



# DEVELOPING THE WATER AND SANITATION SECTOR:

REGULATION AND CHALLENGES FOR  
REGIONAL AND URBAN DEVELOPMENT AND  
NEED FOR ADEQUATE REGULATION

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# WATER AND SANITATION

- A key sector for economic and social development
  - Satisfaction of *basic needs* of households and impact on many aspects of development
    - Hygiene
    - Food and drink
    - Health
    - Life expectancy
    - Time allocation of households, particularly women

# WATER AND SANITATION

- Improvement in *other dimensions* of development as well
  - Economy-wide *cost reduction* and *competitiveness*
    - Government: decrease in aggregate health costs (less health treatment)
    - Firms: lower health related absenteeism
  - Enlargement of *assets-base* for long run development
    - Labour: higher female participation
    - Human capital: longer life-expectancy raises the return on education
    - Environment: lesser growth limiting factors from scarcity of the resource and lower pollution to underground and surface waters

# THREE FUNDAMENTAL IMPLICATIONS

- Water and sanitation *demand increases fast as development goes on*
  - High income-elasticity of demand
    - Superior-good features
- Investments in water and sanitation have a *very high rate of return* from a socio-economic viewpoint
- Water and sanitation services *detonate* development

# REASONS WHY ADEQUATE REGULATION IS NEEDED

- *Sustainability*: sound inter-temporal management is needed
- *Geographic systems*: overall basin management is required
- *Technology*: large interconnected infrastructure has been historically economically scale-efficient, although this is evolving
- *Quality*: technical (biochemical) standards are key for health safety

# REASONS WHY ADEQUATE REGULATION IS NEEDED

- A *basic good*, but not a *public good*: in consumption of these services there is exclusion and rivalry
  - Water transportation, distribution, metering and treatment are *costly*
  - Costs must be recovered in some ways to *finance investment* (or public debt, or taxes and subsidies will increase)
    - Larger consumption should be associated with larger cost recovery for efficient resource use
  - Very *limited substitution* and therefore low price elasticity of demand
    - Possibilities of exploiting consumers by *monopoly power*
    - *Reliability* and safety considerations
- *Equity considerations*
  - *Interpersonal* (deciles in income distribution), *inter-regional* (urban or rural parts of the territory, areas within metropolitan zones), *inter-sectoral* (human consumption, industry, agricultural, urban uses)

# KEY ASPECTS

- Hydrological efficiency to warranty environmental sustainability: basin management
- Efficient allocation of scarce resource to vast and diverse needs:
  - Metering
  - Pricing or quantitative quotas (and equity considerations)
    - For water exploitation rights
    - For bulk water
    - For users in general, and domestic consumers in particular
  - Treatment and recycling for adequate uses
- Efficient investments in extraction, transportation, treatment, distribution, recycling, etc.
  - Technology and scale selection, location of facilities
  - Adequate financing to optimize capital costs
  - Optimal construction and operation standards to optimize production costs

# SUGGESTED QUESTIONS FOR DISCUSSION

- What is the present situation in the People's Republic of China regarding services of water and sanitation to different urban and rural regions?
  - Statistics on access, quality, costs or tariffs, best and worst practices
- What are the medium and long-term challenges for meeting future demand for water?
  - Environmental constraints, conflicting claims from different final uses (agriculture, industry, urban use, human consumption), investment restrictions
- What are the main features of public policies in this respect?
  - Policy objectives, entities in charge, responsibilities of different government levels and governance issues, financing, policy instruments and effectiveness, monitoring and evaluation

END OF PRESENTATION