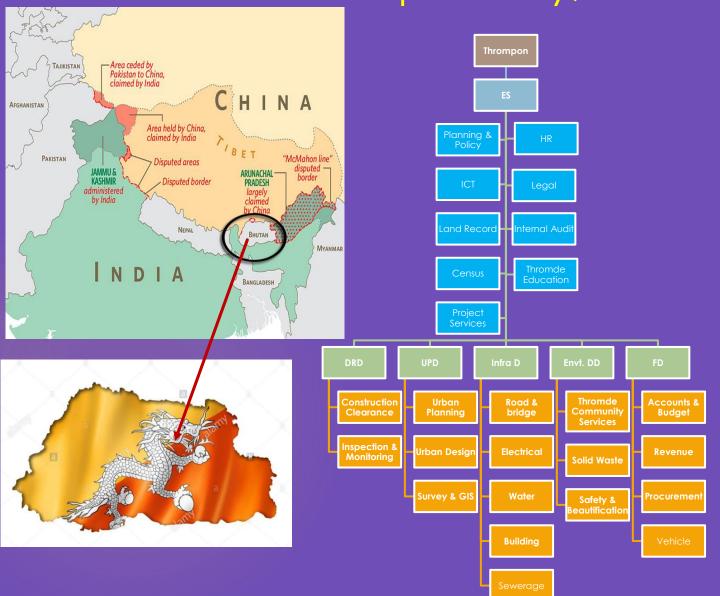
Presentation on Sustainable Water Management in Thimphu City, Bhutan



- > Area: 26 sq. km
- ➤ Population: 150,000
- > Became town: 1961
- Waste Generation: 51 tons per day
- > Source of water is stream
- > 5 Nos water treatment plants, one under construction.

BY: TASHI DORJI& PASSANG

### Problem Identification

- 1. Lack of long-term drinking water supply master plan.
- 2. Unprecedented development and population growth.
- 3. Inability of the water supply infrastructure to cope with the growing demand.
- 4. Financial constraint and lack of adequate technical capacity to develop water supply infrastructure.
- 5. Lack of appropriate technology and technical capacity to operate and maintain water supply systems.
- 6. Intermittent water supply with high system loss.
- 7. Resulting in the shortage of drinking water shortage.

Goal is To ensure safe drinking water to protect consumer health.

# Background of the Policy Project – South Thimphu Water Supply Scheme

- ► Goal: Provision of 24x7 reliable, safe and sustainable drinking water supply.
- Integration/networking with existing Systems.
- Project duration -18 months
- Funded by Asian Development Bank Project
- ► Budget: Nu. 114.00M
- ► Target population is about 50,000 to 60,000
- Main stakeholder of the Policy Thimphu Residents
- Was planned and constructed to meet the demand of drinking water supply shortage.

# Key issue of the project implementation

- Obstacles and difficulties of the Policy (Project):
- Land acquisition. E.g Acquisition of identified site for WTP
- Easement for transmission pipeline. E.g raw water transmission passes through private property.
- Forest/Environmental Clearance. E.g the location of water intake is within the National Park.
- Interest and conflicts among Stake-holders:
- Interest:
  - Access to 24x7 safe and reliable drinking water supply in a sustainable manner to improve water and sanitation for Public health. (WHO Guideline BDWQS 2016)
- Coordination with stakeholders

- > Conflict:
- Water use priority as per water act 2011
- ▶ Favorable and unfavorable condition related to the Policy:
  - Favorable:
    - ✓ Strong Political will.
    - Strong support from the beneficiaries.
    - Strong support from the Stakeholder. (MoWHS for Urban and water Sanitation, MoH, Is apex body for quality for both urban and Rural, NEC is Apex Body for Regulatory

# Key strategies for success of the Project

- Your role in solving the problem
- Long-term drinking water master plan (draft) prepared.
- Secure Funding source from the Bank.
- Extension of distribution network including augmentation.
- Important strategies or policy tools you have employed in the process
- Extensive consultation with the stakeholders.
- Selection of appropriate technology to ensure sustainability.
- Creative ideas and policy actions, new management techniques or technology used in the process.
- Networking of the new scheme with the existing systems to integration/achieve equitable supply

#### Key strategies for success of the Project

- New Technology for water treatmet plant
- How to persuade or to compromise different interest among stakeholder
- Divided project into different packages for simultaneous implementation to ensure completion in time.

## Lesson and Implications

#### Missed:

- Adequate time to be allotted for project planning
- Timely acquisition of land required for the project
- Achieved:
- Project planned successfully and under implementation
- Land Acquired
- Appropriate Technology selected for WTP
- Environment Clearance obtained
- Good strategies and policy tools that can be applied to similar cases
- Coordination with relevant stake holders
- Selection of appropriate technology
- Synchronization of implementation of project components
- Policy recommendation for the project:
- Transfer of technologies and Capacity building to ensure sustainability of the project



# THANK YOU



