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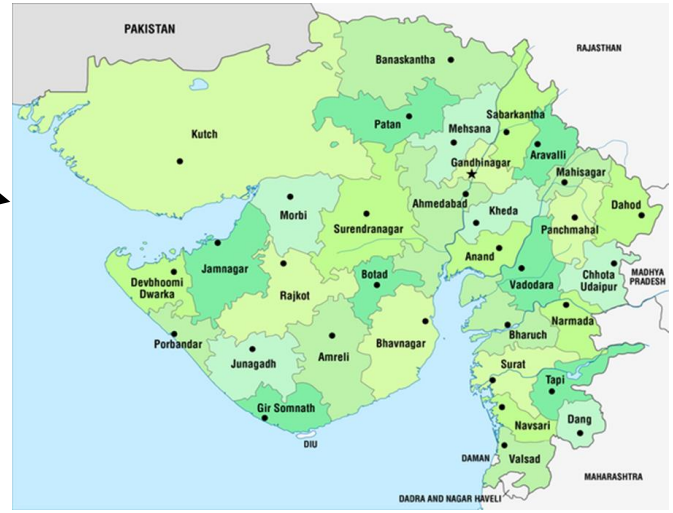
Political commitments and institutional response:
Story of two states from India

Devendra Kodwani

Two states of India

Rajasthan
population 68.5 million



Gujarat
population 60.4 million

Institutional structure changed for electricity sector 1999-2005

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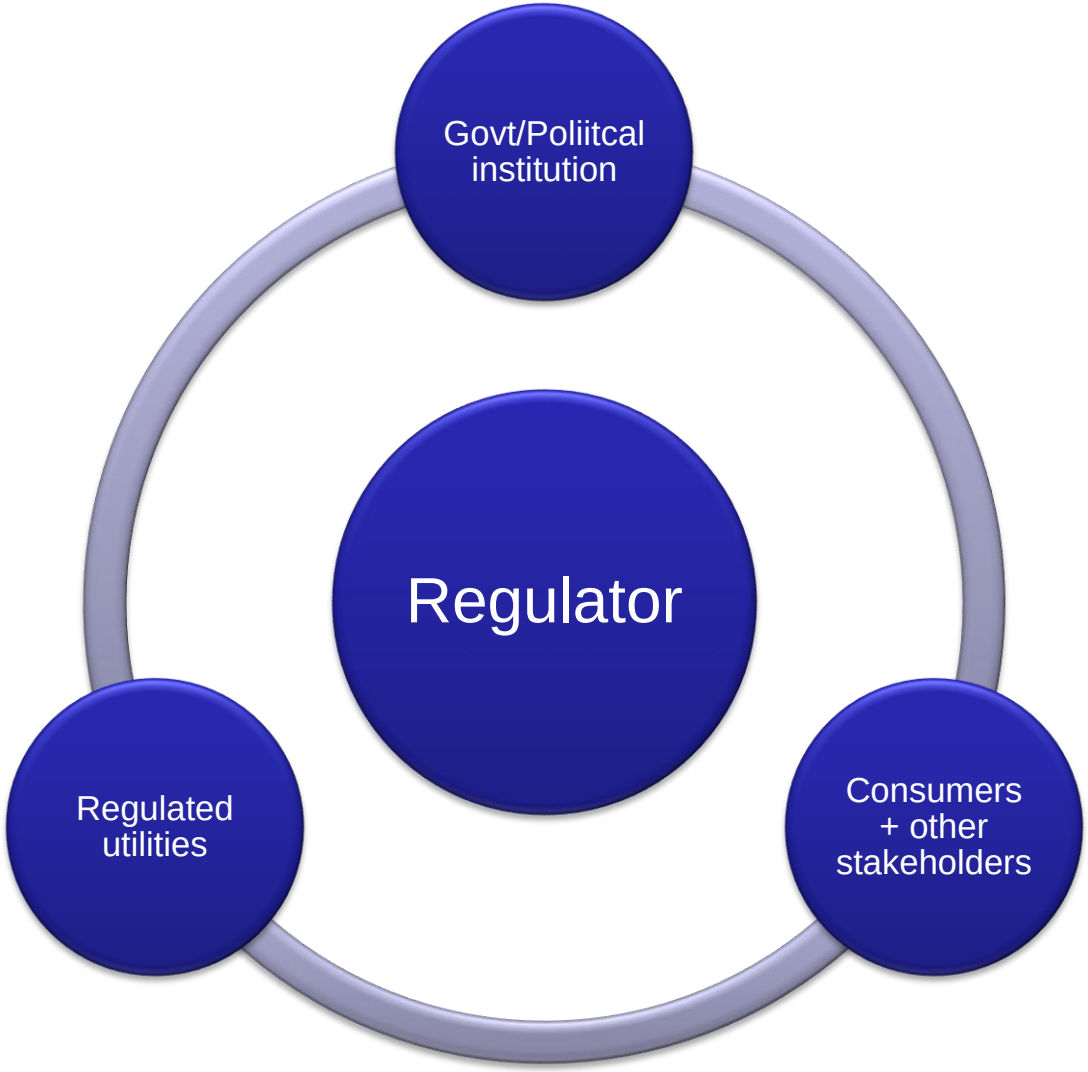
Rajasthan

- Rajasthan Power Sector Reform Act,1999
  - Rajasthan State Electricity Board (an integrated generation,transmission, distribution state owned monopoly) unbundled into five companies
  - One Generation
  - One Transmission
  - Three Distribution Companies (DISCOMS)
- Rajasthan Electricity Regulatory Commission set up 2000

Gujarat

- Gujarat Electricity Act, 2003
  - Gujarat State Electricity Board (an integrated generation,transmission, distribution state owned monopoly) unbundled into seven companies Gujarat State Electricity Board (an integrated generation,transmission, distribution state owned monopoly) unbundled into seven companies
  - One holding company (for DISCOMS)
  - One Generation
  - One Transmission
  - Four Distribution Companies (DISCOMS)
- Gujarat Electricity Commission set up 2005

Post reform institutional framework for electricity sector



Research question

What determines divergence in performance of regulated utilities in seemingly isomorphic institutions?

Positioning the research

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New Institutionalim and New Governance research on regulation and its practice

New institutionalism: relationship between regulators and legislators/government

New governance: relationship between regulators and the regulated

Carrigan, C and C. Coglianese (2011) The politics of regulation from new institutionalism to new governance, *Annual Review of Political Science*, 14:107-29.

Regulatory model and instrument

- Regulatory commission in each state constituted by the state government as an arm's length institution
- All appointments through selection process
- Three member senior team
  - Chairperson plus two members (technical and finance)
  - Several directors
- Hybrid cost plus rate of return model
  - Multi year exante Aggregate Revenue Requirement approved
  - Annual review against immediate past year performance

The difference in financial performance

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Top six states on the basis of profit (subsidy received basis) in 2012-13

Rs. Crores

Delhi	939
Maharashtra	655
West Bengal	546
Gujarat	539
Kerala	241
Punjab	51

1 Crore RS = 10 million = US$150,000

Bottom six states on the basis of losses (subsidy received basis) in 2012-13

Rs. Crores

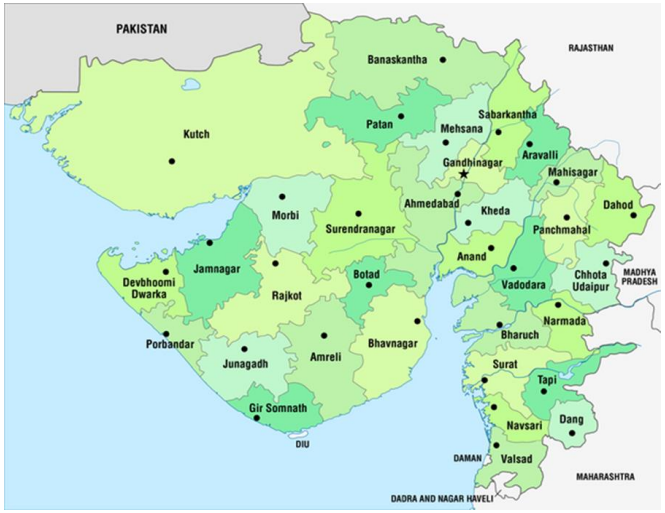
Andhra Pradesh	16,668
Uttar Pradesh	13,155
Rajasthan	12,510
Tamil Nadu	11,827
Madhya Pradesh	4,474
Haryana	3,834

$1.87 billion

(Annexure 1.5.1 to 1.5.3)

Source: Power Finance Corporation ReportThe Performance of State Power Utilities for the years 2010-11 to 2012-13

Power supply capacity difference (MW)



	Gujarat	Rajasthan
Aug 2010	16759	9230
July 2015	28950	17228

How do explain the difference in performance of institutions?

- Difference in political commitment to autonomy and clear objectives
- Regulatory capacity
- Regulatory culture

Political commitment to regulatory reform

- Rajasthan: 2008
  - Heavy subsidies for farmers
  - No change in tariffs for five years
  - No autonomy to state owned utilities
  - Autonomy to regulator (not really used)

- Gujarat: 2003-04
  - Subsidies to farmers
    - Restrictions on irrigation use (at night)
    - Allow change in tariff
    - Autonomy to regulator, used by regulator
    - Autonomy to state owned utilities

Two possible hypotheses*:

Political business cycle

Targetted distribution (patronage) of particular constituency

* (Baskaran, Min et al. 2015)

Regulatory capacity & culture

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Rajasthan

- Government departmental environment
- Little use of the autonomy enshrined in the enabling act
- Appoint people from within the sector

Gujarat

- Professional working environment
- Clear alignment with political goal to ensure adequate supply of power
- Commitment to encouragement of competition
- Commitment to renewable energy
- Open to appointment of professionals qualified for job

What were institutional responses

- Regulatory practice
- State owned utilities response
- Organisational innovation in Gujarat

Cost of equity: Is it relevant in tariff determination?

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A utility in Rajastahn did not claim any return on equity during FY 2011-12

Question was asked in public hearing that not claiming would affect financial viability, sustainability and growth of distribution companies.

DISCOM argued that adding return on equity in expected revenues from operations will adversely affect the customers.

"*in the absence of recovery of full revenue gap from the revised tariff, claiming return on equity would unnecessarily inflate the revenue gap*"

Source: **Petition No. RERC 238/10,239/10,240/10, RERC, 2011.**

Rajasthan Regulator's view

- *"Commission agrees that considering the revenue gap even after tariff revision, the inclusion of RoE would only increase this. Even otherwise, the Commission would not like to burden the consumers if licensee itself is not claiming RoE"*

Source: **Petition No. RERC 238/10,239/10,240/10, RERC, 2011.**

Dealing with distribution losses and subsidies

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Rajasthan

- Subsidies not paid in time by the state government
- Distribution losses are passed on to customers as allowable expenses

Gujarat

- Subsidies are paid in time by state government but not fully sometimes
- Specific allocations in state budget made
- Distribution losses considered controllable by regulators
- Differences between allowable distribution losses and actual not allowed in the expenses

How to meet political goals

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Gujarat Chief Minister was determined to supply 24 hours electricity to all (18,225)villages

Utilities came up with a technical solution:

In rural area primary consumers are farmers

They need electricity for irrigation (to run submersible pumps to tap into ground water) and for domestic purpose.

- Separate feeders were installed to separate demand for irrigation from domestic demand
- This allowed 24 hours supply for domestic connections and limited 8 hours supply for agriculture

This has been successful model even for pricing and revenue collection

Gujarat Regulation 24: Practising carrot and stick

http://www.willett-ink.co.uk/LGC%20web/pages/Carrot%20%26%20stick.html

- Controllable losses are borne by the utility and are not passed onto consumers

- Sharing of uncontrollable losses and gains:
  - gain or loss shall be passed through as an adjustment in the tariff

- Sharing of controllable gains
  - One-third of the amount of such gain shall be passed on as a rebate in tariffs
  - The balance amount, which will amount to two-thirds of such gain, may be utilised at the discretion of the utility

Flexible performance based regulation

Concluding remarks

- Institutions matter
- Structure important: Gujarat example of local adaptation
- Political commitment sets the tone for institutional effectiveness
- Innovation and improvement in performance possible within public sector

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Thank you for your attention

Any feedback please contact at
Devendra.kodwani@open.ac.uk