



بشاروالی/شهرداری کابل  
Kabul Municipality

# Islamic Republic of Afghanistan Kabul municipality



## Solid waste management

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## Outline

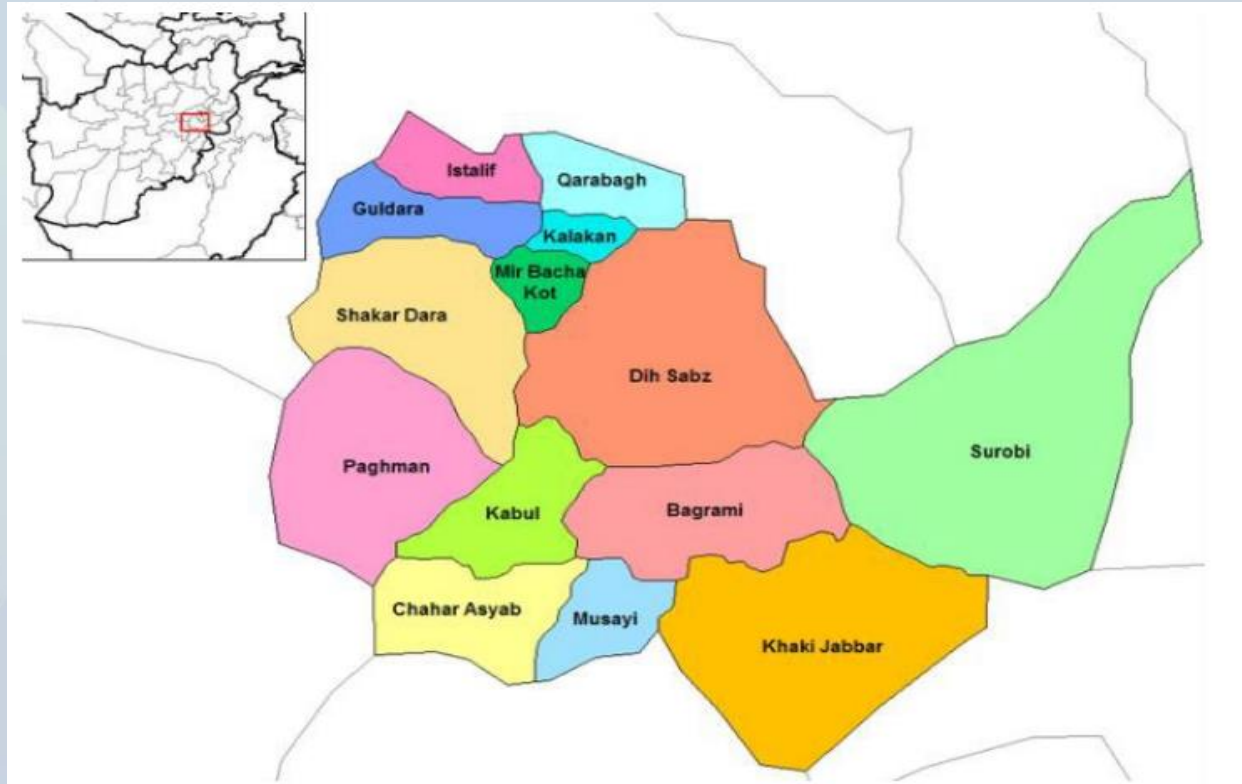
- ❖ Introduction
- ❖ the existing situation of solid waste management in Kabul
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# Location of Afghanistan



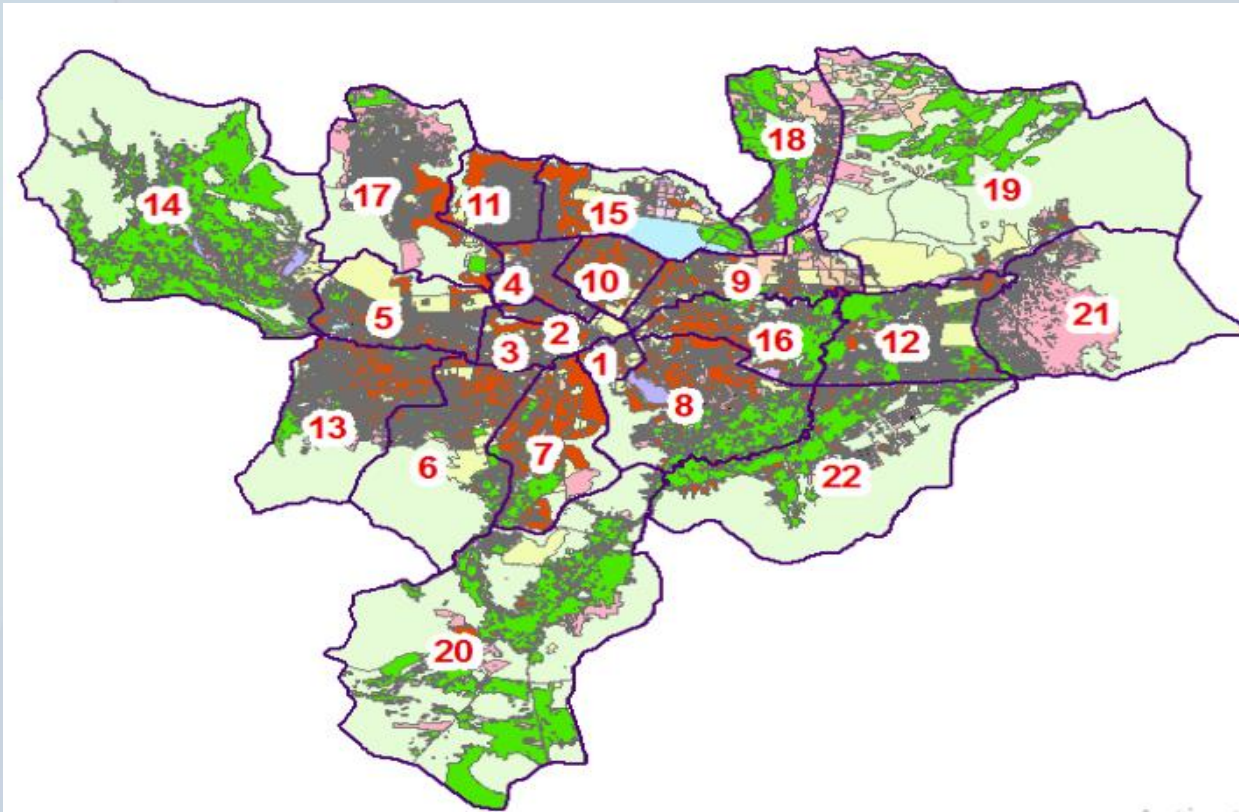
# About Kabul

- Kabul is the capital of Afghanistan, located in the eastern section of the country with an elevation of 1,790 meters, making it one of the highest capitals in the world.
- According to estimates in 2017, the population of Kabul is more than 6 million.



## About Kabul

- The Kabul city territory is about 1008.7km<sup>2</sup> , in 22 districts.
- Rapid urbanization had made Kabul the world's 75th largest city.
- it has both formal and informal settlements, with informal leading the number at 76% of the total land



## The solid waste management situation in Kabul City

- Based on the solid waste management policy there are **three types** of solid waste generated: **municipal solid wastes**, **hazardous wastes** and **clinical wastes**.
- Since there are few industries in the city which are mostly small scale, they have not been considered as a potential source of solid waste generation.



## Disposals

- One of the most pressing problems facing the city is the disposal of solid waste.
- The families and the residents collect all the waste in a mixed manner at their houses, and transfer the waste to the nearest collection point in a cart or in plastic bags as well as disposed in roadsides, back yards, in drains, rivers.



## Collection points

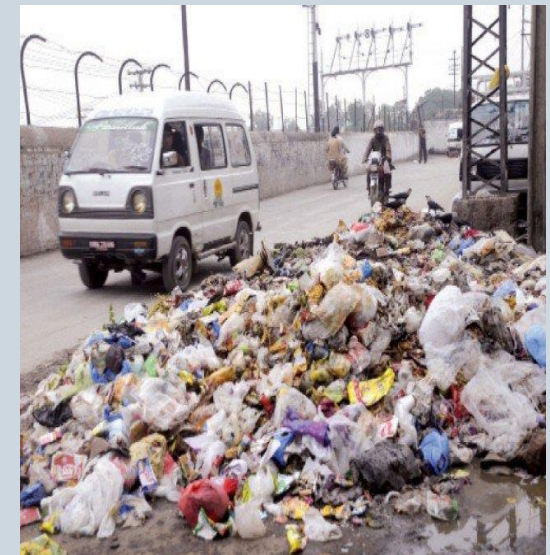
there are now 7500 solid waste collection points in the city. These collection points are of different sizes: 700 are of 7m<sup>3</sup>, 4500 of 1.5m<sup>3</sup>, and 2300 are located in open spaces. These collection points are spread across the 22 districts of Kabul city. but there is no standard applied for placing a waste collection point, and no specific distance between points.



❖ 7 m<sup>3</sup>  
700 pieces



❖ 1.5 m<sup>3</sup>  
4500 pieces



❖ Open space  
2300 points



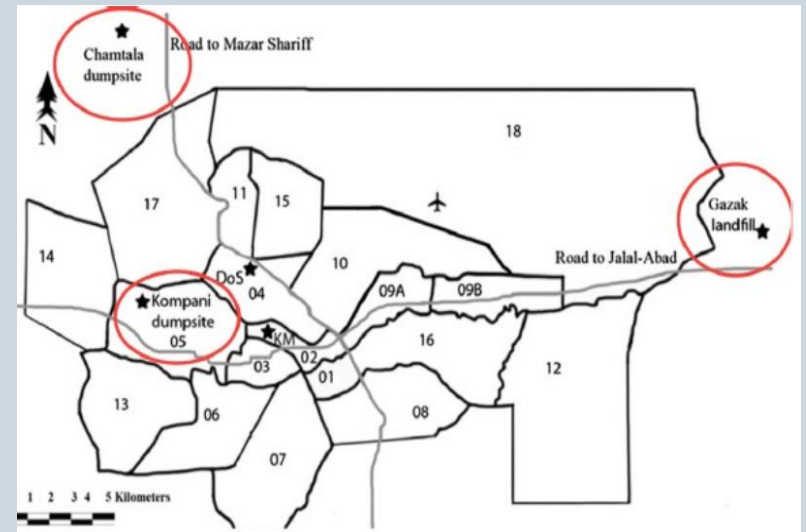
## Collection and transportation

- Right now in Kabul, the collection, transportation, and storage of solid waste is usually managed by municipality and UN Habitat.
- According to UN-Habitat only 48% of solid waste in Kabul is collected and 52% of that is not collected.



## Land fill

At the moment, the main treatment facility used in Kabul is land fill.



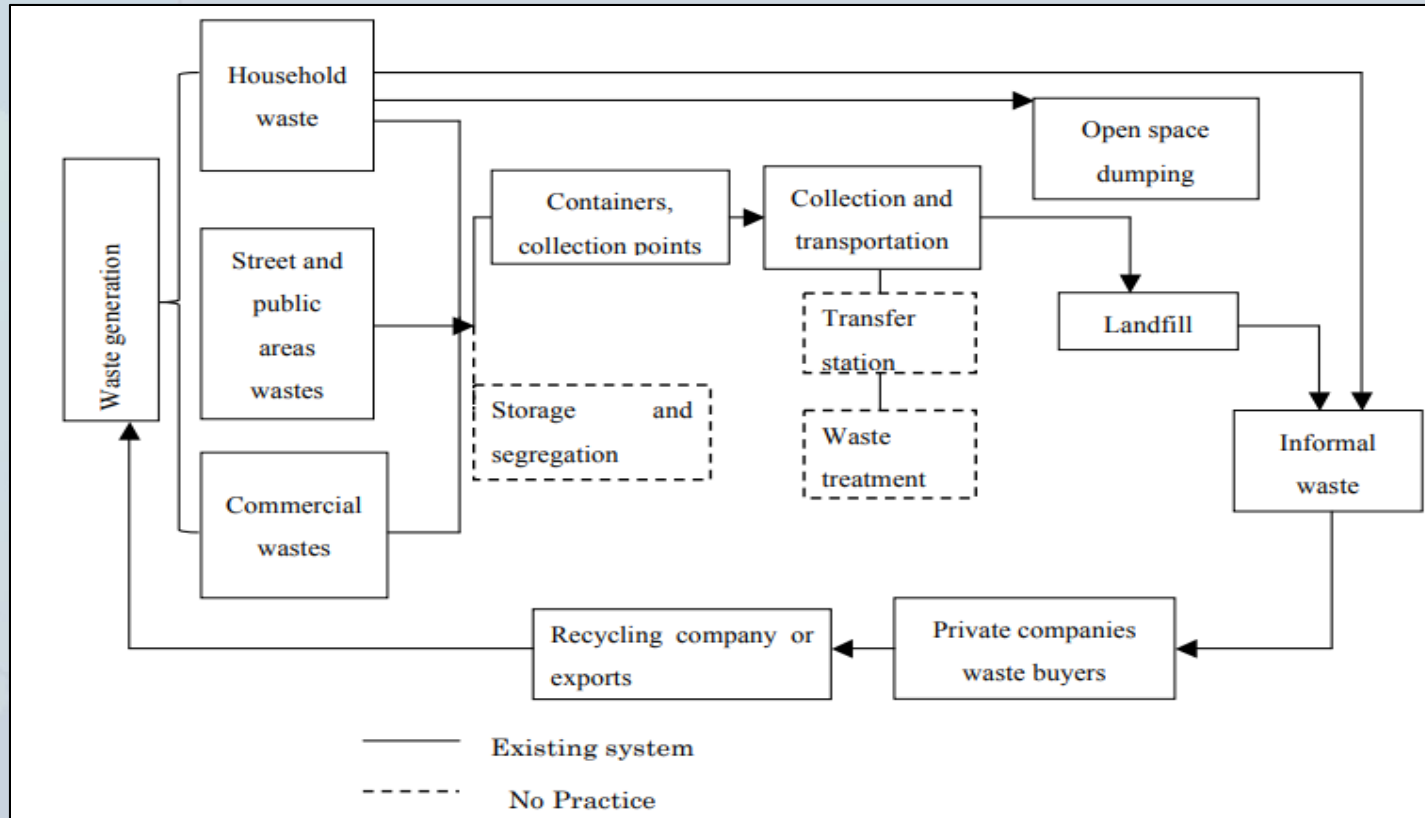
Land fill



42 km far

## The Solid waste stream

The figure describes waste generation from three main sources (household, street and public areas and commercial) and since Kabul city has less or almost no industries so it cannot be considered as a main source.



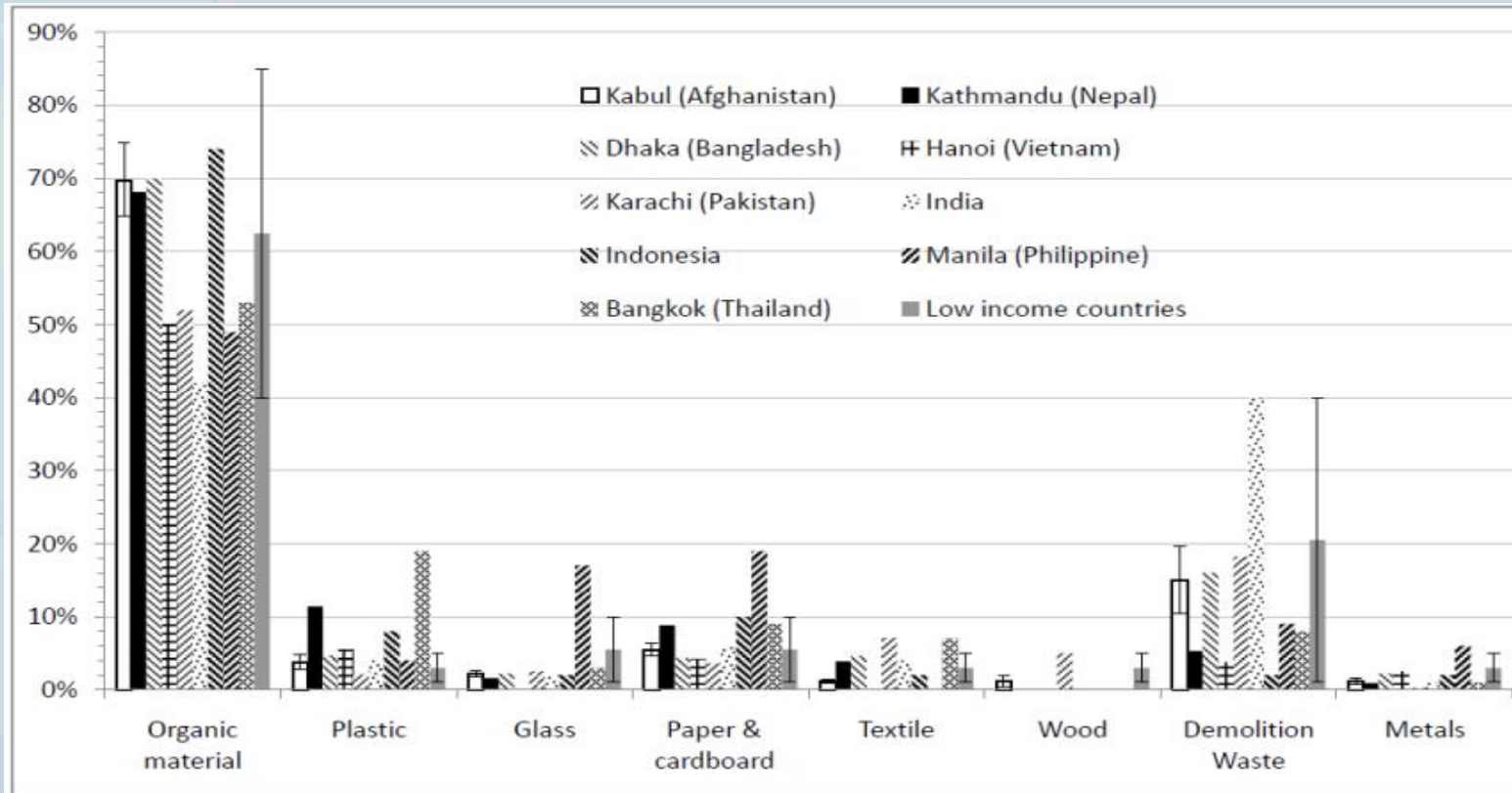
## Waste Generation , Collection and Disposal

- Daily solid waste generated in Kabul city is estimated to be 0.4kg/capita/day
- Generated waste 7100 m<sup>3</sup> /day.
- Collected waste 3300 m<sup>3</sup> /day
- Disposed waste at each dumping site 3300 m<sup>3</sup> /day

# Waste characteristics

## Waste characteristics in low income countries organic waste

Organic 70%, plastic, paper and glass contents are 3.8%, 5.5% and 2.2% respectively. Metal, demolition wastes and textiles respectively add of 1.2%, 15% and 1.2%.

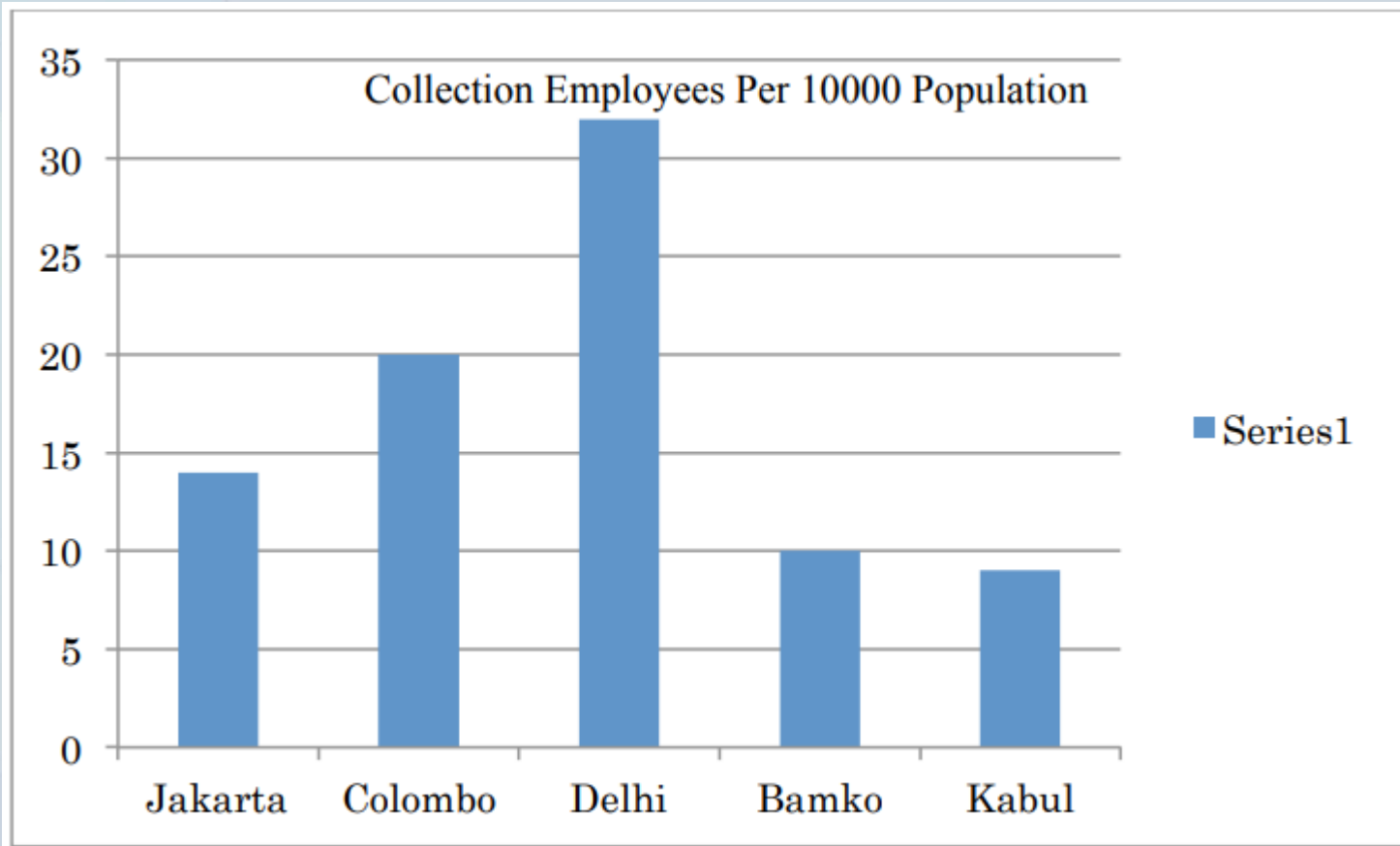


Source: Forouher and Hristovski, 2012, Habitat International.

## Collection employees

Comparison of SW collection employment per 10000 population in different cities.

Kabul less than ten per ten thousand.



## Hazardous wastes

- There is no facility for treatment of hazardous waste in the city.
- Hazardous, toxic and municipal wastes are dumped in the same dump site.
- There were two incinerators working on hazardous wastes but due to the air pollution these were closed.
- All the hospital wastes are considered as hazardous waste.



Mixed ( hazardous and municipal ) waste

## Source separation and sorting of waste

- Source separation usually does not exist at the household level. People have no knowledge about source separation; they collect all the waste in a mixed manner at their houses, and transfer the waste to the nearest collection point in a cart or in plastic bags.
- **Scavengers involved in recycling activities**
  - In Afghanistan. A group of people are involved in recyclable and useful waste collection to generate some income.
  - these scavengers are not only limited to the group of urban poor, but can also include addicted people and door to door waste buyers.



Valuable waste collectors



Door to door buyer



Private sectors



# UN HABITAT

FOR A BETTER URBAN FUTURE

Kabul launches Clean and Green Cities ( CGC ) since march 2017:

- (i) Solid waste collection from households to collection points located in the Nahia, (ii) Tree Planting, (iii) Street sweeping, (iv) Curbs painting, and (v) Cleaning roadside ditches.



Before



Collection increase up to 70 %

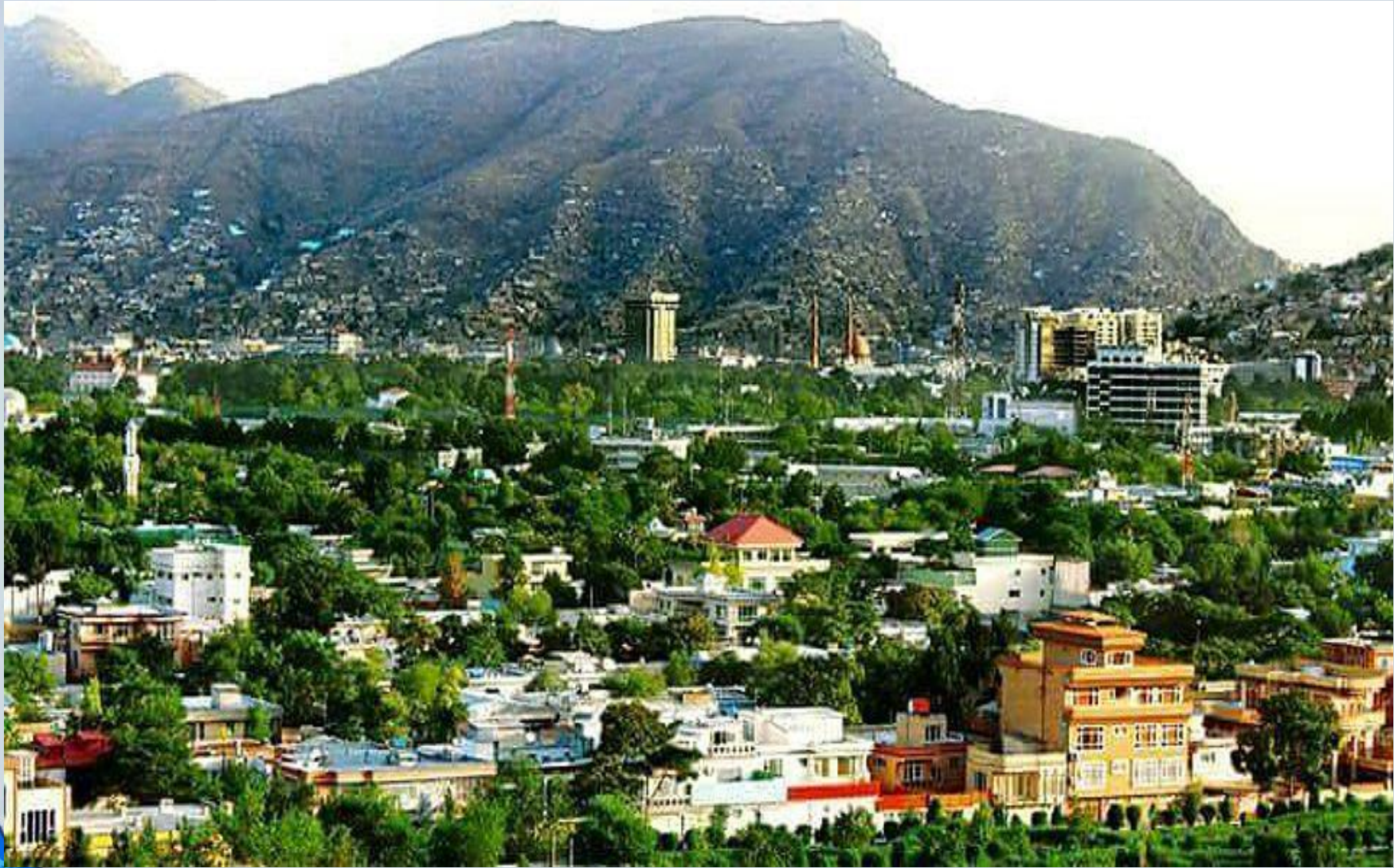



Now

# Problems and challenges:

- Lack of organization management capacity
- lack or inadequate laws, standards, and guidelines
- Lack of policy making capacity
- Low labor capacity
- Low social position of the collectors
- Mixed municipal and industrial and hazardous waste
- Waste reserve and scattering around collection point
- Inadequate collecting methods
- Incomplete technical information and financial support
- Resident s resistance to location due to bad smell
- Lack of proper transfer stations and sanitary landfill construction
- Improper contract with private service providers
- Incomplete of human development plan

# Kabul city





**Thanks for your attention**