

ECA Housing: **On Shaky Ground?**



Romania



Bulgaria



Georgia



Azerbaijan



Ashna Mathema

World Bank

UNDERSTANDING RISK Conference | Belgrade | September 19, 2018

Context

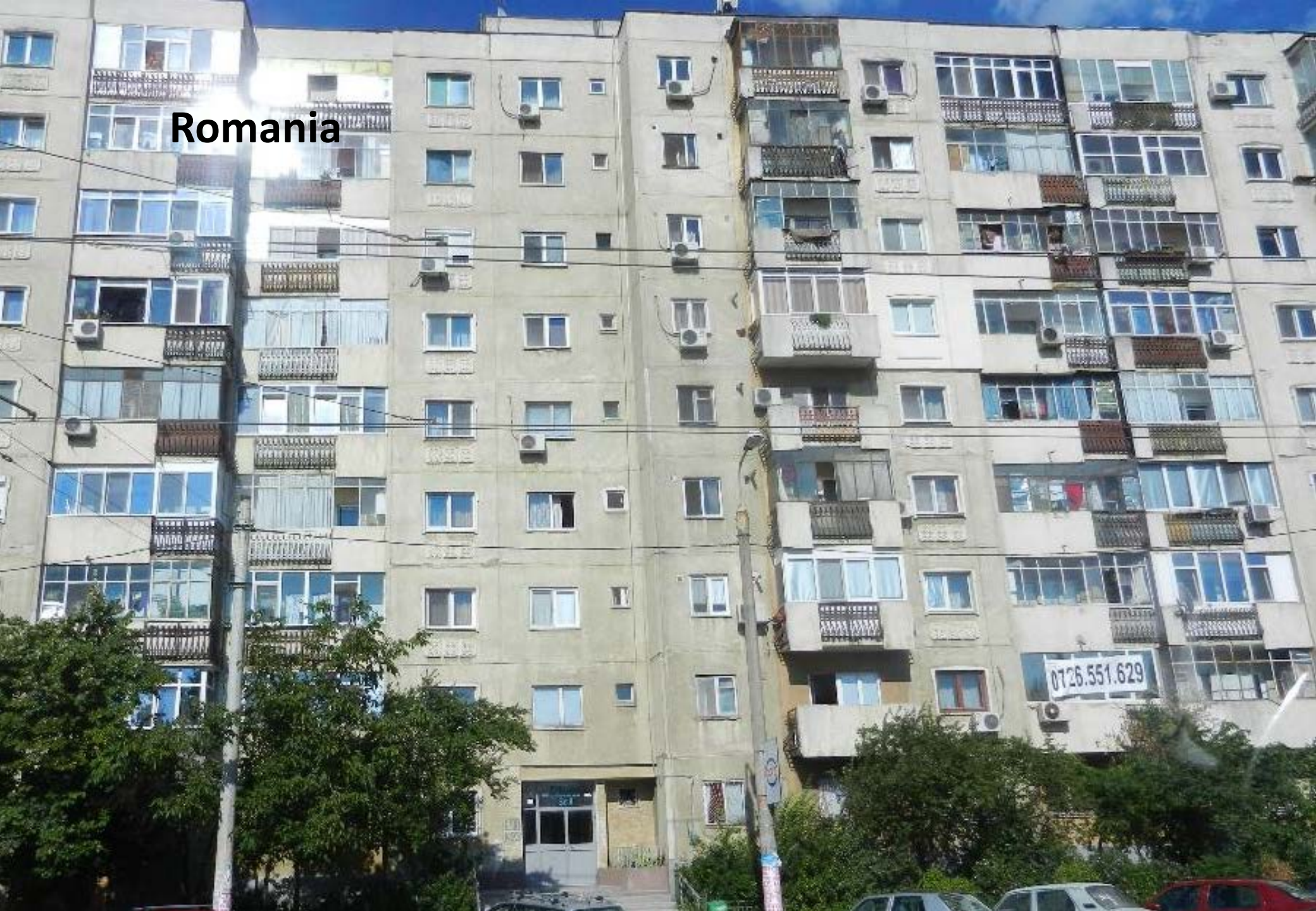
Housing challenges in ECA similar to other regions of the world.....

- High incidence of **poverty**
- **Distorted housing markets:** lack of affordability, increasing informality/ illegality
- Severe impact of 2008 **Financial Crisis**
 - Collapse of construction industry; slow recovery of real estate markets

...but also exacerbated by distinct peculiarities:

- **Old (ageing) populations**
- **Population decline and population shifts**
 - Movement to cities, and depopulation in rural areas/ small towns
 - Youth unemployment – emigration
- Large number of pre-1990s **multifamily buildings past their “design lifespan”**, that could be potentially vulnerable to earthquakes... **but the extent of the risk is UNKNOWN**

Romania



Romania





Georgia

Georgia





Bulgaria



Azerbaijan



Old housing stock

Age not a problem per se, but rather **the inadequate management and maintenance of multifamily buildings**

- Nationalization and mass privatization: **Rights without responsibilities**
- **Culture of dependency** (e.g. Zheks in AZ)
- **Weak HOAs:** Lack of technical capacity, no capital reserves, low contributions
- **Mix of income groups:** affordability issues, difficult to get consensus

Azerbaijan

Common space: ceiling
about stairwell: damp
and moldy



Private space inside
apartment dwelling





Building safety: Georgia

Apartment Building Extensions (ABEs)

- Since 1980s, adjustments to size and function of dwelling units
- **Legal until 1991**, executed by state building companies
- Post 1991: **chaotic unregulated mass phenomenon** (const. by unskilled labor)
- Sometimes upto 60% of original DU size: **structurally unsafe, seismic risk**

Georgia



Building safety: Romania

Bucharest used to be called the Small Paris....



Building safety: Romania

Bucharest used to be called the Small Paris....

March 1977: 7.2 Richter scale earthquake killed 1,500 people, injured over 11,300, and destroyed over 35,000 houses and 33 large apartment buildings.

Most of the damage was suffered by Bucharest, including in the Old Town.



Source: <https://accessromaniaonline.wordpress.com/tag/earthquake/>

Building safety: Romania

Today, tens of thousands of buildings are at seismic risk, and most of them are occupied.



Romania

Red dot buildings: Seismic risk



Building safety: Romania

Today, tens of thousands of buildings are at seismic risk, and most of them are occupied.

- Over 10,000 housing units in Romania categorized as Class I seismic risk (“red dot”); >60% of Class I risk buildings are in Bucharest
- 2500 housing blocks in Bucharest categorized as Class I-III seismic risk
- No comprehensive up-to-date inventory
- Since the 1977 earthquake, only 41 blocks in Bucharest have been retrofitted

Building safety: Bulgaria

- Some 13,000 “panel” buildings, with 2 million inhabitants
- On-going WB study to quality risk and vulnerability in panel buildings



Seismic risk in old multifamily buildings is a complex problem at many levels....

- ❑ **Large volume of old multifamily buildings**
 - **Romania:** > 55% of housing stock older than 50 years
 - **Bulgaria:** ~ 75% of apartments in buildings older than 30 years
 - **Azerbaijan:** > 80% residential buildings older than 40-50 years
 - **Georgia:** ~ 35% of the housing stock older than 50 years
- ❑ **Complexity of technical skills required, and high cost of retrofitting**
- ❑ **Difficulty in getting agreement**
 - ***“Tragedy of the Uncommons”*:** Underutilization and under-maintenance
- ❑ **Intrusive and ‘disruptive’ process**
 - Requires technical review of interiors, construction works inside; transitional shelter/ resettlement
- ❑ **Inadequate legal framework**
 - Difficult to get people to vacate

Seismic risk in old multifamily buildings is a complex problem at many levels....

❑ High vacancy rates

Bulgaria - 30% nationwide, 24% in Sofia capital

Azerbaijan - 10-30% in Greater Baku

Romania - ~16%

- Impact on decision-making

❑ Lack of housing choice

- Absence of robust rental markets (formal)
- Lack of affordability
- Massive overcrowding: **The poorest tend to live in the most overcrowded units**

Bulgaria - 45% nationwide; 55% in urban areas

Azerbaijan - 44% in Greater Baku region

Romania - 52% nationwide; **64% among pop. at risk of poverty**

❑ Low penetration of hazard insurance – homeowner or condominium

Seismic risk in old multifamily buildings is a complex problem at many levels....

❑ Limited understanding of underlying risks and no clear path forward

- Limited approaches available to assess vulnerability
- Lack of pragmatic and cost-effective risk mitigation techniques
- Absence of overarching housing policy with a clear path for risk identification, quantification, or mitigation.

❑ Inadequate policy and institutional framework

- Weak institutional capacity – national and local levels
- “Unfunded mandate”...

...but large public investments in EE and “beautification” projects....

Romania Energy Efficiency program



Bulgaria

Energy Efficiency program



Energy Efficiency programs

- ☐ Massive scale; massive investments
- ☐ Practically “free” for all – regardless of income
- ☐ Quality issues/ workmanship – styrofoam (fire hazard?)
- ☐ Little to no consideration of structural issues
- ☐ Technical audit process – not robust enough



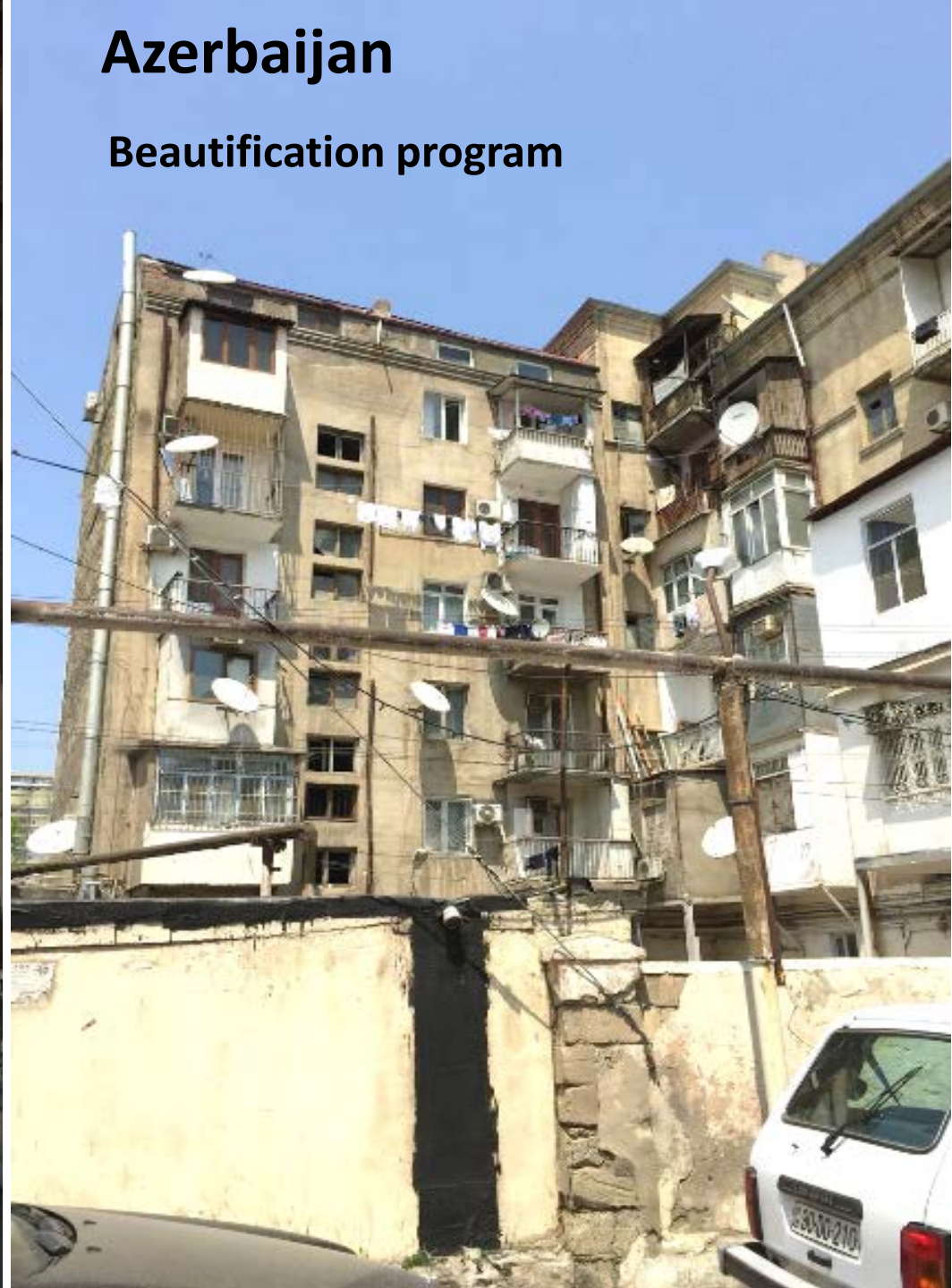
Azerbaijan

Changing the 'image': Façade beautification and urban renewal



Azerbaijan

Beautification program



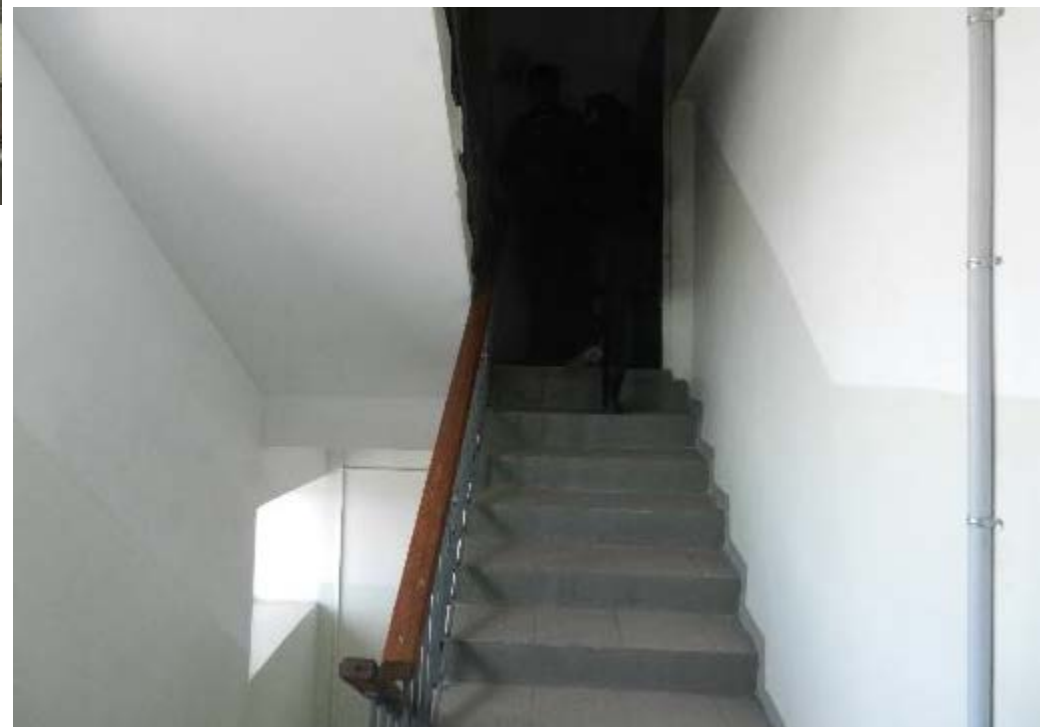
Georgia



Despite poverty, a glowing example...

Tbilisi Corps: Building renovation program

- City Hall offers 50-80% co-funding to HOAs for repairs of roofs, elevators, entrances and staircases, and damages to common spaces in multi-family apartment buildings



Seismic risk in multifamily private housing is a negative externality that will require public sector intervention and assistance.

100TH INCOME PERCENTILE

80TH INCOME PERCENTILE

60TH INCOME PERCENTILE

40TH INCOME PERCENTILE

20TH INCOME PERCENTILE

PRIVATE SECTOR

**PUBLIC-PRIVATE
ASSISTED MARKET
SOLUTIONS TO CREATE
INCENTIVES**

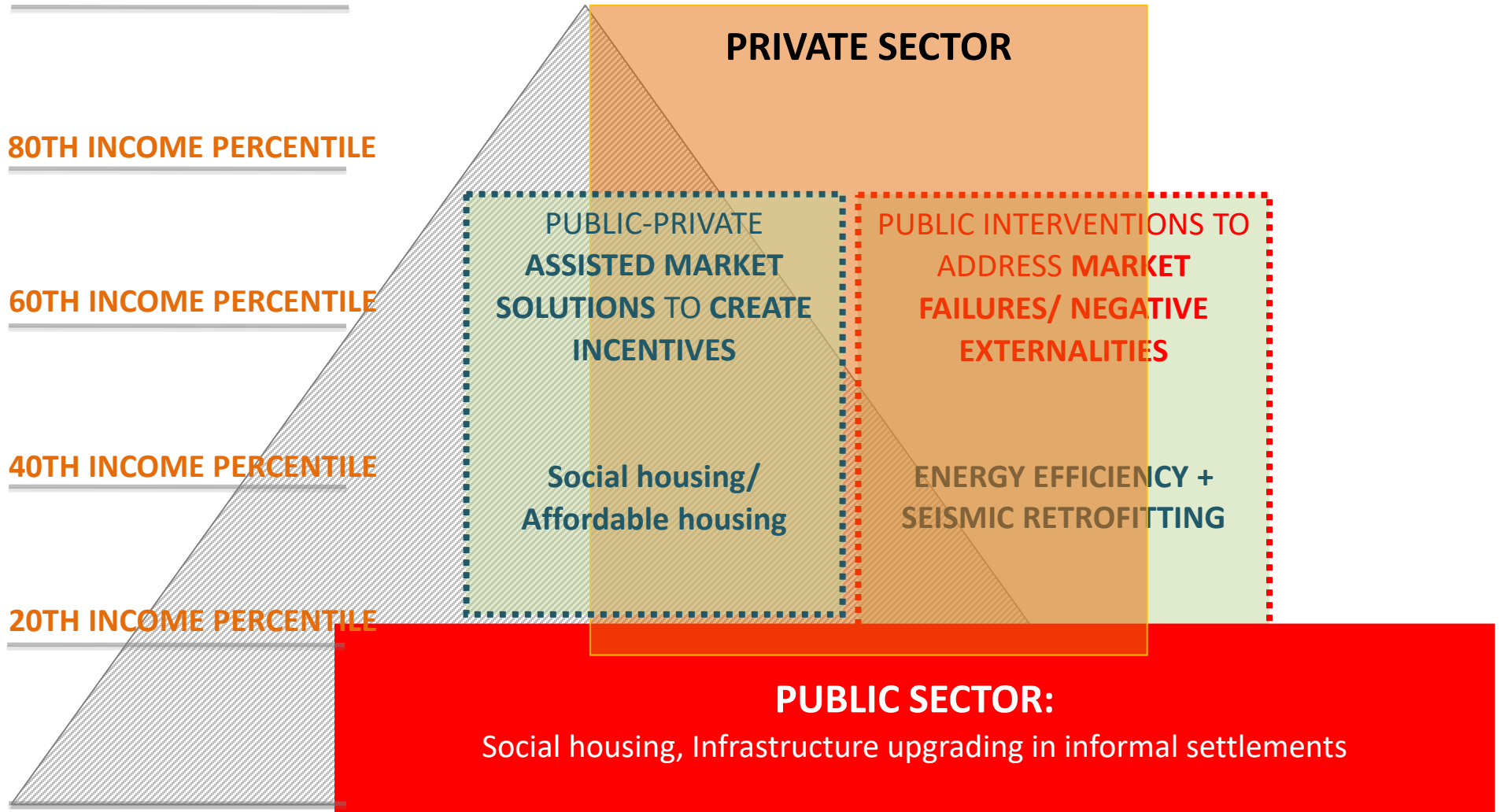
**Social housing/
Affordable housing**

**PUBLIC INTERVENTIONS TO
ADDRESS MARKET
FAILURES/ NEGATIVE
EXTERNALITIES**

**ENERGY EFFICIENCY +
SEISMIC RETROFITTING**

PUBLIC SECTOR:

Social housing, Infrastructure upgrading in informal settlements



Prioritize seismic safety, life safety...

Not only **Engineering** solutions (audit process, code, retrofitting), but also

- **Financial** implications
 - **Social** implications
 - **Policy/ legal** implications
 - **Capacity** issues
 - **Public awareness**
-
- **Quantify and communicate** the potential scale of impact
 - Integrate seismic retrofitting with on-going **energy efficiency investments** – more value for money!
 - Develop **risk reduction strategy** and integrate with housing policy

Need to view disaster risk management as an integral part of the housing agenda, *and vice versa....*

Main insights



Old housing stock

- Undermaintained old multifamily buildings
- **Potential structural safety risks**



Housing for the poor

- Increasing illegal settlements, lack of social housing, discrimination and exclusion
- Untargeted subsidies, inadequate govt. support



Housing market

- High private ownership, absence of a formal rental market, low mobility
- Low affordability, huge vacancies



Policy and Institutions

- Lack of housing policy/ strategy
- Low technical capacity
- Lack of data

Way forward

Policy and institutions

- Develop **housing strategy/ policy**
- Build **institutional capacity** at national and local level
- Data collection and monitoring

Old multifamily housing stock

- Enforce **maintenance and management**
- **Structural safety** and (seismic) risk mitigation:
Integrate seismic safety into massive on-going EE investments

Public assistance and subsidies

- Improve **Social Housing** (public/ private)
- **Legalize 'eligible' informal settlements** and targeted subsidies

Housing market

- Address **rental market** problems
- **"Unlock" vacant housing** units
- Streamline **building permit** process

A photograph of a multi-story residential building, possibly in Japan, with a light blue car parked on a balcony. The building has multiple levels with balconies and windows. The scene is framed by trees with autumn leaves, some of which are in the foreground, partially obscuring the view. The text "T H A N K Y O U" is overlaid in white capital letters across the center of the image.

T H A N K Y O U

On Shaky Ground: Housing in ECA (2018)

<https://blogs.worldbank.org/europeandcentralasia/shaky-ground-housing-europe-and-central-asia>

Bulgaria: Housing Sector Assessment (2017)

<http://documents.worldbank.org/curated/en/776551508491315626/Bulgaria-Housing-sector-assessment-final-report>

A Roof Over Our Heads - Housing in Bulgaria (2017)

<http://documents.worldbank.org/curated/en/702751508505445190/A-roof-over-our-heads-Housing-in-Bulgaria>

Romania: Towards a National Housing Strategy (2016)

<http://documents.worldbank.org/curated/en/552171468585744221/Harmonizing-public-investments-component-4>

Azerbaijan: Greater Baku Housing Diagnostic (2016)

https://collaboration.worldbank.org/content/usergenerated/asi/cloud/attachments/sites/collaboration-for-development/en/groups/research-partnership-for-sustainable-urban-development/groups/other-analytic-work/documents/jcr:content/content/primary/blog/great_baku_housings-uzpF/Great-Baku-Housing-Sector-Diagnostic-English-...pdf

Georgia Urban Strategy: Housing (2015)

<http://documents.worldbank.org/curated/en/422631533128729643/Georgia-Urban-strategy-priority-area-three-housing>