

DISPLACEMENT, HOUSING, AND RECOVERY AFTER THE 2023 KAHRAMANMARAS EARTHQUAKES

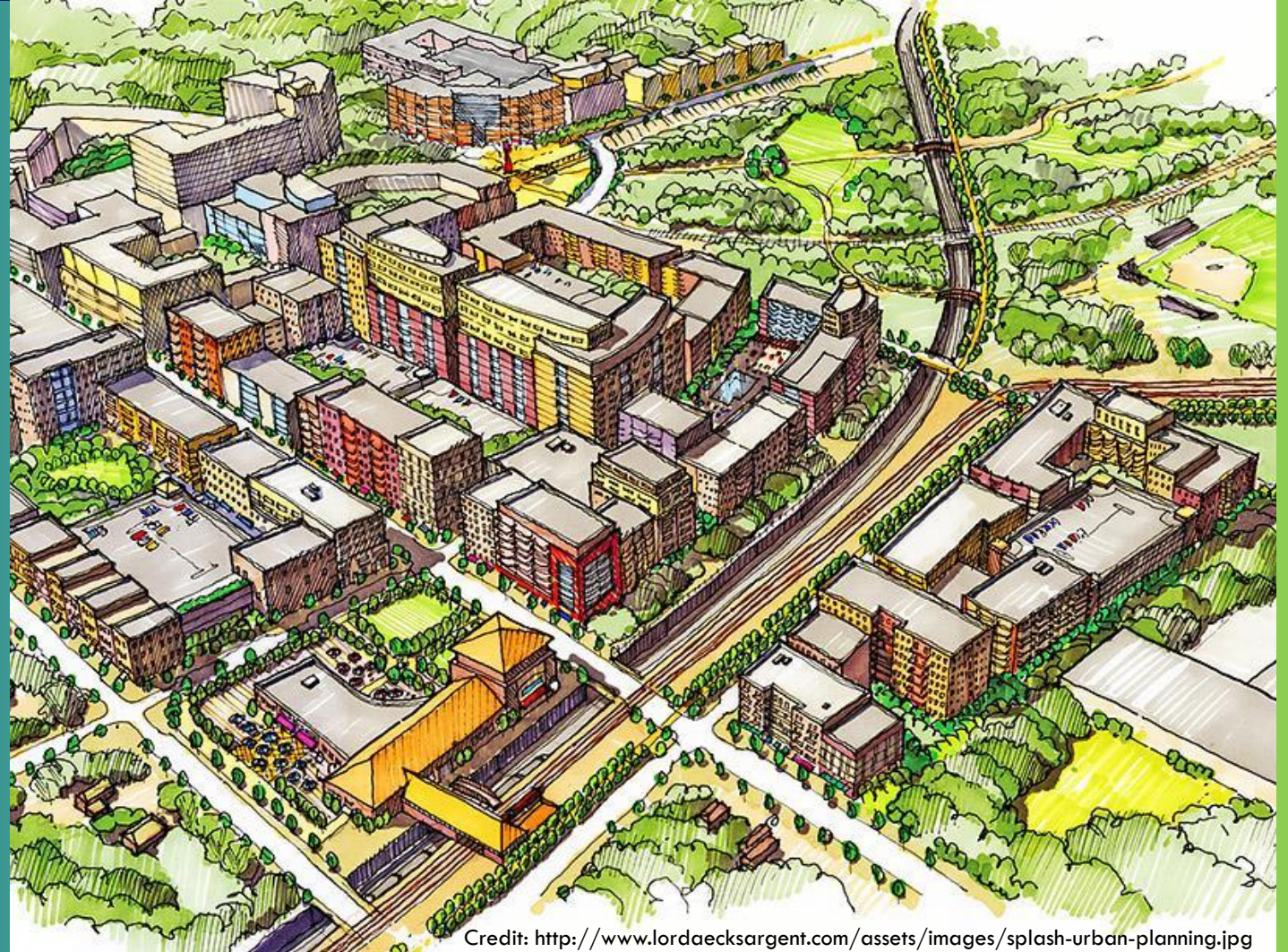
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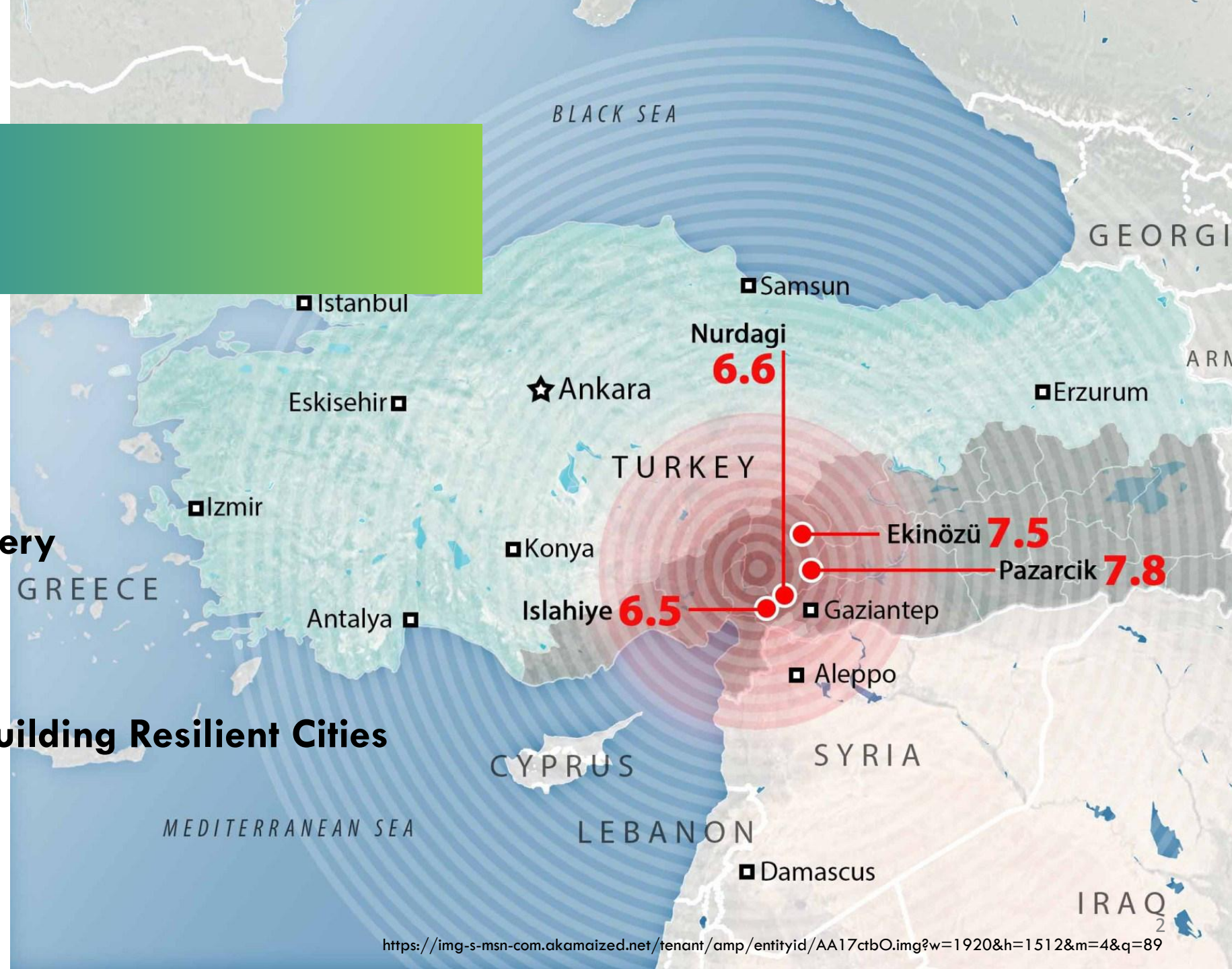
**** Gazi University, Ankara, Turkey**



Credit: <http://www.lordaecksargent.com/assets/images/splash-urban-planning.jpg>

AGENDA

- **The Impact**
- **Research Methods**
- **Post-Disaster Recovery**
 - The Upsides**
 - The Challenges**
- **Moving Forward: Building Resilient Cities**





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(Population of Arkansas)

ainer Cities



RESEARCH METHODS

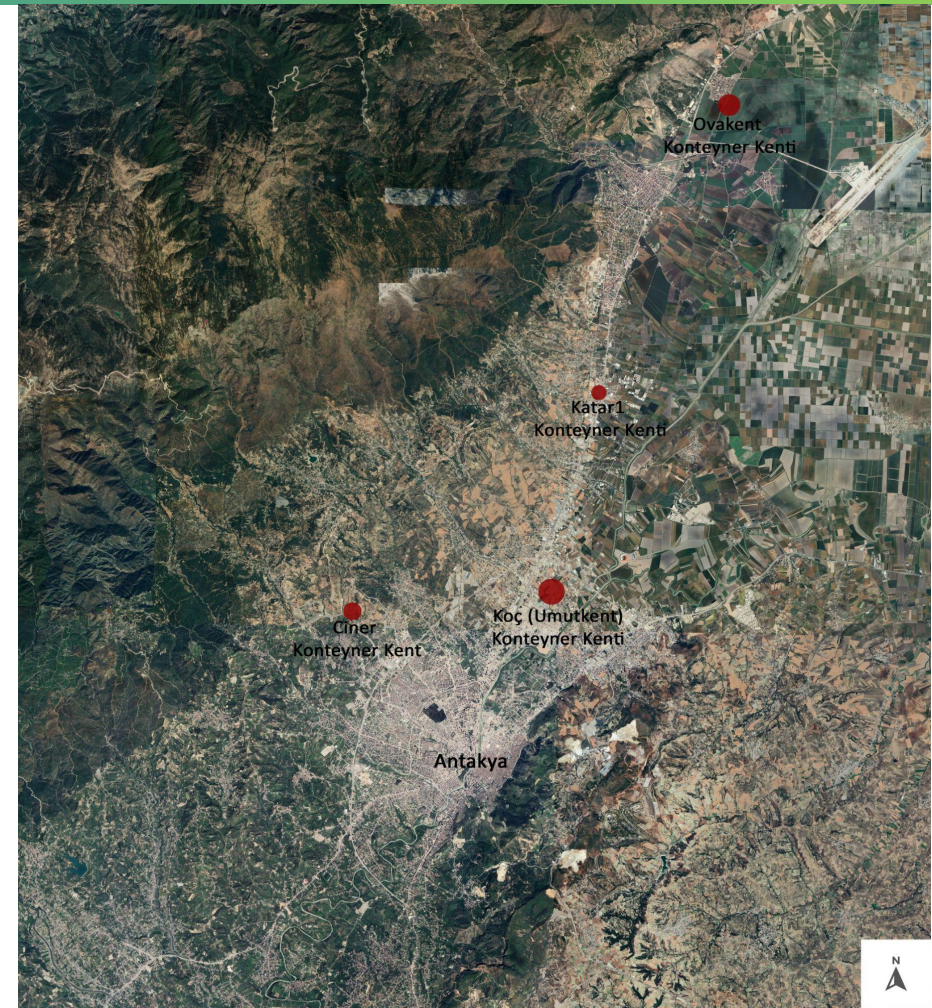
- **Hatay**
 - Highest Death Toll in Turkey
 - ~ 188,000 in Container Cities (Nov. 2023)
- **Fieldwork in Antakya/Hatay**
 - August-September 2023
 - 4 Temporary Housing Areas
 - Selected Collaboratively with the Governor's Office



AREAS SELECTED

- **Criteria for Selection**

- Temporary Sheltering area
 - Size (1.77 to 12.11 hectares)
 - Design and Planning Principles of the area (e.g., facilities, clustering of housing units)
- Shelter
 - Type of shelter (e.g., containers & prefabricated housing)
 - Size of shelter (e.g., 18 to 71 square meters)
 - Design of shelter (e.g., no room/partition to 2-3 bedrooms)
- Socio-economic characteristics of displaced populations
 - Turks (Alevi and Sunni), Syrians, Uzbek Afghans, Kurbats (local gypsy population)





AREAS SELECTED

Ciner 1 (60 units) & Ciner 2 (39 units)

PREFABRICATED HOUSING—largest ones (71 sq meters)
with 2-3 bedrooms

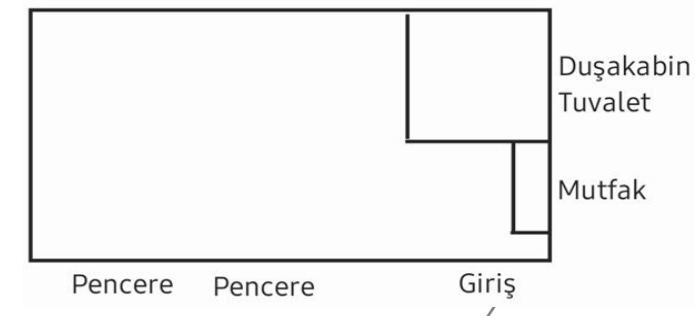


AREAS SELECTED

Qatar (616 units)

CONTAINERS—18 square
meters, no separate room

RESEARCH METHODS



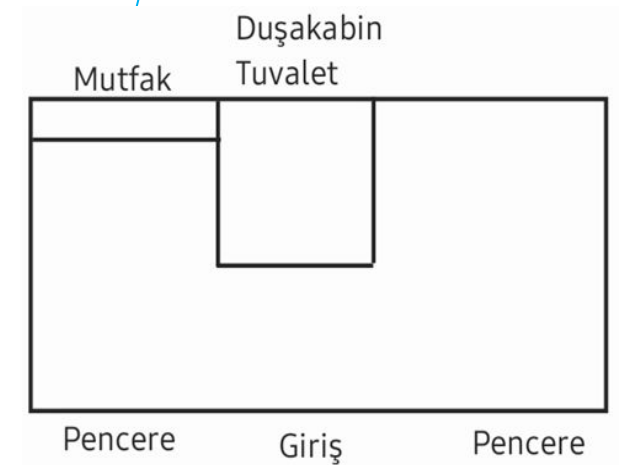


AREAS SELECTED

Koc Umutkent (527 units)

CONTAINERS—18 square meters, no separate room

RESEARCH METHODS

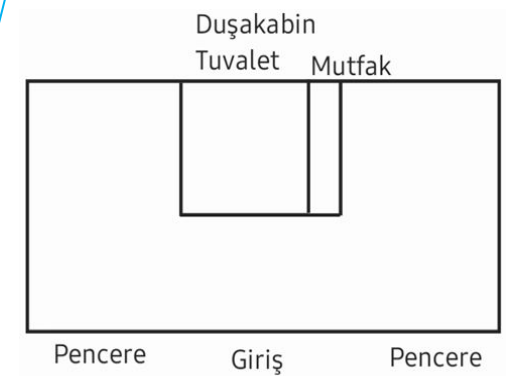




AREAS SELECTED

Ovakent (499 units)

CONTAINERS—21 square meters, , no separate room



DATA COLLECTION METHODS

• Observation

- Unstructured (n=4, one in each area)
 - To decide how, where and what time to conduct the structured observation
- Structured (n=16 total, 4 in each area)
 - Used 4 Rubrics Developed for the Housing Units, Blocs, Neighborhoods, Temporary Housing Areas
 - 9-10am in the morning, 5-6pm in the evening
 - One weekday and one weekend
 - 15-30 min

Sample Rubric

1	Alanın Niteliği	Çadır	Konteyner	Karma		
2	Erişilebilirlik (Kent içi)	Düşük	Orta	İyi	Yüksek	
	Erişilebilirlik (Barınma alanı içi)	Düşük	Orta	İyi	Yüksek	
3	Anayol eksenlerinde ulaşım bağlantıları	Var	Az	Orta	İyi	Yüksek
		Yok				

DATA COLLECTION METHODS

- **Interviews (n=91 in total)**
 - Displaced Populations (n=62)
 - Administrators & Service Providers (n=29)

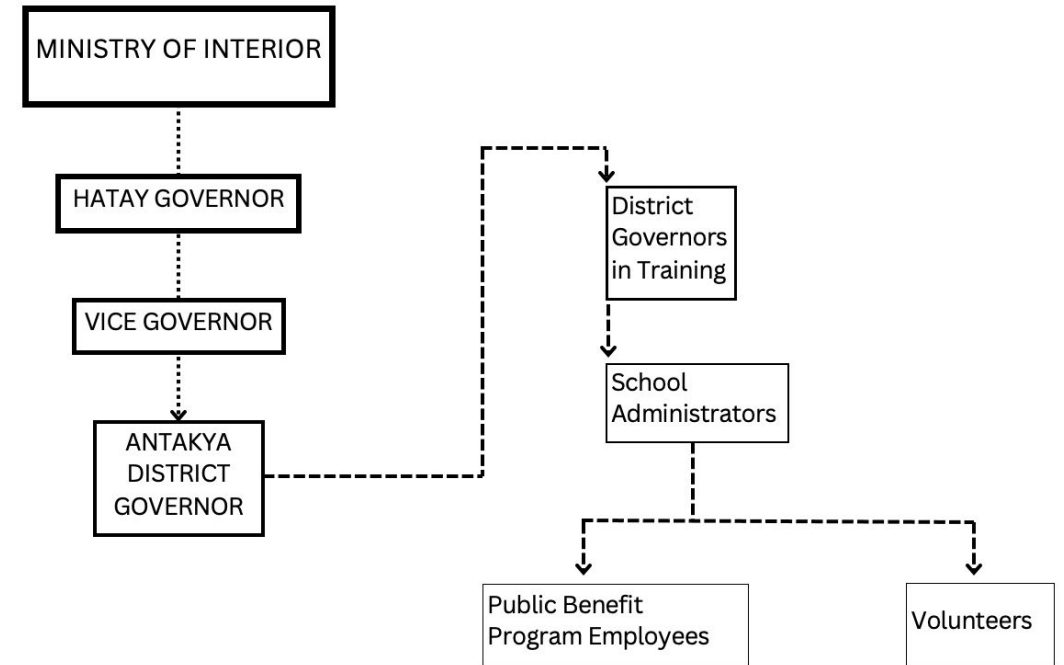
A photograph showing several hands working on a model city built with colorful wooden blocks (red, orange, yellow, green, blue, grey) on a white surface. The blocks are arranged in various shapes, including rectangular buildings and a central area with a blue square. Some blocks are being placed or moved by the hands. In the foreground, there are clear plastic storage bins containing more blocks. The background is slightly blurred, showing more hands and blocks.

POST-DISASTER RECOVERY: THE UPSIDES

- **Rather quick planning and construction of temporary shelter areas on public land**
 - Protection from weather
 - Most areas studied are suitable for expansion (except Ciner 1)
 - Psychological safety in temporary housing

POST-DISASTER RECOVERY: THE UPSIDES

- **Management of Temporary Sheltering Areas**
 - District Governors in Training (up to 6 areas)
 - Management Offices At the Entrance
 - School Administrators (Principals and Assistant Principals) Managing Each Area
 - Public Assistance Project Employees (Affected populations)



POST-DISASTER RECOVERY: THE UPSIDES

- **User Customization**



POST-DISASTER RECOVERY: THE CHALLENGES

- **Remote locations with limited public transportation access**

- Long distance to bus stops (e.g., need to walk for 20 minutes)
- Unreliability of bus service (e.g., waiting for 2 hours at times)

If you don't have a car, you don't have a life.

A female participant in her 30s from Koç temporary housing area

**TEMPORARY
SHELTERING
AREAS**

POST-DISASTER RECOVERY: THE CHALLENGES

- **Flooding Risk**
 - Especially in areas with units that are not elevated from the ground
- **Service Disruptions and Deficiencies**
 - Disruptions to water and power
 - Sewer overflows
- **Limited public areas and other facilities (e.g., parking, businesses, and health facilities)**
 - Unmet needs especially for children & the youth in terms of education and internet access
- **Inequalities**
 - In access to housing and other types of aid

**TEMPORARY
SHELTERING
AREAS (cont.)**

POST-DISASTER RECOVERY: THE CHALLENGES

- **Lack of technical expertise to fix the units & their equipment (e.g., AC Units)**
- **Shelter size not compatible with the household size/needs**
- **Cultural suitability of units**
- **Lack of privacy**

Our private life is already nonexistent. My husband stays here with our two sons. I stay here with three little ones. We don't fit into container...Husband and wife become two strangers. This also affects spouses psychologically.

An Uzbek woman in her late 30s from Ovakent temporary housing area

**TEMPORARY
SHELTER
UNITS**

POST-DISASTER RECOVERY: THE CHALLENGES

- **Physical** (e.g., dust and other particles like asbestos in air, scabies) and mental health concerns
- **Vulnerabilities still to be addressed**
 - Women, Youth, Children, Elderly, Disabled Populations
- **Social conflicts**
 - Especially in larger areas accommodating different groups (e.g., Alevi and Sunni Turks, Syrian, Uzbek and Afghan refugees, Kurbats—local gypsy populations)



**DISPLACED
POPULATIONS**

Credit:

<https://i.guim.co.uk/img/static/sys-images/Guardian/Pix/pictures/2015/8/6/1438878499024/3ca8f111-53d0-4155-9afe-031cb7dd060x1226.jpg?width=620°=28&=none>

MOVING FORWARD: BUILDING RESILIENT CITIES

- **Acknowledging the interlinkages between different aspects of recovery**
- **Finding a delicate balance between addressing affected communities' short- and long-term post-disaster needs**
- **Incorporating equity into recovery and actively thinking about it**
- **Addressing the unique needs of vulnerable populations**



Credit: <https://www.myopia.com.sg/2020/08/25/the-perils-of-high-myopia/>

MOVING FORWARD: BUILDING RESILIENT CITIES

- **Rethinking About our Assumptions for Rebuilding**
 - The speed of rebuilding
- **Seeing Beyond the Visible (Physical Rebuilding)**
 - Psychological Recovery
- **Learning from displaced populations' lived experiences in temporary housing areas**
- **Giving Voice to the Public**



MOVING FORWARD: BUILDING RESILIENT CITIES

- **Giving Voice to the Public**

[The government's permanent houses] are generally 4-5 stories high. We cannot live in those buildings. It doesn't suit our culture at all. Even if it's given, it would be abandoned later.

An administrator with Uzbek background



THANK YOU!
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