

# ROYAL GOVERNMENT OF BHUTAN

PRESENTATION FOR ASIA 3-R CONFERENCE  
30<sup>TH</sup> OCT-1<sup>ST</sup> NOV. 2006

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# Bhutan at Glance

Bhutan is a Landlocked country, located in the midst of Himalayan ranges; India in the south, China in the north.

Area: 46000 sq.km

Population: 600 thousand

Religion: Bhudhist

Vegetation: Moderate

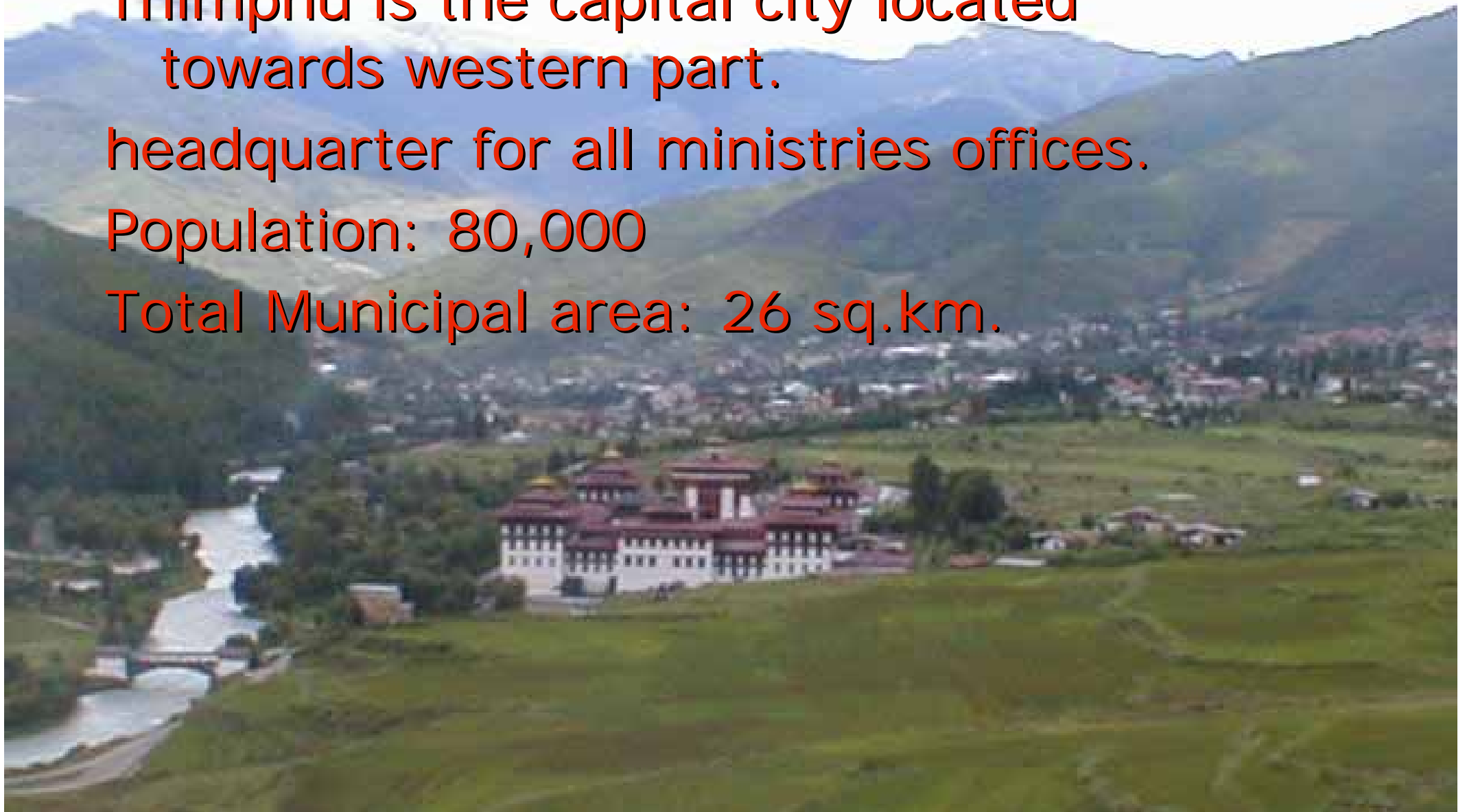
# Thimphu: Capital city

Thimphu is the capital city located towards western part.

headquarter for all ministries offices.

Population: 80,000

Total Municipal area: 26 sq.km.





# Solid Waste Management

- Prior to 1990, waste management was carried out at adhoc basis; collection at certain interval and disposal.
- Thimphu Municipal Corporation started the first waste management establishing a small unit office and a landfill sometime in 1994.
- Only few dump trucks were deployed for waste collection.
- Landfill was designed for capacity of 8-10 metric tonnes per day for a period of 7 years.

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# Solid Waste Management

- Now, with rapid urbanization and development, population has increased from 15000(1992) to 80000 ( 2005).
- The waste generation has increased from 8-10 metric tonnes to 36 metric tonnes a day.
- Presently, Thimphu Municipal Corporation has 6 compactor trucks, 2 tripper trucks, 2 dumper placers for collection and transportation to landfill.



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# Solid Waste Management

- Landfill has now reached its optimum capacity.
- New Landfill has been identified 4 km ahead then the existing, but yet to be designed and operated. ( lack funding and qualified manpower)
- A Compost Plant has also been placed which is also yet to be commissioned.

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# Graduates cleaning campaign



# 3R-concept & constraints

- Reduce, Reuse and Recycle; 3R- is a new concept which Bhutan, keen to adopt as the landfill operation is a acute problem due to the geographical feature of the country. Switching to newer landfill cannot be continued further:
  - Difficult in finding a suitable site.
  - Water shed areas.
  - Destroying the natural flora and fauna.
  - Environmental disaster: soil & water

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# 3R-Concept & Constraints



- Presently, we are not able to collect 100% waste generated.
  - Illegal dumping in the drains, roadside, open areas: no by-laws
  - Civic sense & negligent littering.
  - Awareness & education among Bhutanese society.

# 3R-Concept & Constraints

- No facilities of;
  - Segregation
  - Recycling
  - Composting( reuse)
  - Market for recyclable waste
- A small scale recycling firm is set up but very few collection from the public.



# Constraints

- Privatizing the solid waste management:
  - No Government subsidy
  - No private firms interested
  - No by-laws



# Students cleaning the drain























THANK YOU