



Urban Indicators The City of Riyadh 2013

High Commission for the
Development of Arriyadh



● Global Cities Summit
Toronto, 15-16 May 2014
Abdulrahman Alsultan

Executive Director of Riyadh Urban Observatory

1 Introduction

2 General Background

3 Social and economic development indicators

4 Transport Indicators

5 Infrastructure Indicators

6 Adequate Housing Indicators

7 Environment management indicators

8 Local Government Indicators

Introduction

1 Goals of Riyadh urban observatory

- Data Collection necessary for the preparation of urban indicators from various sources**
- Analysis and study of data collected**
- Information generation and management**
- Disseminate the information produced periodically and systematically**

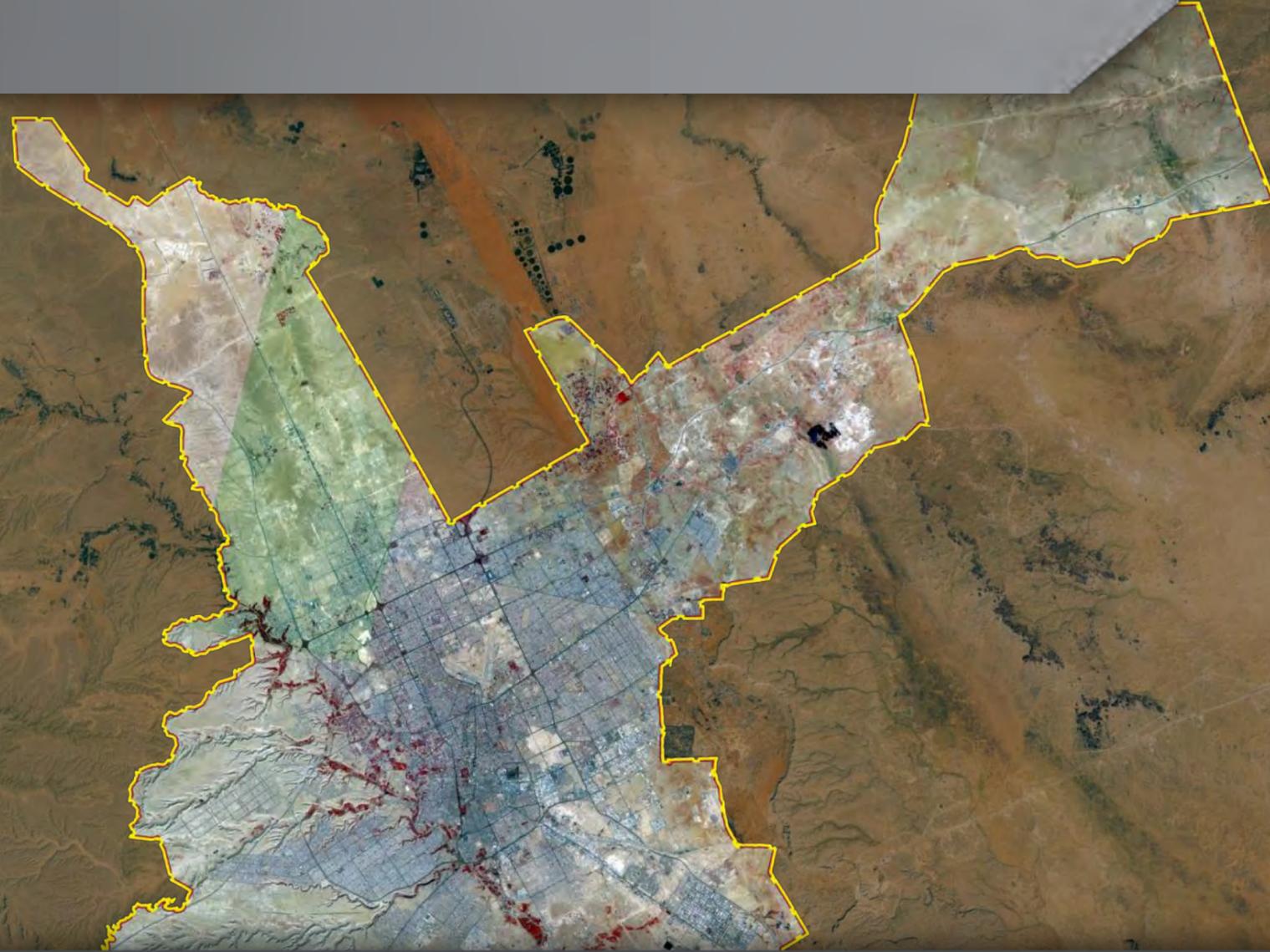
2

Urban Indicators

An indicator is a measurement which summarizes information on a specific topic. It provides a clear picture of the current situation. It evaluates performance and predicts the future situation and general trend. Calculation of Riyadh urban indicators is based on the Global Urban Observatory Manual for Data Collection and Analysis in order to standardize indicators calculation methodology, make international and local comparisons and avoid misinterpretation of indicators' significance.

3

Scope of work



The geographical scope of such indicators includes the City of Riyadh according to urban limit , with a total area of 3115 Km²

4 Indicators Methodology

The general framework of the urban indicator packages was adopted in the first meeting of the urban observatory executive commission, conducted in 2012. The framework includes the minimum global urban indicators on the basis of the UN, These indicators are sufficient to diagnose the current situation of any city and compare it with other cities. Moreover, few local indicators in direct relevance to policies of the overall Riyadh strategic plan, and for being of priority for the Observatory partner sectors.

5

Data Sources

Many organizations in Riyadh have participated in providing the Urban Observatory with key data to calculate Riyadh urban indicators. These Organizations include:

- The High Commission for the Development of Arriyadh (HCDA)
- Riyadh Chamber of Commerce and Industry
- Communications and Information Technology Commission
- Ministry of Labor
- Ministry of Transport
- General Authority of Civil Aviation – King Khalid International Airport
- Ministry of Social Affairs
- Ministry of Justice
- Ministry of Commerce
- Ministry of Culture and Information
- Riyadh Traffic
- Presidency of Meteorology and Environment
- King Abdul Aziz City for Science and Technology
- General Organization for Social Insurance
- Riyadh Municipality
- Central Department of Statistics and Information
- General Directorate of Health Affairs Riyadh Region
- General Directorate for Education in Riyadh Region
- Police of Riyadh Province
- National Water Company
- Saudi Electricity Company – Central Region

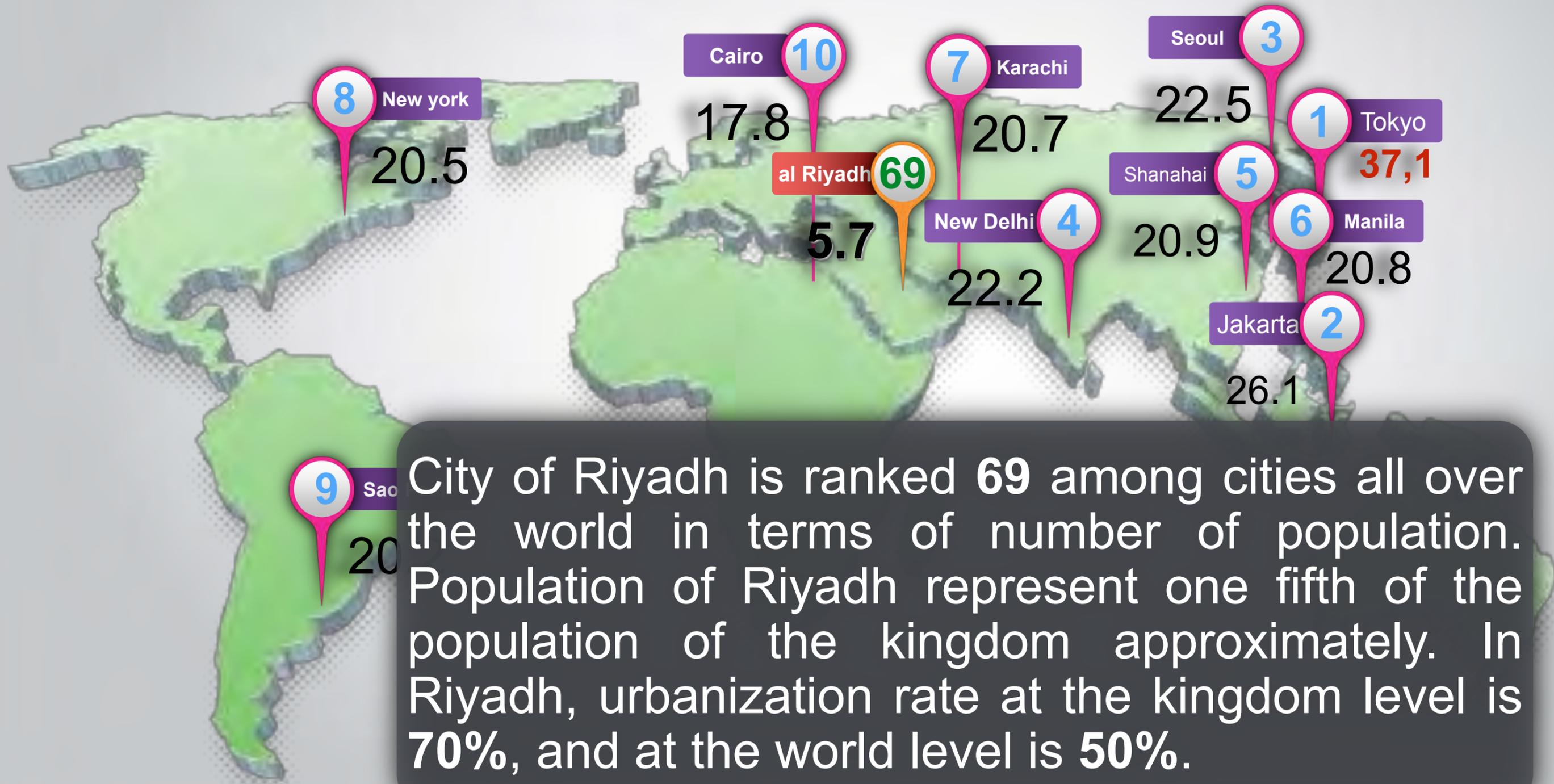


General Background



1

Population



2

Population in Riyadh 2013

9

In Riyadh, urbanization rate at the kingdom level is **70%**, and at the world level is **50%**.

Riyadh

Jeddah

Makkah

Almadinah

Dammam

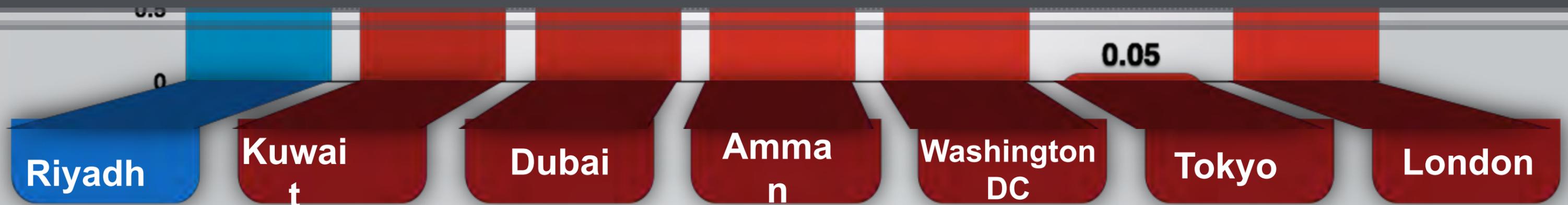
Buridah

Abha

3

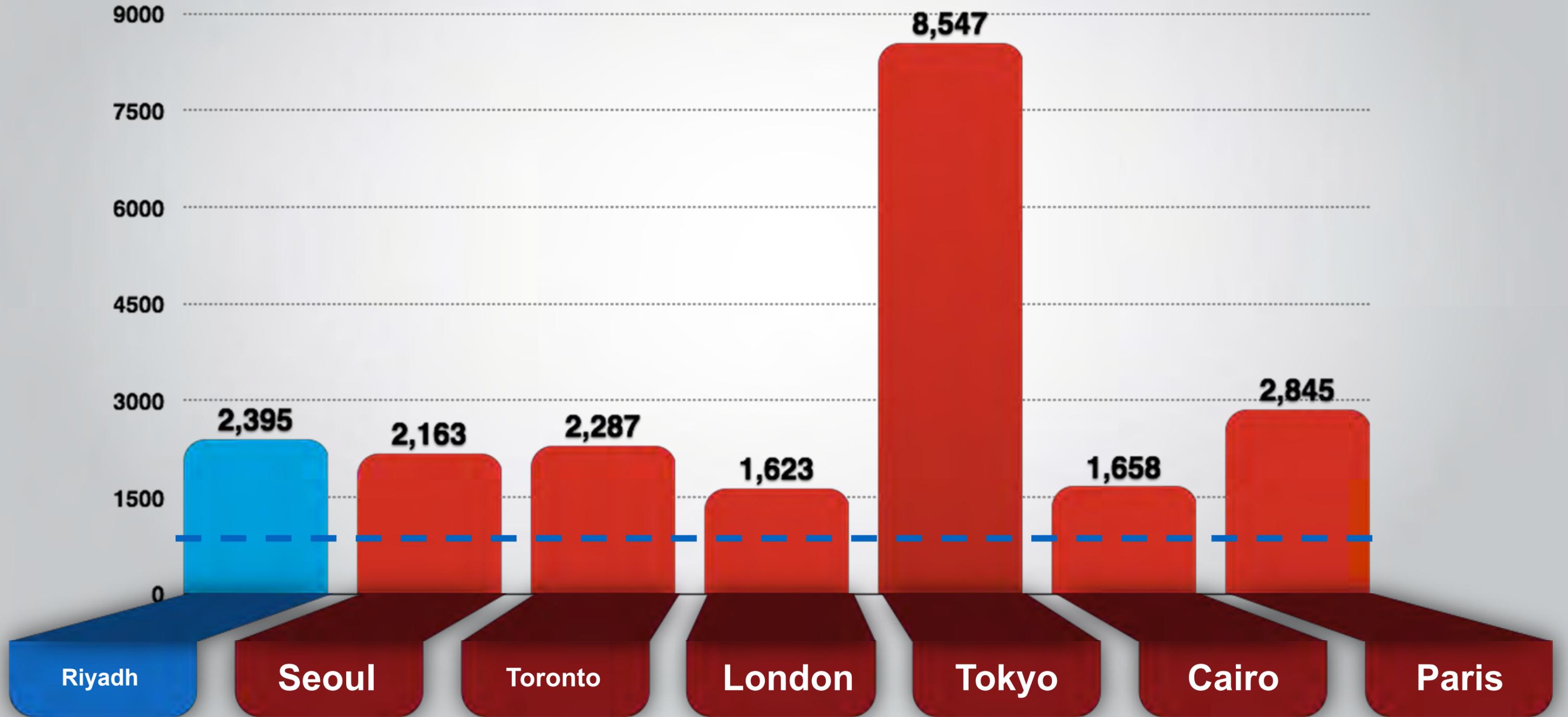
Urban Population Growth

one of the high rates on the world level (2.5%). Such rate of growth requires similar rate in providing utilities, services, and job opportunities to avoid urban problems.



4

Land Area



Land use indicator is a key indicator of urban status for purposes of strategic planning and land use planning. The aim is achieving goals of local policies, namely providing housing, job opportunities, maintaining social relationships, and pollution abatement. In comparison with world cities, housing and commercial use is dominant in Riyadh and it has vast reserve of white lands.

Residential

Industry

Commercial

Services

Recreation

Government

Road

6

Population density

10000

In comparison to other world cities and to global rates of population density, Riyadh has a medium population density. High population density results in social, health, and environment problems. Low population density results in waste of resources. Uneven distribution of population in housing complexes indicates social and economic gaps and urban incompatibility.

Riyadh

Toronto

London

Tokyo

Cairo

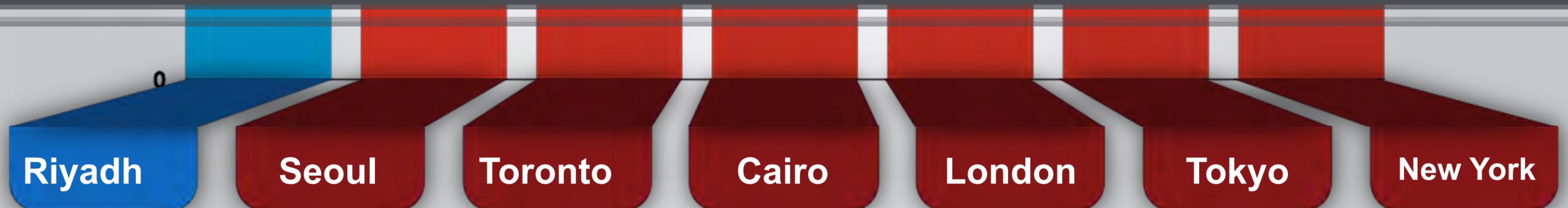
Paris

New
York

7

Dependency rate

Dependency rate in Riyadh is considered high in comparison with the rate of other world cities which ranges from 20-46%. High dependency rate has in impact on rates of government expenditure on health, education and social security services.



In world cities average number of household individuals is (4.1-1.74). Riyadh has one of the highest averages of household size.

The indicator is significant in organizing housing lands and determining house areas. It also has social, demographic and economic significances.

Riyadh

Jeddah

Makkah

Almadinah

Dammam

Buridah

Abha

9 Household Formation

Annual rate of household formation is an important indicator to assess the volume of demand for housing and to infer demographic, social, and economic changes. Such rate is similar to global rates, and there are some differences when it is compared to some cities. The rate requires analysis of key elements of the indicator.

Riyadh

London

Toronto

S.A

Paris

Tokyo

10 Women-Headed Household

Riyadh has the lowest percentage of women-led households. It is an important indicator in developing women-oriented policies and programs and it has social and economic significances. Poverty rates are usually high in women-led households..





Social and economic development indicators



1

Life Expectancy at Birth

In cities with high rate of human development, it ranges 80-83. It summarizes the output of development in all development sectors, and is considered a tool to measure the level of human development in cities and countries, and at the global level.

Riyadh

New
York

Dubai

S.A.

Cairo

Tokyo

2

Number of Physicians (per 1000 people)

6

6

It measures the sufficiency of human resources to achieve health goals. Global cities, classified as highly developed in terms of human development, record the rate of 6 physicians/1000 people. The average in developed cities ranges between 3.5–2.1 physicians/1000 people.

Riyadh

New York

Dubai

S.A.

Tokyo

Greece

3

Hospital Beds (per10000 people)

100

98.7

It measures the size and sufficiency of health facilities to achieve the goals of health on quantitative and qualitative basis Global cities, classified as highly developed in terms of human development, record very high rates (71.7 beds/10000 people).

Riyadh

Dubai

Tokyo

Cairo

Toronto

Seoul

London

4 Adult Illiteracy (15+)

16

The average in developed cities is 1.3 – 4%. Riyadh has a good indicator at the level of world cities. In Riyadh, literacy is the key method to get knowledge and the first priority in human development and is within the scope of the second goal of MDGs.

Riyadh

London

Dubai

Istanbul

Singapore

S.A.

5

Classroom Size in primary stage

The global standard is 22 students/class. In developed cities, average number of students in primary classes is 20-25 students/class. The indicator measures the size and sufficiency of education facilities and achievement of general education on quantitative and qualitative basis.

Riyadh

Dubai

London

Cairo

Tokyo

Seoul

New
York

6

Students per teacher, Primary Education Stage

The global standard ranges between 13-17 students/teacher, while the average number of students for each teacher at the primary stage in the developed cities ranges between 12-20 students/teacher. The indicator measures the sufficiency of the resources allocated for education and the development of general education quantitatively and qualitatively.

Riyadh

New
York

Tokyo

Dubai

London

Cairo

Istanbul

7 Private Schools Students

64.1

The indicator measures the contribution of the private sector to general education and how much does it attract investors and students with the aim of developing the competitive capacities in the education sector.

Riyadh

Abu Dhabi

New
York

Jeddah

8

Cell phone Connections

200

185

191

In developed cities, the average percentage of the individuals who have cell phone lines ranges between 98-126.4%. The indicator measures the development in using modern communication means.

Riyadh

Kuwait

Abu Dhabi

London

New
York

Tokyo

9

Internet Users

In developed cities, the average percentage of individuals who use the internet ranges between 77.6-87.6%. It is considered one of the most important indicators to shift to knowledge economy which is one of the tools used to measure achievement of the millennium development goals.

Riyadh

London

New
York

Toronto

Tokyo

Dubai

10

Crime Rate – Murder (per year per 100,000 people)

In a number of cities around the world, the average rate of murder ranges between 1.2-10.1 murder/100,000 people. Riyadh is considered to have one of the least murder rates worldwide. The indicator measures the security level; where its decline increases confidence in the future development planning. It widely signifies the competitiveness of the sectors; due to the low security costs borne by the cities where there are high murder rates.

Riyadh

Paris

New
York

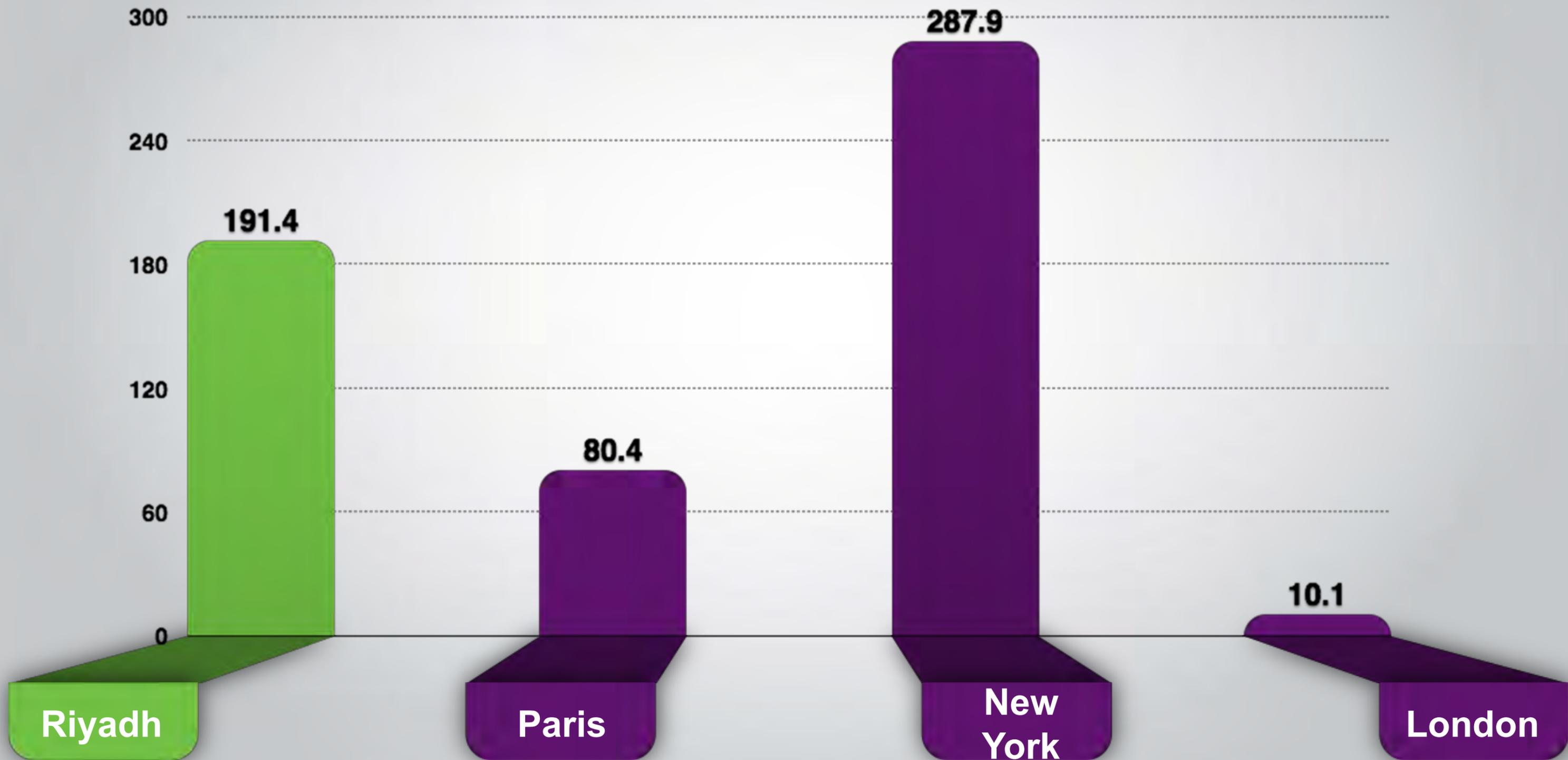
Jeddah

London

Tokyo

11

Crime Rate – Theft (per year per 100,000 people)



12 Household Poverty

22

22

Among the lowest rates compared to cities around the world. It reflects the fulfillment of the goals of the economic and social development programs and the success of poverty reduction plans in the following areas: food, housing, education, health, labor, social security and equality in the benefits of social programs.

Riyadh

New York

Istanbul

Cairo

13 Labor Force Participation

In high-human-development cities, labor force participation ranges between 59.4 and 66.2. It is an important indicator in the preparation of comprehensive development policies. It relates to education, economy and employment policies and addressing unemployment and dependency rate.

Riyadh

Singapore

London

Seoul

Berlin

Istanbul

Cairo

14 Unemployment

In global cities, classified as highly developed in terms of human development, unemployment ranges between 5.6 and 10.2%. The indicator is considered the best measurement for the labor market, strong economy and success of the urban economic policies in creating job opportunities.

Riyadh

LA

New
York

Toronto

London

Amman

Cairo

15

Patents

Innovation is one of the results achieved by the knowledge community. It creates new job opportunities and achieves economic growth. In developed cities, the number of patents ranges between 1600-2900 patent/year. Some cities recorded 17000 patents. The easy and effective use and dissemination of knowledge leads to competitiveness and excellence.





Transport Indicators



1

Airports Activity

The indicator is important in preparing Riyadh local policies; like: strengthening investment environment and internal trade and developing and stimulating the tourism.



2

Transport Modes

100

One of the highest rates when compared to other global cities; since the percentage ranges between (11, 61%). Transportation plays an important role in the economy and quality of life. The vehicles are considered the main local consumer of non-renewable energy. They also cause pollution and traffic jams.



3

Travel Time

38

38

It is important to determine the effectiveness of the transport systems. The long duration of the trip to work is attributed to the traffic jams, the inability to control the various types of traffic flow, and lack of effective public transport.

Riyadh

London

New
York

Toronto

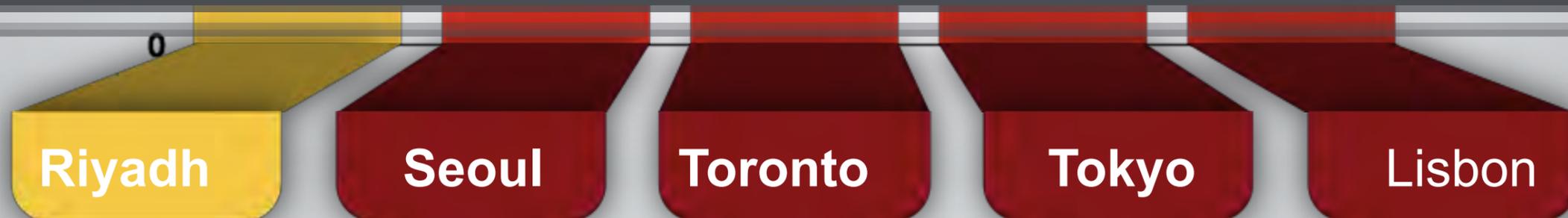
Tokyo

4

Automobile Ownership (trips for each 1000 people)

600

Global average: 176 cars/1000 people. It reflects the degree of luxury. Also, it signifies the nature of life in the cities; such as environmental impacts, traffic jams and accidents.



5

Road Accidents (a year per 1000 people)

5

Periodical monitoring of the road accidents indicator is important to follow up the policies and programs and their influence in reducing this phenomenon.

Riyadh

Jeddah

Almadinah

Abha

Buridah



Infrastructure Indicators



1

Household Connections (water network)

100 97 100 100 99.5 99 100

It measures the quality of life in the cities. The decline in the value of the indicator leads to a decline in the level of urban life, in addition to the spread of epidemics, diseases and environmental pollution.

Riyadh

London

Tokyo

Cairo

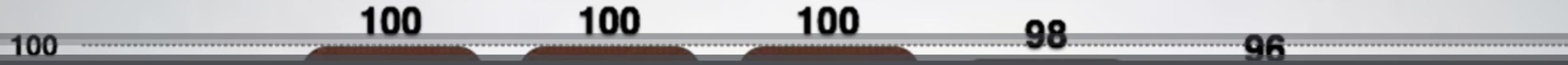
New
York

Toronto

Amm
an

2

Household Connections (waste water)



In developed cities, the average ranges between 96-100%. The indicator measures one of the main elements of infrastructure. The decline of coverage leads to environmental deterioration. Also, the application of a safe and effective system decreases the leakage of waste water.



3 Water Consumption (per Liter)

The individual's consumption of water depends on the availability of water, means of supply, price and life quality. The consumption of water for domestic activities should be noted to determine the demand estimates and plan water supply.

Riyadh

Melbourne

Toronto

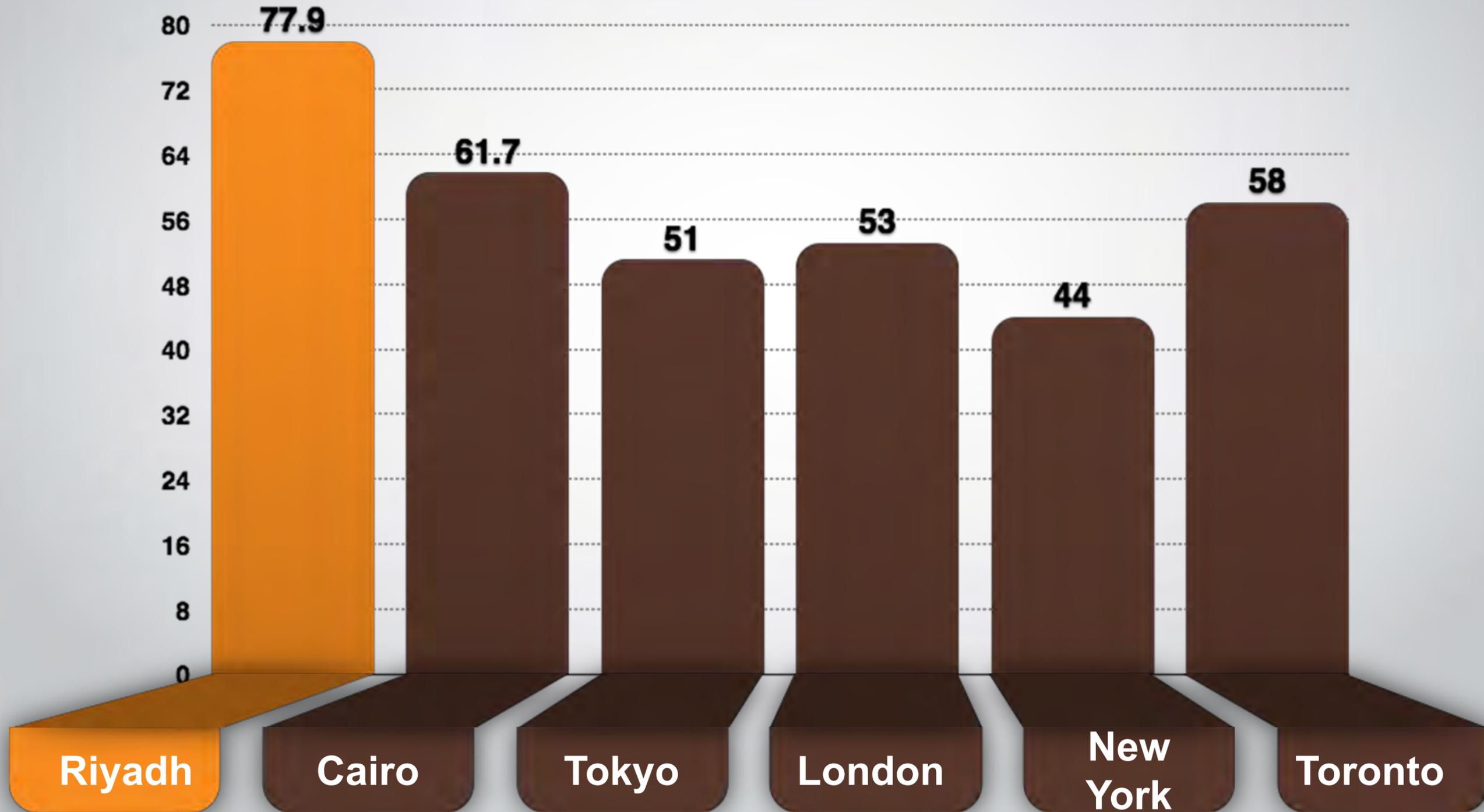
Tokyo

London

Dubai

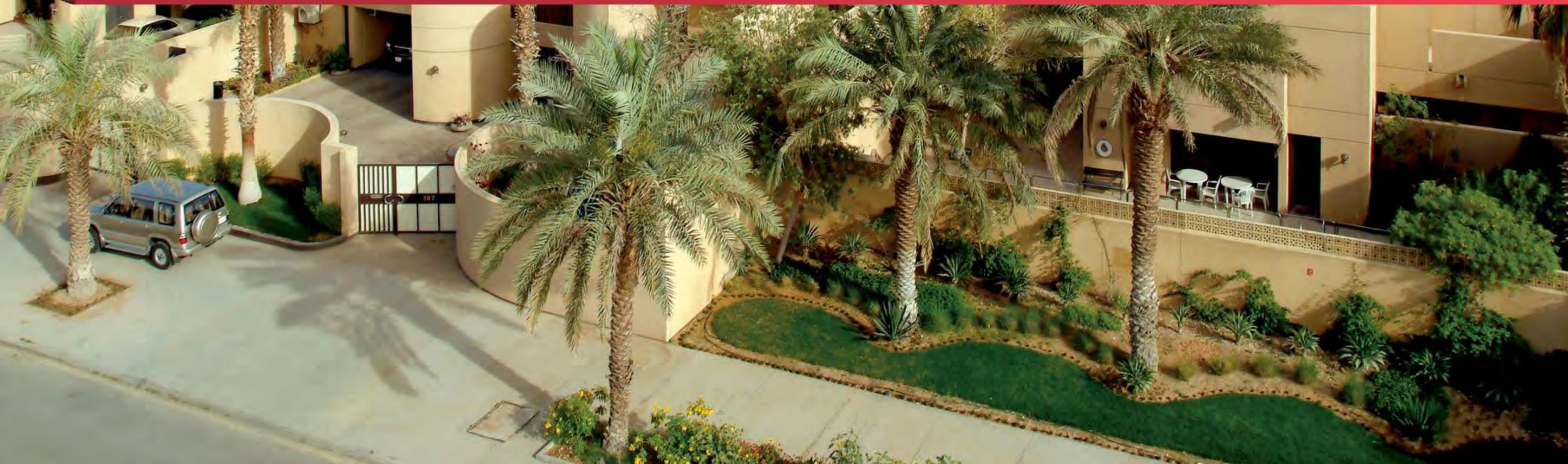
4

Landline phone Connections





Adequate Housing Indicators

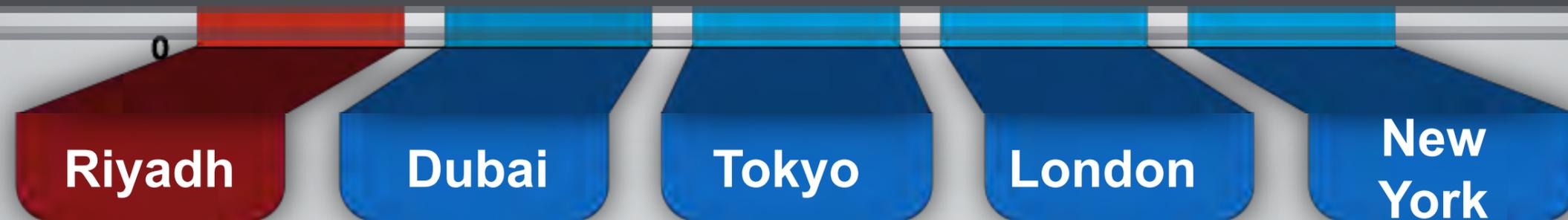


2

People per Room

1.8

The average number of the household individuals divided by the average number of the house rooms, excluding the kitchen and utilities.





Environment management indicators



1

Green Area per Person

25

In developed cities the average is 5.9-23 m²/person. The indicator measures the amount of green areas, participates in improving life style and reducing of environmental impacts such as air pollution, and heat island effects.

Riyadh

Seoul

Dubai

Istanbul

Tokyo

Cairo

New
York

2

Percentage of water loss

20

The average in world cities is 3.6-14.2%. The indicator measures the efficiency of water network, since leakage means loss in the first strategic resource, in addition to its side effects on infrastructure. Monitoring the measurement of the indicator aims at achieving the national strategic goal, namely reduction of loss.

Riyadh

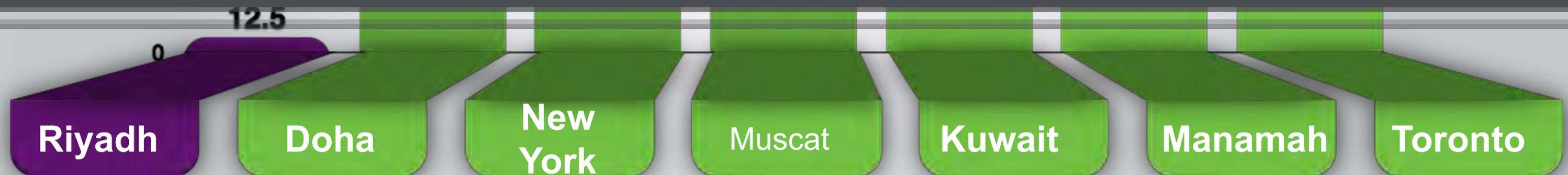
New
York

Toronto

Tokyo

3 Water Prices

The indicator is significant to ensure balance between conservation of water resources and prevention of water loss, and to provide water in prices suitable for low-income brackets.



4

Suspended Particles (10 Micron)

140

Allowable concentration limits in KSA are 80 micrograms/M³ and the average in comparative world cities is 24-33 microgram/m³. Traffic and industrial emissions, emissions from open burning of wastes, and dry desert are the largest sources of air pollution.

Riyadh

Lyon

Graz

London

Toronto

5

Ozone gas (ppm)

0.06

Concentration limit allowed by WHO is 0.061ppm and the average in comparative world cities 0.029 – 0.04 ppm. The largest source of emissions is ozone reaction with other airborne pollutants such as nitrogen oxides.

Riyadh

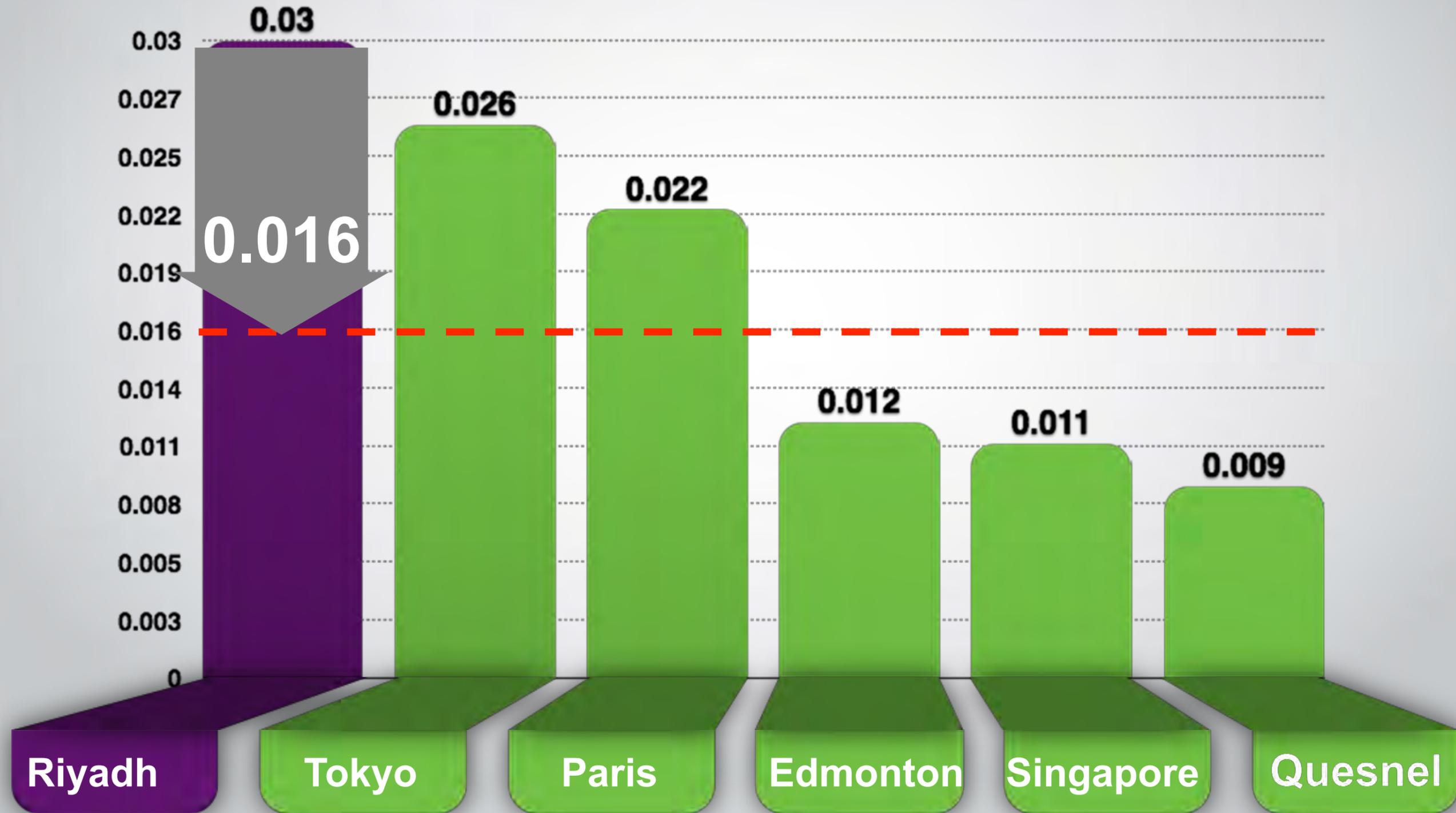
Quesnel

Tokyo

New
York

6

Nitrogen dioxide

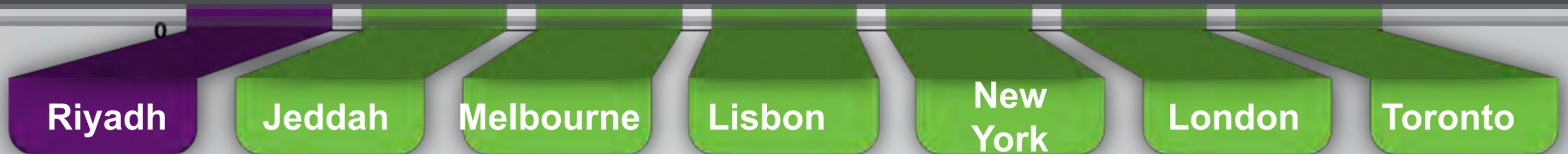


7

Wastewater Treatment



Percentage of treated wastewater in developed cities 78-98. The indicator monitors the level and degree of wastewater treatment systems which represent one of the sources of water used in some purposes.



Thank you