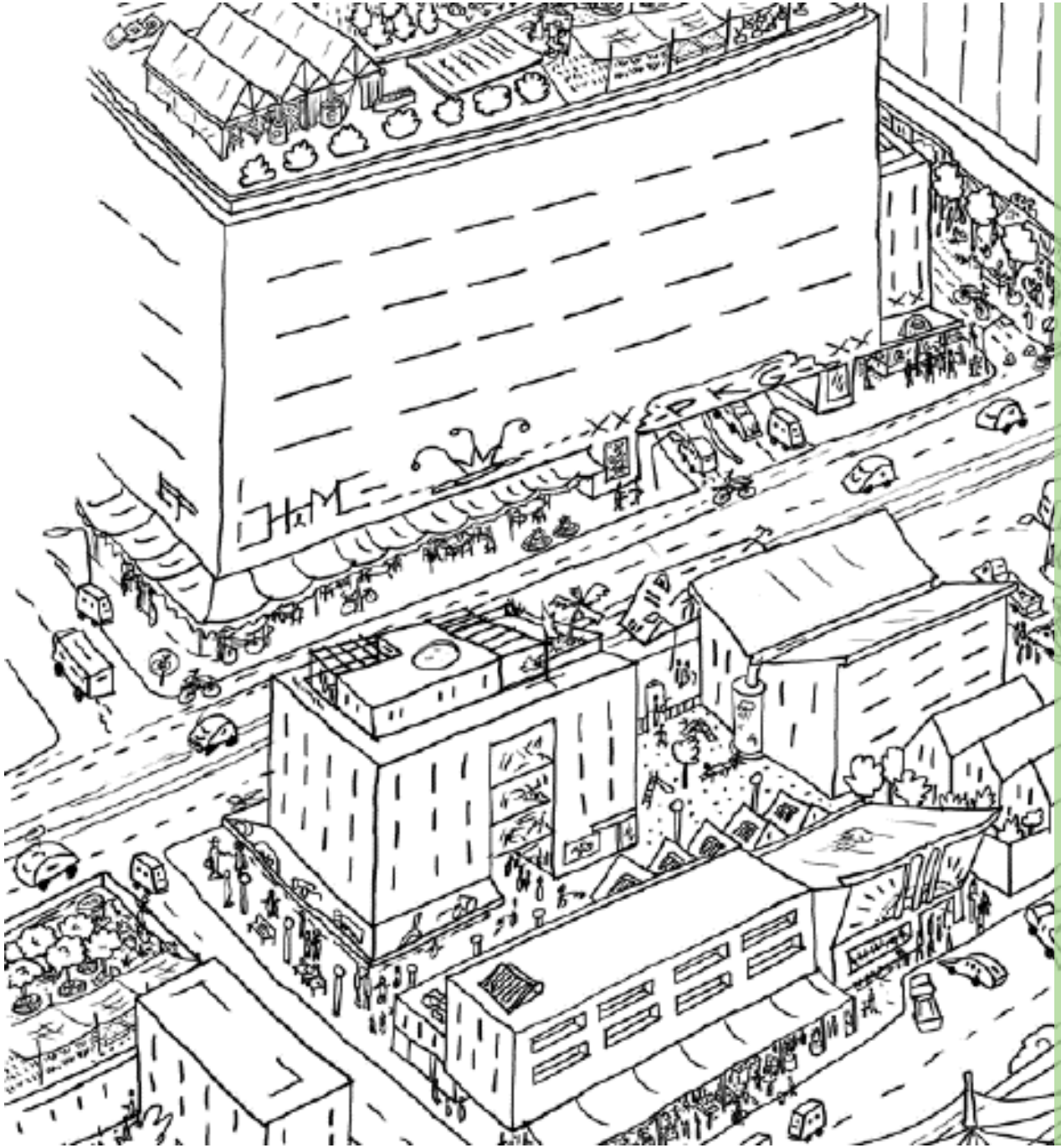
URBAN PLANNING & ENVIRONMENT



Urban patterns and environment have a major influence on livability and sustainability and for this reason urban resilience must be at the centre of planning

URBAN PLANNING AND ENVIRONMENT

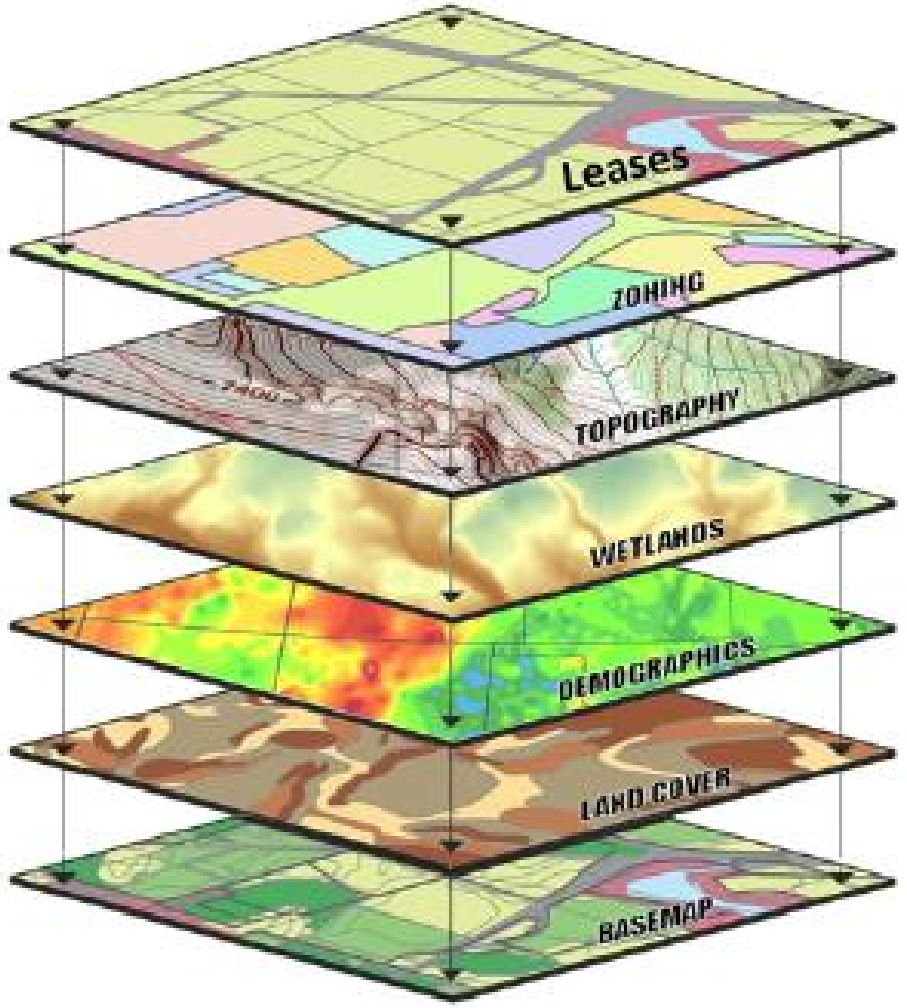
Planning Information System	Urban Planning and Land Management	Building Codes
Public Space	Informal Settlements	Environmental Management

ESTABLISHING PLANNING INFORMATION SYSTEM

Using GIS and data analysis in disaster risk assessment and management **efforts strengthen institutional capacities for spatial planning integrating multi-hazard maps;**

Providing **critical capacity for understanding current and potential future impacts of climate change, guiding resilience planning;**

Understanding **the intersection of natural and socioeconomic systems to plan sustainable, adaptive and resilient development.**

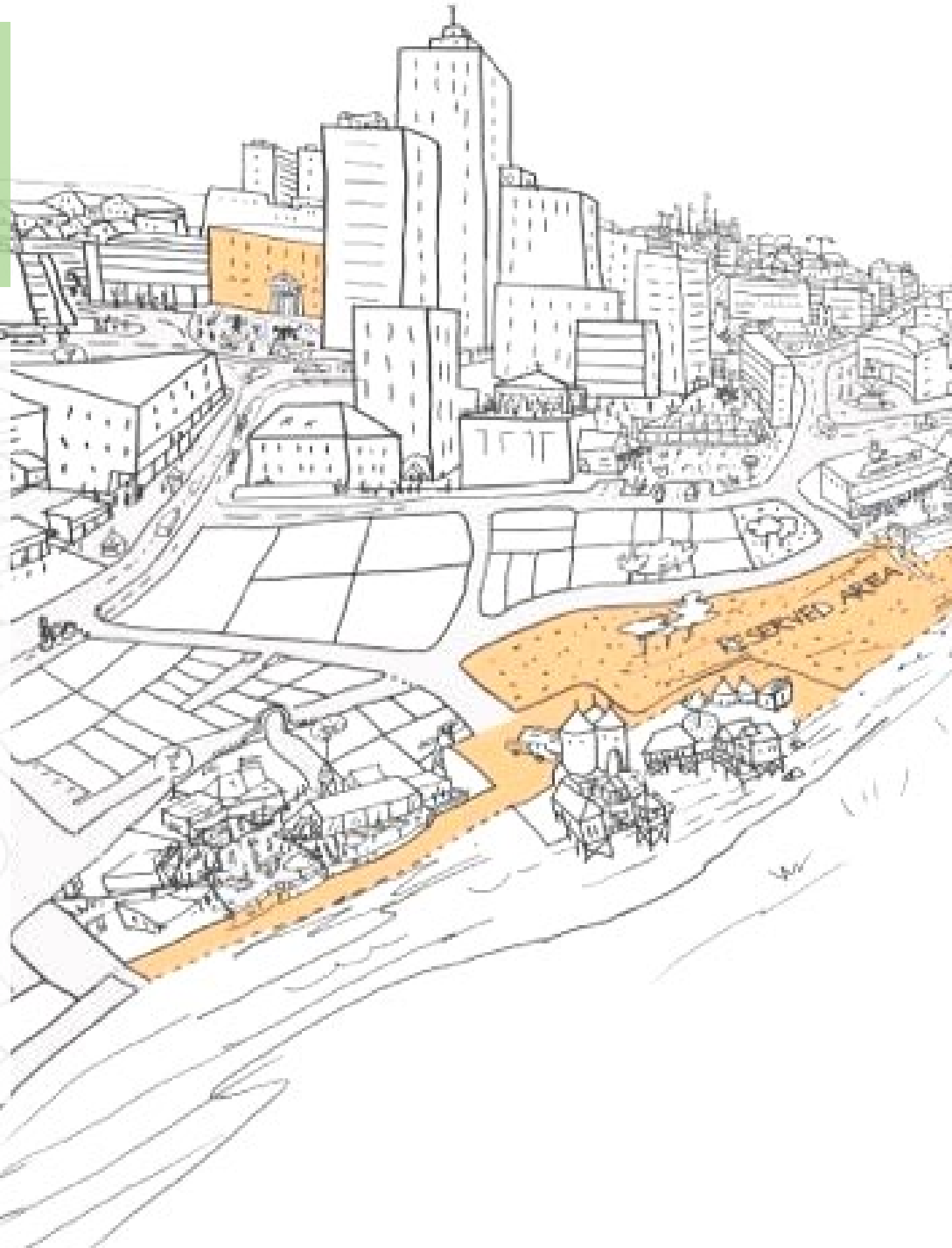


URBAN PLANNING AND LAND MANAGEMENT

The **design of urban patterns** directly affects the liveability, walkability, safety, sociability, environmental impact and productivity of neighbourhoods;

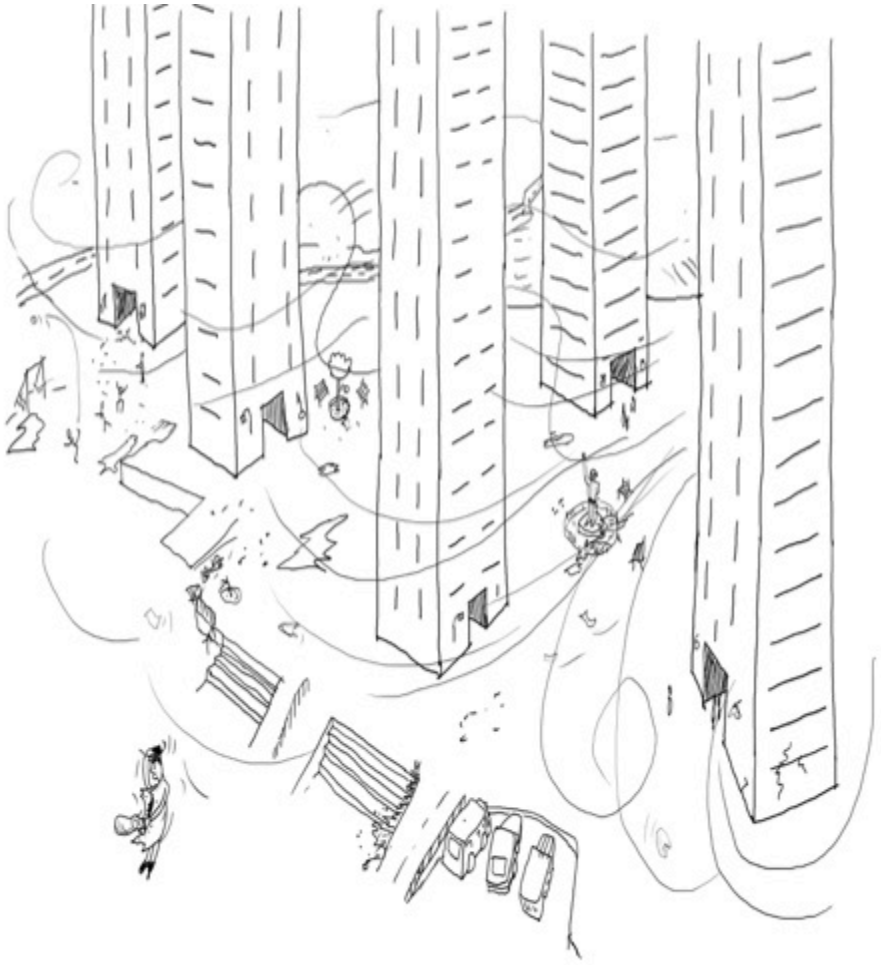
Planning based on **population projections** allows to provide sufficient infrastructure, vitality and affordability for future urban dwellers;

Mitigating disasters and reducing risks by **discouraging settlements and construction in hazard-prone areas** and considering service routes for transport, power, water, sewage and other critical facilities.

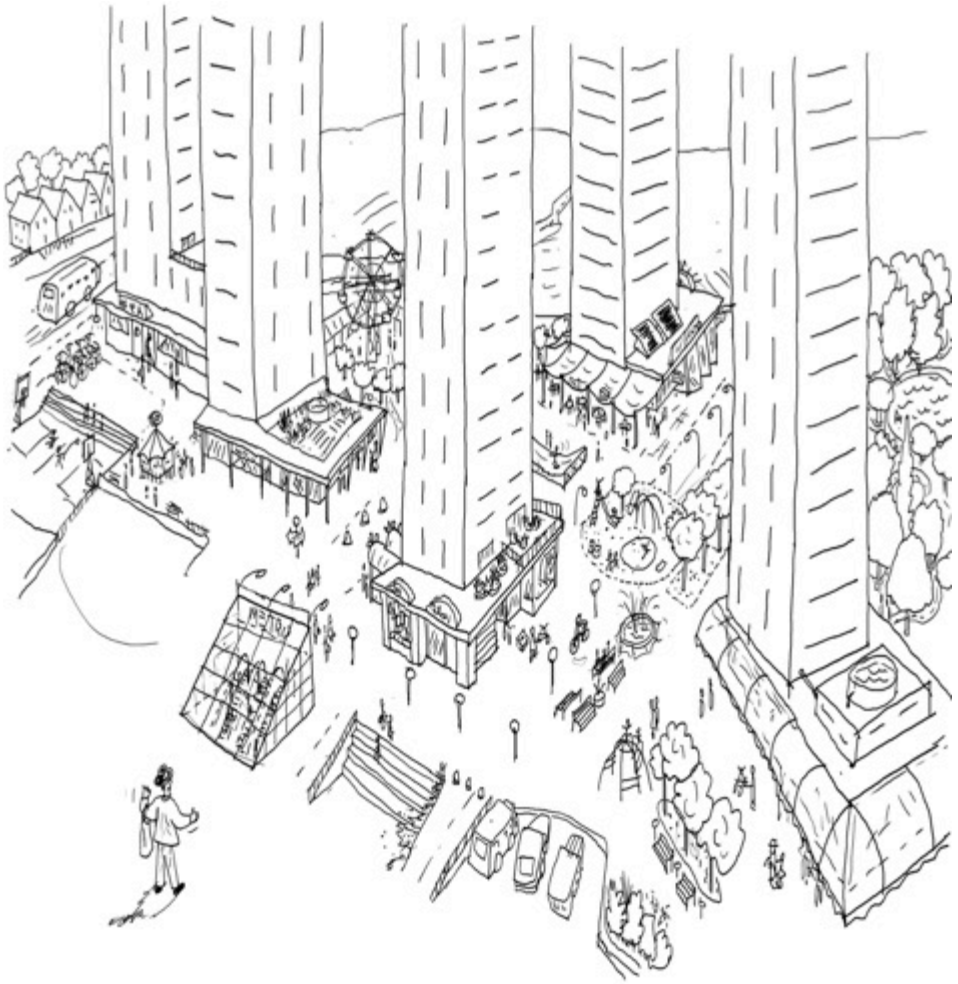


MIXED LAND USE

Density without mixed land use

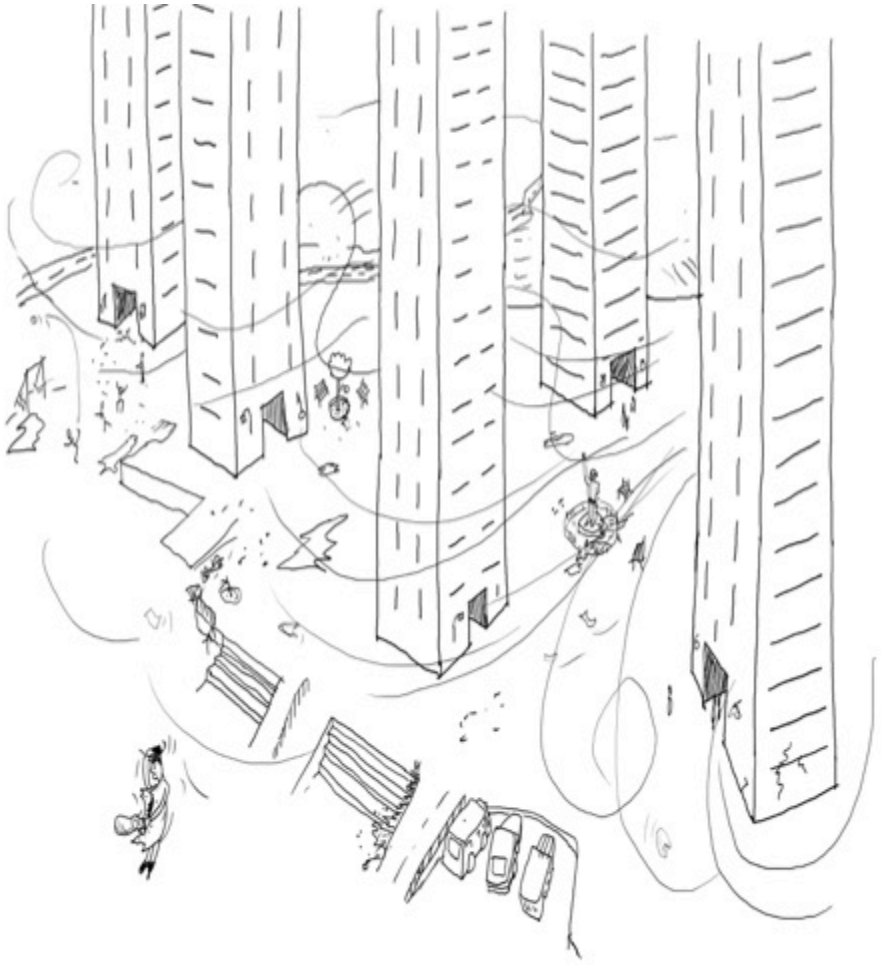


Density with mixed land use

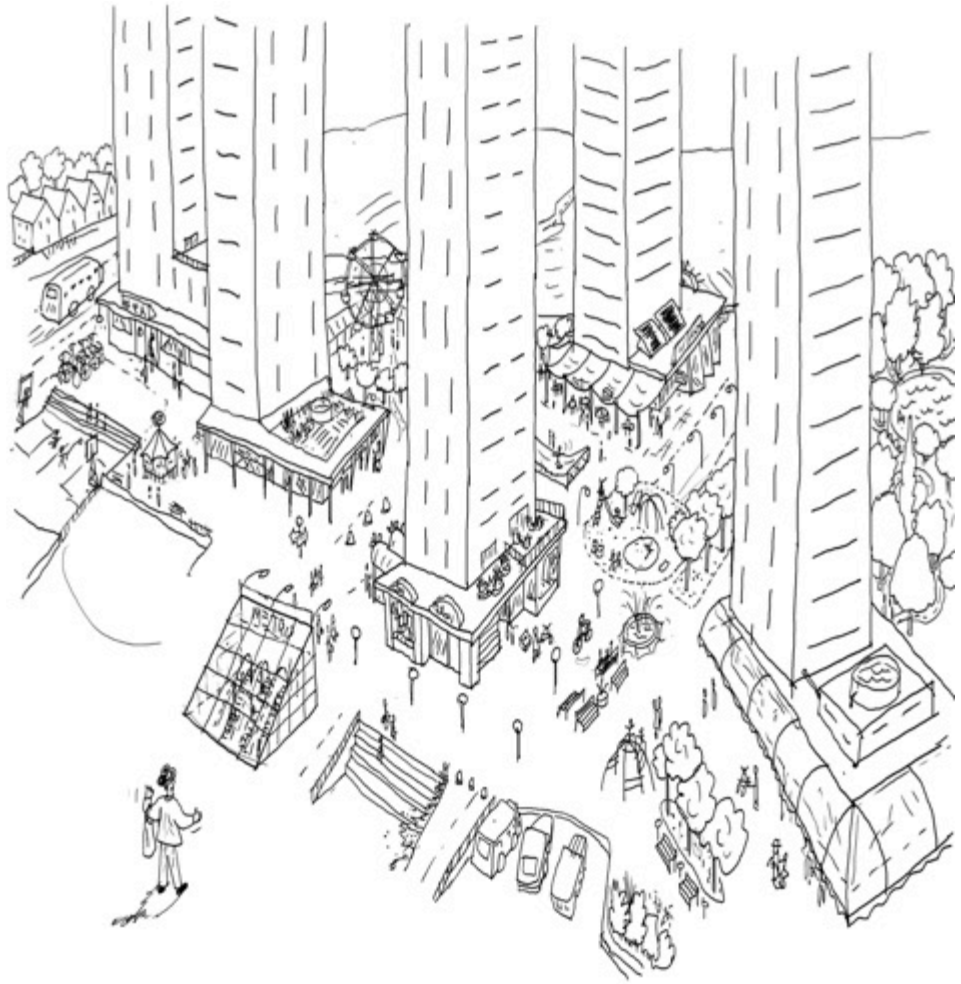


MIXED LAND USE

Density without mixed land use increases risk of criminality and high winds



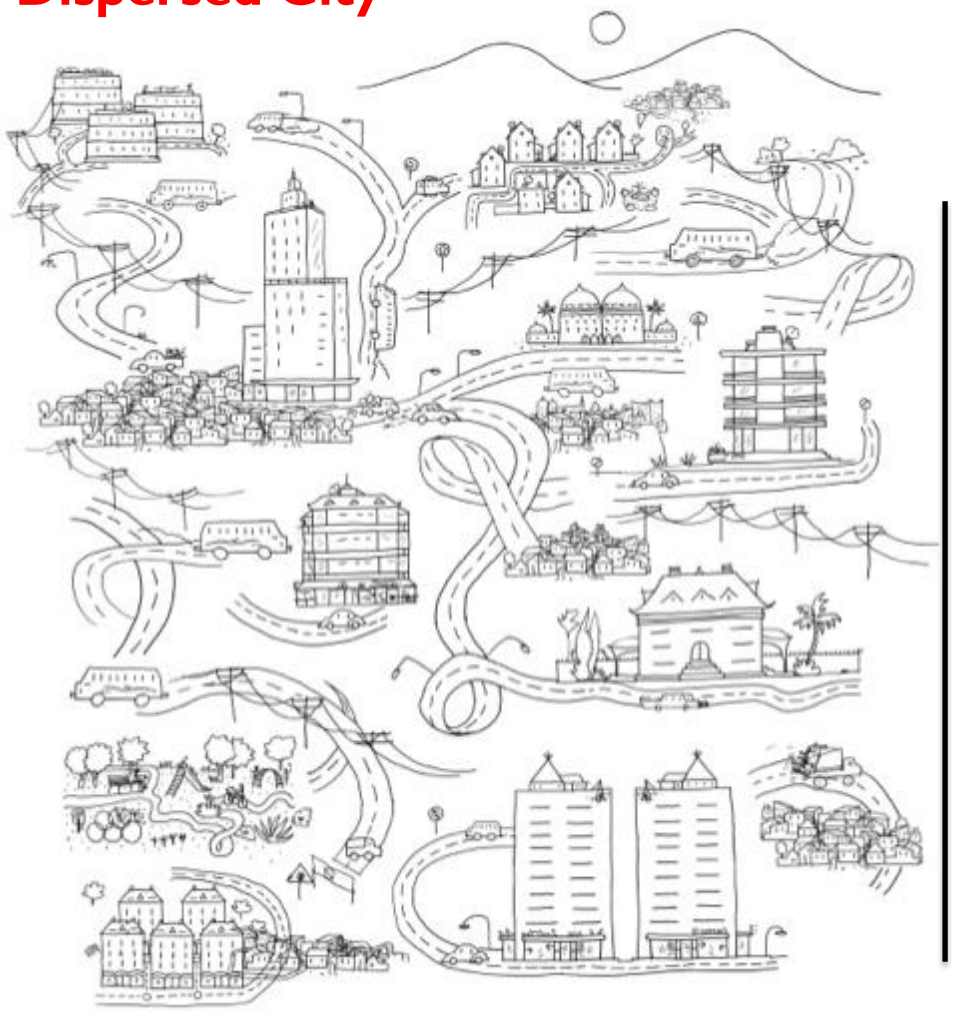
Density with mixed land use reduces risk and enables a vibrant local economy



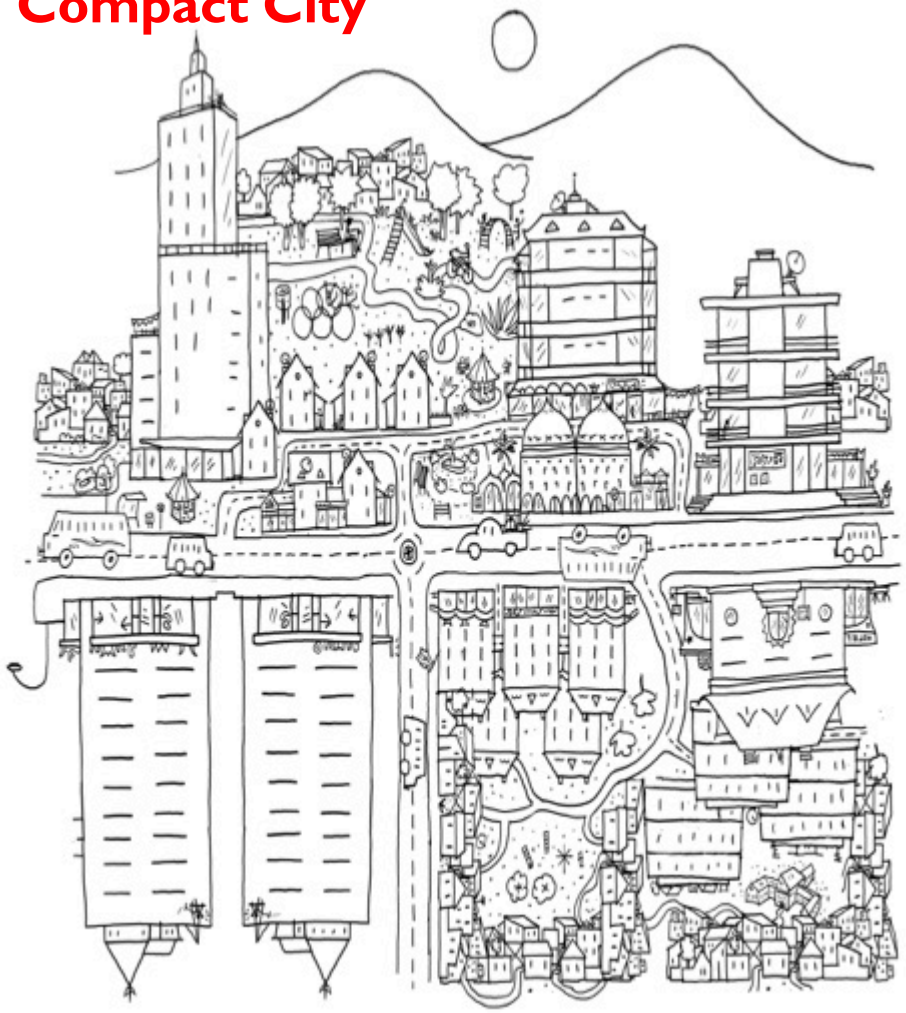
COMPACT CITY

What makes a compact city a more resilient city?

Dispersed City



Compact City

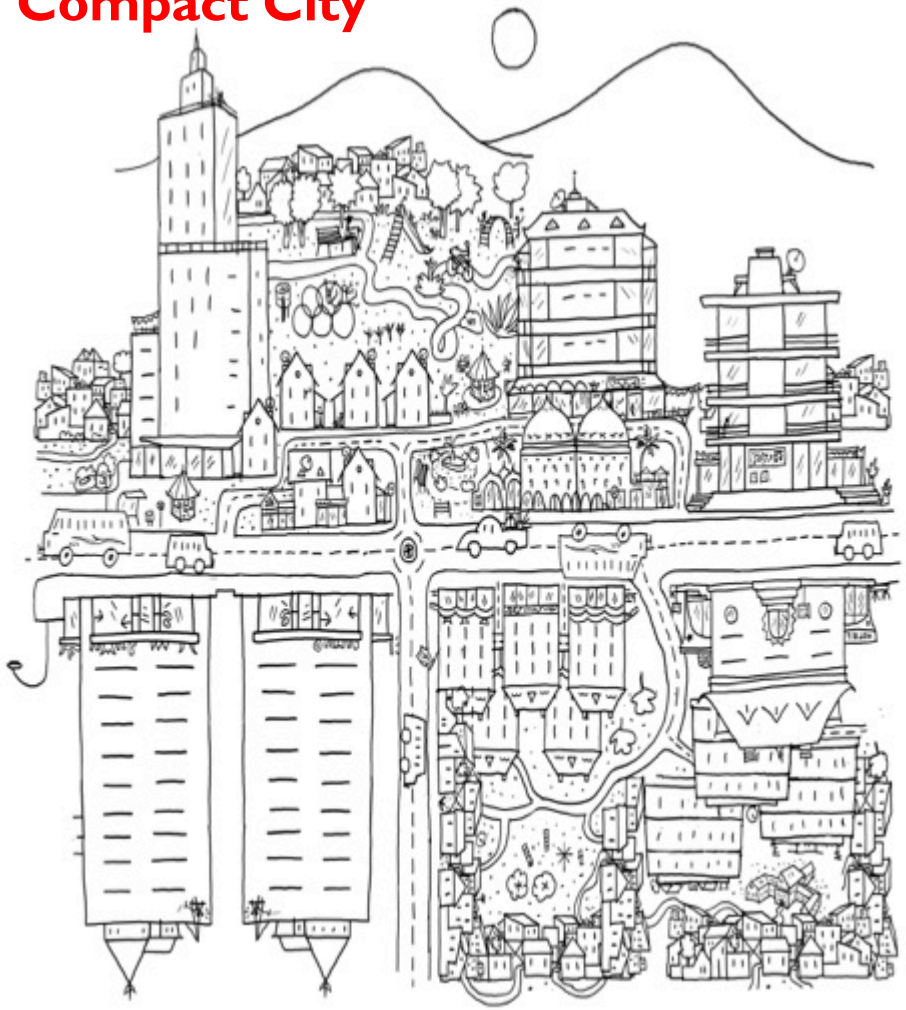


COMPACT CITY

A compact city minimises infrastructure needs, reduces transport distances and energy costs, increases trade opportunities and facilitates social integration.

Dispersed City

Compact City

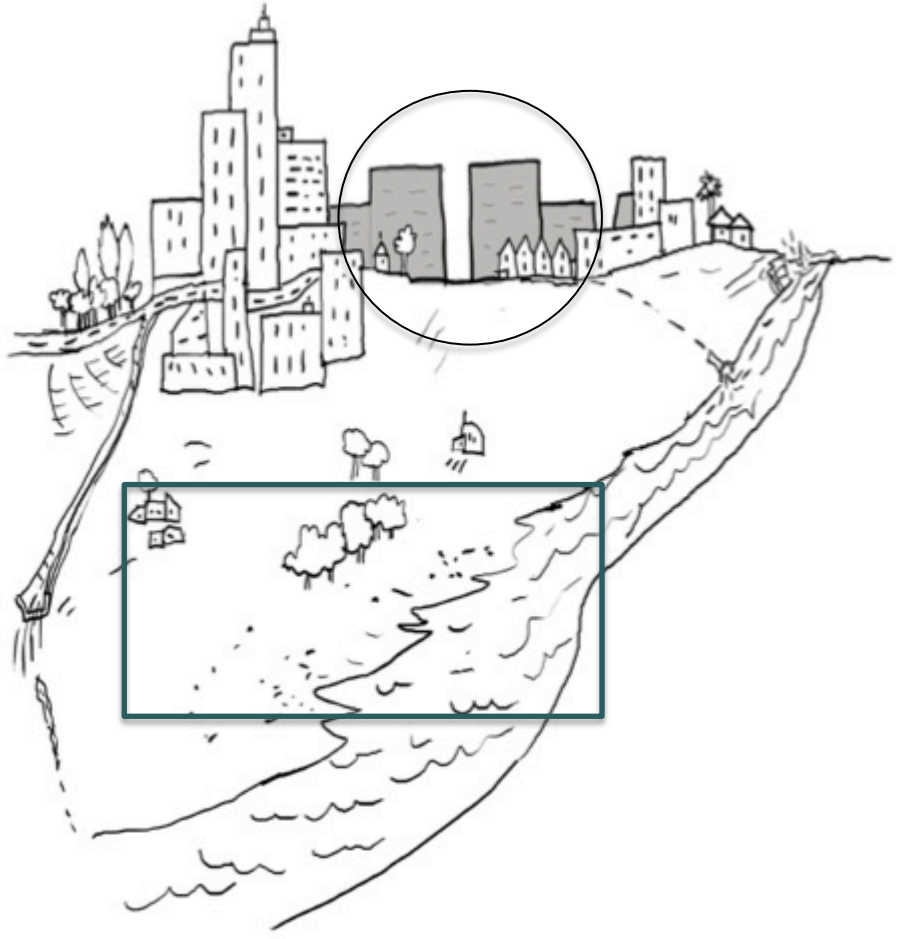


INFILL DEVELOPMENT

Re-drawing the boundary of under-utilised plots to create 'vacant' land on which additional plots can be set out without the need of physically expanding the city.

Before

After



IMPROVING AND ENFORCING BUILDING CODES

Robust building codes and risk-informed land use regulations boost the resilience of residents in the face of disasters and accidents;

Buildings must be designed to resist shocks and to help residents recover quickly following disasters at minimum cost to people and the public purse;

Poorly build dwellings and hazardous land use practices are a risk to life, and ultimately a burden on public finance.

Construction of school in Gaza, Mozambique, with technical supervision

PROMOTING SAFE PUBLIC SPACES

" Public spaces are all places ***publicly owned or for public use, accessible and enjoyable by all*** *free and without a profit motive"*

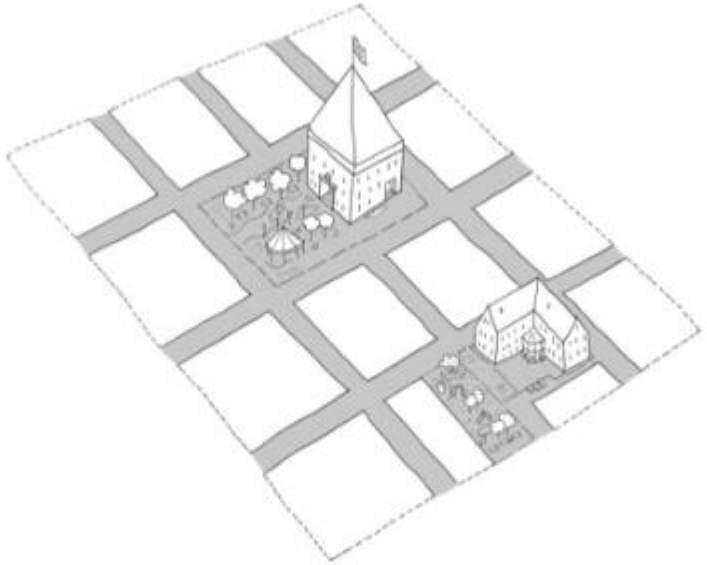
Public space is fundamental to the quality of life.

Creating **green networks** to regenerate ecological systems and support biodiversity in urban areas;

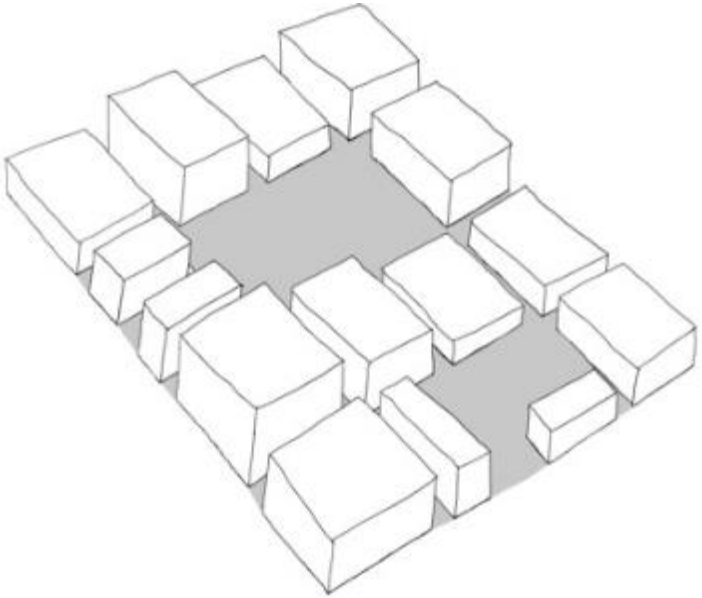
Reducing **congestion, travel time and road accidents** through designing and managing distinct transport modes and prioritizing routes for walking and cycling

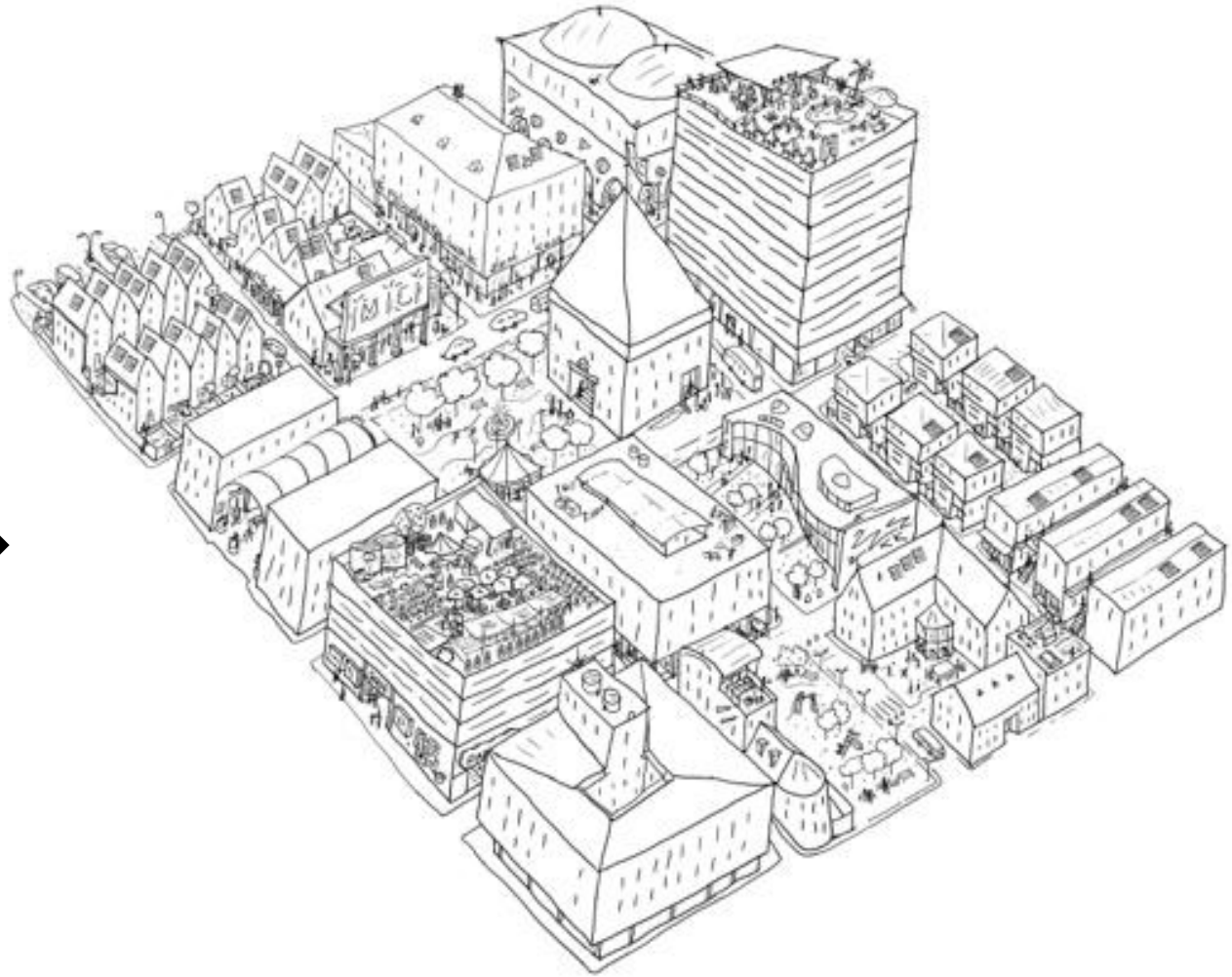
Public park in Maputo, Mozambique

Public Space



Private space





DIVERSIFIED CITY

LET'S DISCUSS!

The resettlement plan of the area did not take into account the existence of the big tree. The new owner of the plot is very happy but the rest of the community does not really agree.

What could be done to solve the situation?

1. Accept that the new owner of the plot also owns the tree?
2. Cut the tree to end the discussions?
3. Transform the plot in a public space for everyone to enjoy the tree
4. Rethink and modify the plot distribution

LET'S DISCUSS!

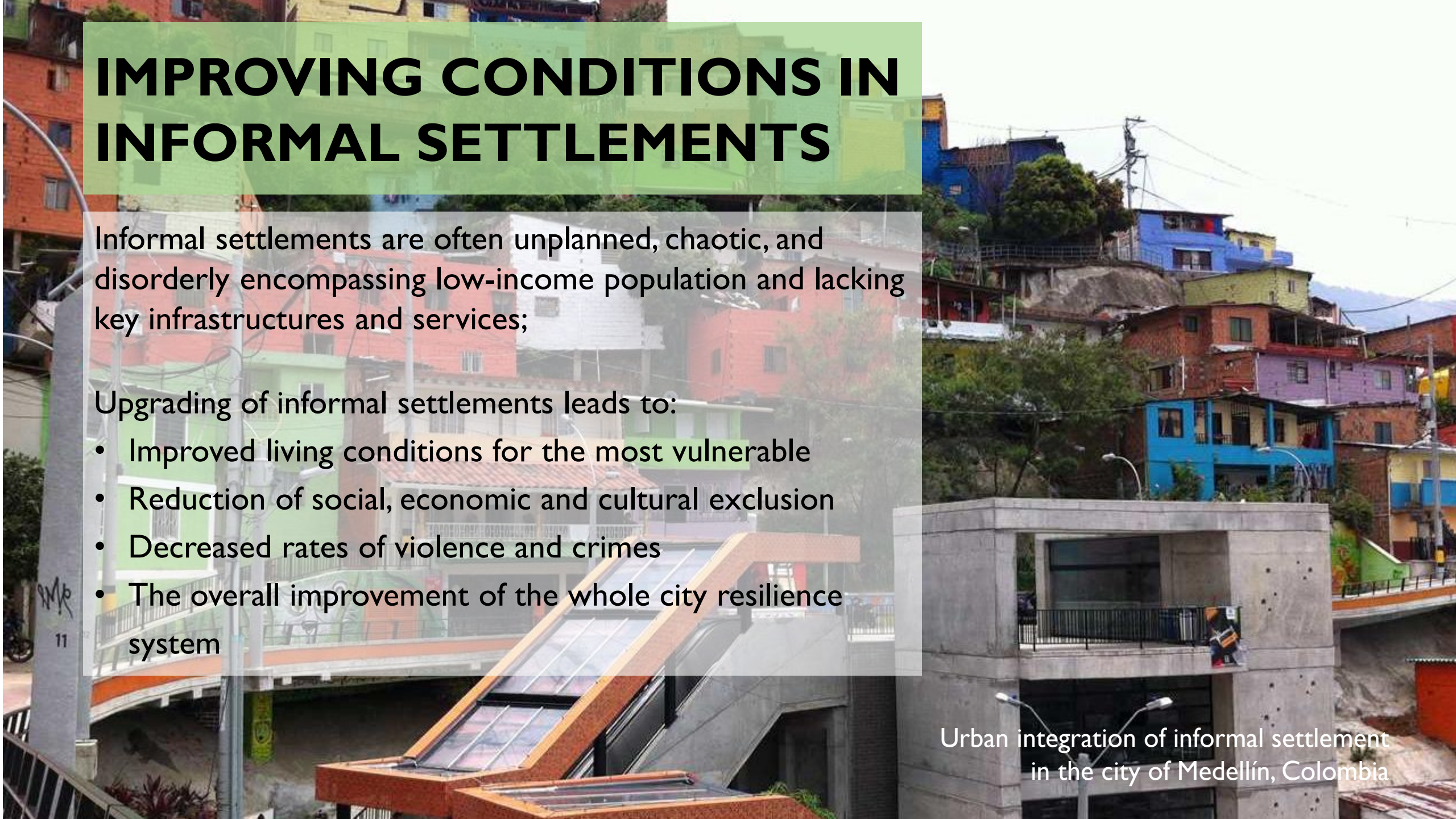
Defining the **localization of public spaces** should be the first step of any land division process. The plot with the big tree should be accessible to all inhabitants in the form of a public park

IMPROVING CONDITIONS IN INFORMAL SETTLEMENTS

Informal settlements are often unplanned, chaotic, and disorderly encompassing low-income population and lacking key infrastructures and services;

Upgrading of informal settlements leads to:

- Improved living conditions for the most vulnerable
- Reduction of social, economic and cultural exclusion
- Decreased rates of violence and crimes
- The overall improvement of the whole city resilience system



Urban integration of informal settlement in the city of Medellín, Colombia

LET'S DISCUSS!

Do you think a regular layout can be more resilient than an irregular one?

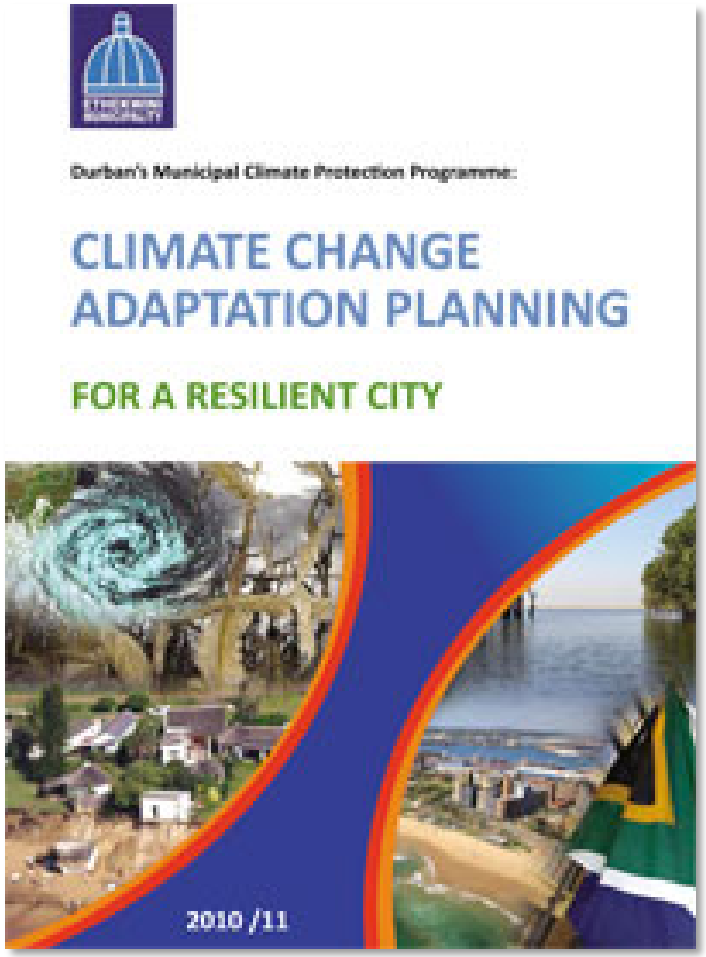
1. Yes because it is easier to implement it in the field
2. Yes because evacuation in case of a disaster is more effective
3. It depends on the topographic conditions
4. Yes because basic services are cheaper and easier to access

ENHANCING ENVIRONMENTAL MANAGEMENT

Develop dedicated plans and strategies (climate protection, biodiversity plans, etc.) in line with national adaptation plans

Mainstream environmental management into urban planning

- Assess the existing natural features and the ecosystem services
- Plan for future city growth taking into account preservation of ecosystems (to sustain their benefits for the future)
- Enforcement of zoning , avoid uncontrolled development and deforestation



ENHANCING ENVIRONMENTAL MANAGEMENT

- Greening derelict areas
- Greening of public spaces
- Green roofs
- Afforestation projects
- Urban agriculture
- Set aside green areas for water management bioswales, raingardens)
- Protecting water bodies

Discuss:

What are the benefits to people

What is the connection to resilience?