

Groundwater and Politics: Evidence from India

Aditi Mukherji
Post-Doctoral Fellow
IWMI

Let's be policy makers!

- As policy makers we are empowered to 'govern' groundwater through framing policies
- As rational policy makers, we are guided **solely** by 'scientific' evidence
- Our priorities are (in order of ranking):
 - Sustainability of GW
 - Livelihood issues
- We are presented with two sets of 'situation analysis' based on which we have to formulate GW policies

Groundwater situation analysis in two states of India

	Rainfall/ Climate	Type of aquifer	Current GW status
State A	500-1000 mm Arid to semi-arid	Deep confined alluvial	Rapid depletion
State B	1400-2600 mm Humid	Unconfined alluvial	Under- exploited

Two policy options

Policy 1

Free or highly subsidised electricity, rapid rural electrification, easy credit for new well construction

Policy 2

High electricity tariff, strict groundwater regulation, restriction on new electricity connections

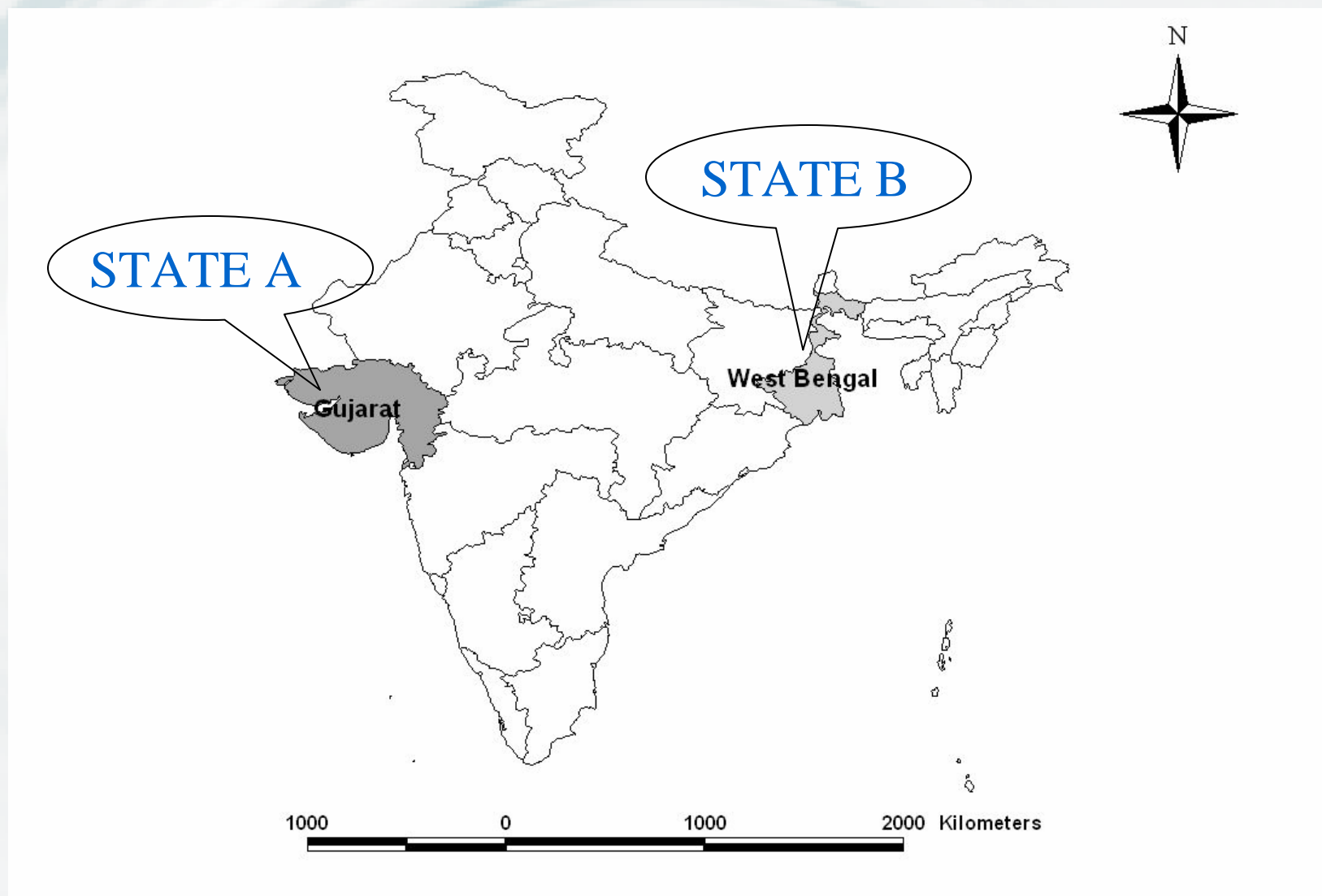
The best policies: Obvious, huh!

- State A : Policy 2
- State B: Policy 1

But what is obvious is not true: Real situation

- State A: Policy 1
- State B: Policy 2

These are NOT hypothetical cases



Politics of groundwater

- That groundwater policies are not in sync with groundwater realities is because
 - ‘Scientific’ knowledge is hardly ever just that, ‘science’ is interpreted through lens of politics (this falsifies one of our earlier assumptions about policy makers)
 - Socio-economic realities coupled with political ideologies mould policy decisions (this falsified the assumption that GW sustainability issues are higher up on policy makers agenda always)

The discipline of ‘political ecology’

- Political ecology looks at:
 - Political struggles over access to natural resources and how this struggle is in turn shaped by existing power relations (Walker 2005)
 - How social and political factors frame environmental science and how science in turn shapes politics (Forsyth 2003)

Central hypothesis

- Groundwater policies in India have very little to do with scarcity, depletion and quality of groundwater and more to do with agrarian politics, manifested among other things, through political power wielded by farmer's lobby

**A case study from India: Gujarat vs.
West Bengal
(Mukherji 2006)**

Groundwater ecology: Gujarat vs. West Bengal

	Gujarat	West Bengal
% GW development	60%	40%
No. of over-exploited blocks	31 of 184 (17%)	0
Water level decline in obs. wells	71%	35%
Water level decline (> 4m) in obs. wells	34%	10%

Groundwater socio-economy: Gujarat vs. West Bengal

	Gujarat	West Bengal
Total no. of WEMs	1.4 m	0.9 m
% electric WEM to total	50%	12%
Pump density (no/1000 ha of NCA)	46.3	35.4
Area under GW to NIA	82.3	59.3

Agrarian politics: Gujarat vs. West Bengal

	Gujarat	West Bengal
Party in power	Right wing BJP	Left CPI(M) and allies
Duration of power	2 nd term (10 years)	Completed 6 terms (30 years)
Strength of opposition	Strong	Weak
Main peasant body	BKS (BJP), also KSS (Congress)	Only one, KS (CPI(M) affiliated)

Groundwater policy: Gujarat vs. West Bengal

	Gujarat	West Bengal
Electricity tariff	Rs 500/HP	Rs 1200/HP (highest in India)
GW regulation	Almost absent	Effective through SWID
Access to credit and electricity	Relatively easier	Difficult
Attitude of GW board	Farmer friendly	Resource friendly

Why this paradox: 3 possible reasons

- Contextual
 - GW irrigation is well entrenched in Gujarat and relatively new in WB
 - GW irrigation is less crucial in WB than Gujarat
- Perception about resources and livelihoods
 - Gujarat officials empathises with the farmers
 - WB officials are largely moved by environmental arguments of urban intelligentsia

- Relative strength of farmer's lobby
- GUJARAT
 - Farmers' lobbies are very strong in Gujarat
 - BKS and KSS take members only from the farming community
- WEST BENGAL
 - KS is co-opted by the ruling CPI(M)
 - Strong discipline within the party ensures that voices of dissent are not made public
 - KS takes members from all sections of rural society and dilutes the interest of farmers

This paradox results in a situation...

- Of strict groundwater regulation where little is needed and free for all access to groundwater where resource conditions are precarious

A possible hypothesis

- Farmer's lobbies are strong in regions with high dependence on groundwater
 - Because GW irrigation enables farmers to amass wealth and exert political influence

Thoughts and discussions