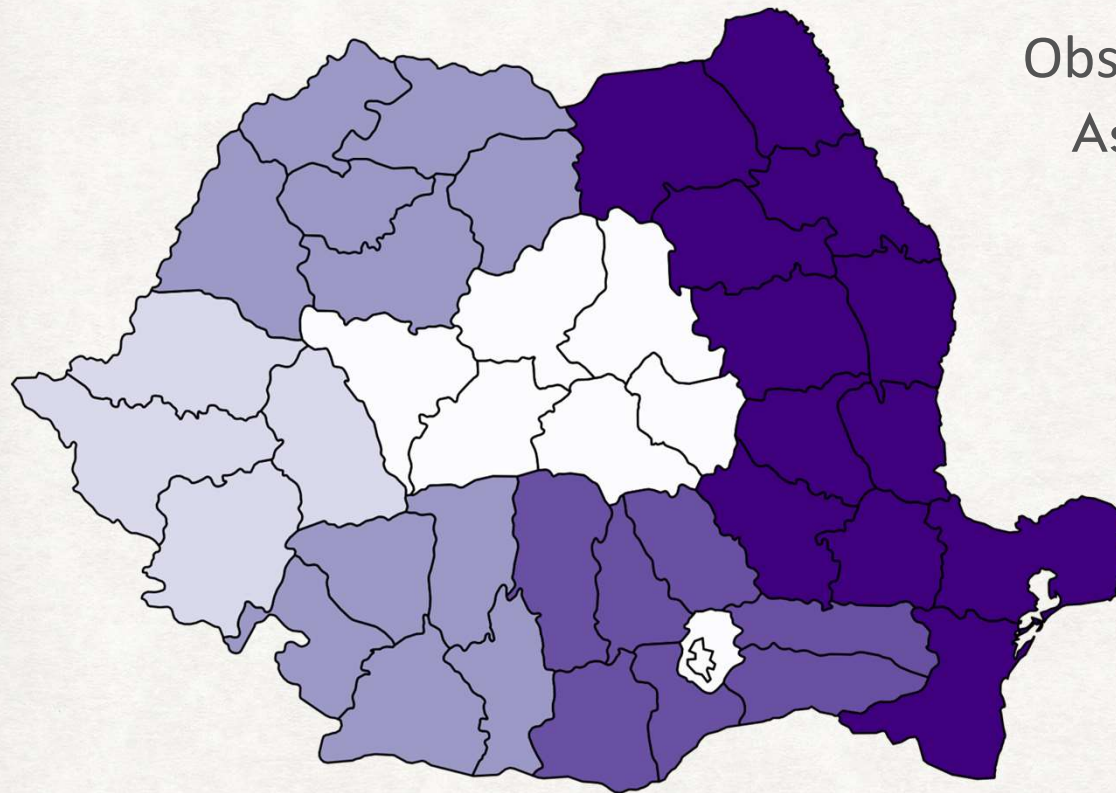
2. Exposure

3. Vulnerability

4. **Socioeconomic
resilience**



How do we measure the costs of disasters?



<1 year

>3 years

Average recovery time from major earthquake

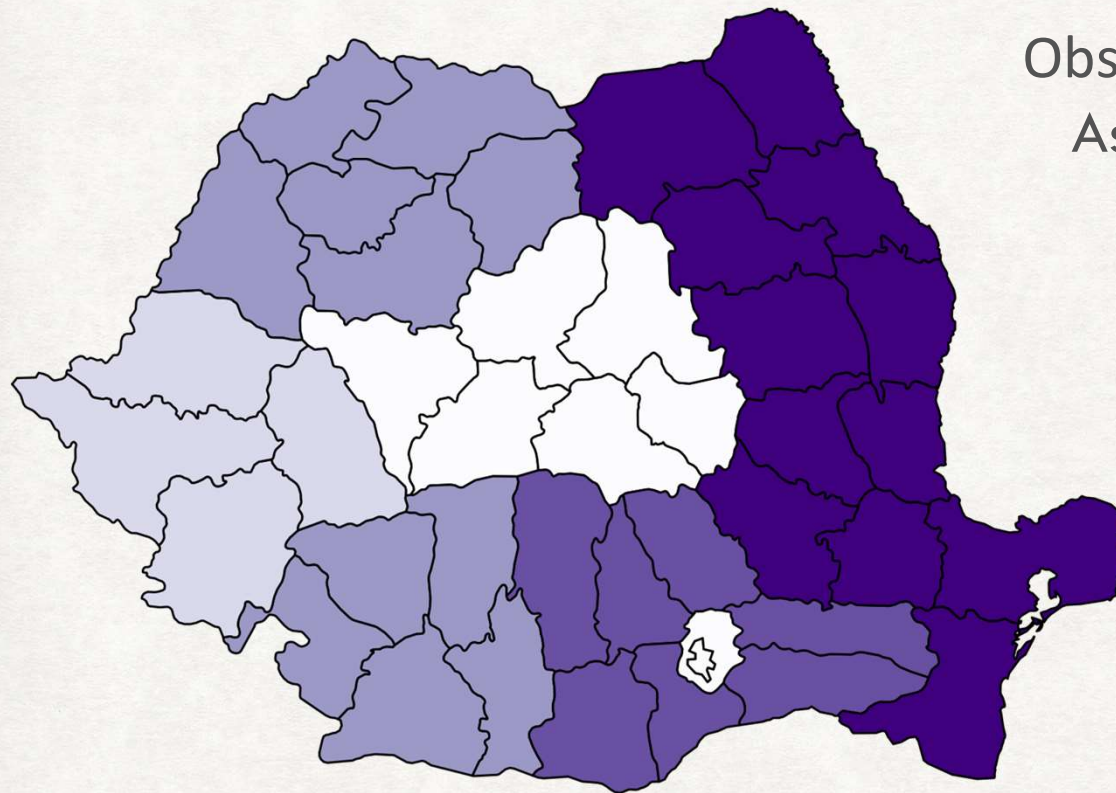
Observation:

Asset losses do not describe the severity of disasters at the household level.

Map:

recovery times vary by region, and are not predicted by asset losses.

How do we measure the costs of disasters?



<1 year

>3 years

Average recovery time from major earthquake

Observation:

Asset losses do not describe the severity of disasters at the household level.

Conclusion:

Asset losses do not predict the duration of households' recoveries, nor their longterm consequences.

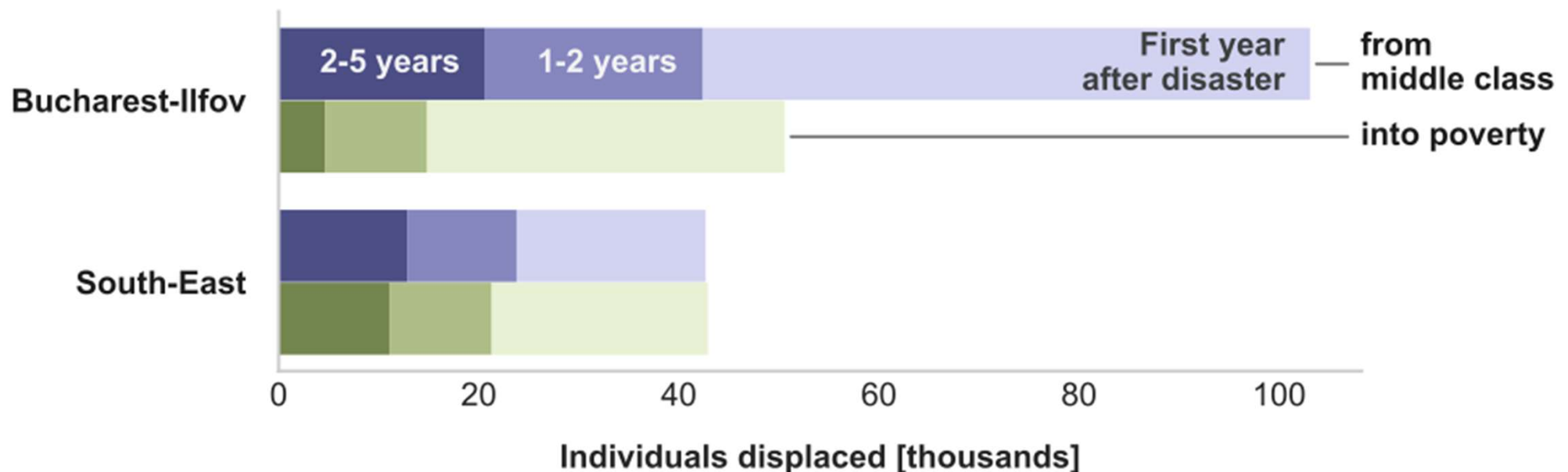
How can we reduce the costs of disasters?

Observation:

Major events push large numbers into poverty, or out of the middle class, with macroeconomic consequences.

Below:

When disasters occur, people lose their livelihoods. Many fall out of the middle class, or into poverty, for some time.



How can we reduce the costs of disasters?

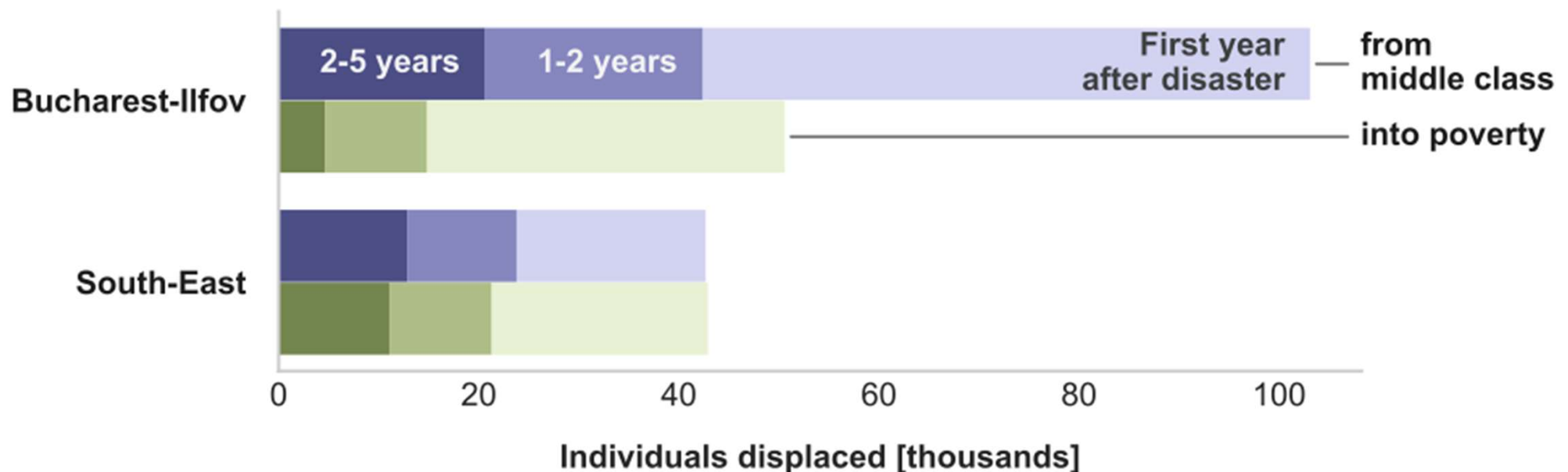
Observation:

Major events push large numbers into poverty, or out of the middle class, with macroeconomic consequences.

Conclusion:

Investments in resilience can reduce hidden disaster costs by accelerating recoveries.

Risk management helps fight poverty, and grow the middle class.



How can we build resilience?

Observation:

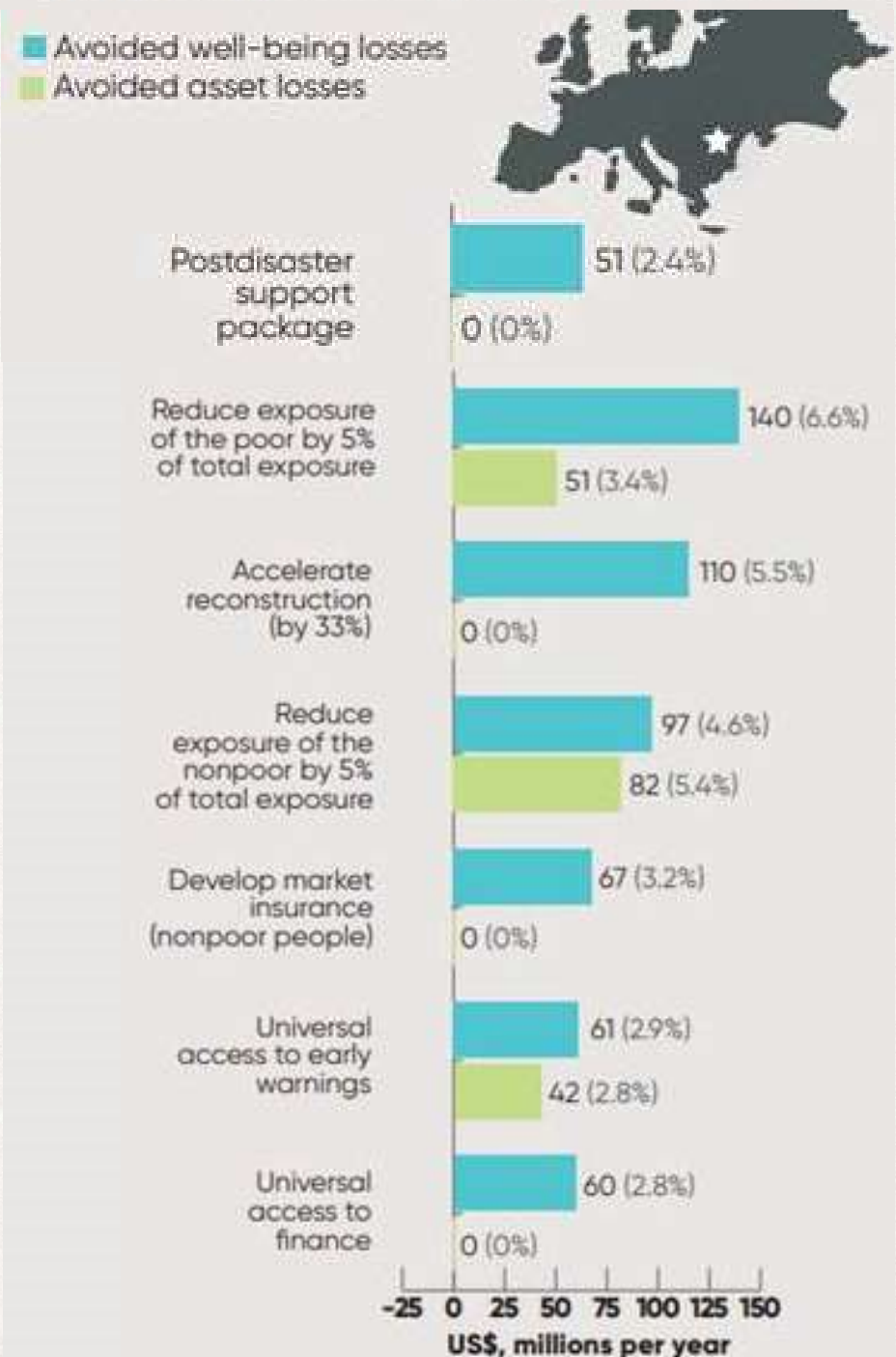
Even in the most advanced systems, disasters still occur.

Cost-benefit analytics (right):

There are many options for reducing disaster costs, including tools that do not mitigate asset losses.

Preparedness and existing social programs can reduce the costs of these events, and cheaply.

EFFECTS OF POLICY OPTIONS—US\$ MILLION PER YEAR (% of current losses)



CONCLUSIONS

1. We have the data & research to know not just what is lost, but who is affected, and how to help them.
2. Disasters have longterm costs when they trap large groups in poverty & erode the middle class. Conversely, poverty & exclusion make disasters more likely to occur.
3. DRM includes both avoiding disasters, and building resilience when disasters cannot be prevented.