The Global Challenge of Urbanization

Trends Analysis

City Prosperity Initiative

Action Planning for Cities
Oriented by the SDG 11 and Supported by the City Prosperity Index

May 2017

UN HABITAT
FOR A BETTER URBAN FUTURE

International Urban Training Center

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2. The Global challenges/opportunities of Urbanization
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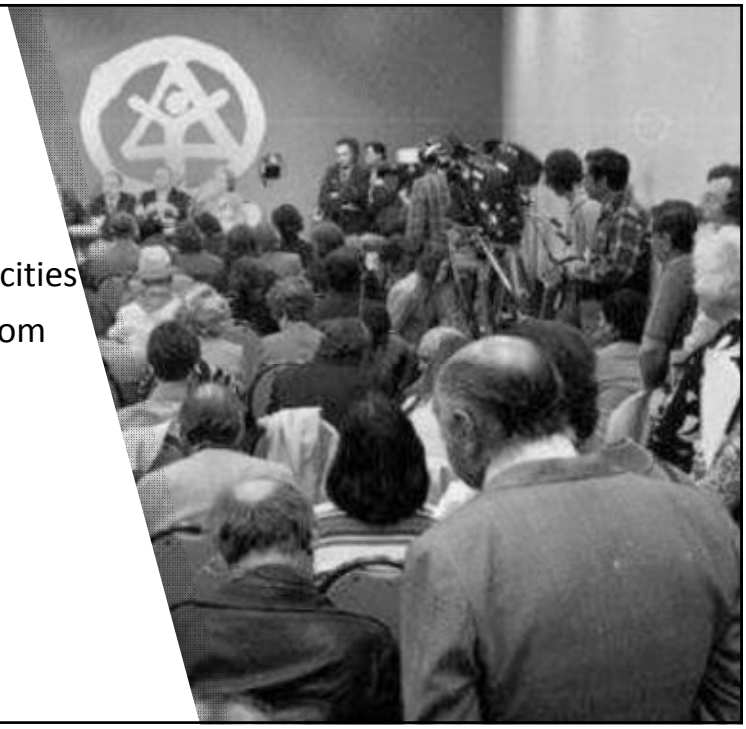
Introduction of UN HABITAT

UN-HABITAT FOR A BETTER URBAN FUTURE Mission



The United Nations agency for cities with the mandate emanated from the Habitat Agenda (1996) and various resolutions of the UN General Assembly

1. **Sustainable urban development**
2. **Adequate shelter for all**

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Normative Mandate

UN-Habitat, the United Nations agency for human settlements, helps the urban poor by transforming cities into safer, healthier, greener places with better opportunities where everyone can live in dignity.

Making Knowledge, Evidences, Guidelines and Recommendations

UN-Habitat works with organizations at every level, including all spheres of government, civil society and the private sector to help build, manage, plan and finance sustainable urban development. Our vision is cities without slums that are liveable places for all, which do not pollute the environment and deplete natural resources.

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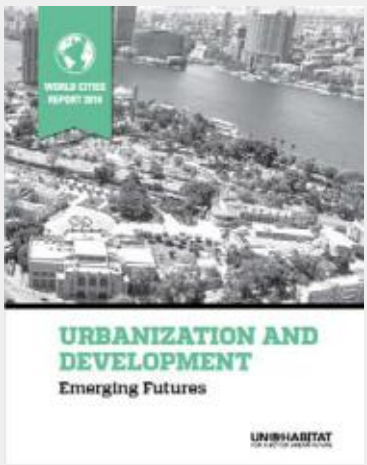
UN-Habitat's seven focus areas

UN-Habitat addresses its mandate through the 2014-2019 Strategic Plan. The plan outlines seven focus areas

World Cities Reports 2016



A Global Sample of Cities made of 200 cities

Source: UN-Habitat Global Urban Observatory

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Urban Development: facts and challenges

- URBAN GROWTH
- CHANGE IN FAMILY PATTERNS
- INCREASED RESIDENCY IN SLUMS AND INFORMAL SETTLEMENTS
- CHALLENGES IN PROVIDING URBAN SERVICES
- CLIMATE CHANGE
- EXCLUSION AND RISING INEQUALITY
- INSECURITY
- UPSURGE IN INTERNATIONAL MIGRATION

Source: World City Report 2016

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Major challenges of urbanization

- **Extreme urban poverty,**
- **Poor living conditions for slum dwellers,**
- **Constraints on productivity due to inadequate infrastructure, and**
- **Risks due to natural disasters and climate change**

Rising inequality is one of the challenges of urbanization that has confined many people to poor living conditions. Kibera slum, Nairobi, Kenya.
Source: Julius Mwelu /UN-Habitat

Source: World City Report 2016

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Urbanization as an opportunity for sustainable development

Cities offer various opportunities for sustainable development

Job Opportunities	• Starting point of virtuous cycle of employment, income, improved labor power and more job opportunities → Reduce inequalities
Economies of Scale in Infrastructure Provision	• Public transportation • Water and sewerage system • Electricity and internet connection • Serviced land and public rental housing • Education and healthcare facilities
Suitability of System-Based Approaches	• Local planning and community participation • Financing infrastructure and housing for the urban poor

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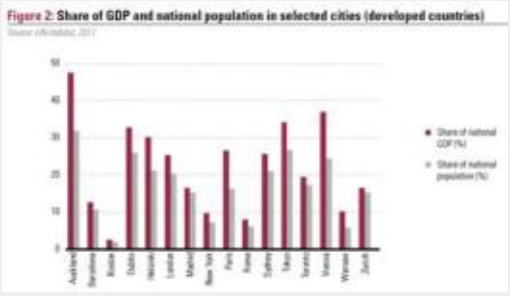
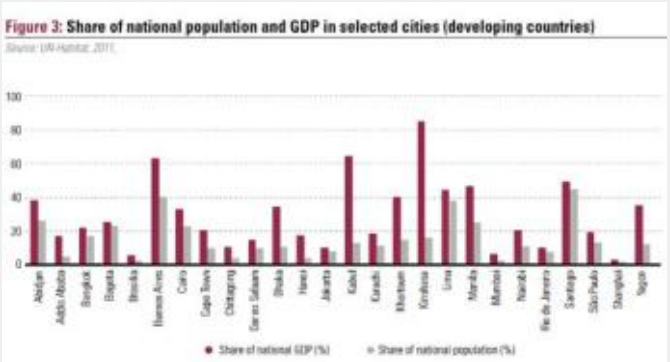
Urbanization as a Transformative Force

"Urbanization has helped millions escape poverty through increased productivity, employment opportunities, improved quality of life and large-scale investment in infrastructure and services"





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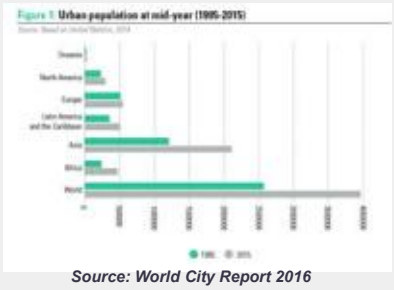
World Urbanization Prospects

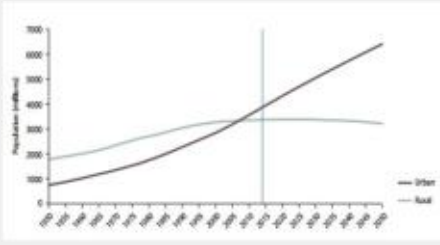
- World's urban population is projected to increase from 3.9 billion in 2014 to 6.3 billion by 2050, adding 2.4 billion people to the cities.
- World's urbanization rate will increase from 54% to 66% between 2014 and 2050.

Urban population at mid-year 1995-2015



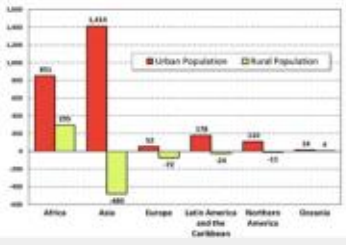
Source: World City Report 2016

Urban and rural population of the world 1950 and 2050



Source: World Urbanization Prospects (United Nations, 2014)

Projected Changes in urban and rural population by major regions between 2011 and 2050 (millions)



Source: World Urbanization Prospects (United Nations, 2012)

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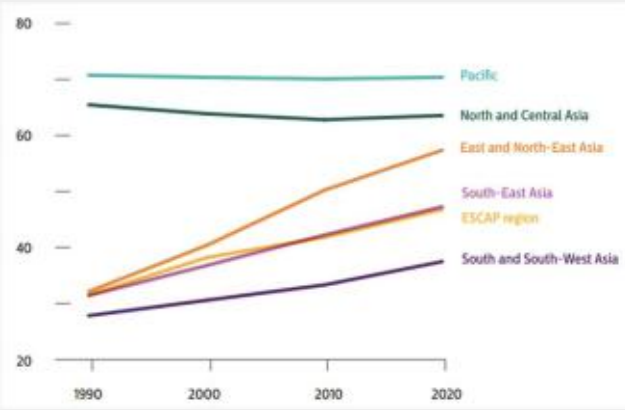
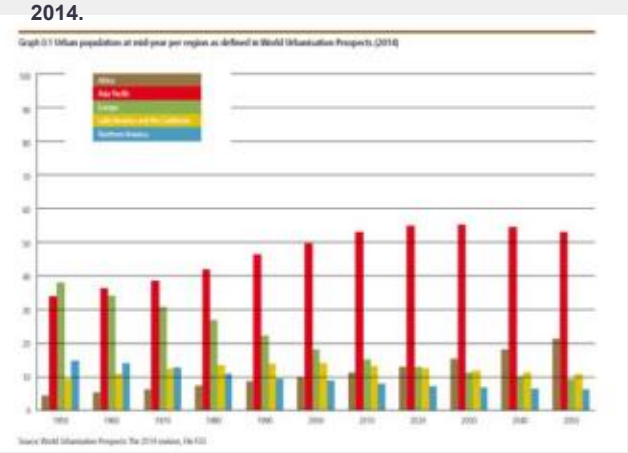
Urbanization Prospects in Asia-Pacific

By 2018, expected more than 50% of population live in cities



Source: Urbanization Trends in Asia and the Pacific (UN ESCAP, 2013)

Global implications: 55% of the worldwide urban population was living in Asia and the Pacific in 2014.



Source: The State of Asian and Pacific Cities 2015 (UN-Habitat and UN ESCAP, 2015)

Four features of the global urbanization trends

1. Demographic growth
2. Inequality
3. Low density growth and
4. Urban informality (slum formation)

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The Fate of Housing

Housing accounts for more than **70%** of land use in most cities and determines urban form and densities, also providing employment and contributing to growth.

With the **"Housing at the Centre"** approach, UN-Habitat seeks to re-establish housing problems and opportunities in the international development agenda in an increasingly strategic manner and in relation to the future of urbanization.

Housing shortfalls represent a challenge:

- **980 million** urban households lacked decent housing in 2010
- **600 million** will be added between 2010 and 2030
- **One billion** new homes needed worldwide by **2025**, cost **$650 billion** per year
- Qualitative deficiency is even greater

Number of urban residents living in slums

1990 — 689 million
2014 — 881 million

This represents an increase of **28%** over the past 24 years.

Still, in 2014, **30%** of urban population of developing countries resided in slums compared to **39 %** in the year 2000.

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Key trends with respect to the provision of adequate housing

- The decline of housing as a political priority despite increasing demand
- Inequality, focus on home-ownership, speculation and neglect of rental housing
- Increasing reliance on the private sector
- Affordability: an increasingly elusive concept
- Land administration and management
- Migration: positives and negatives for housing supply
- Climate change and disasters

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The Widening Urban Divide

75%

of the world's cities have higher levels of income inequalities than two decades ago.

The world is not only divided by differentiated access to opportunities, consumption, public spaces and services, education, technology and employment, but more and more by access to income.

Occupy Wall Street, Ferguson, Baltimore, Gezi Park are all **PROTESTS** against **EXCLUSION**

There is an urgent need at this juncture for new planning visions, strategies, policies and tools that can transform our planet of cities into a planet of inclusive cities.

OVER **46%** are in vulnerable employment accounting for 1.5 billion people globally

63% Africa's labour force is trapped in vulnerable employment

Source: The World Cities Report 2016 (UN-Habitat, 2016)

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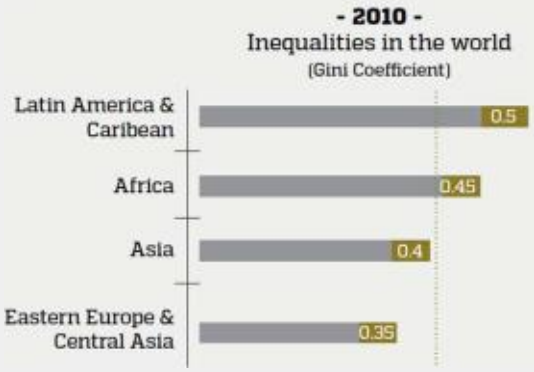
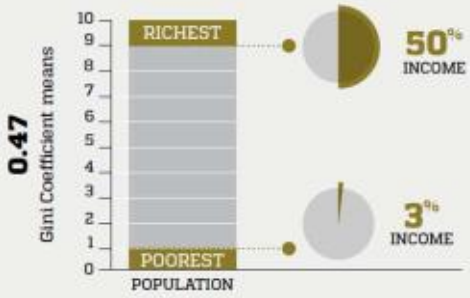
The Widening Urban Divide





Source: The World Cities Report 2016 (UN-Habitat, 2016)

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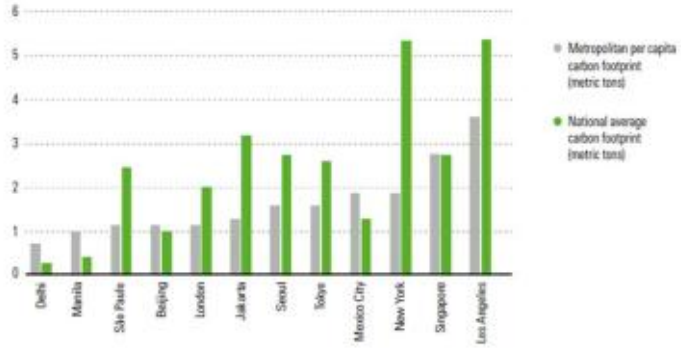
QUICK FACTS

1. By 2030, **energy and water demand increased by 40 and 50%** respectively
2. **Solid waste management** shares of **30 to 50% of municipal budgets** (in less developed countries)
3. In urban areas**, climate change impacts** can compound one another, making **disaster risk management** more complex.
4. Innovative ways are called for to **build resilience**, in the process contributing to a more equitable environment

"Just" Environmental Sustainability

Figure 5: Comparison between individual city and national carbon footprints per capita

Source: Sovacool and Brown, 2010.



Source: The World Cities Report 2016 (UN-Habitat, 2016)

"Just" Environmental Sustainability

Environmental planning and management are essential to the advent of sustainable cities. This must include planning for resilience in the face of disasters.

Table 2: National and local environmental planning and management

Source: Adapted from UN-Habitat,2014; Cities Alliance,2007.

Environmental challenges	National level policies	Local level policies
Resource use	Diversification of energy resources Water pricing reform	Infrastructure planning Local environmental education
Environmental risks	Adaptive social protection programmes Public health programmes	Air quality management
Land and related issues	Diversification of agriculture Land management policies and property rights	Physical planning, zoning Infill and brownfield incentives Restrictions on development of vulnerable land Green space zoning Greenbelt boundaries
Decarbonization imperatives	Energy pricing, taxes and subsidies Sustainability and diversification of economic sectors Low-carbon policies	Incentives to increase density Education campaigns

Source: The World Cities Report 2016 (UN-Habitat, 2016)

QUICK FACTS

1. **Inefficient or impracticable legislative reforms**
2. **Planning regulations** in developing and transition countries are often **too detailed, and inflexible**
3. **Genuine accountability and administrative capacity** to implement public policies

Rules of the Game: Urban Governance and Legislation

Decentralization

1. Administrative Decentralization > PLANNING +MANAGING is transfered from Central Government to Local (Delegation)
2. Political Decentralization > Delegation of political power, authority and resources
3. Fiscal Decentralization > Redistribution of resource form central to subnational government
4. Devolution > Political and fiscal decentralization
5. Deconcentration > Territorial redistribution of central power

Source: The World Cities Report 2016 (UN-Habitat, 2016)

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Rules of the Game: Urban Governance and Legislation

Urban Law provides rules to **MEDIATE** and **BALANCE** competing interest

Urban governance delivers **sustainable development** when it is:

- environment-friendly
- participatory
- accountable
- transparent
- effective and efficient
- equitable and inclusive
- abiding by the rule of law

Ineffective decentralization reasons:

- weak legal framework
- lack of political will
- poor capacity for implementation
- under-resourced local authorities
- poorly trained personnel
- inadequate political representation

Source: The World Cities Report 2016 (UN-Habitat, 2016)

UN HABITAT FOR A BETTER URBAN FUTURE

QUICK FACTS

1. Mostly rely on **outdated modes of planning**
2. **Cities are sprawling**, and as such, densities are dramatically declining. In developing countries, a one percent decline in densities per year between 2000 and 2050 would quadruple the urban land area.
3. **Not gender-sensitive**; consequently, women are often left outside of the planning process and decisions.
4. **Planning capacity** is grossly **inadequate** in much of the developing world.

A City that Plans: Reinventing Urban Planning

Source: The World Cities Report 2016 (UN-Habitat, 2016)

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QUICK FACTS

1. **Megacities and metropolitan regions** have **benefited more**
2. **Inadequate urban infrastructure and services** hamper economic growth and activities
3. The **benefits of agglomeration** tend to **outweigh the drawbacks**
4. **Formal employment has not catch up** with the rapid urbanization of cities, thus exacerbating urban social and economic inequality.

Changing Dynamics of Urban Economies

Changes impacting cities' economies since Habitat II include:

1. global economic conditions
2. ageing and (mainly in developing countries) rapidly growing populations
3. technological innovations particularly in transport, communications and data processing
4. sharper policy focus on environmental sustainability and climate change

Source: The World Cities Report 2016 (UN-Habitat, 2016)

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Changing Dynamics of Urban Economies

1990 — 2013

The United Nations Human Development Index increased globally by almost **18%**

37% **Reduction** in the global population of people living in extreme poverty from **1,959 million** in 1990 to around **900 million** in 2012.

10% **Estimated** decline to **702 million** expected in 2015, largely due to massive efforts by China and India.

Urban populations in **low-income** countries are projected almost to triple, increasing by over **500 million.**

Property tax, as an efficient source of local revenues, represents less than

3-4%

of local revenues in most developing countries, compared with

40-50%

in cities in Australia, Canada, France, UK and US.

In various cities in developing countries, the **informal economy** is the main area of **production, employment** and **income generation.** It ranges from

25-40%

of GDP in developing economies in Asia and Africa, with the share in non-agricultural employment between

20-80%

Source: The World Cities Report 2016 (UN-Habitat, 2016)

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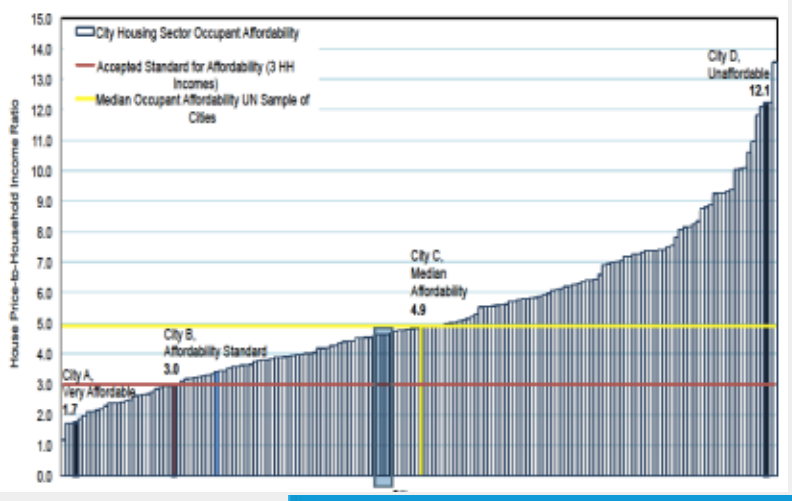
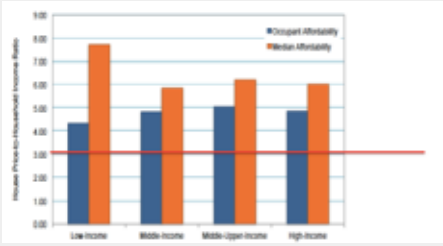
Access to housing through onwership is largely unaffordable (in the Global Sample of Cities)





A housing unit in any city regardless of GDP is UNAFFORDABLE (more than a ratio of 3.0)

Source: UN-Habitat Global Urban Observatory

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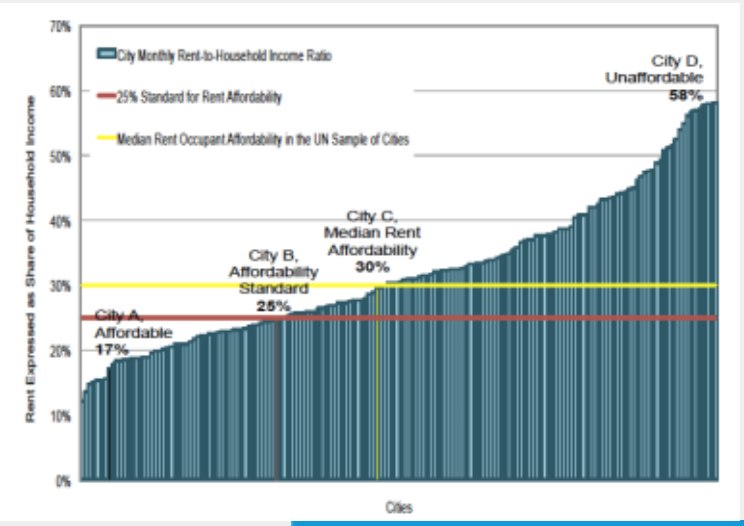
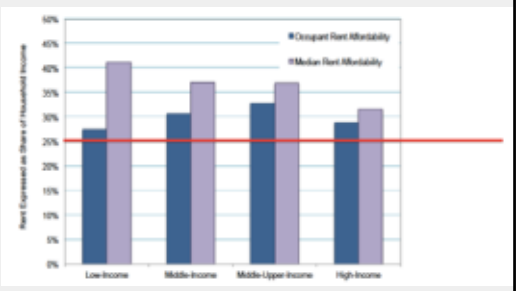
Accessing to housing through rental is also largely unaffordable





Rental housing in any city regardless of GDP is UNAFFORDABLE (more than 25% threshold)

Source: UN-Habitat Global Urban Observatory

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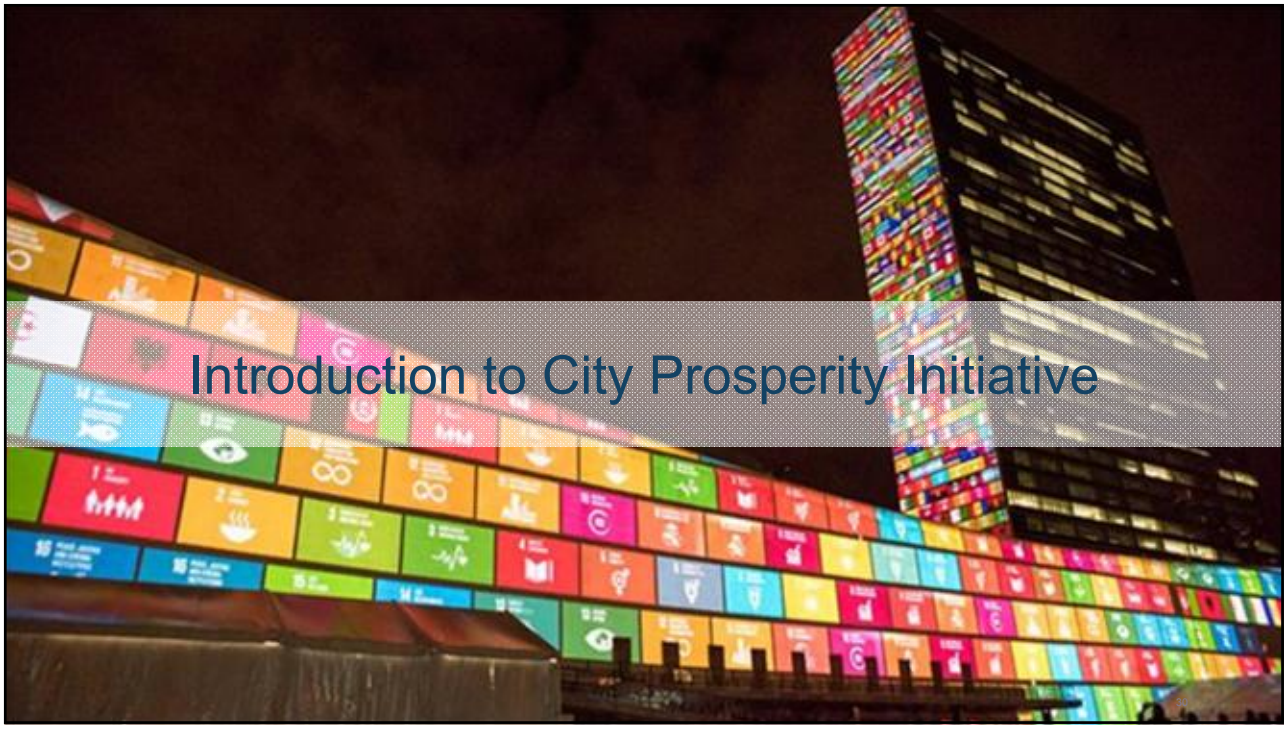
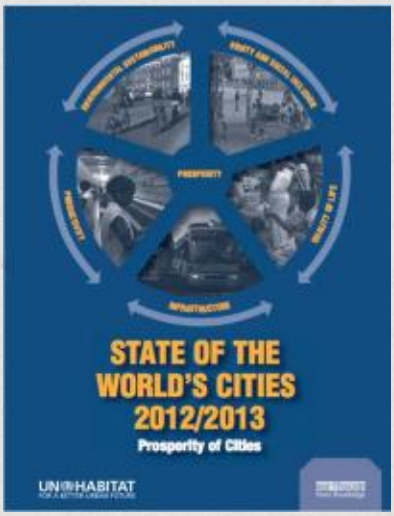


Introduction to City Prosperity Initiative

City Prosperity Initiative

How do we measure the performance of cities and the outcome of public policies?

How do we measure sustainability in cities?



UN-Habitat is adapting the City Prosperity Initiative to SDGs structure

The new CPI framework is **integrating all the indicators of Goal 11** and a selected number of other SDG indicators that have an urban component

Countries that decide to use the CPI will be able to **identify, quantify, evaluate, monitor and report on progress** made by cities and countries, towards SDG Goal 11 in a **more structured manner**

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Defining Urban Prosperity

A sense of general and individual socioeconomic security for the immediate and foreseeable future, which comes with the fulfilment of other, non-material needs and aspirations.

Photo: Copyright 2010 Drew Altizer, Financial Tim

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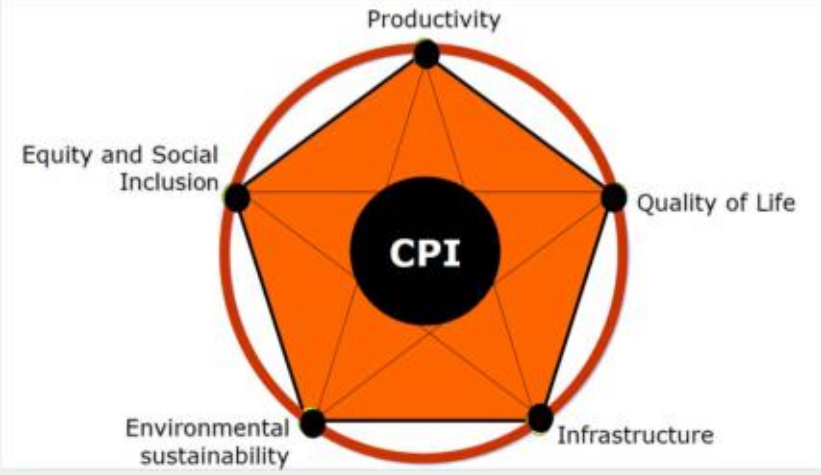
City Prosperity Initiative

UN-Habitat's City Prosperity Initiative (CPI)

- ✓ Monitoring and Reporting NUA + SDGs
- ✓ Systemic approach to the city
- ✓ Incorporate new analytical
- ✓ tools (SPATIAL INDICATORS)
- ✓ Multi-scale decision - making



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Objectives of the Initiative

MEASURE — by producing critical mass of data and information

UNDERSTAND — the factors that generate or inhibit prosperity

CHANGE — by formulating policies, strategies and actions

INFLUENCE — the nationals developments of policies

Photo: Copyright 2010 Drew Altizer, Financial Times

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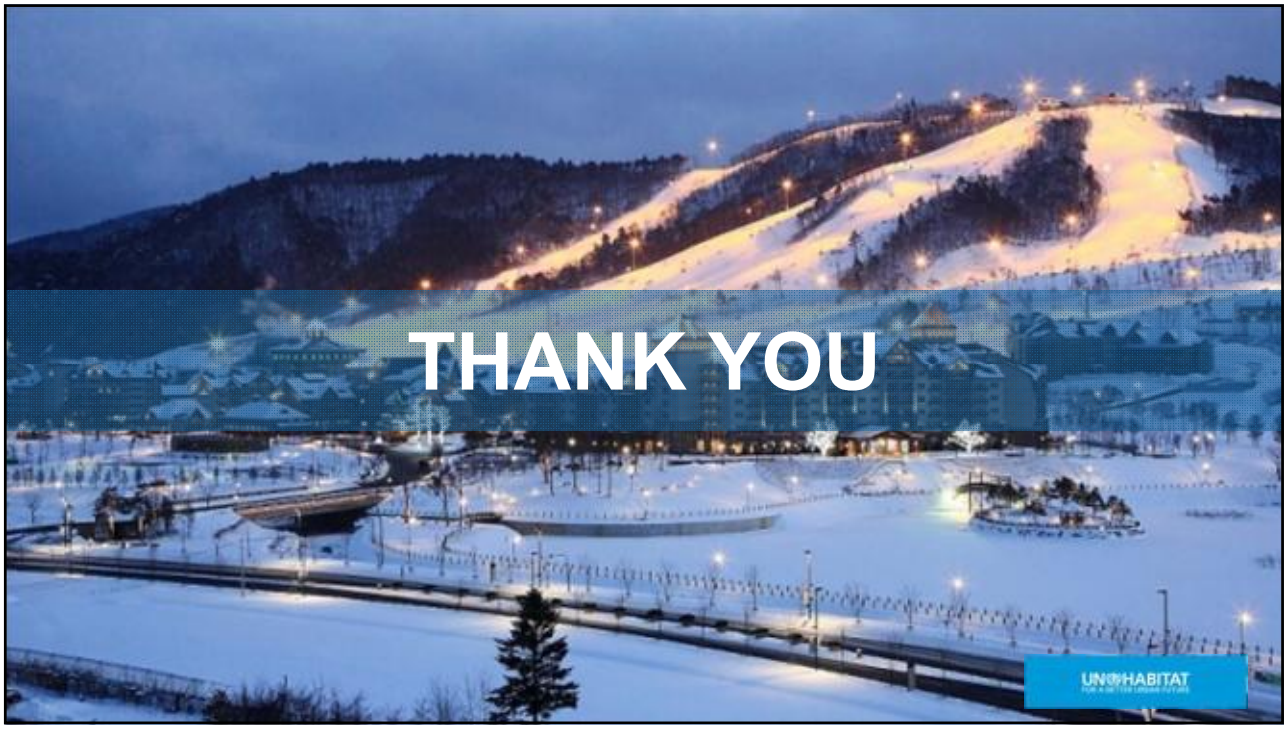
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URBAN PROSPERITY:
CONCEPT AND POLICY IMPLICATIONS TO IMPLEMENTING THE SDGS AND NEW URBAN AGENDA

Action Planning for Cities
Oriented by the SDG 11 and Supported by the City Prosperity Index

May 2017

Table of content

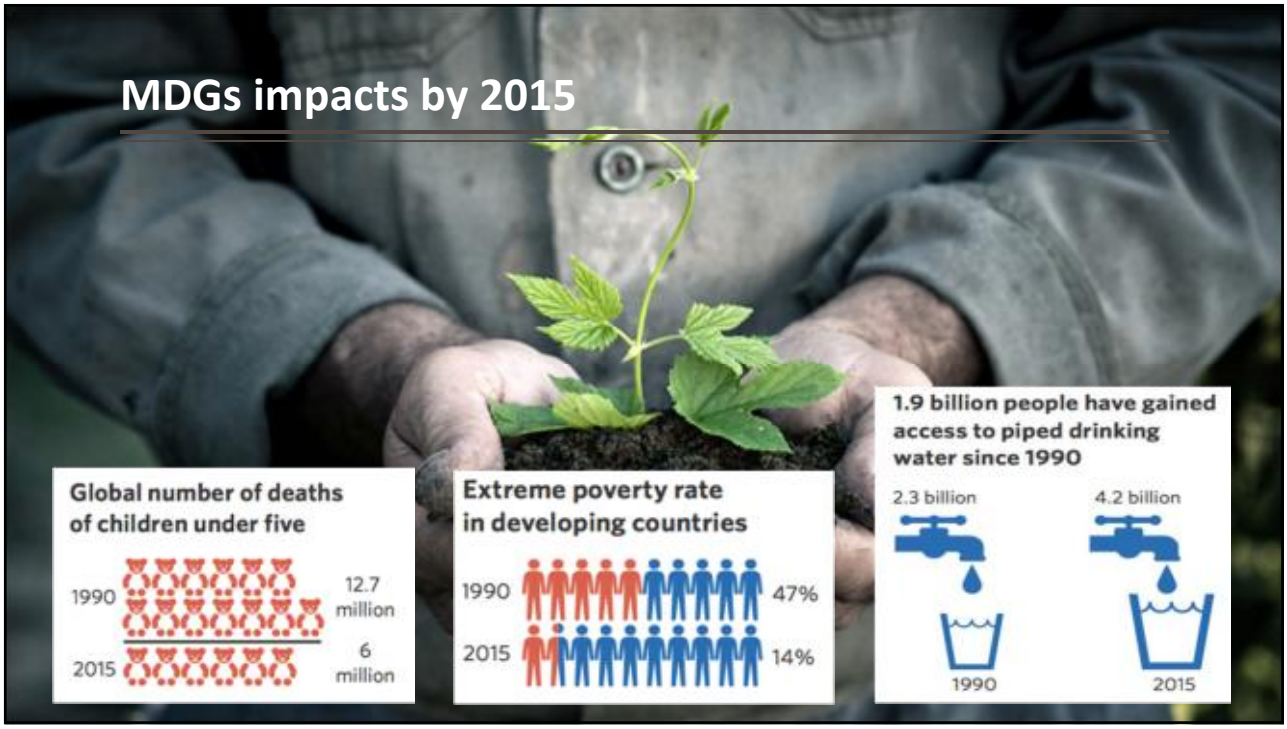
SUSTAINABLE DEVELOPMENT GOALS

Millennium Development Goals (2000 – 2015)

Millennium Development Goals (2000 – 2015)

- Vision: "spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty"
- Adopted in 2000 by 189 UN member states
- 8 goals, supported by 21 specific targets and 60 indicators.

MDGs impacts by 2015



MDGs limitations

- The MDGs were largely determined by OECD countries and international donor agencies in a top-down method
- The MDGs provide limited list of goals, with targets that applied primarily to least developed and poor countries
- The MDGs failed to consider the root causes of poverty and the interconnectedness of these causes
- Just 1 MDG (MDG 8: Develop a global partnership for development) focused on high-income countries
- Progress across all MDGs has been limited and uneven across countries

Sustainable Development Goals (2015 – 2030)

United Nations Sustainable Development Summit 2015, 25 - 27 September 2015, New York

Sustainable Development Goals (SDGs)

- **United Nations Sustainable Development Summit 2015**
- The **Sustainable Development Goals (SDGs)**, otherwise known as the Global Goals, are a **universal call** to action to **end poverty, protect the planet** and ensure that all people enjoy **peace and prosperity**

The 2030 Agenda for Sustainable Development

The "**Agenda 2030**" reinforces the Future We Want – applying to **all nations** and **leaving no one behind**

1	5	17	169	240
Agenda	Main areas	Task description	Targets	Indicators

People → Planet → Prosperity → Peace → Partnership

SDG 11

Make cities and human settlements

- ✓ Inclusive
- ✓ Safe
- ✓ Resilient
- ✓ Sustainable

The 2030 Agenda for Sustainable Development gives a prominent role to urbanization and cities with the inclusion of a stand-alone goal for cities and human settlements.

- Recognition that cities are a string that connects all other goals together
- Interactions are important to formulate integrated policies that enhance the transformative role of urbanization

SDG11 – Ten targets

Outcome-oriented targets and indicators

- 11.1 Housing and slums
- 11.2 Sustainable transport
- 11.3 Participatory planning
- 11.4 Cultural heritage
- 11.5 Disaster reduction
- 11.6 Air quality and waste managment
- 11.7 Public spaces

Process-oriented targets and indicators

- 11.a Urban-rural linkages
- 11.b Implementation of mitigation and adaptation plans and policies
- 11.c Sustainable and resilient buildings

SDG11 – The process

- 3 global consultations about indicators – once targets were decided (Member States/ Stakeholders / UN Agencies)
- 3 platform for online comments
- 2 ratings of proposed indicators (Tiers 1 to 3 – color codes)
- 3 Inter-Agency and Expert Group (IA-EG) (New York, Bangkok, Mexico City)
- 2 Reports (IA-EG for UNSC and SG Report about Implementation)

The 2030 Agenda for Sustainable Development

SDG 11 Explained by Raf Tuts Director, Programme Division UN-Habitat October 1, 2015

CPI and the SDGs

A tool to monitor and implement theSDG urban-related goals

Decision-making based on evidence through the integration of the international Development Agenda

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ROLE

UN HABITAT roles

Implementation | **Monitoring** | **Reporting**

- Country Implementation Plans
- Localize Action at city level
- Defining Habitat Strategic Interventions

- National targets, benchmark and standards
- Disaggregation of information
- City Prosperity Initiative

- National aggregated values
- National/local reports
- Action Plans (CPI/3 Legged Approach)

UN HABITAT ongoing porfolio

1. Refining Urban SDGs Indicators: propose to the Secretariat (UNSD) methodological information and/or data support to change indicators
2. Expert Group Meetings: discuss and agree on the approach, methodology and ways of computation of specific indicators with outstanding challenges related to the monitoring of the SDGs at local levels, particularly spatial indicators
3. SDG Goal 11 Indicators - Definitions and Metadata:
   - A Global Monitoring Tool that serves as a guide to assist national and local governments in their efforts to collect, analyze, validate data and information in view of the preparation of country-based reports.
   - The Metadata provides necessary definitions, method of computation and technics to estimate indicators, including spatial indicators

UN HABITAT ongoing porfolio (cont)

4. UN-Habitat SDGs Webpage: A website dedicated to UN-Habitat approach, involvement and support to SDGs, with a particular focus on
   Goal 11
5. SDGs Report: joint with other UN agencies to develop the global progress report on the SDGs
6. City Prosperity Initiative
   - The new CPI framework is integrating all the indicators of Goal 11 and a selected number of other SDG indicators that have an urban component
   - Countries that decide to use the CPI will be able to identify, quantify, evaluate, monitor and report on progress made by cities and countries, towards SDG Goal 11 in a more structured manner

NEW URBAN AGENDA

UN Conferences on Human Settlements

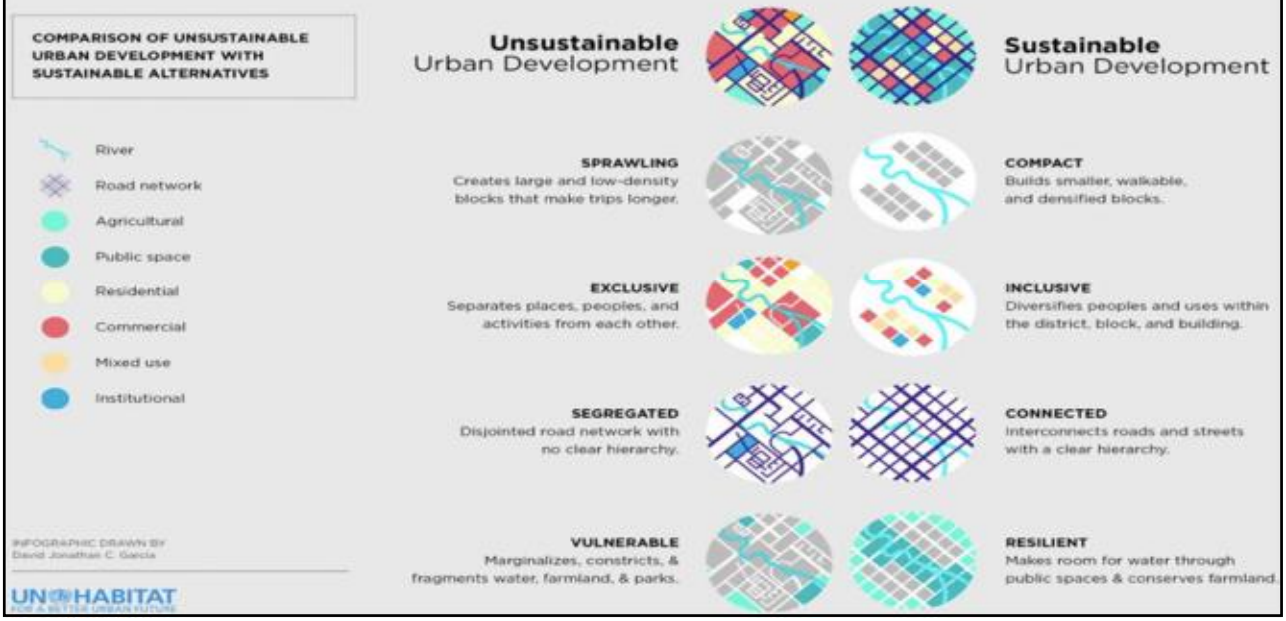
The *United Nations Conference on Housing and Sustainable Urban Development* to "reinvigorate" the global political commitment to sustainable urban development

UN Conference on Human Settlements, 1976 Vancouver

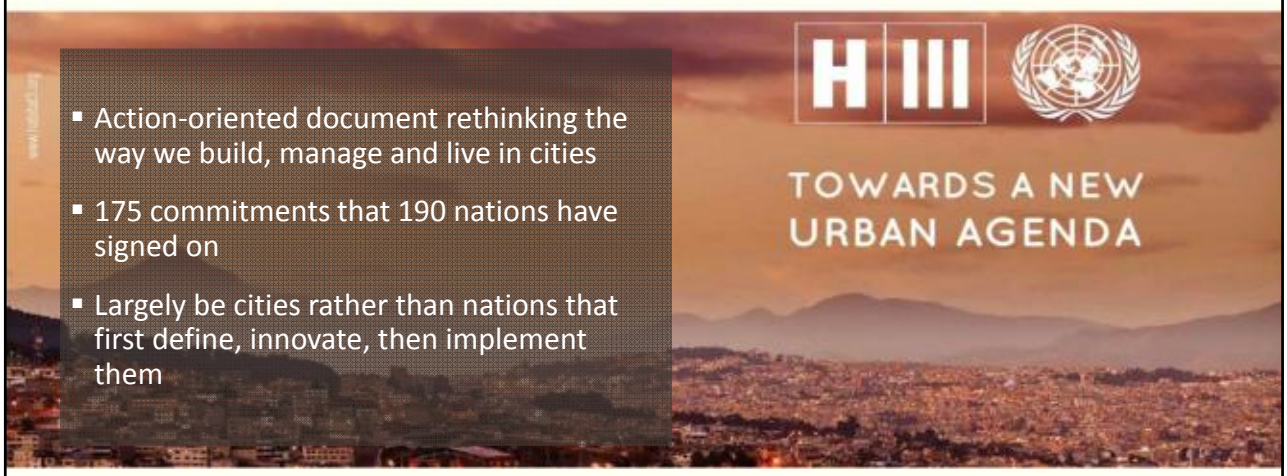
Habitat II, 1996 Istanbul

Habitat III, 2016 Quito

Habitat III: The need for a New Urban Agenda



What is in the New Urban Agenda?



- Action-oriented document rethinking the way we build, manage and live in cities
- 175 commitments that 190 nations have signed on
- Largely be cities rather than nations that first define, innovate, then implement them

New Urban Agenda

- ✓ Must be **BOLD**, forward thinking and tightly focused on problem solving
- ✓ It should have clear means of **implementation**
- ✓ Adopt a **city-wide** approach
- ✓ Propose **concrete** strategies and actions
- ✓ Create a **mutually reinforcing** relationship between urbanization and development
- ✓ **Support** a paradigm shift
- ✓ Devise **well-activated** set of strategies
- ✓ Transfom **urbanization** into a tool of **development**
- ✓ Constitute a framework of **cooperation**
- ✓ Convey a **SEN SE OF URGENCY**

New Urban Agenda

Habitat conferences

UN HABITAT III, Quito 2016

New Urban Agenda: Equity

"We share a vision of cities for all, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements to foster prosperity and quality of life for all"

New Urban Agenda: Inclusivity

Each city dweller can be an activist for change

Three Transformative Commitments

A. **Equity:** Urban Development for Social Inclusion and Ending Poverty (18 points)
   - land tenure, the value of public space, and the sustainable leverage of natural and cultural heritage

B. **Inclusivity:** Urban Prosperity and Opportunities for All (20 points)
   - Access to affordable housing, access to knowledge, skills, and education, and the promotion of investments, innovations and entrepreneurship

C. **Sustainability:** Resilient Urban Development (18 points)
   - Climate change, unsustainable consumption, slum upgrading, energy efficiency and the social and ecological function of land

UN HABITAT III

Conclusion

"The SDGs, the New Urban Agenda, the Paris Agreement — these are really important policy bricks that we're going to use to build the cities of the 21st century. But ultimately it's going to be local people, local governments and local ecosystems that are the cement that bind them together in a lasting way."

POLICY IMPLEMENTATION

New Urban Agenda – Policy points

1. **Forward looking** and **problem solving**;
2. Adopt a **city-wide approach (strong integration)** to development
3. Clear funding mechanisms and effective means of monitoring
4. A **sense of urgency** in the implementation but also **clear and well-defined implementation plans**
5. Seek **mutually reinforcing relationship** between urbanization and development
6. Establish **links to other global agreements and agendas**
7. Induce transformative change promoting a **new urbanization model that is universal** and **adaptable to different national circumstances**

UN HABITAT next steps

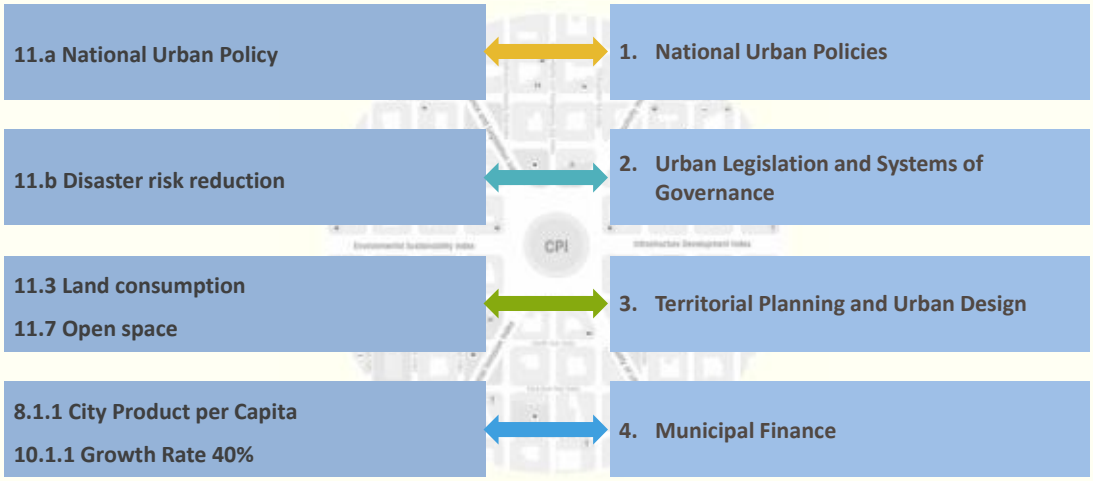
1. Implementing SDG - Localize Actions at city level
- Providing support to local and national governments to reflect the new global agenda in city and country development plans and policies
- Making the UN-Habitat's policy expertise on sustainable urban development available to governments at all stages of implementation

3. Reporting SDGs - National Sample of Cities
- National governments need to create a consistent set of cities that is representative of their territory, geography, governance and history.
- UN-Habitat will support national governments in the definition of a sample of representative cities and in the data aggregation process

2. Monitoring SDGs - Spatial Indicators
- Geospatial data, adequate technology and management system will be needed for the measurement of the spatial indicators of the Goal 11
- Spatial disaggregated data provides relevant information for policy-makers to decide on local-level allocation of resources and monitoring of equitable outcomes

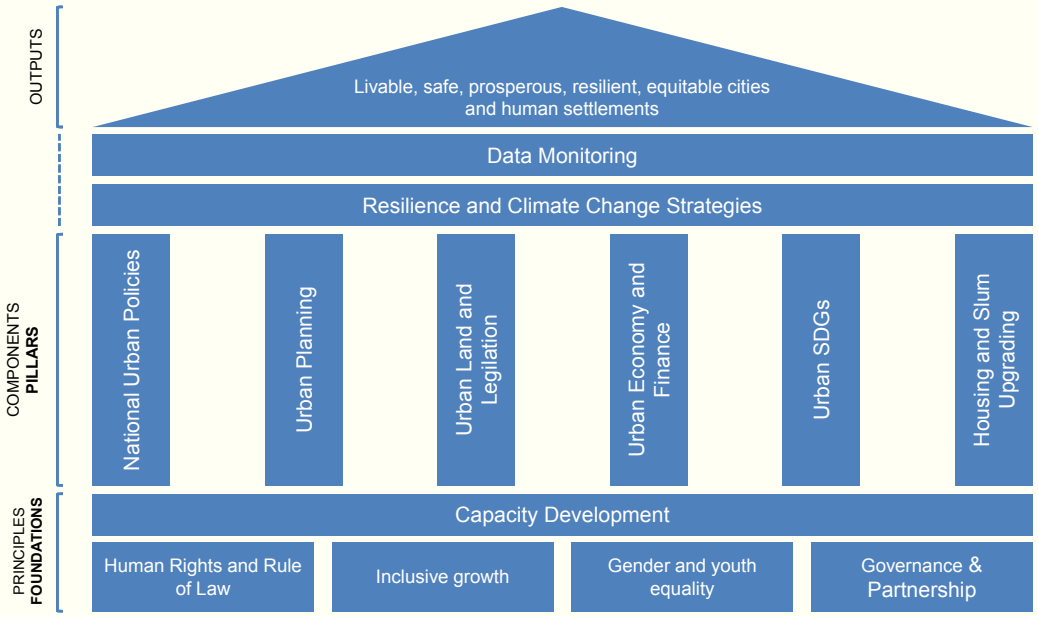
4. Connecting SDGs and the New Urban Agenda
- A strong connection between the New Urban Agenda and the SDGs indicators should be established with a common monitoring framework

Connecting SDGs and the New Urban Agenda



The next BIG challenges

1. Refine disagreggation mechanisms and policy responses, look for more convergence among Head Quarter and regions.
2. Refine UN-Habitat advocacy for this new agenda (SDGs-NUA)
3. Rethink financing and fundrasing strategies
4. Adjust strategic plans for the implementation and monitoring of SDGs and New Urban Agenda
5. Adjusting outputs from Habitat Work Plan to reflect 2030 Development Agenda
6. Define ad hoc training and capacity development activities
7. Explore new strategic partnerships – Multi Partners Trust Fund



Conclusion

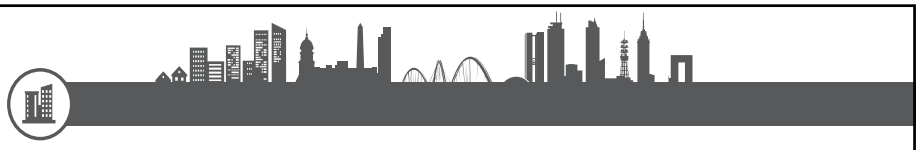
"The SDGs, the New Urban Agenda, the Paris Agreement — these are really important policy bricks that we're going to use to build the cities of the 21st century. But ultimately it's going to be local people, local governments and local ecosystems that are the cement that bind them together in a lasting way."


THANK YOU

CPI Methodology and Indicators

CITY PROSPERITY INITIATIVE

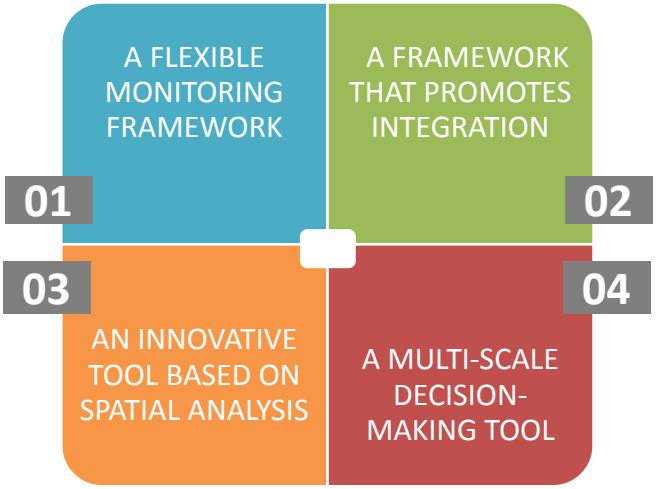
UN HABITAT
FOR A BETTER URBAN FUTURE



CONTENTS

UN HABITAT
FOR A BETTER URBAN FUTURE

WHAT IS DIFFERENT IN THE CPI FRAMEWORK?



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The City Prosperity Initiative

1. A **flexible monitoring framework** that takes into account the contextual needs and particularities of cities and countries

2. The CPI **promotes integration** in the implementation of a more sustainable urbanization model

3. An **innovative tool based on spatial analysis** that integrates indicators such as street connectivity, public space, urban expansion

4. As **a multi-scale tool** the CPI supports decision-making from national urban policies to regional to city-wide interventions

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THE CITY PROSPERITY INITIATIVE

Data, Information and Policy-Making

MONITORING INSTRUMENT

A POLICY DIALOGUE

A DECISION MAKING

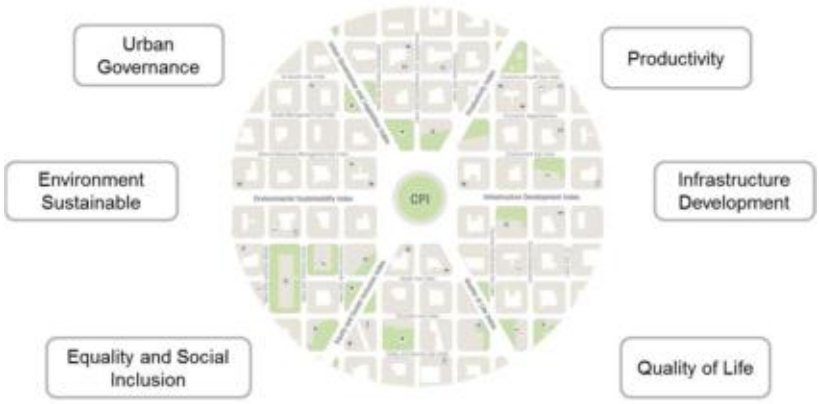
BASELINE SETTING

CITY PROSPERITY INITIATIVE

UN-HABITAT
FOR A BETTER URBAN FUTURE

THE WHEEL OF URBAN PROSPERITY AND THE CPI

THE SIX DIMENSIONS OF PROSPERITY



The City Prosperity Initiative

MEASURE by producing critical mass of data and information

UNDERSTAND the factors that generate or inhibit prosperity

CHANGE by formulating policies, strategies and action plans

MONITOR the outcomes of policy implementation

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THE WHEEL OF URBAN PROSPERITY AND THE CPI

Scale of Prosperity

80-100	Very solid prosperity factors	Consolidate urban policies
70-79	Solid prosperity factors	
60-69	Moderately solid prosperity factors	Strengthen urban policies
50-59	Moderately weak prosperity factors	
40-49	Weak prosperity factors	Prioritize urban policies
10-39	Very weak prosperity factors	

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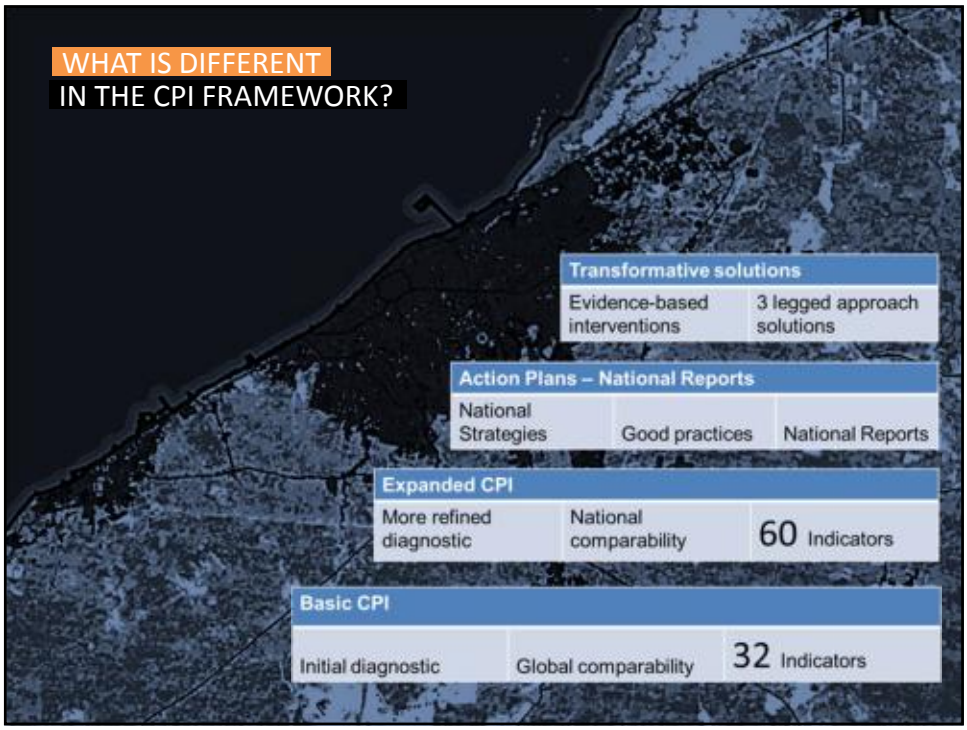
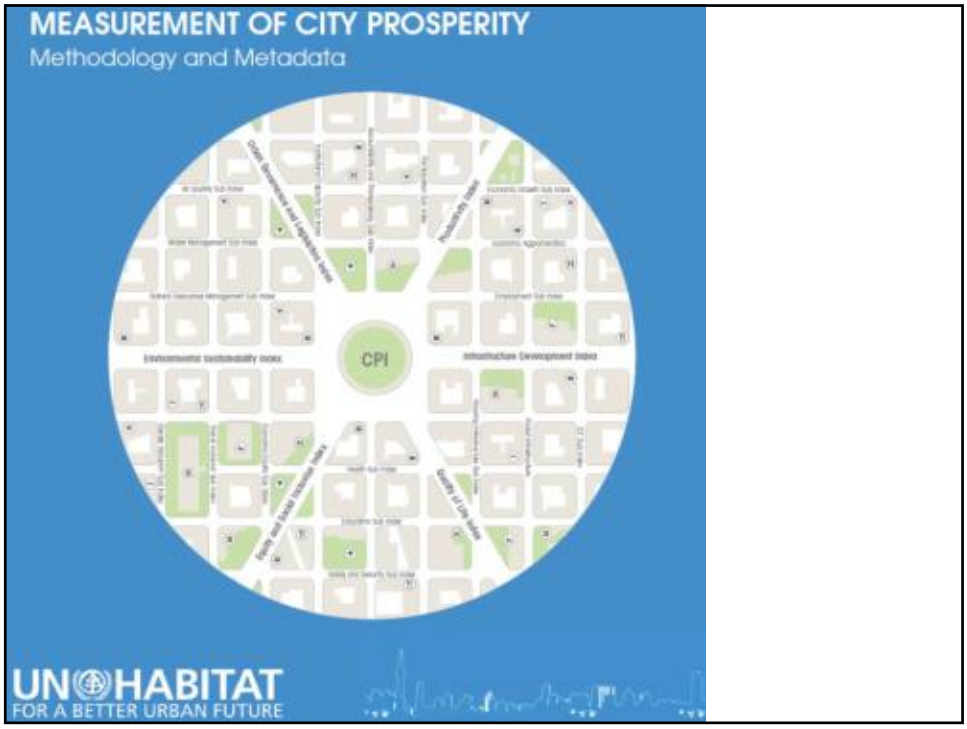
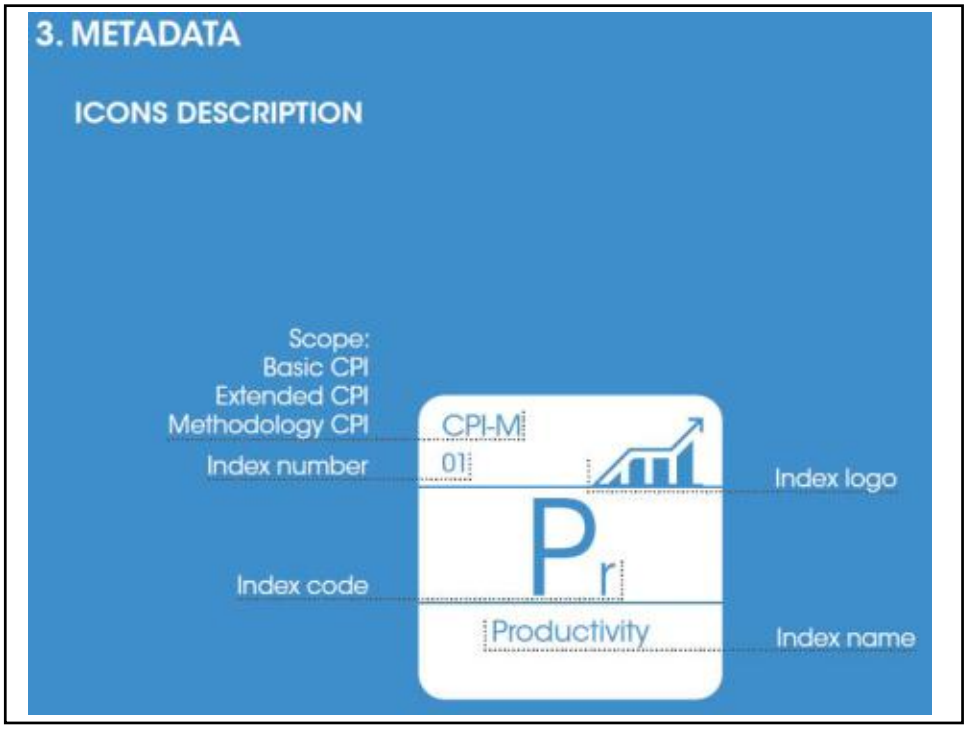



MEASUREMENT OF CITY PROSPERITY
Methodology and Metadata
CPI
UN HABITAT
FOR A BETTER URBAN FUTURE


3. METADATA
ICONS DESCRIPTION
Scope:
Basic CPI
Extended CPI
Methodology CPI
CPI-M
Index number
01
Index logo
Pr
Index code
Productivity
Index name

Ql. Ss
03.04.02

Aop

Accessibility of Open Public Areas - Metadata

212

Indicator	Accessibility of Open Public Areas
Scope	Extended CPI
Rationale	This indicator provides information about the open public areas in a city has and whether this amount is sufficient for its population. Additionally, this indicator considers the accessibility of open public areas and the distribution of the total area across the city. In most countries, the concept of an open public area is related to green areas (where green areas are defined as public and private areas that have flora such as plants, trees and grass). Nevertheless, the two principal roles of an open public area are to provide a space for healthy social interaction space and improve air quality (WHO, 2012). Individuals residing in towns and cities should have access to natural green spaces or open public spaces less than 300 meters from home (Natural England; see also The Wildlife Trust & Natural England, 2009; Harrison et al., 1995; Barker, 1997; Handley et al., 2003; Wray et al., 2005; [1]) A prosperous city has enough open public area for its residents, which is properly distributed and easy to access.
Definition	The percentage of the urban area located less than 300 meters away from an open public space.

Definition	An open area is concept is …
Unit [ ]	%
Methodology	Methodology A: *Accessibility of open public …*

Guidelines prepare clear standardization techniques

Types of Standardization

- Not required
- Simple reversal
- Classic direct standardization
- Classic reversal standardization
- Standardization with the minimum target
- Standardization with the ultimate goal
- Standardization with single objective

Each indicator of the CPI has a specific way to be standardized

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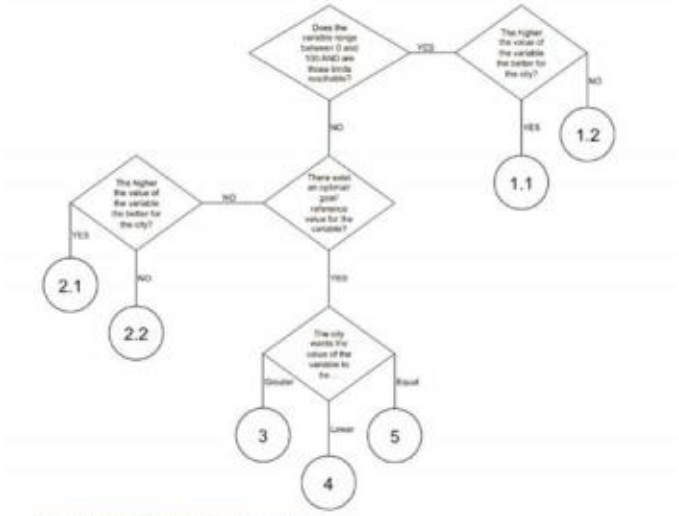
Guidelines prepare clear standardization techniques



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Standardization: Simple Reversal

$$X^{(S)} = 100 - X$$

Example:

- The poverty rate, which is measured in percent.
- The variable moves from 0 to 100.
- The relationship with the CPI is reversed (a rise in the poverty rate will generate a decrease in the level of prosperity of the city).

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Classic reversal standardization

$$X^{(S)} = 100\left(1 - \frac{X - Min(X)}{Max(X) - Min(X)}\right)$$

Example:

- Higher values are worst
- CO_2 emissions (measured in metric tons of CO2 per capita)
- WB (2008-2010)
  - Minimum 0.01
  - Maximum 44.20

- A city with 1.44 metric tons would have a standardized value of:

$$X^{(S)} = 100\left(1 - \frac{1.44\ toneladas\ métricas - 0.01\ toneladas\ métricas}{44.20\ toneladas\ métricas - 0.01\ toneladas\ métricas}\right) = 96.76$$

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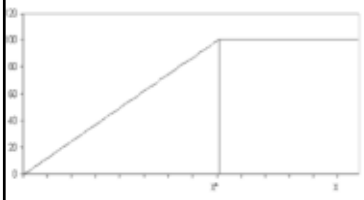
Standardization with minimum target

$$X^{(S)} = \begin{cases} 0 & si\ \ X < 0 \\ 100\left(1 - \left|\frac{X - X^*}{X^*}\right|\right) & si\ \ 0 \le X < X^* \\ 100 & si\ \ X \ge X^* \end{cases}$$



Example:

- Number of intersection per square kilometer
- UN-Habitat (2014) recommends 100 sq. km
- A city with 50 intersections would have a standardized value of:

$$X^{(S)} = 100\left(1 - \left|\frac{50\,\text{int}/\,km^2 - 100\,\text{int}/\,km^2}{100\,\text{int}/\,km^2}\right|\right) = 50.00$$

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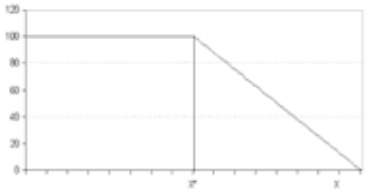
Standardization with ultimate goal

$$X^{(S)} = \begin{cases} 0 & si \;\; X \geq 2X^* \\ 100\left(1 - \left|\frac{X - X^*}{X^*}\right|\right) & si \;\; X^* < X < 2X^* \\ 100 & si \;\; X \leq X^* \end{cases}$$



Example:

- PM10 concentration (measured in micrograms per cubic meter).
- EC (2013) has set a target value recommended maximum = 40.
- To exceed a certain threshold value decreases (40=100)
- A city with = 54.63, its normalized value is:

$$X^{(S)} = 100\left(1 - \left|\frac{54.63\ \mu g/m^3 - 40\ \mu g/m^3}{40\ \mu g/m^3}\right|\right) = 63.43$$

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Standardization with single objective

$$X^{(S)} = \begin{cases} 0 & si \;\; X \leq 0 \;\; o \;\; X \geq 2X^* \\ 100\left(1 - \left|\frac{X - X^*}{X^*}\right|\right) & si \;\; 0 < X < 2X^* \\ 100 & si \;\; X = X^* \end{cases}$$

Examples:

- Residential densities
- Women in Local Government (measured as a % target value)
- Mossuz-Lavau (2005) = 50%
- In a city with 31.22% of women in government, the standardized value would be:

$$X^{(S)} = 100\left(1 - \left|\frac{31.32\% - 50\%}{50\%}\right|\right) = 62.64$$

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Construction of a scheme of WEIGHTS

Once the variables have been standardized, there is a need to define a methodology to add the information on these variables in a new variable.

Need to define a weighting scheme for dimensions, sub-dimensions and variables.

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Construction of a scheme of WEIGHTS

a) The dimensions have an equal weight in the indicator.

b) The sub-dimensions have equal weight within its dimension.

c) The variables have equal weight within its sub-dimension

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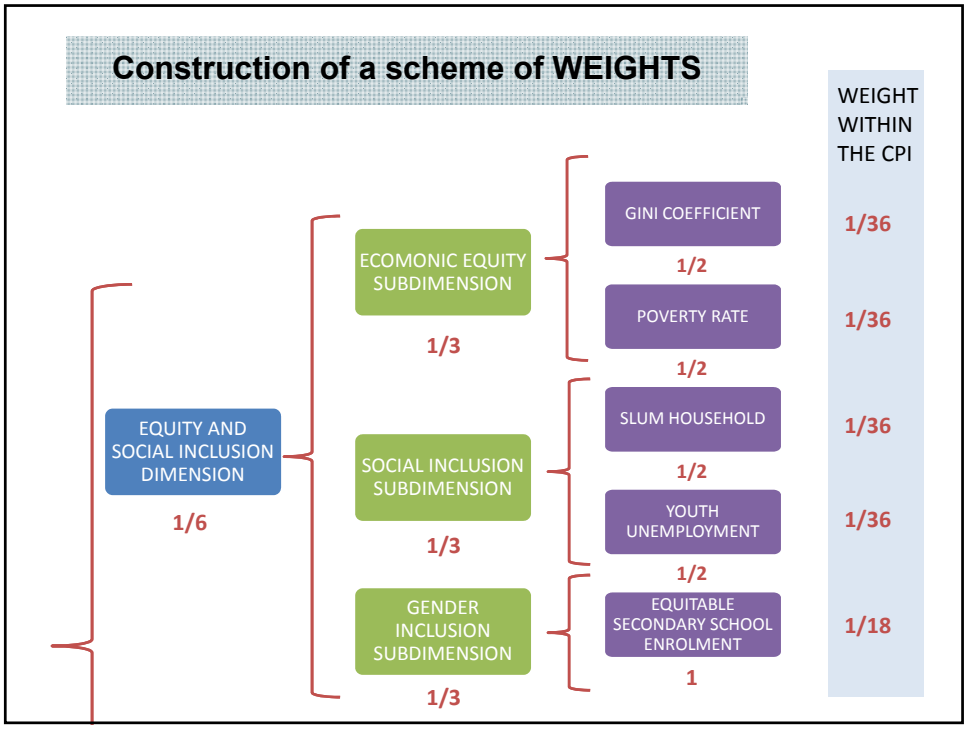
Construction of a scheme of WEIGHTS
WEIGHT WITHIN THE CPI
EQUITY AND SOCIAL INCLUSION DIMENSION
1/6
ECOMONIC EQUITY SUBDIMENSION
1/3
SOCIAL INCLUSION SUBDIMENSION
1/3
GENDER INCLUSION SUBDIMENSION
1/3
GINI COEFFICIENT
1/2
1/36
POVERTY RATE
1/2
1/36
SLUM HOUSEHOLD
1/2
1/36
YOUTH UNEMPLOYMENT
1/2
1/36
EQUITABLE SECONDARY SCHOOL ENROLMENT
1
1/18


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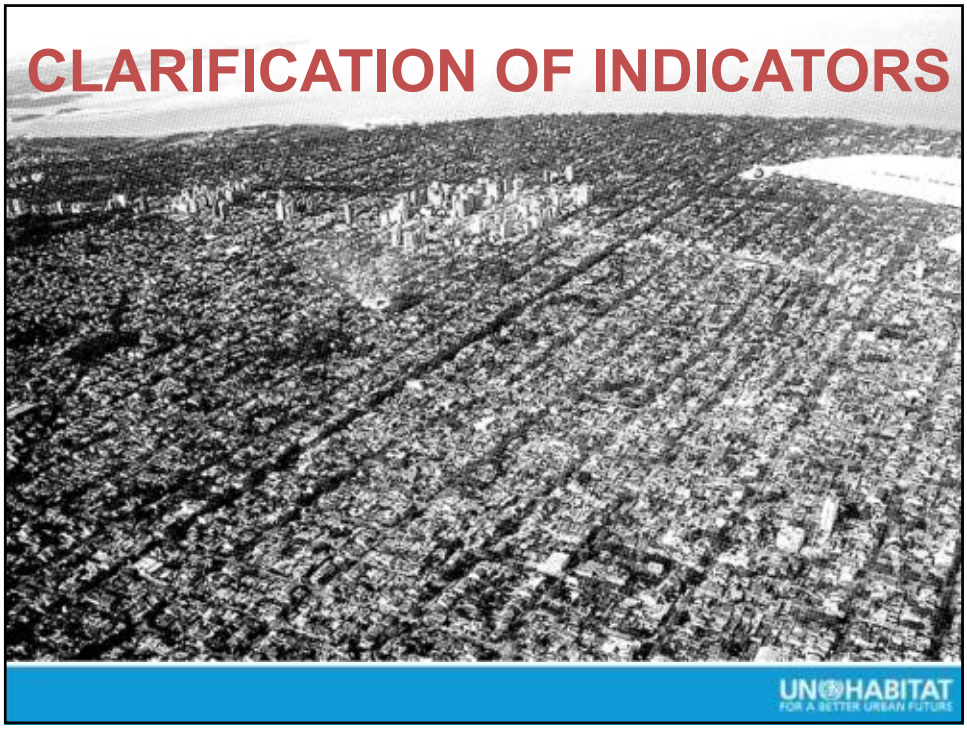
FOR A BETTER URBAN FUTURE

CLARIFICATION OF INDICATORS



Structure of the Index

Productivity	1. Economic Growth Sub Index (EG)
	2. Economic Agglomeration (EA)
	3. Employment Sub Index (E)
Infrastructure Development	1. Housing Infrastructure Sub Index (HI)
	2. Social Infrastructure (SI)
	3. ICT Sub Index (ICT)
	4. Urban Mobility Sub Index (UM)
	5. Street Connectivity (SC)
Quality of Life	1. Health Sub Index (H)
	2. Education Sub Index (E)
	3. Safety and Security Sub Index (SS)
	4. Public Space (PS)
Equity and Social Inclusion	1. Economic Equity Sub Index (EE)
	2. Social Inclusion Sub Index (SI)
	3. Gender Inclusion Sub Index (GI)
	4. Urban Diversity (UD)
Environmental Sustainability	1. Air Quality Sub Index (AQ)
	2. Waste Management Sub Index (WM)
	3. Water and Energy Sub Index (WE)
Governance and Legislation	1.Participation and Accountability (PA)
	2.Municipal Finance (MF)
	3.Governance of Urbanization (GU)

Indicators of Basic CPI

PRODUCTIVITY

Economic Strenght
- City Product per Capita

Economic Burden
- Old Age Dependency

Economic Agglomeration
- Economic Density

Employment
- Unemployment Rate

INFRASTRUCTURE

Housing Infrastructure
- Improved Shelter
- Access to Improved Water

Social Infrastructure
- Physicians Density

ICT
- Internet Access

Street Connectivity
- Intersection Density
- Land Allocated to Streets
- Street Density

Urban Mobility
- Use of Public Transport
- Traffic Fatalities
- Length of Mass Transport Network

QUALITY OF LIFE

Health
- Life Expectancy at Birth
- Under-Five Mortality Rate

Education
- Literacy Rate
- Mean Years of Schooling

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Indicators of Basic CPI

EQUITY AND SOCIAL INCLUSION

Economic Equity
- Gini Coefficient
- Poverty rate

Social Inclusion
- Slum Household
- Youth Unemployment

Gender Inclusion
- Equitable Secondary School Enrollment

ENVIRONMENTAL SUSTAINABILITY

Air Quality
- PM2.5 Concentration
- CO2 emissions

Waste Management
- Solid waste collection
- Waste water treatment

Water and Energy
- Share of renewable energy

URBAN GOVERNANCE

Participation
- Voter turnout

Municipal Finance
- Own revenue collection
- Days to start a business

Governance of Urbanization
- Urban expansion

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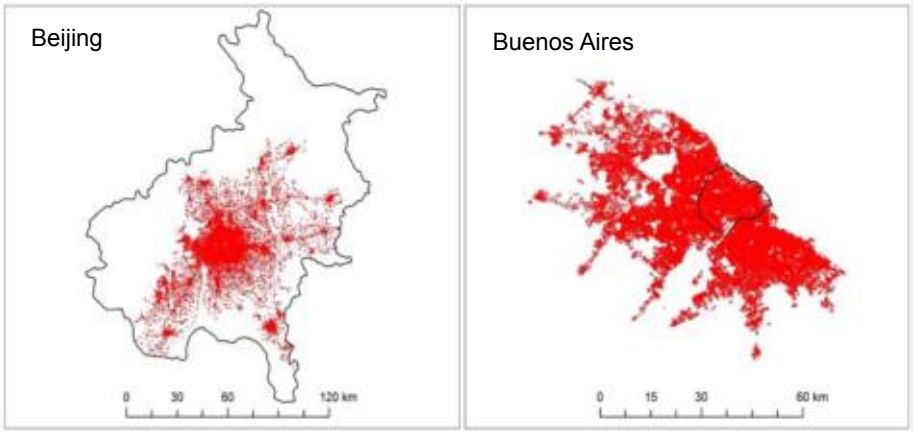
SPATIAL DELIMITATION

URBAN AGGLOMERATION VS ADMINISTRATIVE BOUNDARY



Cities defined by their municipal boundaries are often inappropriate for monitoring the urban.

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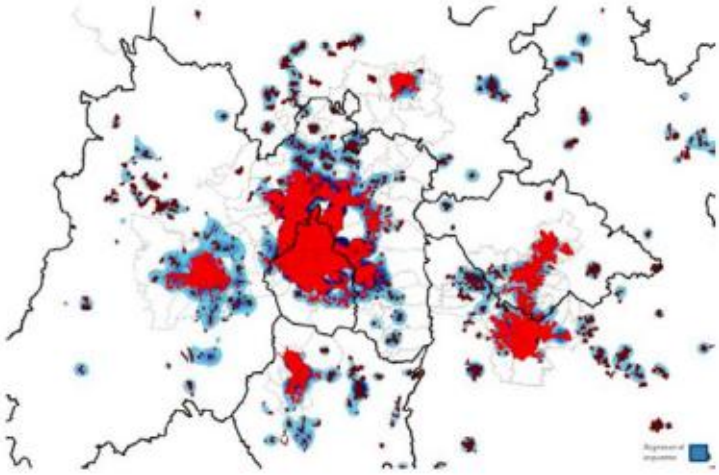
SPATIAL DELIMITATION

URBAN AGGLOMERATION VS ADMINISTRATIVE BOUNDARY



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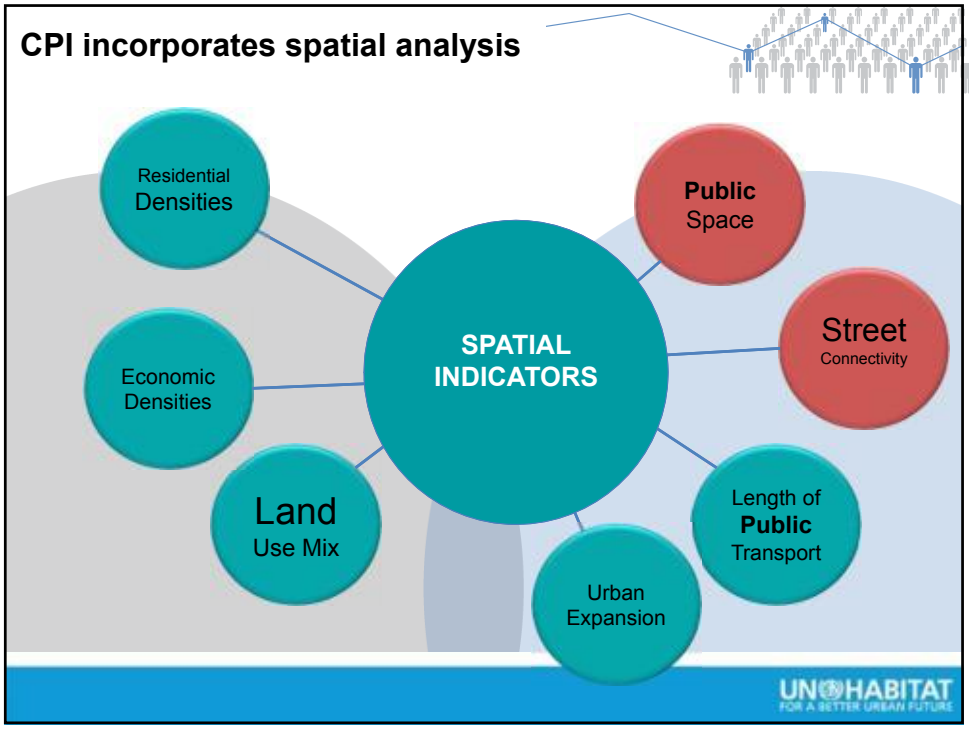
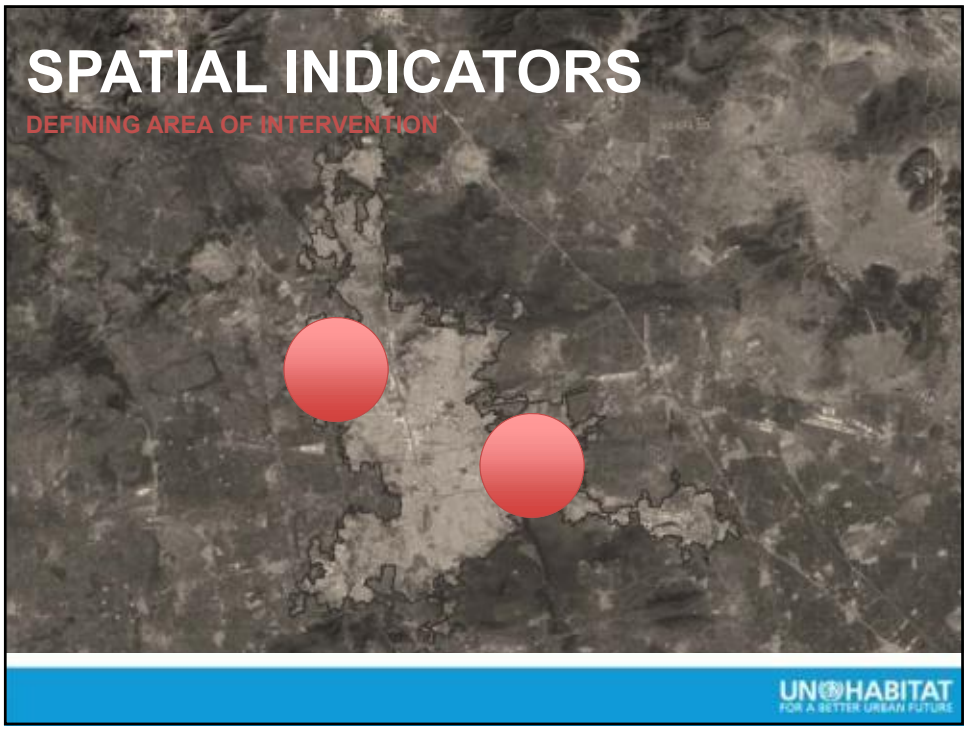

CPI incorporates spatial analysis
Residential Densities
Public Space
SPATIAL INDICATORS
Street Connectivity
Economic Densities
Land Use Mix
Length of Public Transport
Urban Expansion
UN HABITAT
FOR A BETTER URBAN FUTURE


SPATIAL INDICATORS
DEFINING AREA OF INTERVENTION
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FOR A BETTER URBAN FUTURE

CITY PRODUCT

PURCHASING PARITY POWER (PPP)

Country	Per Capita GDP (Nominal)	Per Capita GDP (PPP)
United States	47,100	47,400
Germany	40,500	35,900
United Kingdom	36,200	35,100
Japan	42,500	34,200
Mexico	8,900	13,800
Brazil	10,100	10,900
China	4,300	7,400
India	1,200	3,400

PPP conversion factor, GDP (LCU per international $)

Purchasing power parity conversion factor is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as U.S. dollar would buy in the United States.

This conversion factor is for GDP.

Source of Data:
http://data.worldbank.org/indicator/PA.NUS.PPP

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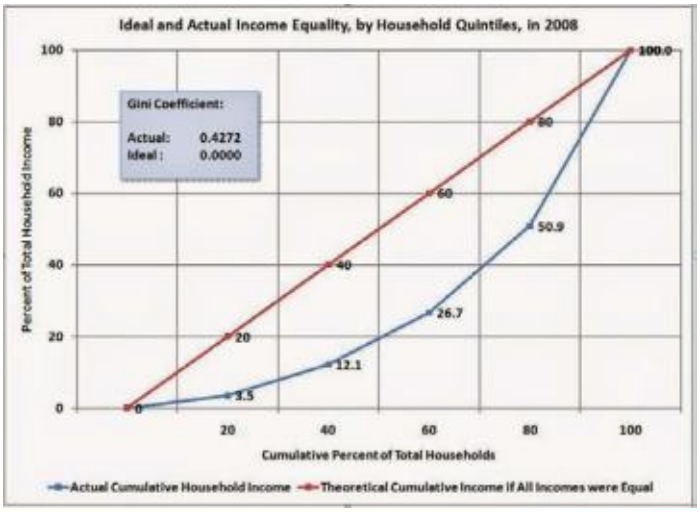
GINI COEFFICIENT

MEASURING INCOME INEQUALITY



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AVERAGE BROADBAND SPEED

MAKING USE OF BIG –REAL TIME- DATA

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LENGTH OF MASS TRANSIT NETWORK

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URBAN EXPANSION

SDG 11.3 RATIO OF POPULATION GROWTH RATE TO LAND CONSUMPTION RATE

Measuring the urban extent of a city in different years (Addis Ababa, in 1986 to 2010).

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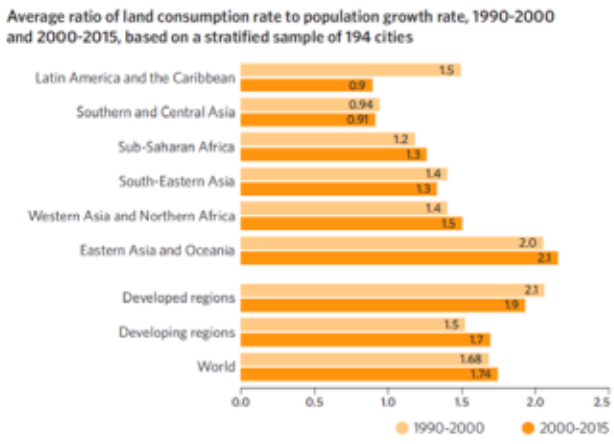
URBAN EXPANSION

SDG 11.3 RATIO OF POPULATION GROWTH RATE TO LAND CONSUMPTION RATE



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PUBLIC SPACES

PUBLIC SPACE

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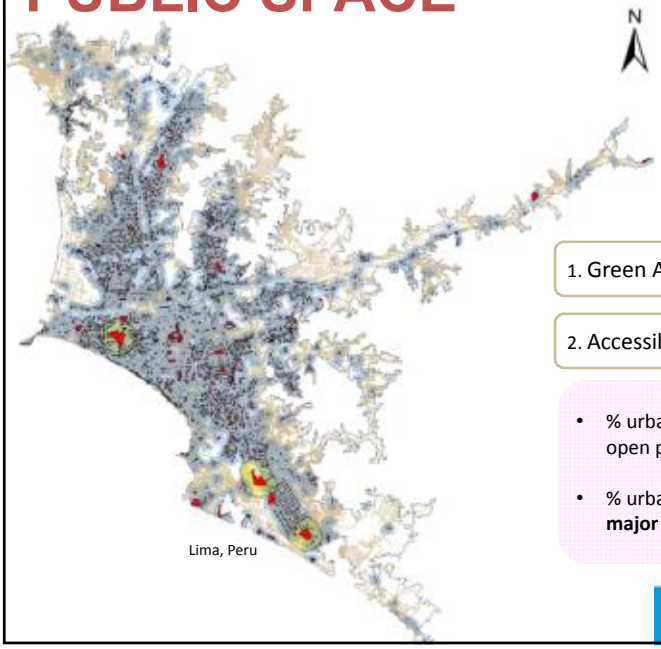
FOR A BETTER URBAN FUTURE



1. Green Area per Capita

2. Accessibility to Open Public Space

- % urban AREA within 400m from open public space
- % urban AREA within 1000m from **major** open public space

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WHAT IS A PUBLIC SPACE?
"Public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive"
Charter on Public Spaces
Nairobi, Kenya © Jose Chong


PUBLIC / PRIVATE
Both publicly-and privately-owned public spaces are considered, although public ownership often guarantees more stable access and enjoyment over time
Ouagadougou, Burkina Faso
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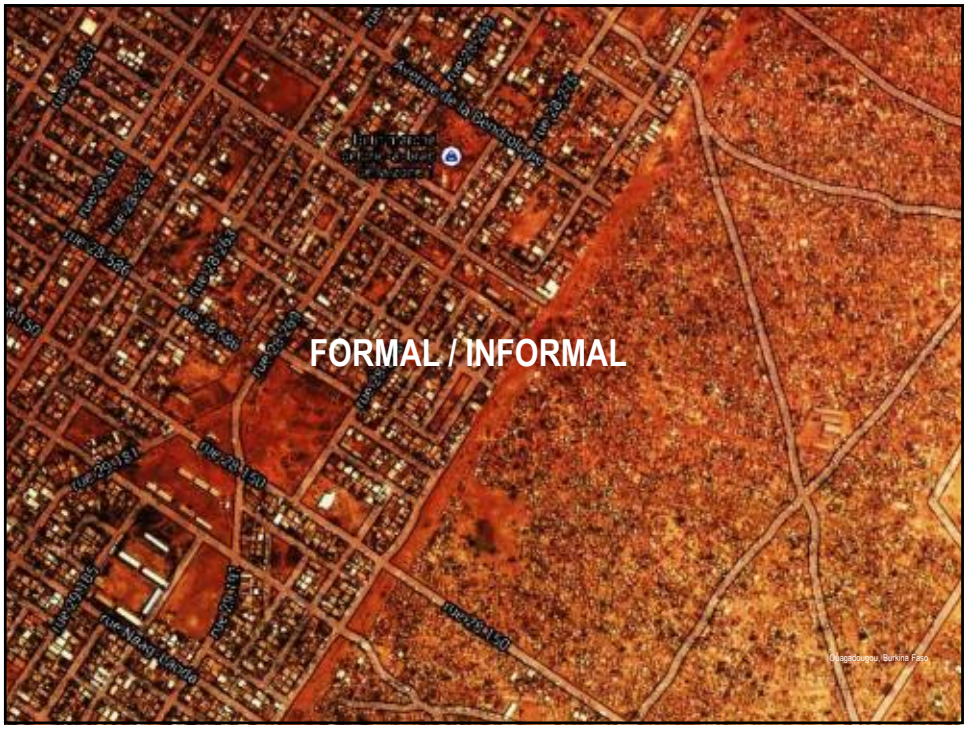
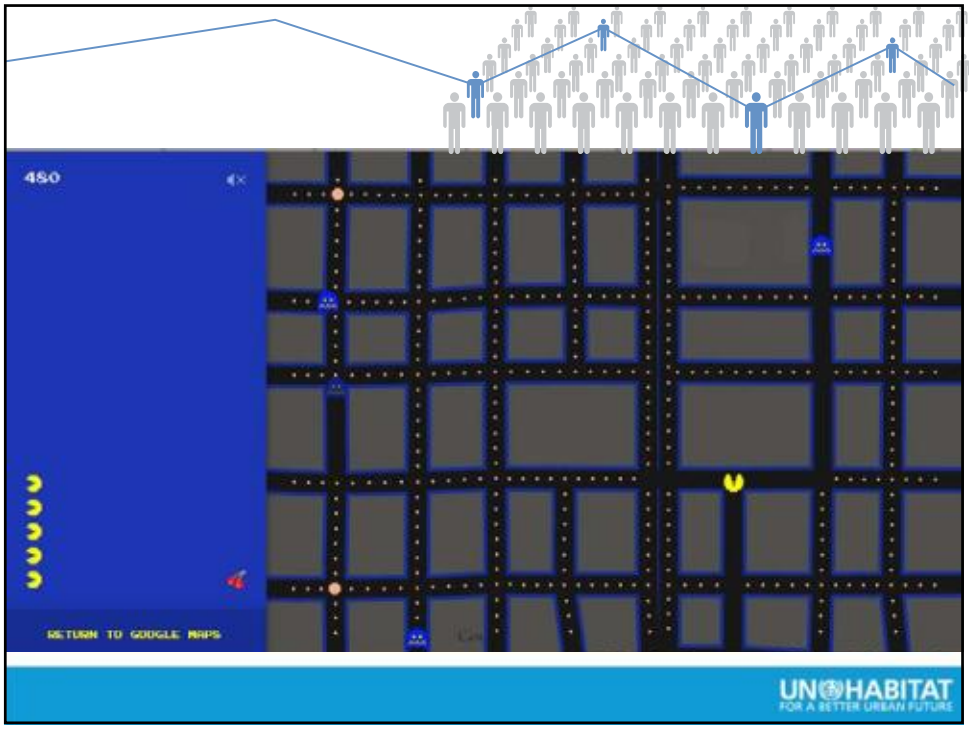

FORMAL / INFORMAL


STREET CONNECTIVITY
WHY IS PUBLIC SPACE IMPORTANT?
• Reduce the impact of climate change and heat island effect
• Encourage people to walk and cycle
• Contribute to develop a sense of civic cohesion and citizenship
• Improve safety and reduces fear of crime
• Increases prosperity


480
RETURN TO GOOGLE MAPS
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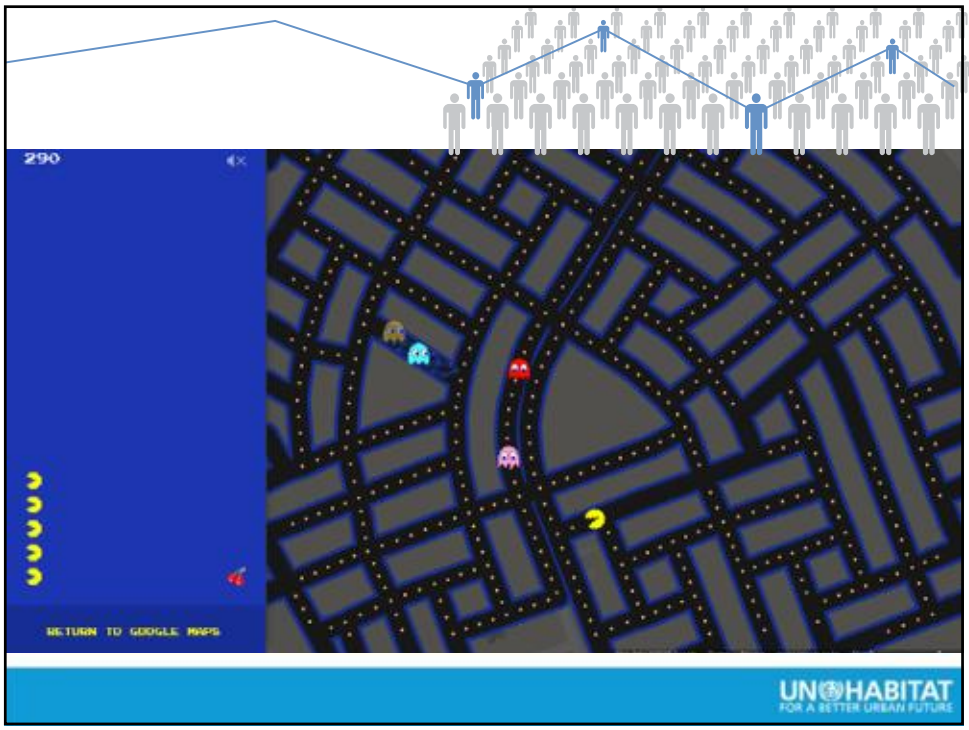
290
RETURN TO GOOGLE MAPS
UN HABITAT
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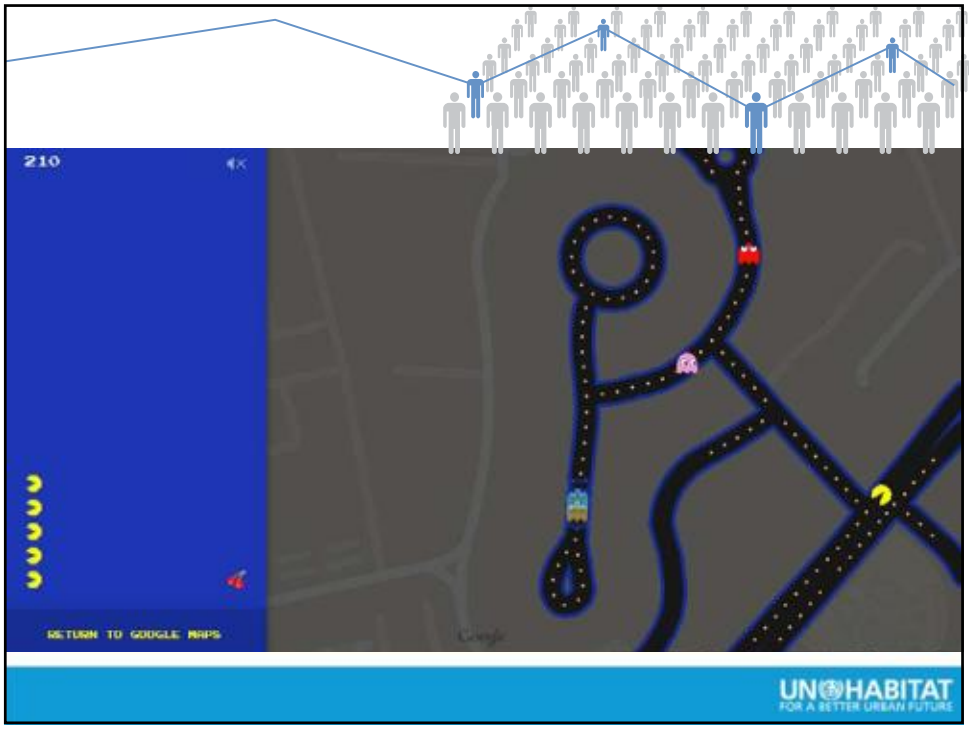
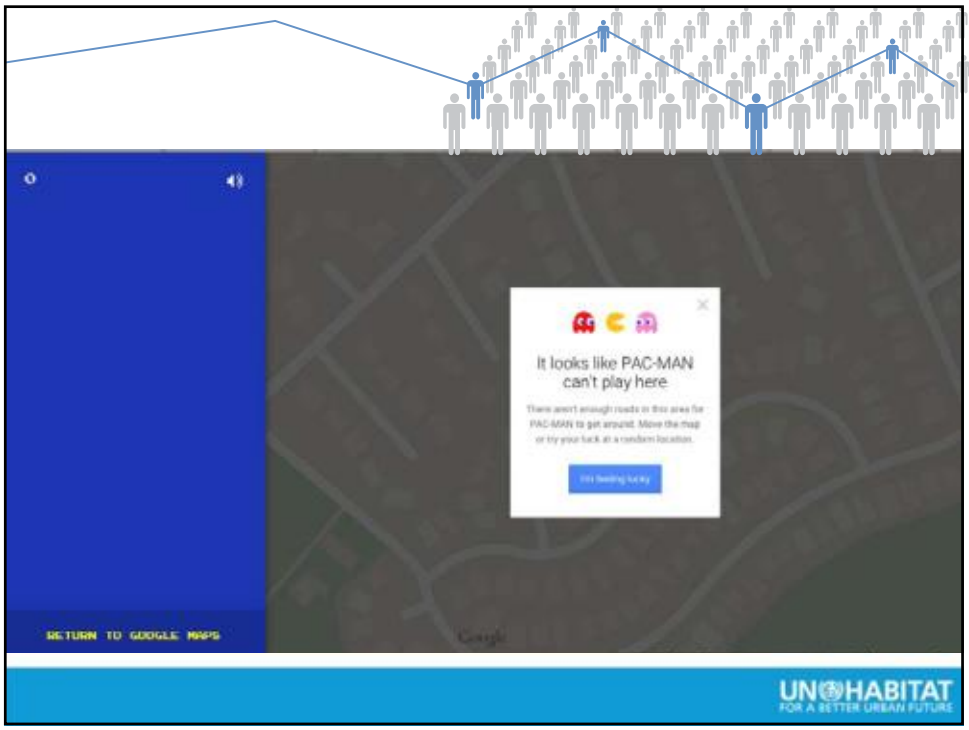

210
RETURN TO GOOGLE MAPS
UN HABITAT
FOR A BETTER URBAN FUTURE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It looks like PAC-MAN can't play here
RETURN TO GOOGLE MAPS
UN HABITAT
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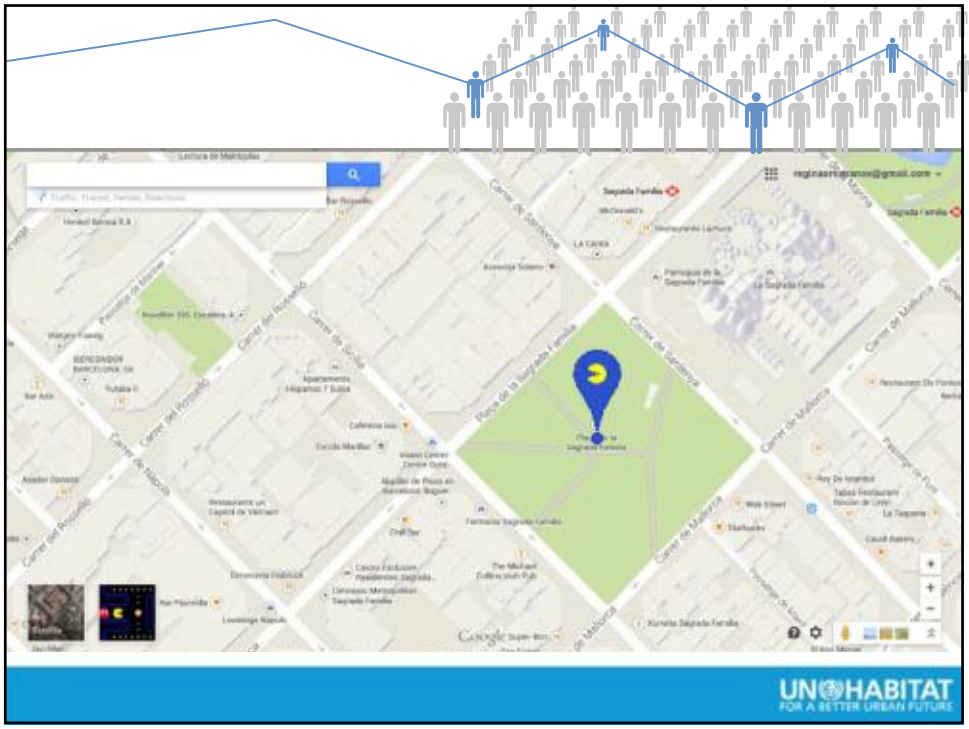
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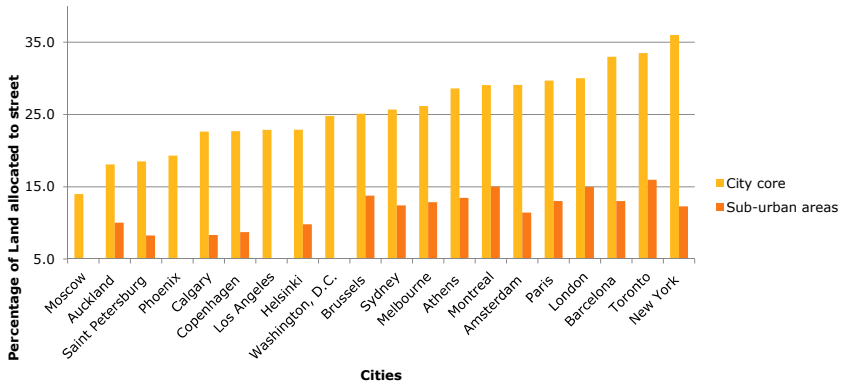
A ratio of 50% of public space is common in successful cities. Manhattan, Barcelona, and Brussels have up to 35% of city area allocated to street space and an additional 15% for other public uses.
Street network ending in broad boulevards in Barcelona
© http://www.airpano.com/Photogallery-Photo.php?author=11&photo=494


Water and sanitation provision is related to Land allocated to street and to street density`
UN-HABITAT


© Regina Orvananos
Required conditions for Public Transport
UN HABITAT
FOR A BETTER URBAN FUTURE

Land allocated to street (LAS) in cities, Europe, North America & Oceania



Disconnected, fragmented suburbs adjacent to well-connected city cores

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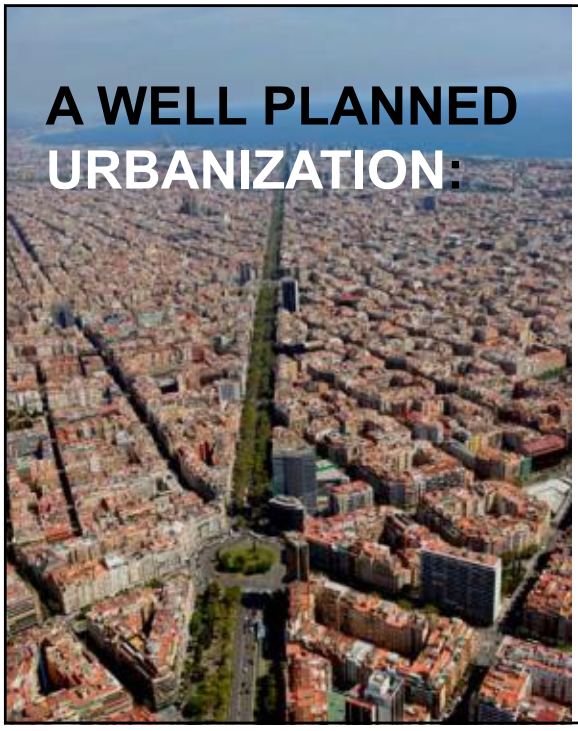
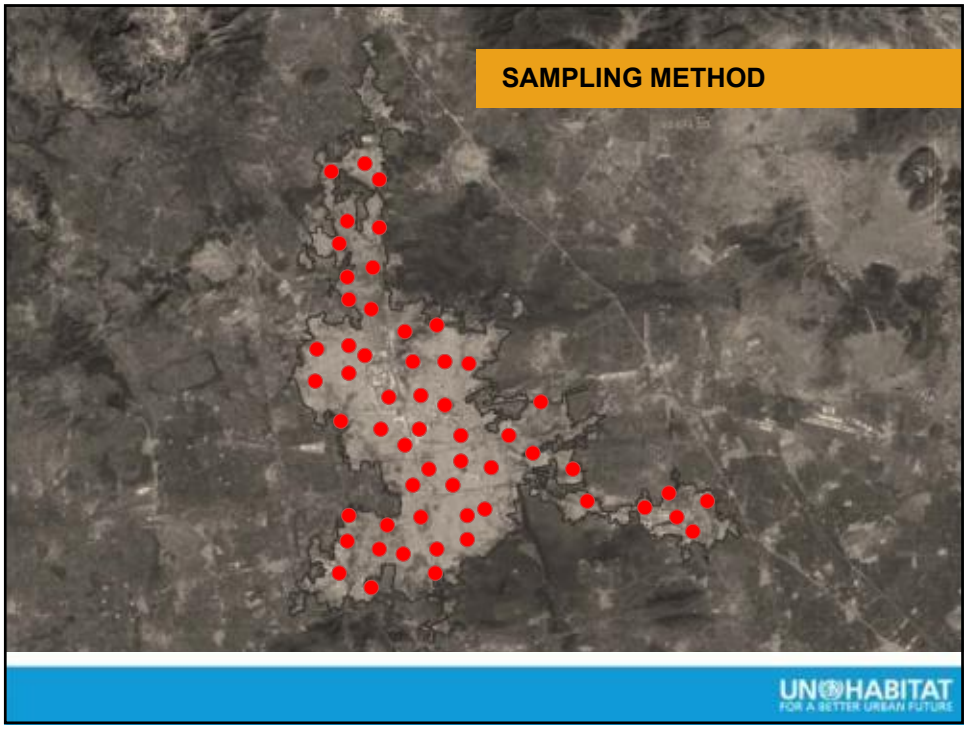


A WELL PLANNED URBANIZATION:

A KEY COMPONENT OF SUSTAINABLE DEVELOPMENT

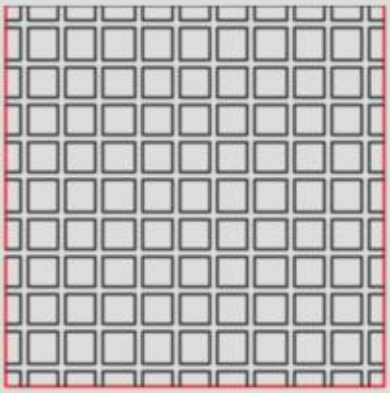


Saudi Arabia CPI – Jeddah

(Patterns at intra-city level)

Atomistic areas		Residential areas		Informal areas	
Land allocated to streets	25.99	Land allocated to streets	34	Land allocated to streets	33
Street density	46.4	Street density	19	Street density	21
Intersection Density	925	Intersection Density	130	Intersection Density	151

CPI
STREET CONNECTIVITY AND SPATIAL INDICATORS

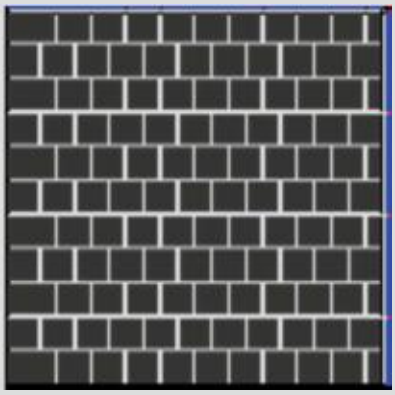


UN-Habitat recommendation:

Land Allocated to Streets:	30%
Street Density:	20 km / km^2
Intersection Density:	100 / km^2

Average street width:	15 m
Street-to-street distance:	100 m
Distance between intersection:	85 m

CPI
STREET CONNECTIVITY AND SPATIAL INDICATORS



Neiva, Colombia:

Land Allocated to Streets:	22.5%
Street Density:	25.75 km /km^2
Intersection Density:	243 / km^2

Average street width:	9.1 m
Street-to-street distance:	80.8 m
Distance between intersection:	71.7 m

CPI

STREET CONNECTIVITY AND SPATIAL INDICATORS

Dammam, Saudi Arabia:

Land Allocated to Streets:	23 %
Street Density:	17 km /km^2
Intersection Density:	72 / km^2
Average street width:	17.9 m
Street-to-street distance:	149.5 m
Average block size:	131.6 m

CPI

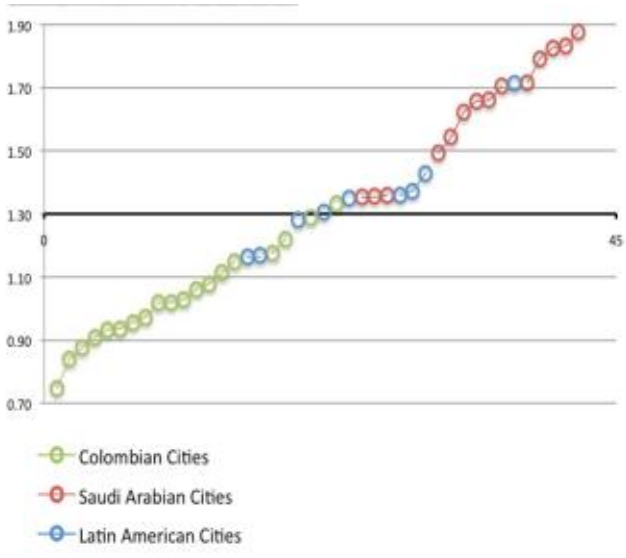
STREET CONNECTIVITY AND SPATIAL INDICATORS

Correlation between street density and intersection density

All city

LAS:SD ratio

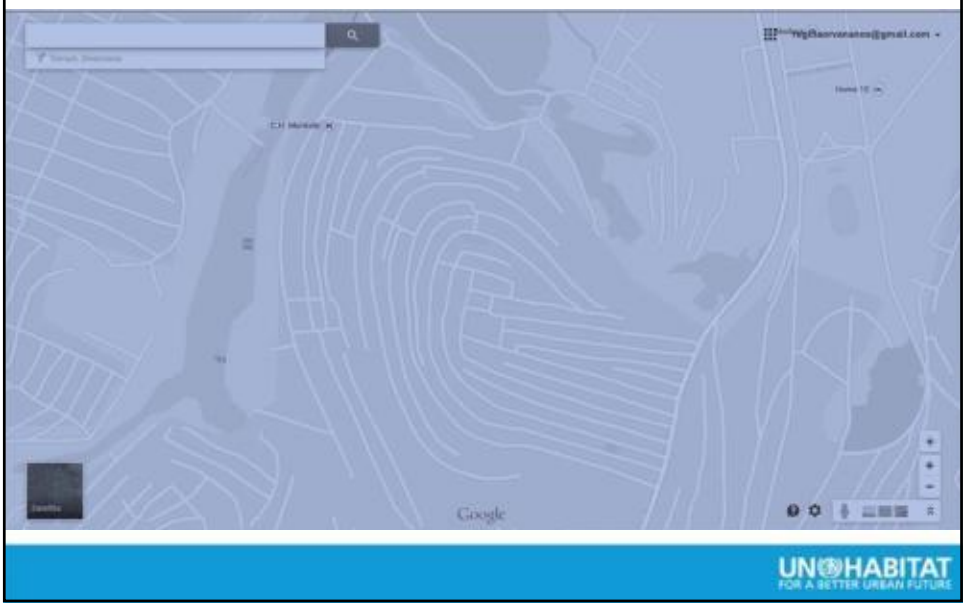
Measures the **scale** of the urban grain



Medellin / Riyadh

SD:ID ratio

Measures the **skewness** of the urban pattern



CPI

CLASIFICATION OF CITIES:
CLIMATIC CONDITIONS

CPI

CLASIFICATION OF CITIES:
CLIMATIC CONDITIONS

CPI

CLASIFICATION OF CITIES:
URBAN BOUNDARIES

CPI

CLASIFICATION OF CITIES:
URBAN TOPOGRAPHY

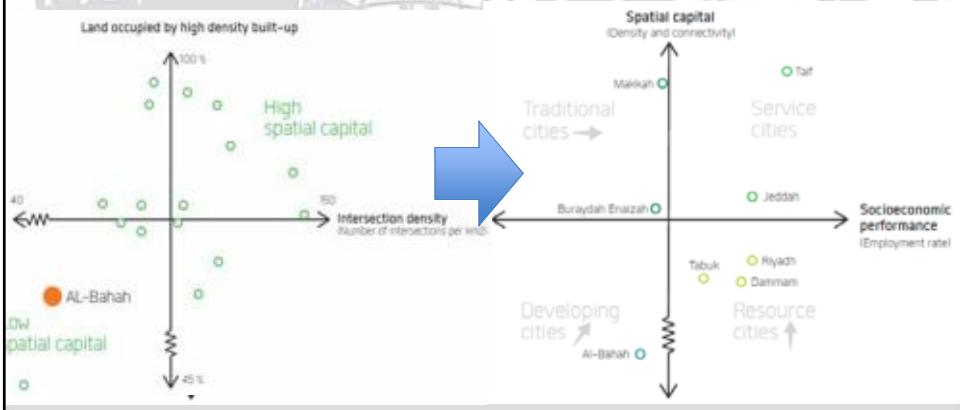
Street Connectivity – The Form of the City - SA

City	Land / streets	Street density	Intersection D
Riyadh	27.87	15.21	109.6
Makkah	23.12	14.98	111.11
Jeddah	22.83	14.08	125.71
Taif	22.65	16.7	146.13
Medina	27.19	15.85	153.83
Tabuk	26.65	14.21	86.67
Khamis Mushait	20.98	15.45	123.04
Najran	15	10.06	53.21
Jizan (Jazan)	22.72	13.71	105.45
Ha'il (Haiel)	24.49	14.75	110.91
Arar (Araar)	29.27	16.03	115.42
Al Bahah	13.98	10.34	59.35
Sakaka	21.43	12.57	90.67

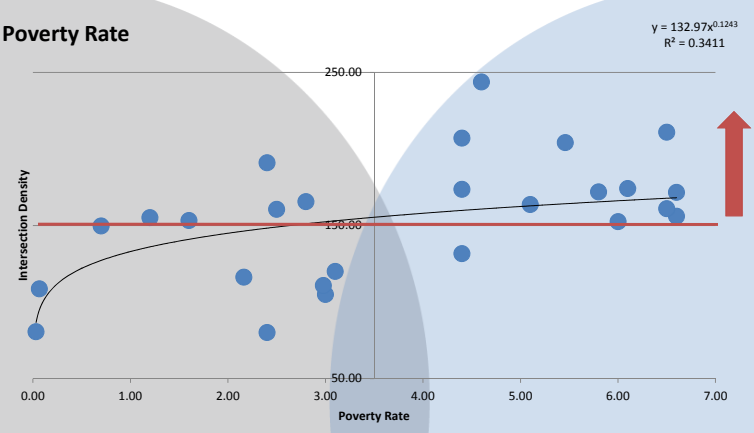
CPI

STREET CONNECTIVITY AND SPATIAL INDICATORS

City prosperity is made possible by its spatial capital
- the density, streets and public open space

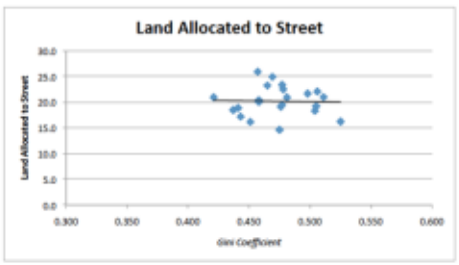


IDENTIFYING THRESHOLDS

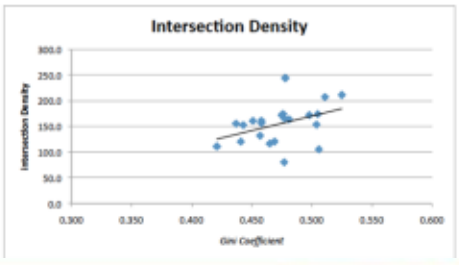


IDENTIFYING FACTORS WITH LARGER INFLUENCE

	Gini Coefficient
Land Allocated to Street	-0.028



	Gini Coefficient
Intersection Density	0.405



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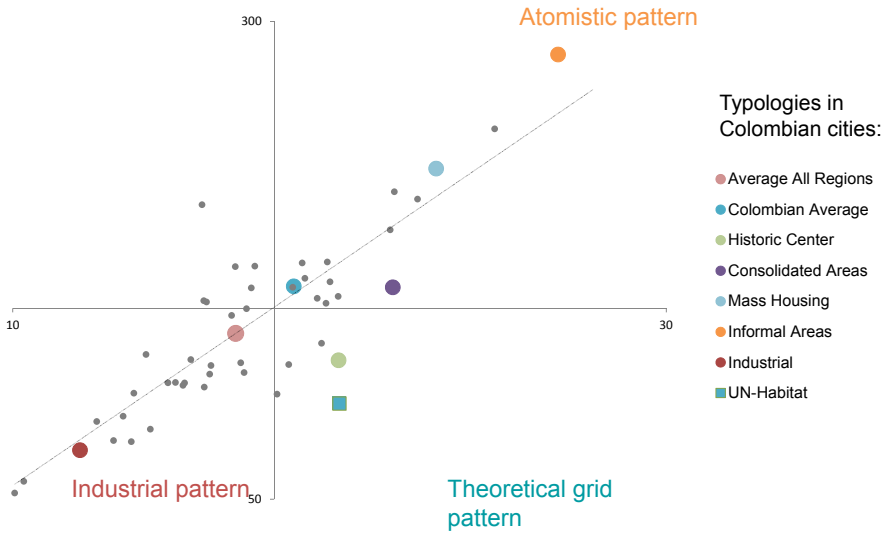
CPI AND THE STREET CONNECTIVITY

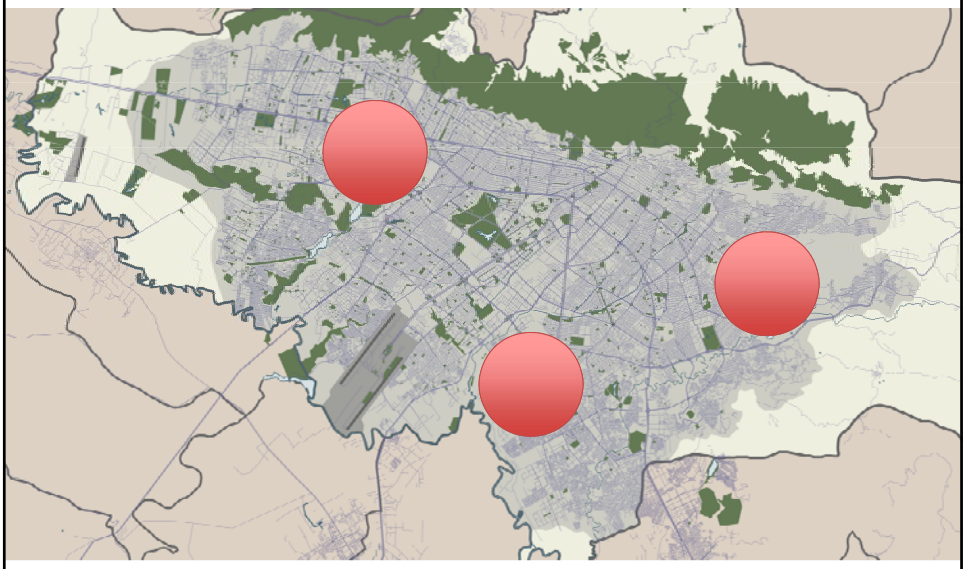
Deviation from City Core values in Colombian cities	Land Allocated to Streets	Street Density	Intersection Density
Mass Housing Projects	-16 %	15 %	82 %
Informal Areas	-34 %	34 %	130 %
Industrial Areas	-31 %	-40 %	-38 %

SD:ID ratio

Urban Pattern Quadrants



From urban form – to urban planning



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City Prosperity Initiative
Regina Orvañanos Murguía

Regina.orvananos@unhabitat.org

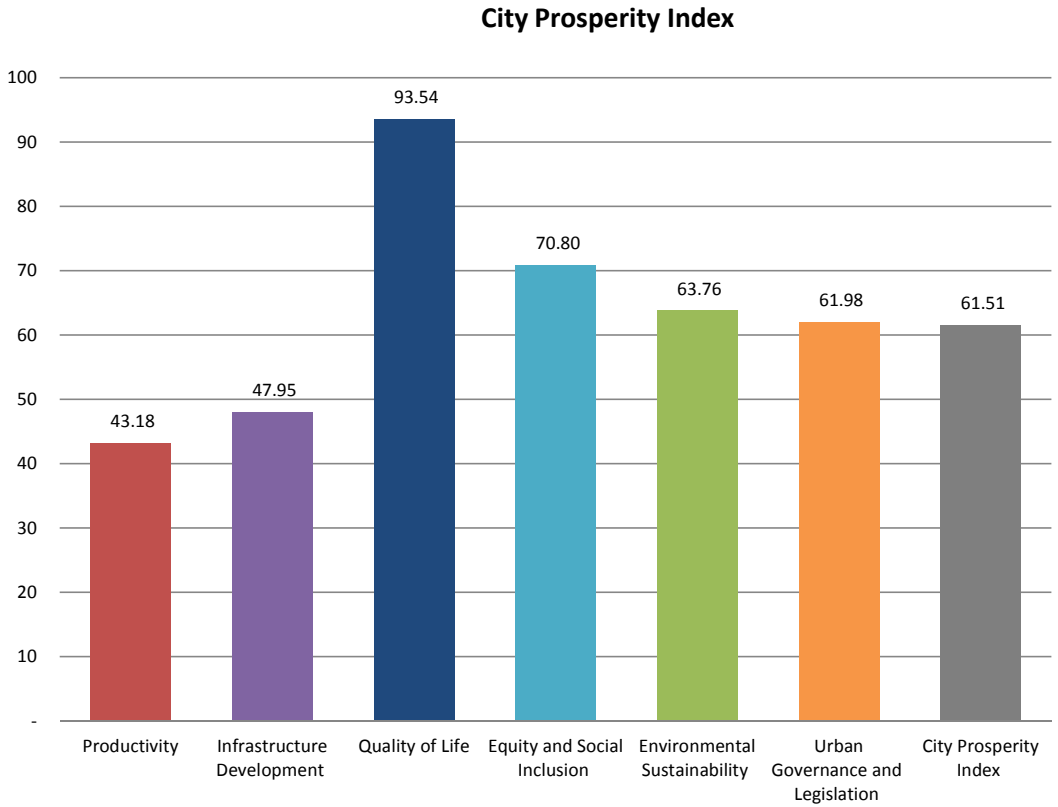
City Prosperity Initiative

UN HABITAT
FOR A BETTER URBAN FUTURE

Gasa
Bhutan

The Structure of the CPI

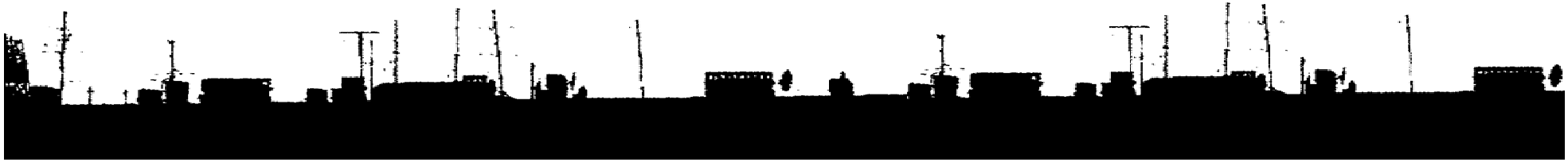
The following graphic presents the results of each of the six dimensions of the CPI based on the values provided in the latest available year.



Standard Deviation:
17.96

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*



Iniciativa de las Ciudades Prósperas

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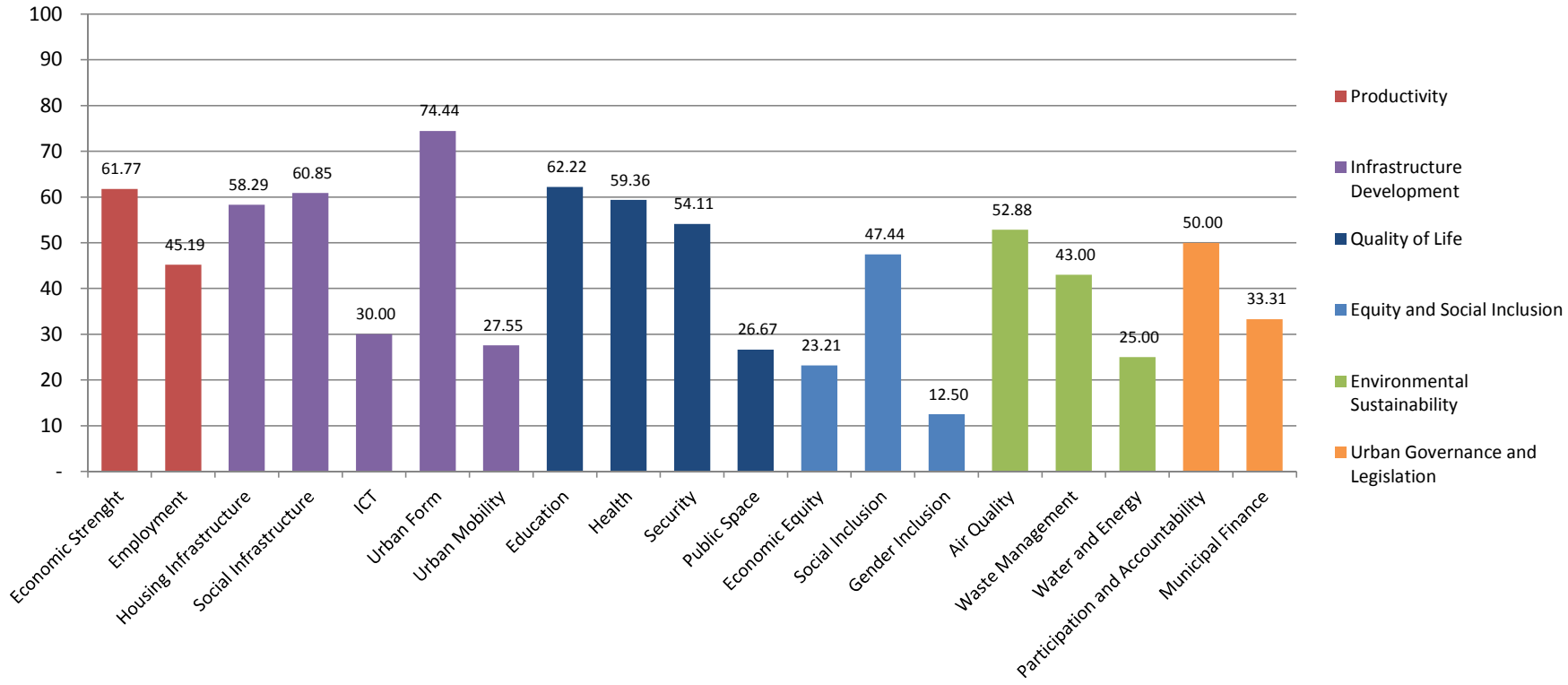
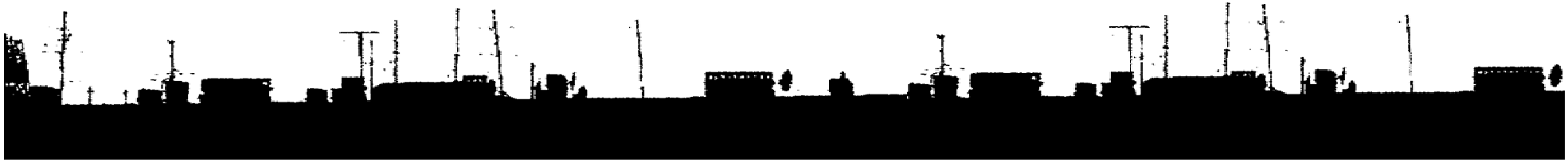
Sudbimensions of the CPI



UN-Habitat 2014

Standard Deviation *32.71*

**Values are estimated for trainning purposes and should not be quoted.*



City Prosperity Initiative

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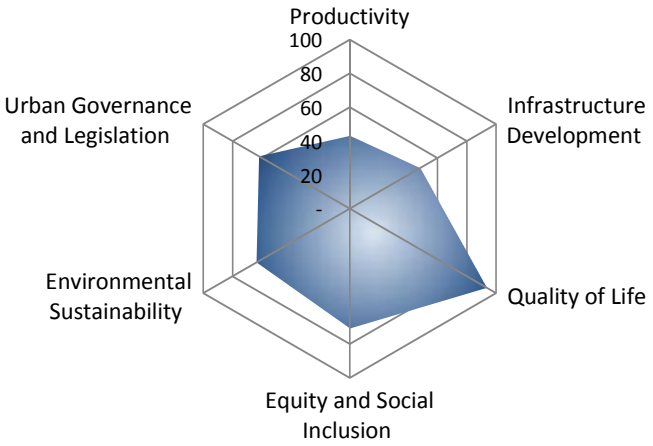
Bhutan

The Structure of the CPI

The CPI consists of six dimensions. Each dimension has a series of subindices or dimensions, which in turn include numerous indicators that allow specific index calculation. In this sense, the CPI produces six subindices related to the six dimensions of prosperity: Productivity, Infrastructure Development, Quality of Life, Equity and Social Inclusion, Environmental Sustainability and Urban governance and Legislation. The aggregation of these six sub-indices generated a consolidated value representing the CPI.

City Prosperity Index
(Last year)

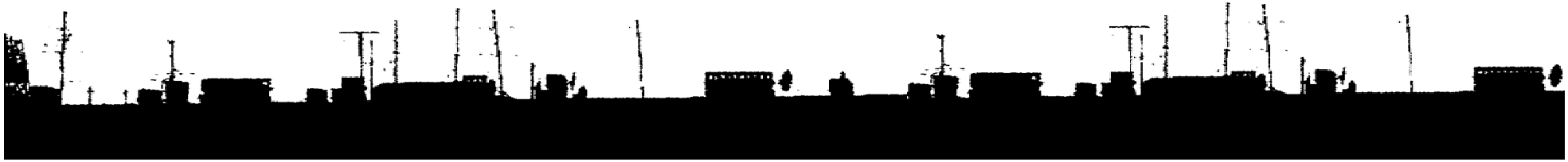


CPI Results

	CPI
Productivity	43.18
Infrastructure Development	47.95
Quality of Life	93.54
Equity and Social Inclusion	70.80
Environmental Sustainability	63.76
Urban Governance and Legislation	61.98
City Prosperity Index	**61.51**

**Values are estimated for trainning purposes and should not be quoted.*

UN-Habitat 2014



City Prosperity Initiative

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mangan
india

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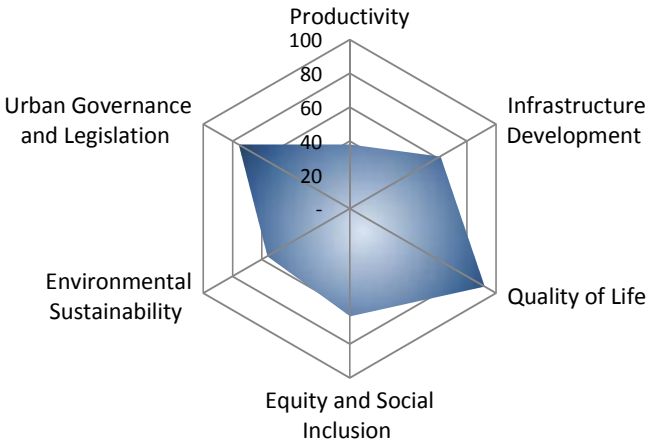
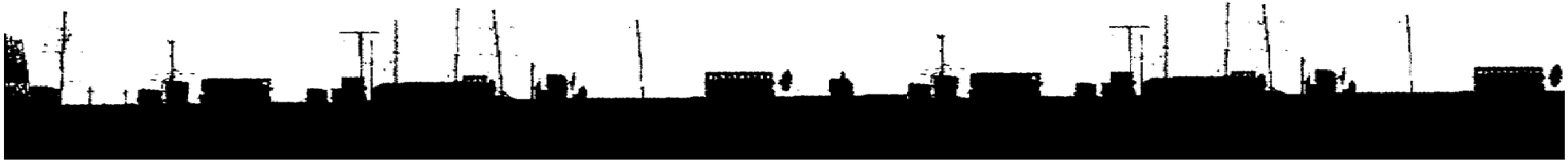


CPI Results

	CPI
Productivity	38.05
Infrastructure Development	61.78
Quality of Life	92.10
Equity and Social Inclusion	63.50
Environmental Sustainability	56.36
Urban Governance and Legislation	76.01
City Prosperity Index	**62.38**

**Values are estimated for trainning purposes and should not be quoted.*

UN-Habitat 2014



City Prosperity Initiative

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mangan
india

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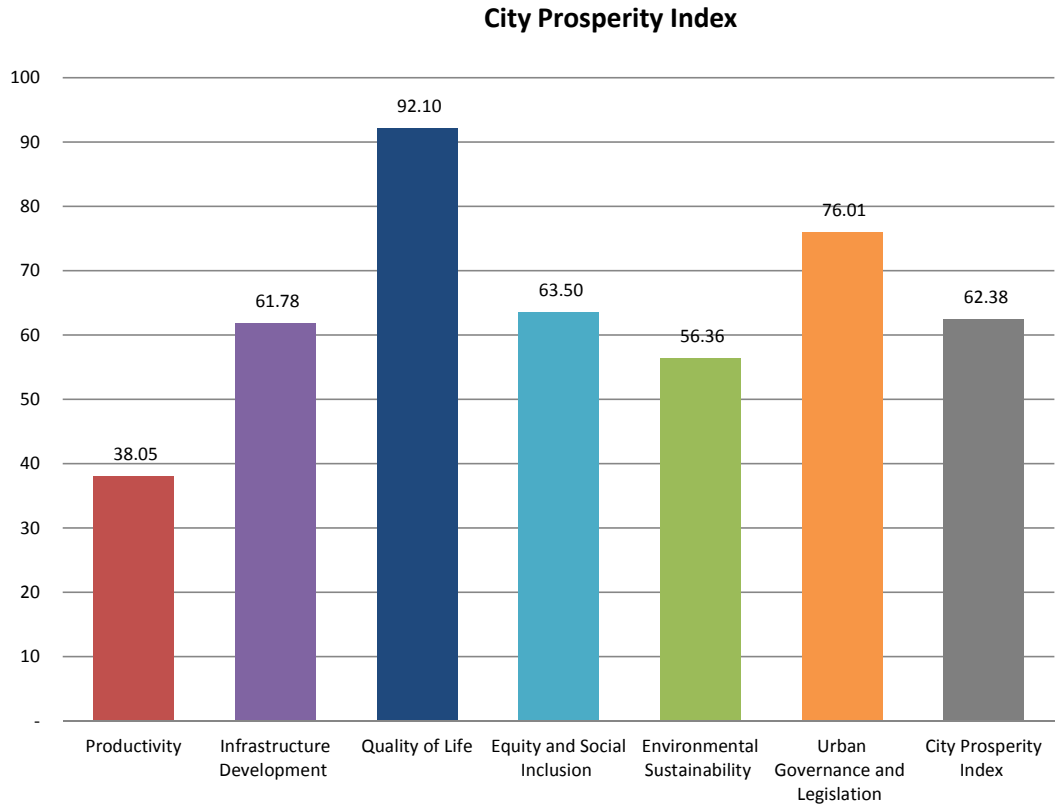
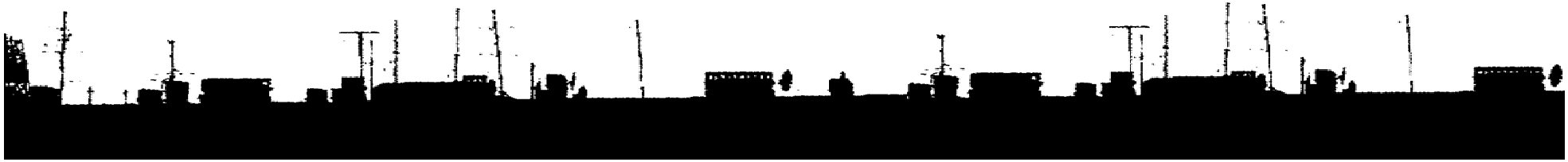


Standard Deviation:
18.27

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*



Iniciativa de las Ciudades Prósperas

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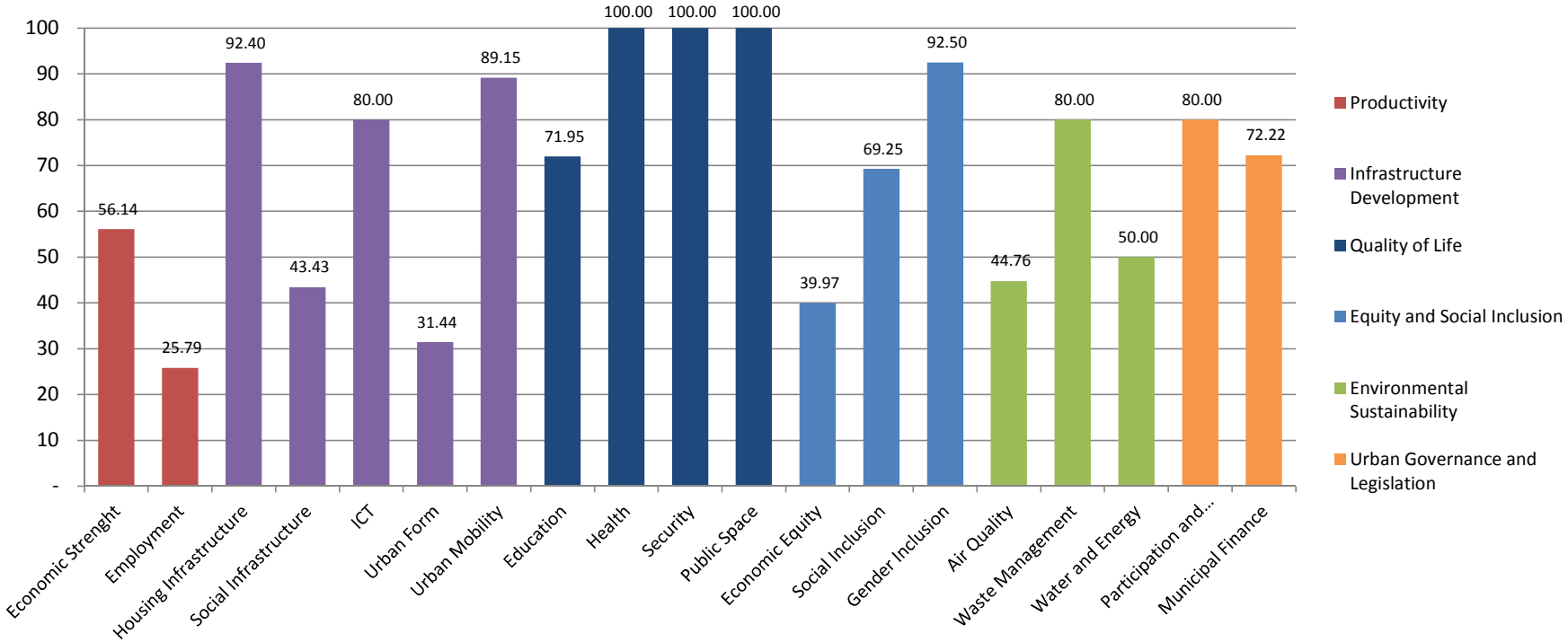
mangan
india

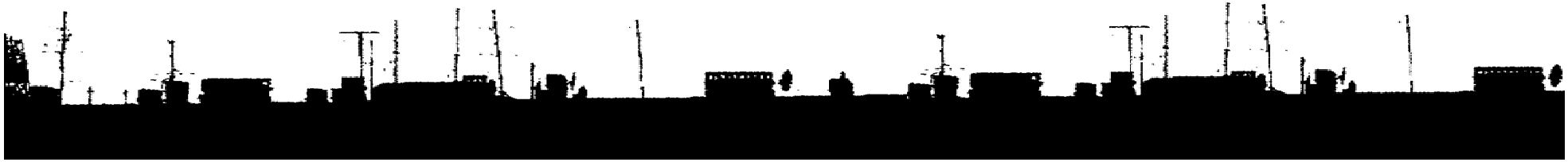
Sudbimensions of the CPI



Standard Deviation *24.33*

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*



City Prosperity Initiative

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Malang
Indonesia

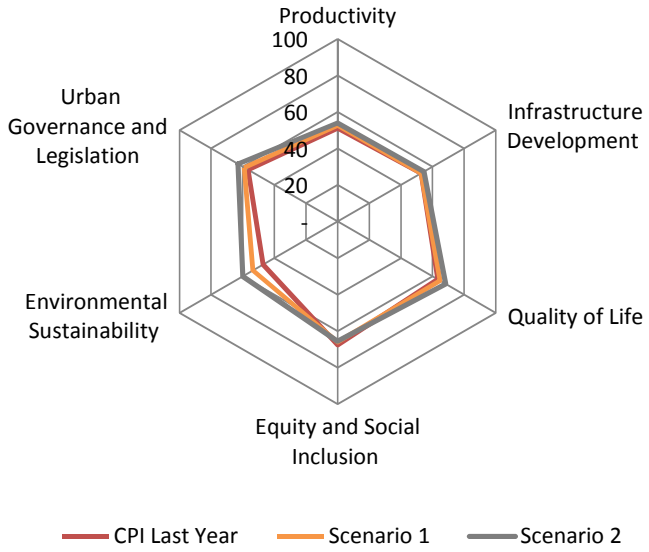
The structure of the CPI

The data entered in the previous sheet has been used to re-calculate two scenarios of the CPI. Scenario 1 refers to a realistic scenario for year 2020 based on identified priority areas. Scenario 2. should refer to the optimal scenario for year 2020, also based on the identified priority areas.

CPI Results

	CPI Last Year	Scenario 1	Scenario 2
Productivity	51.09	52.58	53.96
Infrastructure Development	52.78	52.83	54.48
Quality of Life	63.26	64.70	68.24
Equity and Social Inclusion	67.57	65.98	65.54
Environmental Sustainability	47.17	53.61	59.96
Urban Governance and Legislation	56.53	59.00	63.03
City Prosperity Index	**55.97**	**57.86**	**60.63**

City Prosperity Index



UN-Habitat 2014

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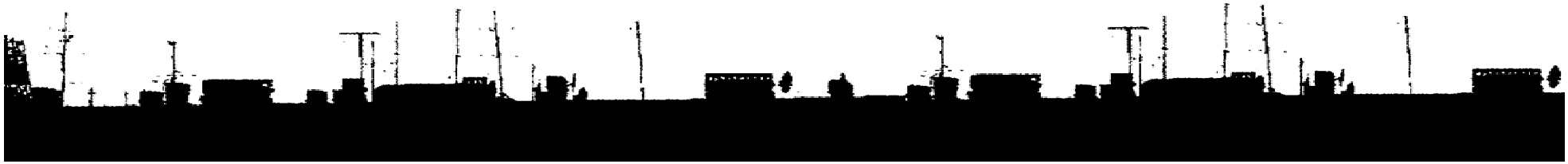

City Prosperity Initiative

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Malang
Indonesia

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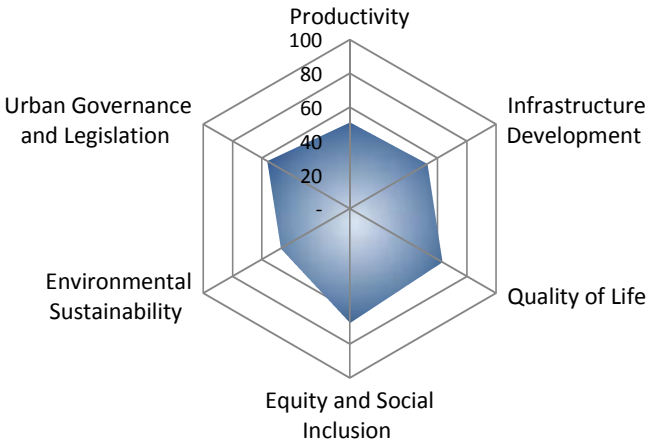
City Prosperity Index
(Last year)



CPI Results

	CPI
Productivity	51.09
Infrastructure Development	52.78
Quality of Life	63.26
Equity and Social Inclusion	67.57
Environmental Sustainability	47.17
Urban Governance and Legislation	56.53
City Prosperity Index	**55.97**

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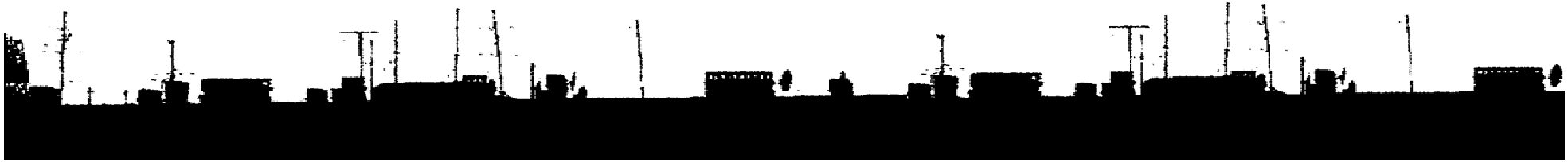
UN-Habitat 2014



City Prosperity Initiative

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Malang
Indonesia

The Structure of the CPI

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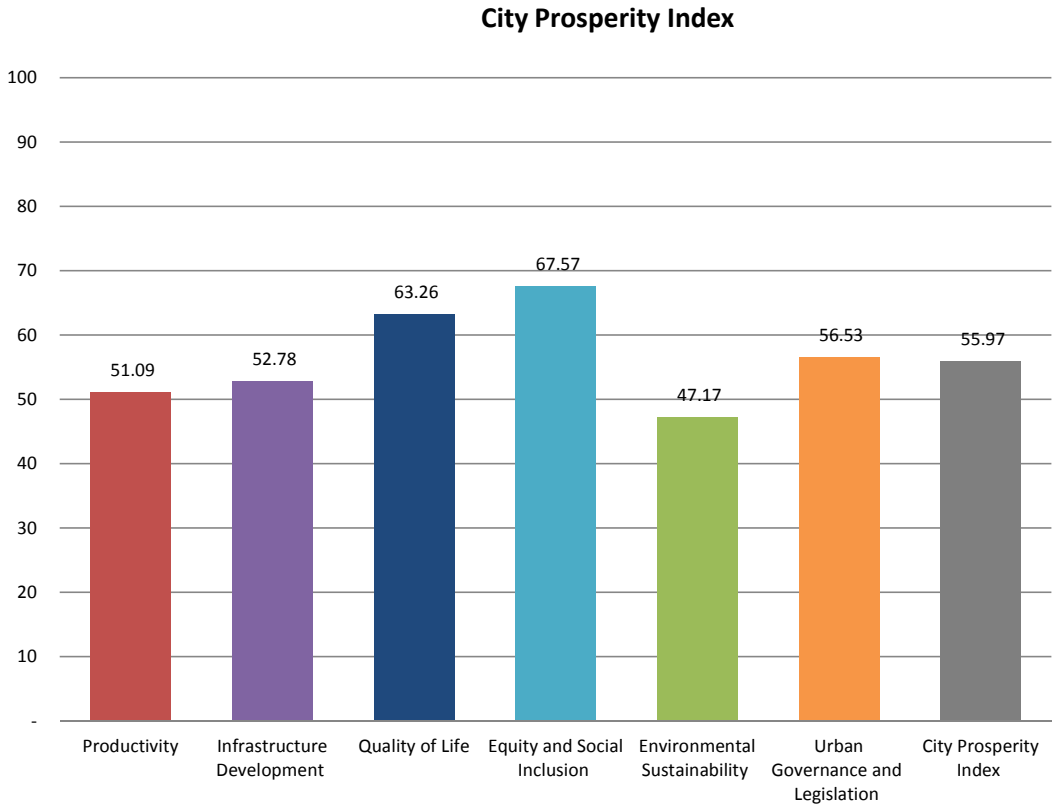
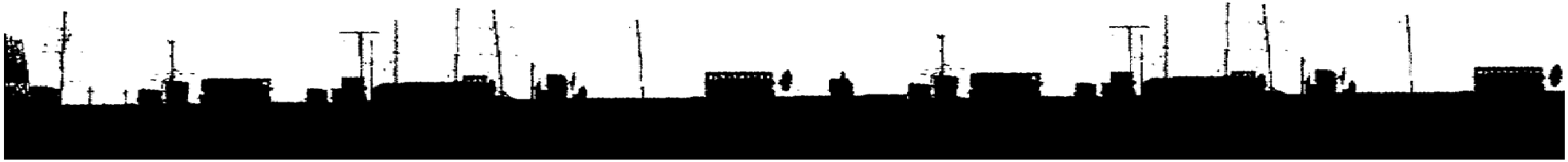


Standard Deviation:
7.73

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*



Iniciativa de las Ciudades Prósperas

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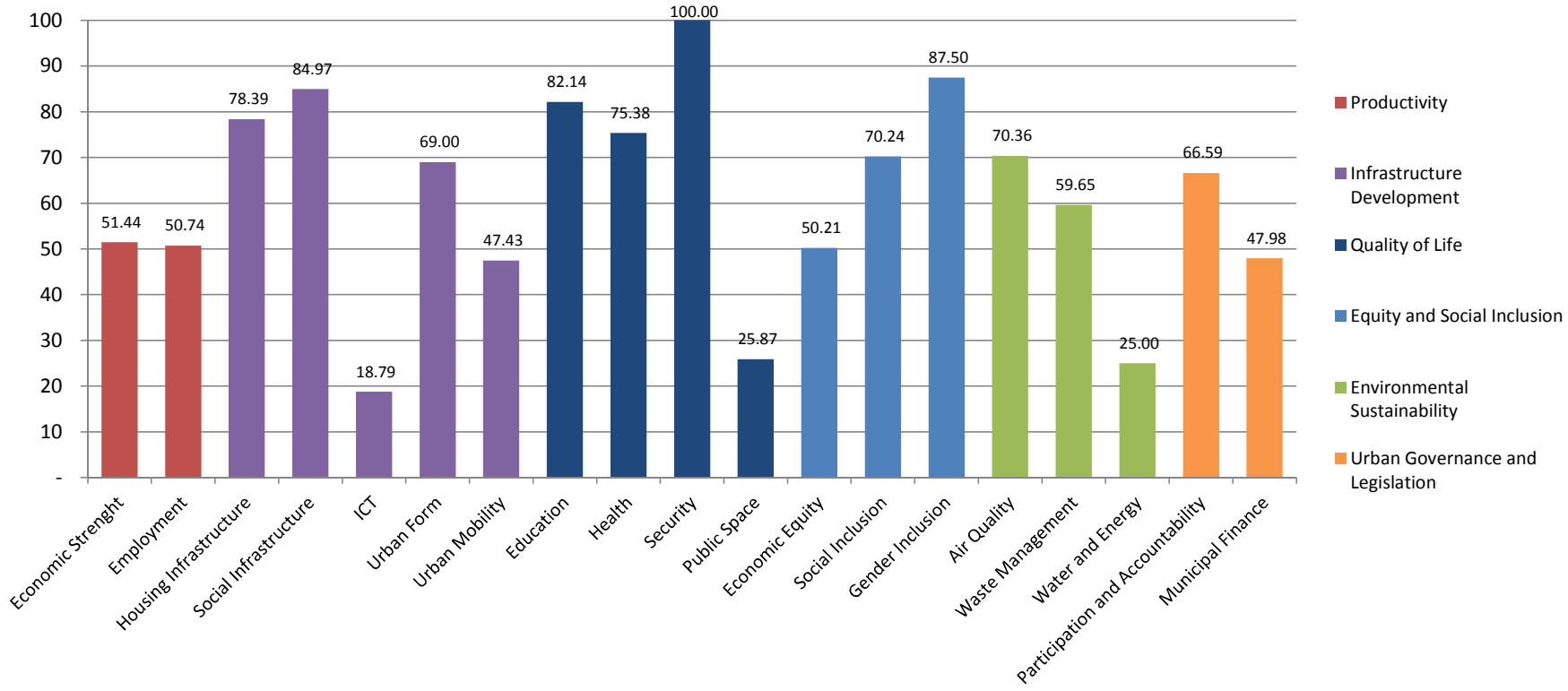
Malang
Indonesia

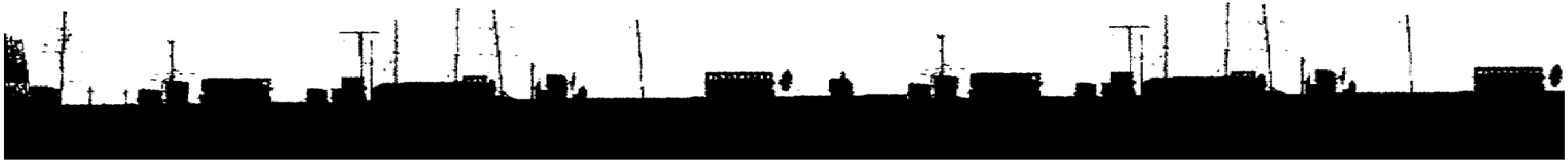
Sudbimensions of the CPI

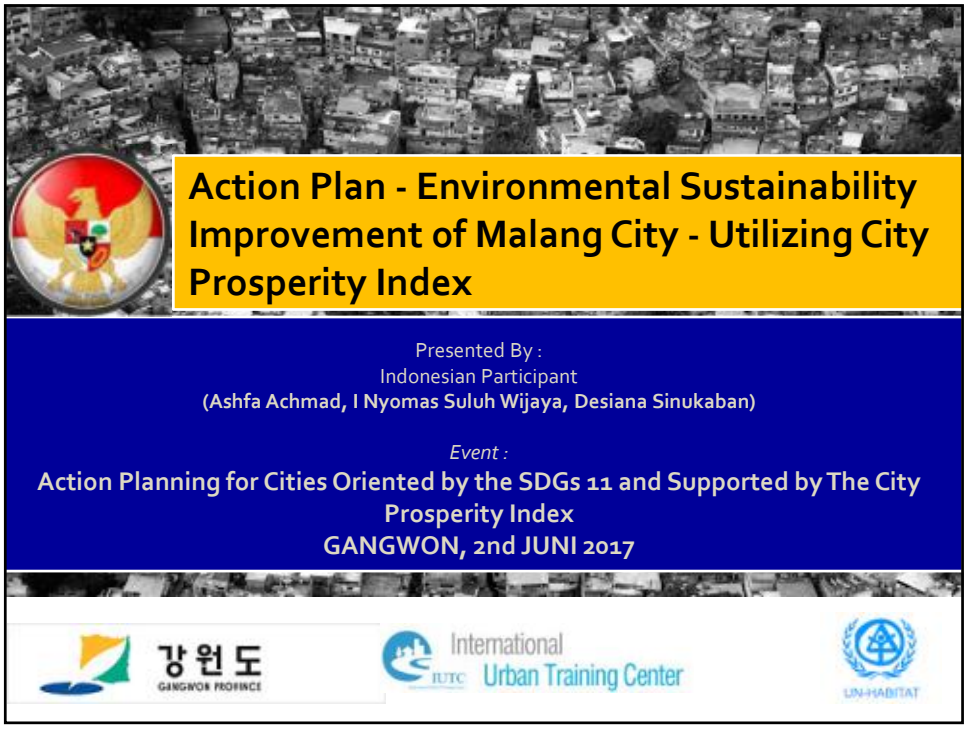


Standard Deviation *22.36*

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*





Action Plan - Environmental Sustainability Improvement of Malang City - Utilizing City Prosperity Index

Presented By :
Indonesian Participant
(Ashfa Achmad, I Nyomas Suluh Wijaya, Desiana Sinukaban)

Event :
Action Planning for Cities Oriented by the SDGs 11 and Supported by The City Prosperity Index
GANGWON, 2nd JUNI 2017

강원도 GANGWON PROVINCE

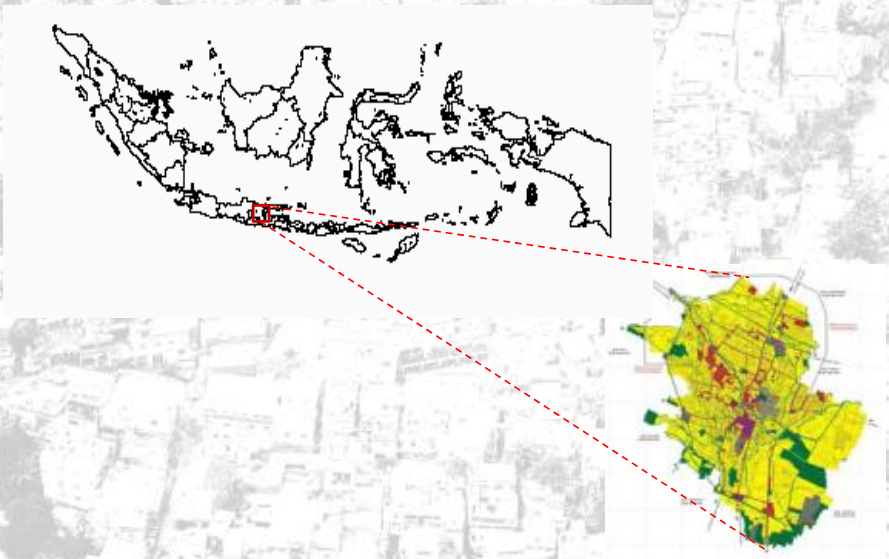
International IUTC Urban Training Center

UN-HABITAT

OUTLINE :

1. Malang City
2. Key Problem as a CPI Results
3. Goal/Objectives
4. Action Plan
5. Applicability of Using CPI to Support Malang City Planning

1 MALANG CITY

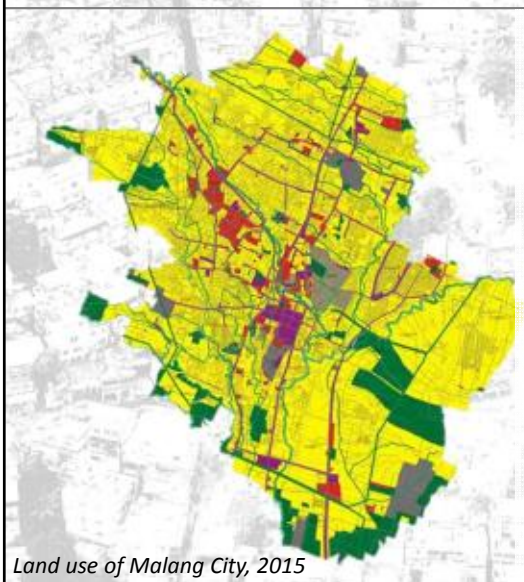


1 MALANG CITY

- Malang municipality is second biggest city in East Java Province, named after Surabaya City.
- According to the astronomical location, Malang City lies between 112.06º – 112.07º East Longitude, 7.06º – 8.02º South Latitude
- Total area : 110.06 km^2
- Population : 851. 298 person
- Since 2000s, Malang City is categorized as metropolitan city by the population characteristic
- Regional function of Malang City is center of development for:
  - tourism services
  - international education (3 state universities, 5 private big universities), and
  - local economic creative.
- City income perkapita Rp. 60,881 milion

Source: East Java Provincial Spatial Plan 2011-2031

1 MALANG CITY *(Continued)*

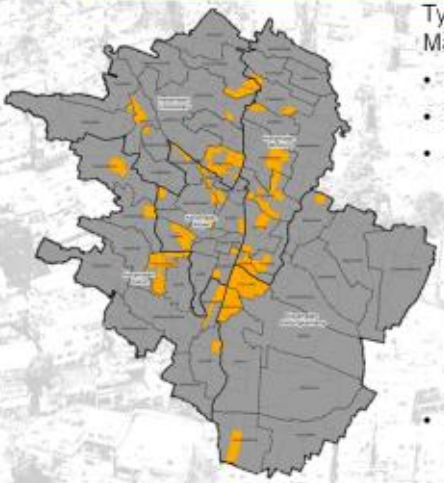


Land use of Malang City, 2015

Fact of the development by the municipal spatial plan:

1. Boost of economy development (escalates local GDP)
2. Trend of population boost since 2000 (immigrants, temporary residents)
3. Public infrastructure insufficiency
4. Large land conversion for development (→ lack of open green areas)
5. Traffic congestion (ill managed transport)
6. Unfinished problems of high density settlements (tends to be slums area)

1 MALANG CITY *(Continued)*

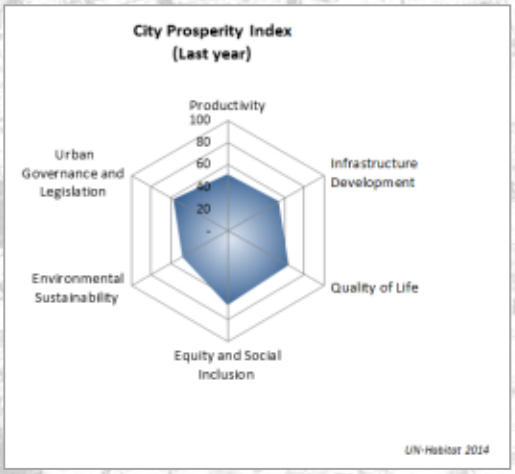


Spread urban high density area of Malang, 2016

Type of urban high density settlements of Malang:

- Density (in avarage): 562 person/ha
- Located in urban development areas
- Less of Basic urban services
  - ❑ Roads
  - ❑ Footpaths
  - ❑ Water
  - ❑ Drainage
  - ❑ Sanitation
  - ❑ Education Facilities
- Disaster Prone Areas (land slides, fire)

2 Key Problem as a CPI Results

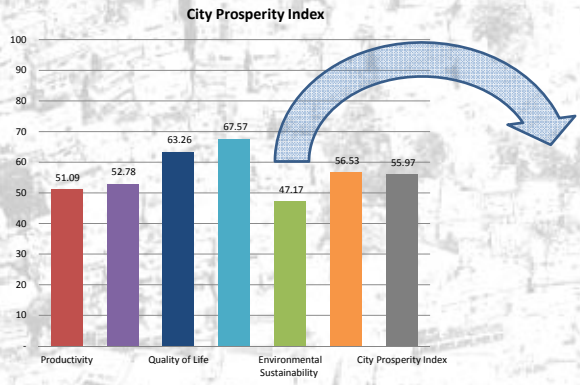


CPI Results

	CPI
Productivity	51.09
Infrastructure Development	52.78
Quality of Life	63.26
Equity and Social Inclusion	67.57
Environmental Sustainability	47.17
Urban Governance and Legislation	56.53
City Prosperity Index	**55.97**

Source : Statistics Of Malang Municipality, 2016

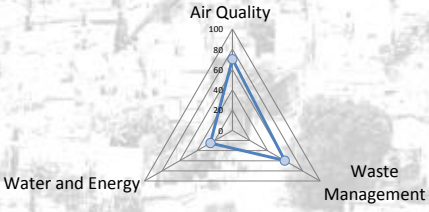
2 Key Problem as a CPI Results… *(Continued)*



Source : Statistics Of Malang Municipality, 2016

47,17

Environmental Sustainability



Source : Statistics Of Malang Municipality, 2016

2 CPI Results corresponds to the fact of development

Improving the Environmental Sustainability by Empowering the Community for better environmental awareness

3 Some focused improvements /Goals

- To minimize the occurrence of danger from the environment to health and welfare of human life;
- To improve the health and welfare of human life and to prevent from the danger of disease;
- To realize the availability of solid waste facilities and infrastructure;
- To realize the availability of waste water treatment and infrastructure;
- To increase the coverage of waste services and optimizing waste management;
- To encourage the increasing of healthy lifestyle awareness behavior early on.

4 Action Plan

Title : Improving the Environmental Sustainability of Malang City
Overall goal : To reduce environmental degradation and the impact for citizens and productivity

Activity	Description	Timeline	Responsible by	Resources	Level			Form			Urgent		
					National	Province	Municipal	Financial	System	Capacity Building	Strong	Less	Weak
Specific Obj. 1	Water and Energy		Municipal Department of General Work										
Activity 1	Community education for energy saving and alternatives	2017 - 2027	Mun. Planning Board, Mun. General Work Department, Mun. Environmental Board, Community, Universities & NGO	Mun. Government			✔	✔	✔	✔	✔		
Activity 2	Mapping dan defining water (Drainage and Fresh Water) problems by community	2017 - 2022		Mun. Government + CSR			✔	✔	✔	✔		✔	
Activity 3	Drainage system normalization	2017 - 2022		Central & Mun. Gov.	✔	✔	✔	✔	✔	✔	✔		
Activity 4	Instalation fresh water distribution infrastructure	2017 - 2022		Central & Mun. Gov.			✔	✔	✔	✔	✔		
Activity 5	Mapping potential open green areas expansion(related to building intencity)	2017 - 2022		Mun. Government + CSR	✔	✔	✔	✔	✔	✔	✔		
Activity 6	Low-income housing improvement	2017 - 2027		Mun. Government + CSR		✔	✔	✔	✔	✔	✔		
Activity 7	Community rules development for environmental management	2017 - 2022		Community + CSR			✔			✔		✔	

4 Action Plan… *(Continued)*

Activity	Description	Timeline	Responsible by	Resources	Level			Form			Urgent		
					National	Province	Municipal	Financial	System	Capacity Building	Strong	Less	Weak
Spesific obj. 2	Waste management		Municipal Department of General Work										
Activity 1	Mapping and defining waste management problem by community work	2017 - 2022	Mun. Planning Board, Mun. General Work Department, Mun. Environmental Board, Mun. Board of Investment and Creative Local Economy, Community, Universities & NGO	Mun. Government			✔	✔	✔	✔	✔		
Activity 2	Developing the community solid waste management (separation-collecting-dumping)	2017 - 2022		Mun. Government+ Community			✔		✔	✔	✔		
Activity 3	Waste water treatment instalation	2017 - 2022		Mun. Government	✔	✔	✔	✔	✔	✔	✔		

4 Action Plan … *(Continued)*

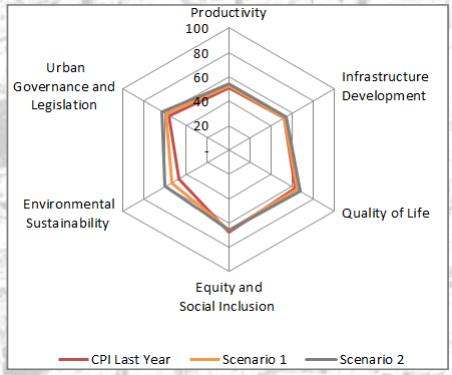
Activity	Description	Timeline	Responsible by	Resources	Level			Form			Urgent		
					National	Province	Municipal	Financial	System	Capacity Building	Strong	Less	Weak
Spesific obj. 2	Waste management		Municipal Department of General Work										
Activity 4	Developing local solid waste instalation for recycling	2017 - 2022	Mun. Planning Board, Mun. General Work Department, Mun. Environmental Board, Mun. Board of Investment and Creative Local Economy, Community, Universities & NGO	Central & Mun. Government		✔	✔	✔	✔	✔		✔	
Activity 5	Solid waste bank initiation and development	2017 - 2022		Community + CSR			✔			✔		✔	
Activity 6	Community empowerment for green bussiness on waste management	2017 - 2027		Mun. Government + CSR			✔		✔	✔	✔		
Activity 7	Improving capacity and quality of City's Dumping Area	2017 - 2027		Mun. Government	✔	✔	✔	✔	✔	✔	✔		
Activity 8	Soft-loan for green bussiness initiation and the development	2017 - 2027		Mun. Government + CSR			✔	✔	✔	✔		✔	

4 Action Plan … *(Continued)*

Activity	Description	Timeline	Responsible by	Resources	Level			Form			Urgent		
					National	Province	Municipal	Financial	System	Capacity Building	Strong	Less	Weak
Spesific Obj 3	Air Quality		Municipal Department of General Work										
Activity 1	Community education for urban farming and greening	2017 - 2027	Mun. Planning Board, Mun. General Work Department, Mun. Environmental Board, Mun. Board of Investment and Creative Local Economy, Community, Universities & NGO	Mun. Government + CSR			✔	✔	✔	✔	✔		
Activity 2	Infrastructure development for urban farming	2017 - 2027		Community + CSR			✔			✔		✔	
Activity 3	Mapping potential open green areas expansion (related to building intencity evaluation)	2017 - 2027		Mun. Government			✔	✔	✔	✔	✔		
Activity 4	Public transport campaign	2017 - 2027		Mun. Government + CSR	✔	✔	✔	✔	✔	✔	✔		
Activity 5	Pedestrian line improvement	2017 - 2022		Mun. Government	✔	✔	✔	✔	✔		✔		
Activity 6	Developing city line infrastructure	2022 - 2027		Central & Mun. Government	✔		✔	✔	✔				✔

4 Action Plan … *(Continued)*

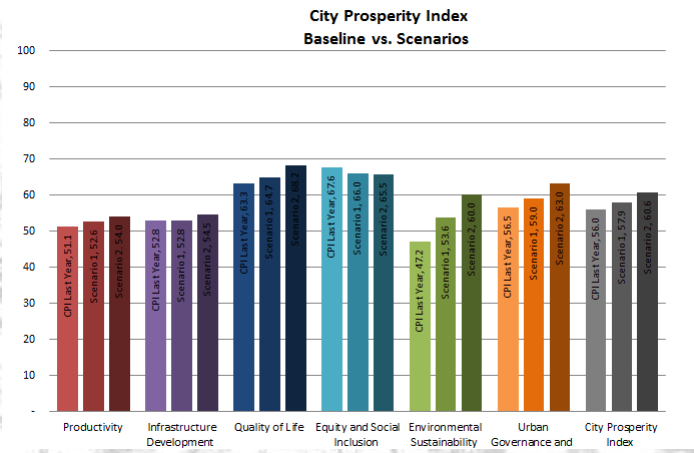
CPI Scenarios



	CPI Last Year	Scenario 1	Scenario 2
Productivity	51.09	52.58	53.96
Infrastructure Development	52.78	52.83	54.48
Quality of Life	63.26	64.70	68.24
Equity and Social Inclusion	67.57	65.98	65.54
Environmental Sustainability	47.17	53.61	59.96
Urban Governance and Legislation	56.53	59.00	63.03
City Prosperity Index	**55.97**	**57.86**	**60.63**

4 Action Plan … *(Continued)*

CPI Scenarios



The following graphic presents the City Prosperity Index baseline, and the estimation for two scenarios proposed

5 Applicability of Using CPI to Support Malang City Planning

- Do you find it useful for your city/your work?
  - **CPI helps in understanding city's recent condition based upon the adequate information → demand in completing city's data base.**
  - **CPI helps in revealing the practical strengths and weakness of the city**
- Do you see any potential to apply CPI in your city?
  - **Yes, CPI provides good benefits for describing the dimensional and sub dimensional performance associated with the realization of sustainable development. For next step, we need a more comprehensive model to apply it in an action plan.**

5 Applicability of Using CPI to Support Malang City Planning

- What are the financial resources could be mobilized to make it happen?
  - **Financing sources can come from the provincial and municipal governments, and Corporate Social Responsibility (CSR).**

Best Practise

Kampung Jodipan – Kampung Warna

Video 1

- Located in Brantas Riverbanks
- Local tourism activities for environmental upgrading

Best Practise…..*(Continued)*

Kampung Glintung – Kampung Go Green

- Located in Purwantoro Sub-district, Blimbing district
- Conservation and education the community activity for upgrading settlement

Video2


cảm ơn bạn
Dankie
Gracias
Спасибо
شكرا
Merci
Takk
Köszönjük
Terima kasih
Grazie
Dziękujemy
Dėkojame
Ďakujeme
Vielen Dank
Paldies
감사합니다
感謝您
Obrigado
Teşekkür Ederiz
THANK YOU
Σας ευχαριστούμε
ขอบคุณ
Bedankt
Děkujeme vám
ありがとうございます
Tack

International Urban Training Center

MONGOLIA

ACTION PLANNING FOR CITIES

CASE STUDY ULAANBAATAR CITY

Date: 28 May - 3 Jun, 2017

PARTICIPANTS

* **Ts.Tumurbatar** - Senior officer of the Department Green Development Policy and Planning, Ministry of Nature, Environment and Tourism of Mongolia
* **L.Solongo**- Head of Design division - Urban Planning and Design Institute of Ulaanbaatar City
* **N.Naranbat**- Urban planner – UN Habitat Mongolia office

UN-HABITAT

Contents

- Backgrounds
- CPI
- Project of Upgrading "ger" area
- Action plan

MONGOLIA
Capital city- ULAANBAATAR
Region: East Asia and Pacific

POPULATION **45.3%**
2016
3 081 677 in UB 1 396 300

POPULATION DENSITY
1.96 per/sq.km 2.96 per/sq.km

POPULATION GROWTH RATE 2014
1.5% in UB 3.7%

TOTAL AREA
1.564.12 sq.km UB 470.4 sq.km

Ulaanbaatar city dominates Mongolian economy, accounting for more than 60% of the country's GDP.

Current situation in Ulaanbaatar city

- Water resource
- Damaged environment, including polluted air, water, soil
- Lack of development in satellite towns
- Inadequate of institutional capacity and legal environment
- Inadequate of municipal funding
- Unplanned expansion of the city, inappropriate land use and ger areas
- Traffic and congestion
- Lack of engineering infrastructure
- Lack of housing supply with basic amenities

City Prosperity Initiatives

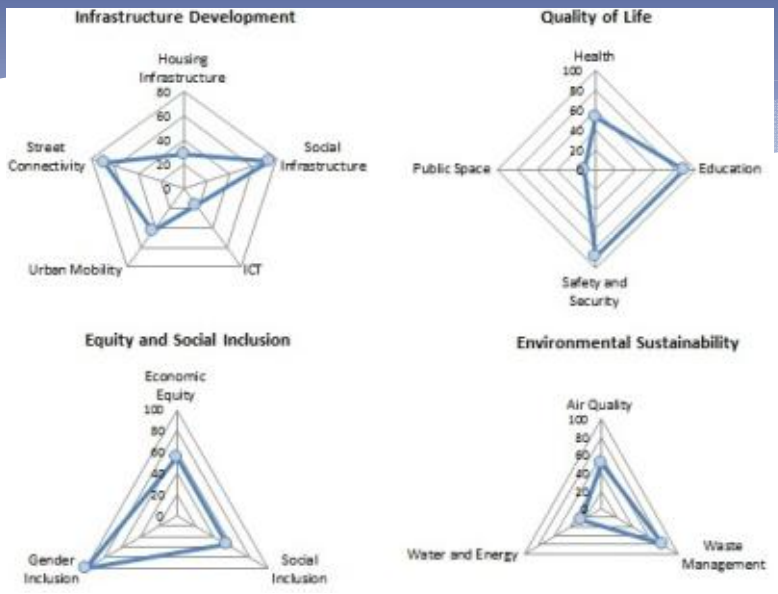
MEASURE - by critical mass of data and information

UNDERSTAND - the factor that generate

CHANGE - by formulating policies, strategies and action plans

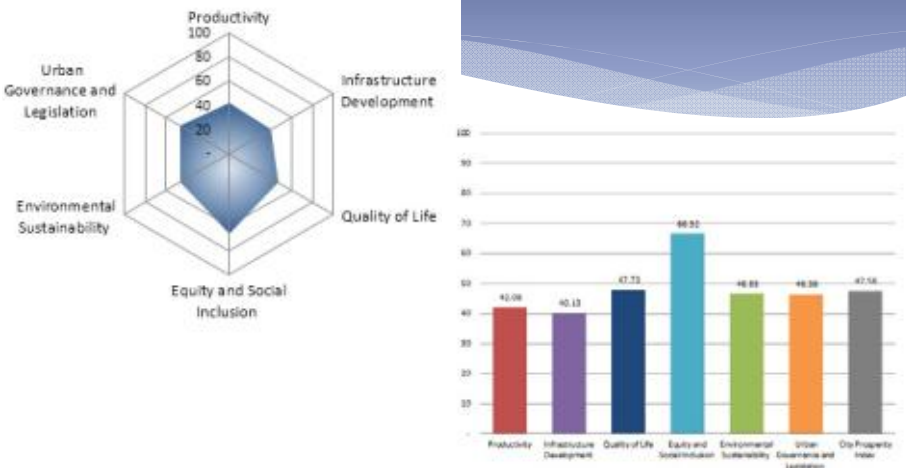
MONITOR - the outcomes of policy implementation

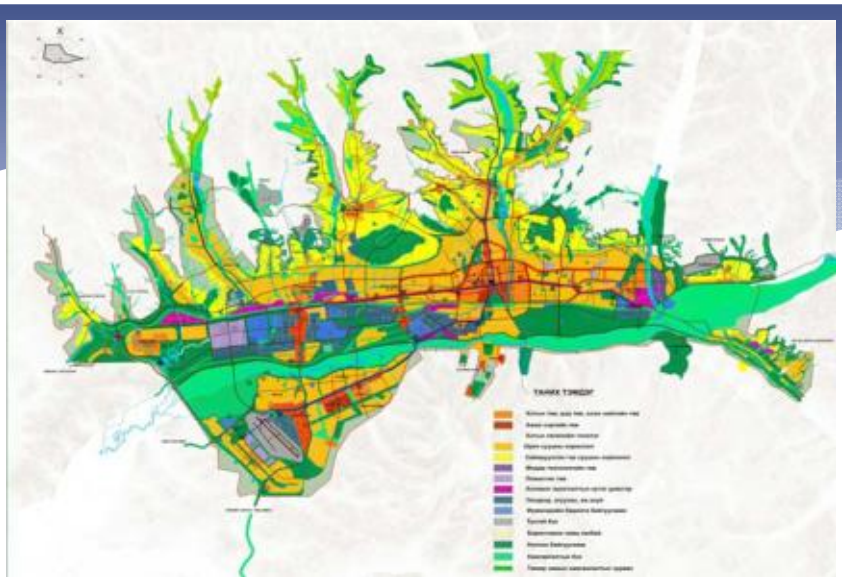
Radial graphics



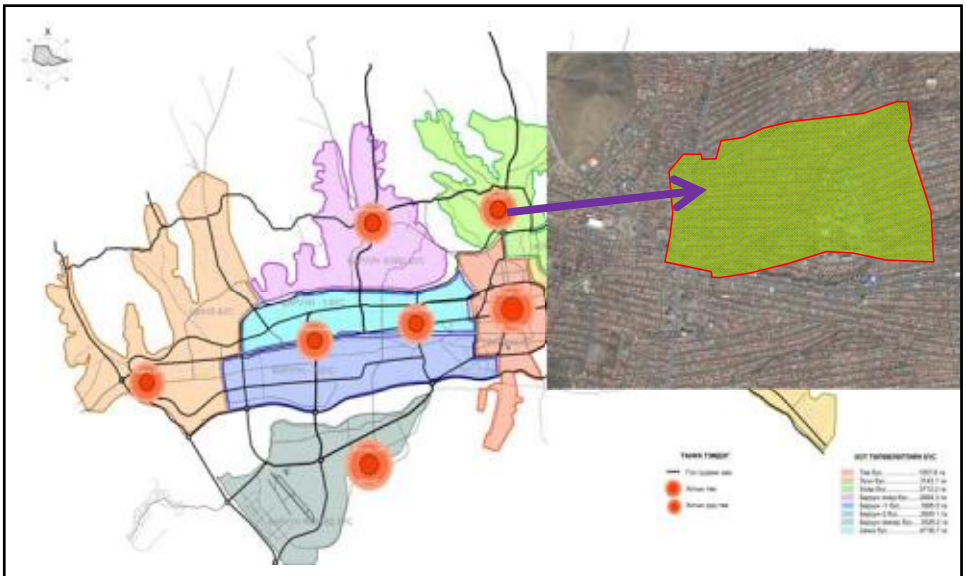
City Prosperity Index

/2012/





Ulaanbaatar City Government and Asian Development Bank /ADB/ started the new joint project "Urban Services and Ger Areas Development Investment Program" with UN Habitat office in Mongolia.



- **Decentralization by 8 subcenters**
  - 2 Sub-city centers
  - 6 District centers
- **CBD, Public, Residential, Industrial, High Technology, Logistics, etc. main 7 and 20 sub-zones of planning, zoning system**

Undeveloped area

- Without health service
- Unpaved and unplanned roads
- Potable and hot water
- No sanitation system
- Heating system
- Public transport

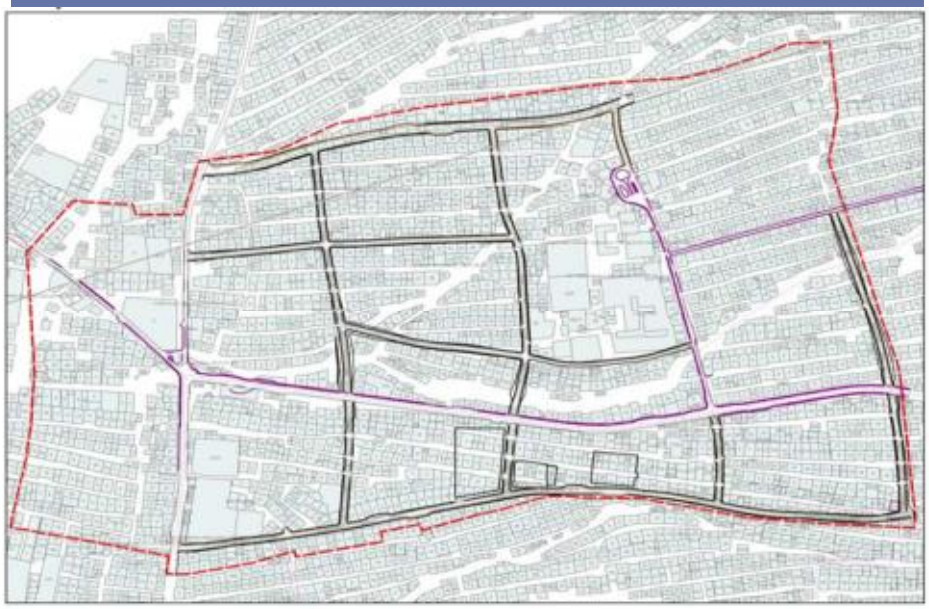
"BAYANKHOSHUU SUB CENTER DEVELOPMENT" PROJECT

- Ulaanbaatar City Government and Asian Development Bank /ADB/ started the new joint project "Urban Services and **Ger** Areas Development Investment Program" with UN Habitat office in Mongolia.
- This project followed the "Adjustments to the Ulaanbaatar City Urban
- Development Master plan 2020 and Development Directions 2030".
- The revised Master plan includes, for the first time, "ger" area development that identifies a set of sub centers to be improved for rebalancing Ulaanbaatar city's development.

"BAYANKHOSHUU SUB CENTER DEVELOPMENT" PROJECT

- Bayankhoshuu sub center is the major and priority sub center for redevelopment within the mid ger area.
- Development pressure on Ulaanbaatar city is pronounced in a city which has two distinct parts: (i) formal or urban core area, consisting mainly of the large apartment blocks with networked utility services, including dedicated heating, potable and hot water, and sanitation systems. The majority of business and services are located in this area. (ii) Ger areas, located on the periphery of the city center, characterized by the irunplanned nature, subserviced plots—usually from 0.05ha

Detailed plan of infrastructure



Action plan

Undeveloped residential area				
Improve to Bayankhoshuu subcenter in Capital ci				
Activity	Description	Timeline	Responsible by	Resources
1.Detailed blue print	Establish Infrastructure detailed design -Improved detailed plan and approved by Citizens' Representative	2016-2017	Working with the project implementation in cooperation with consultancy services teams of Dohwa /South Korea/, Egis /France/.	ADBank+UB City Government
2.Selection performer	-To announce a tender -Making contract	2017 jan. – 2018 apr	UB City Program Management office +ADB	ADBank+UB City Government
3.To ensure communities and enterprises meaningful engagement and participation in the project	-Organize focus group meeting -support to establish the primary groups an community councils	2016 jan to 2018 aug	UB City Program Management office +UN Habitat's Mongolian office	ADBank+UB City Government
4.Resettlement plots	Inform and provide notice of resettlement Report evaluation property Allocate to affected households	2017-2018	UB City Program Management office + Capital city Property Department, Egis /France/.	ADBank+UB City Government
5Construction work	-under ground work -building and Road	2017-2019	UB City Program Manag... office + Performer	ADBank+UB City Government
6.Check list	-detailed plan -selected performer agency -approved suggestion for social activity -operation -construction work		ADBank+UB City Governme...	...rnment

Title: **Undeveloped residential area**				
Overall goal	Improve to Bayankhoshuu subcenter in Capital city			
Activities	Description	Timeline	Responsible by	Resources
Detailed blue print	Establish Infrastructure detailed design -Improved detailed plan and approved by Citizens' Representative	2016-2017	Working with the project implementation in cooperation with consultancy services teams of Dohwa /South Korea/.	ADBank+UB City Government
Selection performer	-To announce a tender -Making contract	2017 Jan – 2018 Apr	UB City Program Management office +ADB	ADBank+UB City Government

Title: **Undeveloped residential area**				
Overall goal	Improve to Bayankhoshuu subcenter in Capital city			
Activities	Description	Timeline	Responsible by	Resources
To ensure communities and enterprises meaningful engagement and participation in the project	-Organize focus group meeting -support to establish the primary groups an community councils	2017 Jan – 2018 Apr	UB City Program Management office +UN Habitat's Mongolian office	ADBank+UB City Government
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Title: Undeveloped residential area				
Overall goal	Improve to Bayankhoshuu subcenter in Capital city			
Activities	Description	Timeline	Responsible by	Resources
Construction work	-under ground work -building and Road	2017-2019	UB City Program Management office + Performer	ADBank+UB City Government
Check list	-detailed plan -selected performer agency -approved suggestion for social activity -operation -construction work	2017- 2019	ADBank+UB City Government	ADBank+UB City Government

Result

- **Action plan for the implementation of selected environmental, social and environmental infrastructure will improve the environmental conditions**
- **We are building affordable houses**
- **Make happy life for everyone**


THANK YOU
BAYARLALAA
2017

City Prosperity Initiative

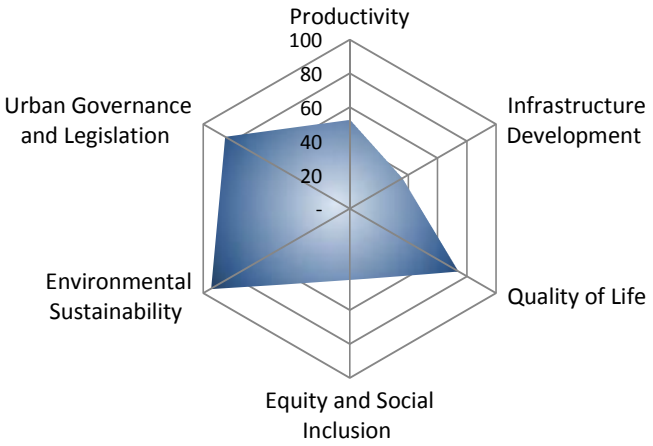
UN-HABITAT
FOR A BETTER URBAN FUTURE

Can Tho
vietnam

The Structure of the CPI

The CPI consists of six dimensions. Each dimension has a series of subindices or dimensions, which in turn include numerous indicators that allow specific index calculation. In this sense, the CPI produces six subindices related to the six dimensions of prosperity: Productivity, Infrastructure Development, Quality of Life, Equity and Social Inclusion, Environmental Sustainability and Urban governance and Legislation. The aggregation of these six sub-indices generated a consolidated value representing the CPI.

City Prosperity Index
(Last year)

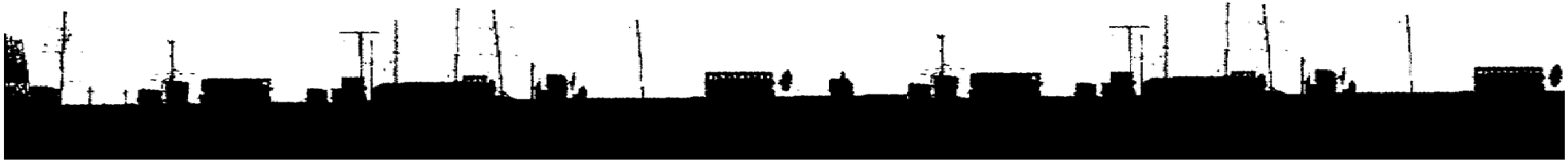


CPI Results

	CPI
Productivity	52.50
Infrastructure Development	35.77
Quality of Life	74.24
Equity and Social Inclusion	42.27
Environmental Sustainability	94.90
Urban Governance and Legislation	85.28
City Prosperity Index	**60.22**

**Values are estimated for trainning purposes and should not be quoted.*

UN-Habitat 2014



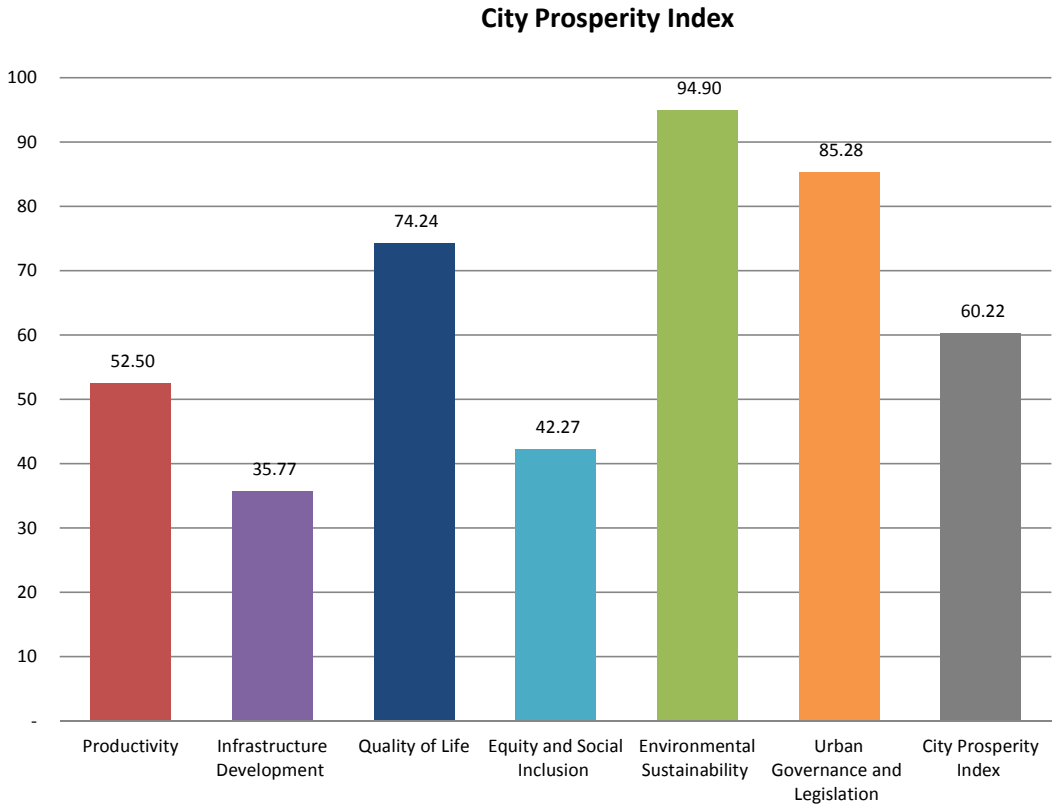
City Prosperity Initiative

UN HABITAT
FOR A BETTER URBAN FUTURE

Can Tho
vietnam

The Structure of the CPI

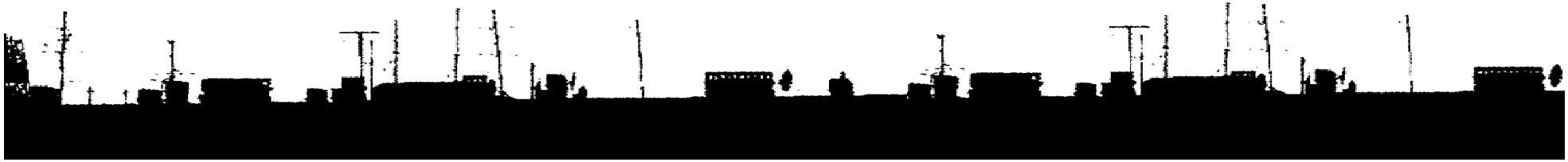
The following graphic presents the results of each of the six dimensions of the CPI based on the values provided in the latest available year.



Standard Deviation:
24.14

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*

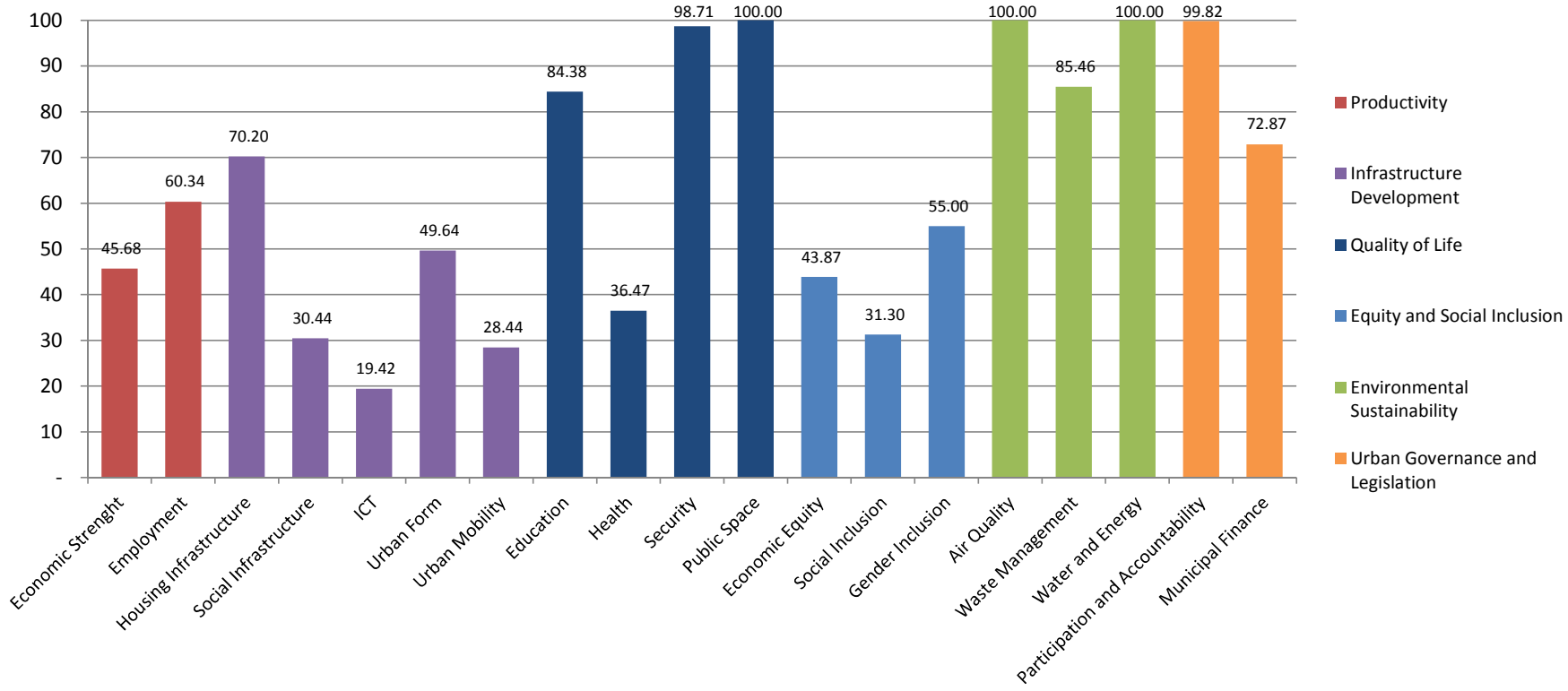


Iniciativa de las Ciudades Prósperas

UN HABITAT
FOR A BETTER URBAN FUTURE

Can Tho
vietnam

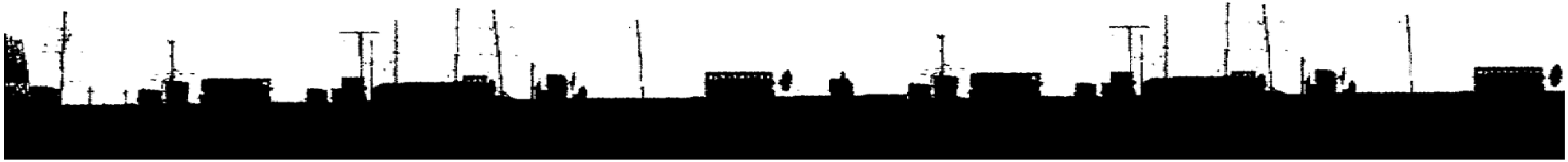
Sudbimensions of the CPI



Standard Deviation *28.49*

UN-Habitat 2014

**Values are estimated for trainning purposes and should not be quoted.*



CAN THO
A MEKONG DELTA RIVER CITY IN VIET NAM

VIETNAM TEAM
Mr. Vo Minh Canh
Mr. Huynh Van Tung
Ms. Dang Viet Ha

Vietnam

The 5th country having the biggest urban land in the East Asia

The 6th highest urban population country in the East Asia with 23 million people

→ **Rapid urbanization**

Can Tho city

Land area: 1,438.96 km2

Location: central of the Mekong delta

Population: 1.25 million

Characteristics: a central city, in the key economic regions of the MD, rapid urbanization, have Can Tho International airport, Cai Cui port & Can Tho bridge

9 districts, 36/36 communes/wards have transport infrastructure that cars can go to the center

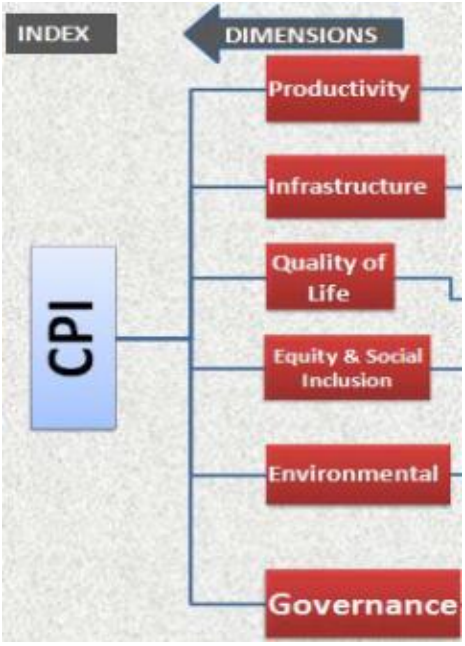
Problems of Can Tho city

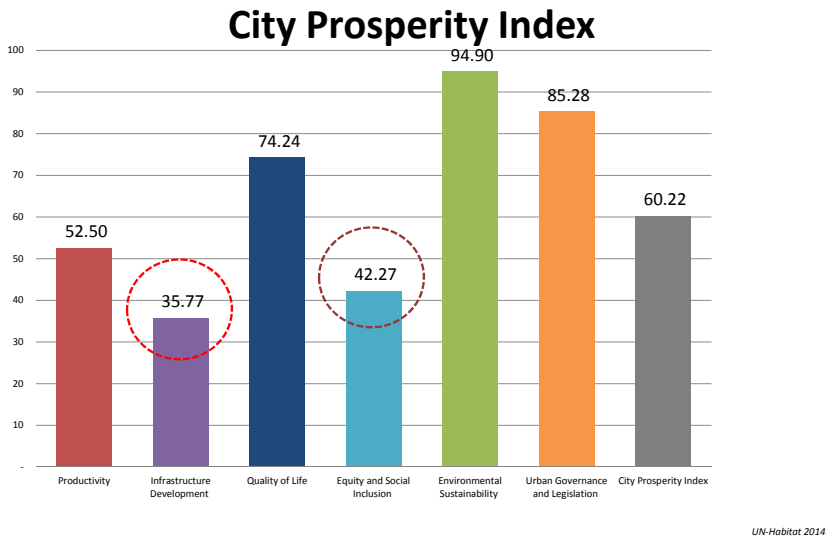
- Facing problems in waste treatment, gas emissions, infrastructure, housing, public places, equality in development, etc
- Need a tool to measure urban development in all aspects

→ propose policy for a sustainable urban development

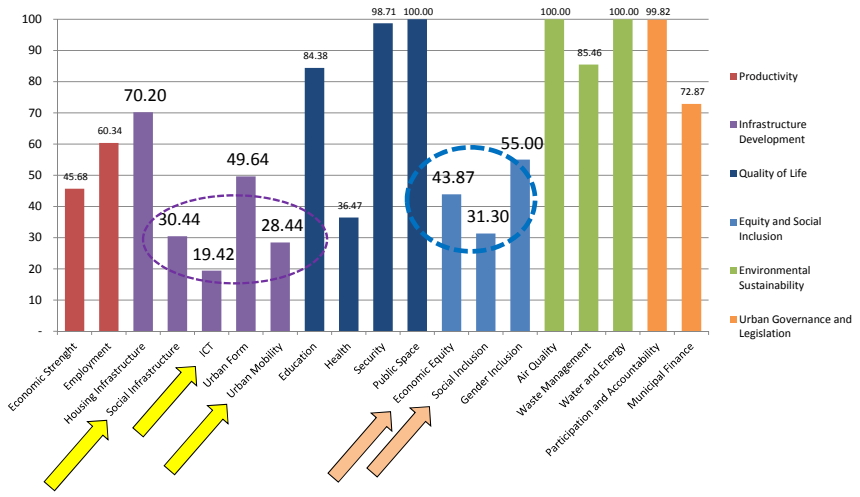
Proposed solution:

Can Tho started to calculate and implement CPI (Cities Prosperity Index) in 2016 supported by UN-Habitat





SUB DIMENTION



INFRASTRUCTURE DEVELOPMENT				
Overall goal	Increase the Internet access in both quantity and quality			
Specific objective 1: Improved technical infrastructure				
	Description	Timeline	Responsible by	Resources
Activity 1	Install optical cable to increase speed and quality of the network	2016-2020	Dept.Info&Comm.; local people's committees	State budget
Activity 2	Install more stations in rural areas for better coverage in rural area	2016-2020	Dept.Info&Comm.; Company (Viettel, VNPT, etc.); local people's committees;	State budget, social capital mobilization
Activity 3	Better maintain and utilize current network	Yearly	Dept.Info&Comm.; local people's committees	State budget
Specific objective 2: Increased people's awareness on benefits of having Internet access				
Activity 1	Organize events and deliver brochure, leaflet	2017	Dept.Info&Comm. and other depts; local authority; media, communities	State budget
Activity 2	Provide testing/pilot installation in rural areas in community halls	2017	Dept.Info&Comm. ; private sector; local communities	Social capital; State budget
Specific objective 3: Strengthened effective use of Internet among private sector and communities				
Activity 1	Organize short course trainings (on Internet marketing and sale, etc.) for enterprises and communities	2017-2018	Dept.Info&Comm.; institutions, universities, associations	State budget, social capital, UN agency, development orgs.
Activity 2	Publish Handbook or guideline	2017-2018	Dept.Info&Comm.; institutions, universities	State budget, social capital, UN agency, development orgs.

INFRASTRUCTURE DEVELOPMENT				
Overall goal	Increase the number of physicians over 1,000 inhabitants			
Specific objective 1: Attract more physicians from other cities/provinces to work in the city				
	Description	Timeline	Responsible by	Resources
Activity 1	Formulate and implement policy incentives (salary scales, housing, working environment etc.)	2018-2020	Dept. Health; hospitals and medical centers	State budget
Specific objective 2: Strengthen training and education system in healthcare sector				
Activity 1	For long-term education (6-7 years)	2017-2020	Dept. Health; Dept. Internal Affairs; universities and colleges	State budget
Activity 2	For short-term education (from medical workers to physicians – 2 to 3 years)	2017-2020	Dept. Health; Dept. Internal Affairs; universities and colleges	Social capital
Specific objective 3: Attract funding for private hospital development				
Activity 1	Formulate and implement policy incentives	2018-2020	Dept. Health; Dept Planning&Investment	State budget, social capital

EQUITY AND SOCIAL INCLUSION				
Overall goal	Social inclusion			
Specific objective 1: Decrease the number of slums households in the city				
	Description	Timeline	Responsible by	Resources
Activity 1	Social Housing Programme	2016-2020	Dept. Construction	State budget, social capital (private sector & community)
Activity 2	Onsite resettlement	2016-2020	Local authorities	State budget, social capital (private sector & community)
Activity 3	Create livelihoods for resettled habitants	2016-2020	Local authorities; civil associations, NGO, enterprises, institutes	Social capital (private sector & community development fund)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