

# Economics, ethics and politics of groundwater

## Water Ethics

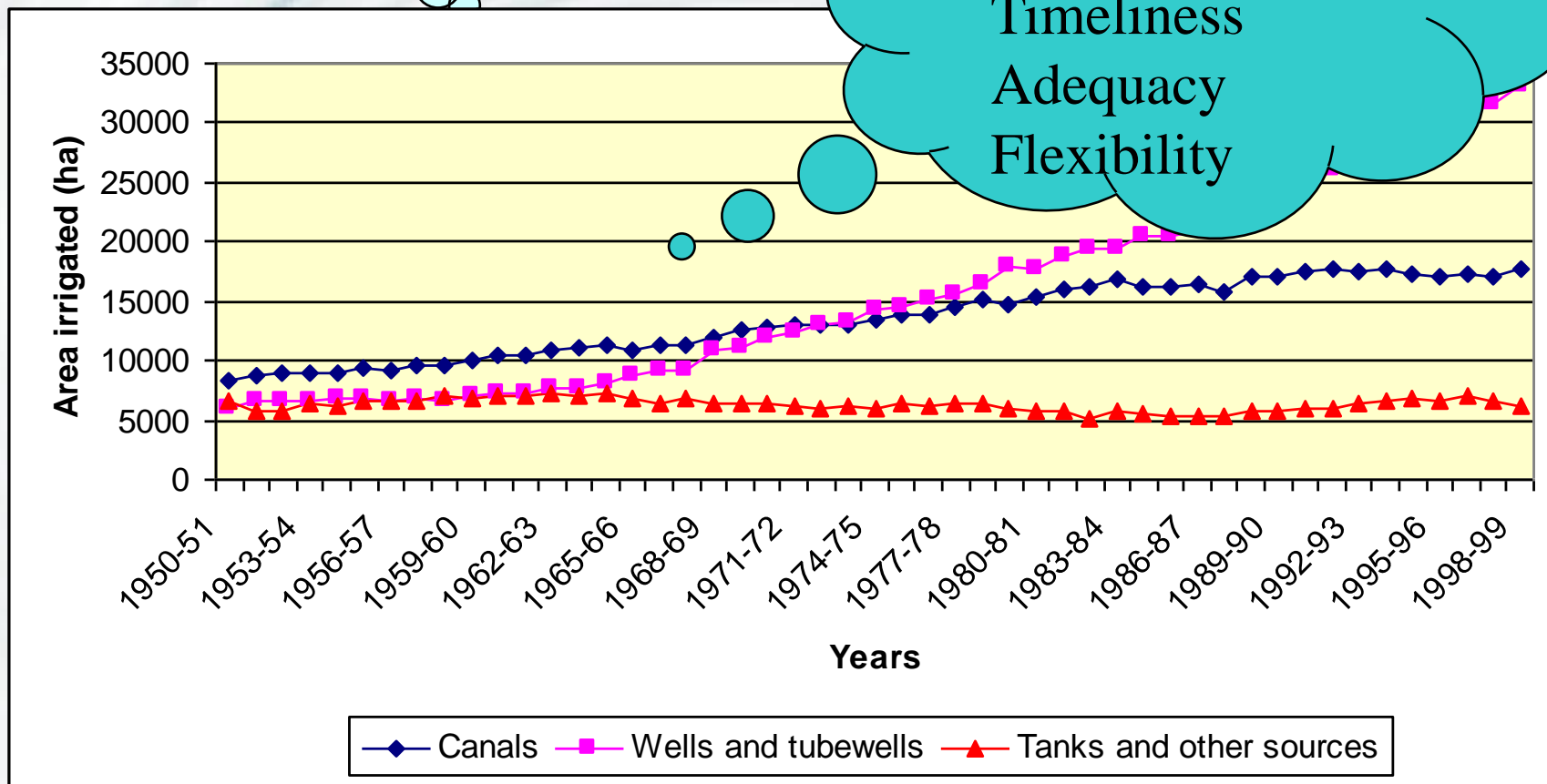
**Dr. Aditi Mukherji**  
**IWMI**

**5<sup>th</sup> World Water Forum**  
**20<sup>th</sup> March 2009**

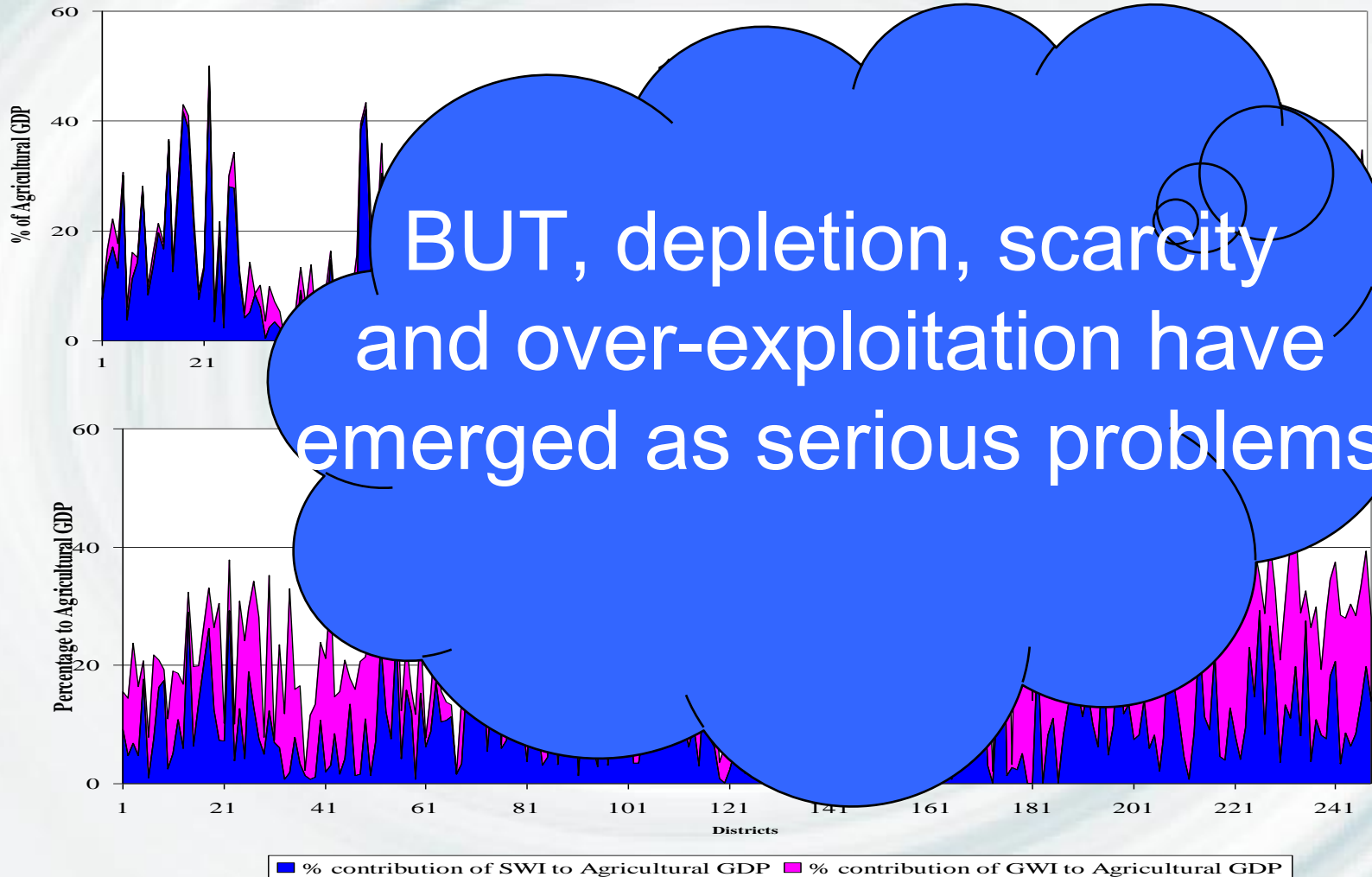
# The Big Picture

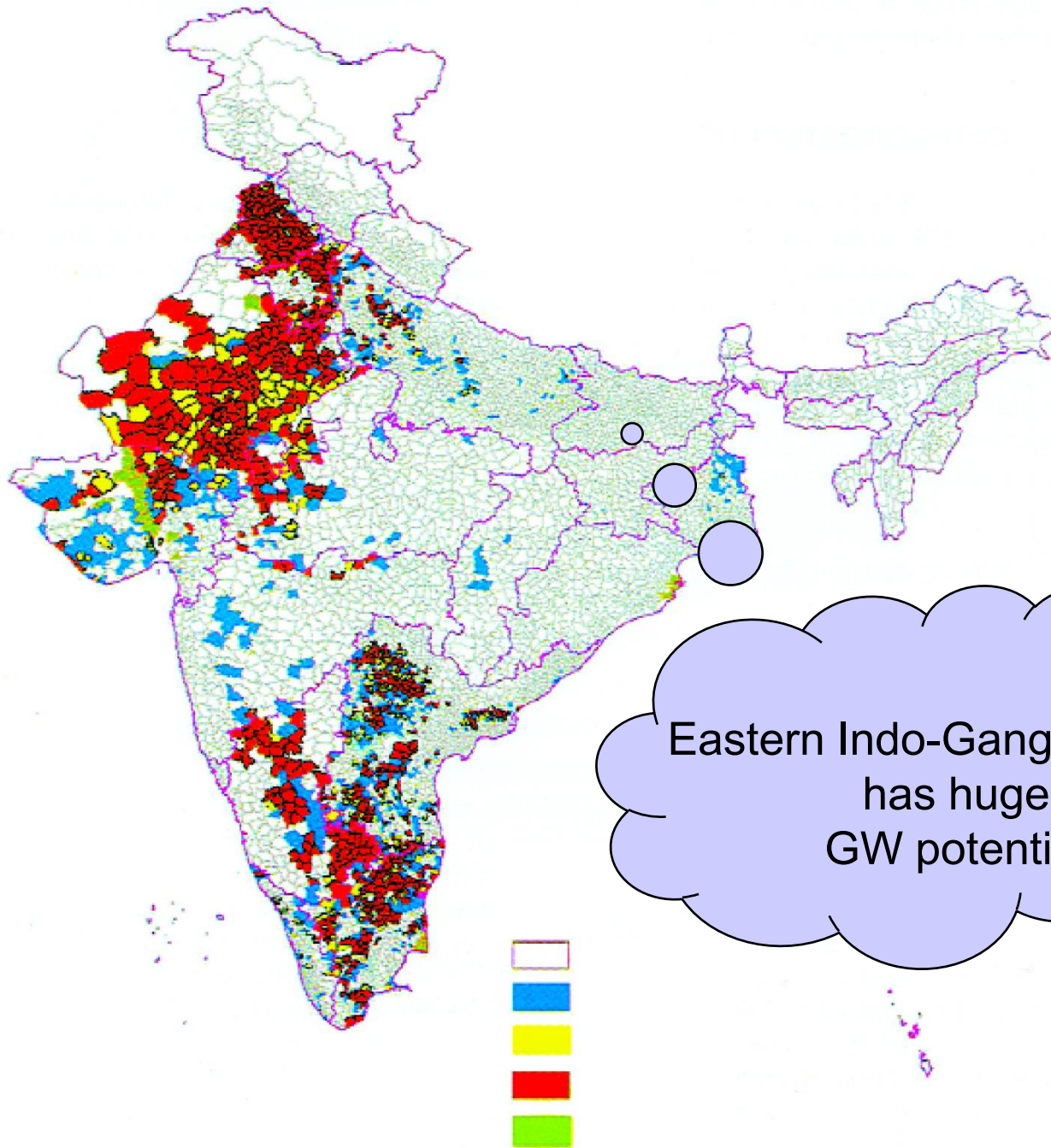
Rapid rise  
in GW  
irrigation

Private ownership  
On demand irrigation  
Timeliness  
Adequacy  
Flexibility



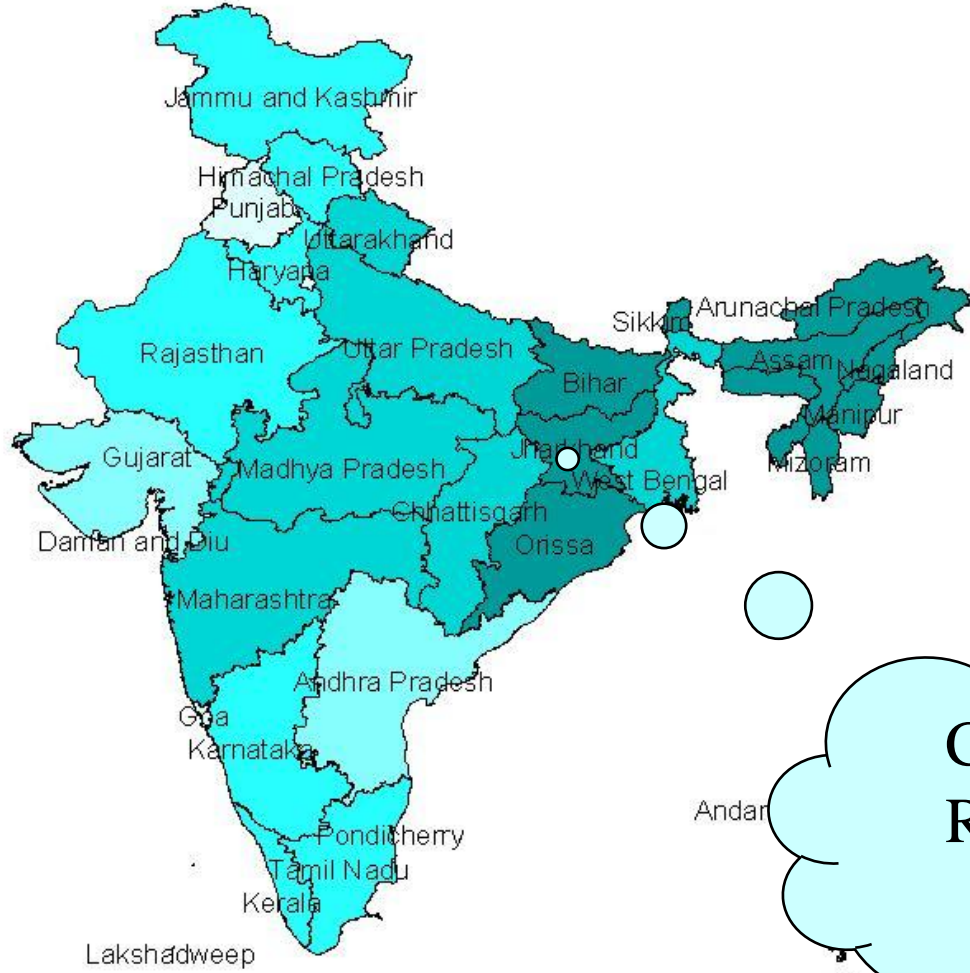
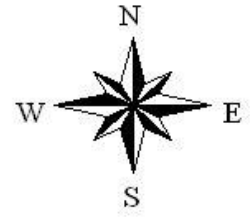
# Rising contribution of groundwater





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Eastern Indo-Gangetic basin  
has huge  
GW potential

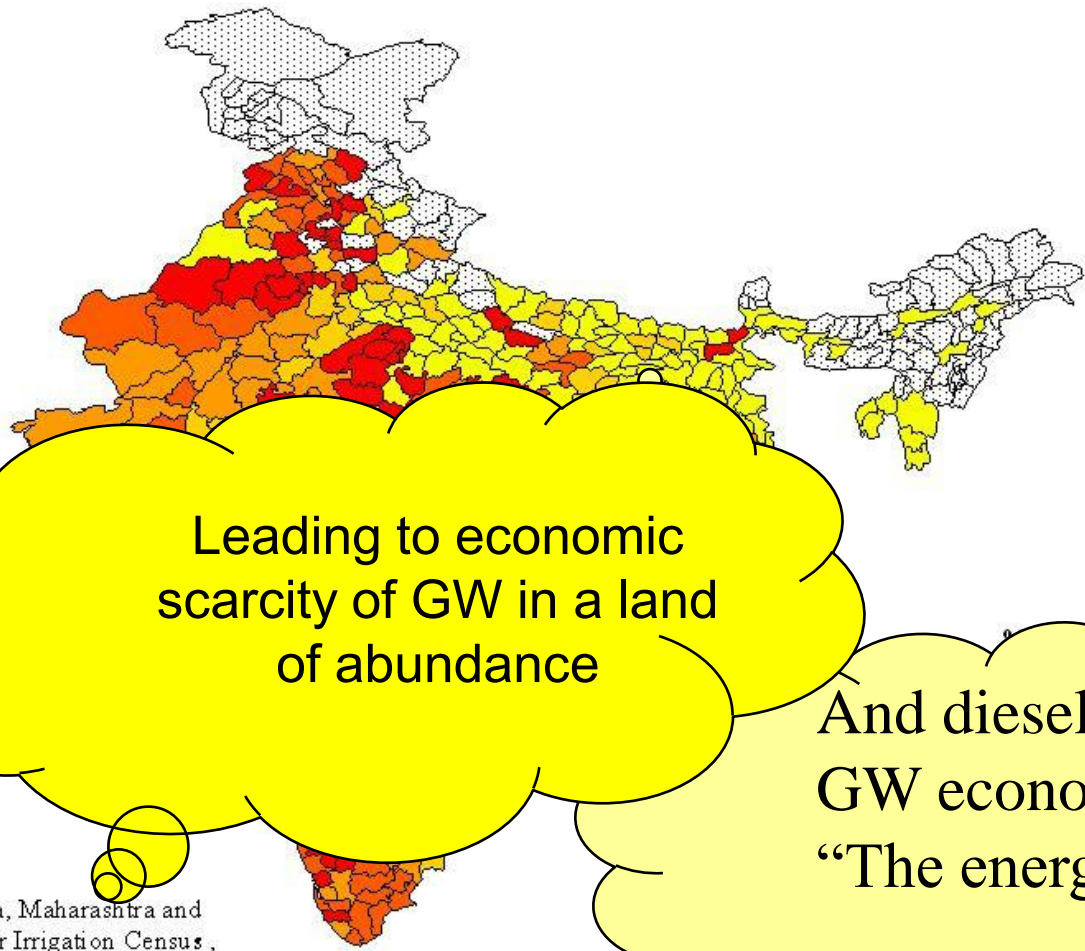
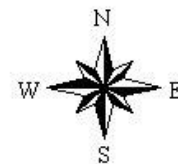


India

Concentrated  
Rural poverty



### Percentage of Electricity Operated Groundwater Structures to Total Mechanized Groundwater Structures, 1993-94\*



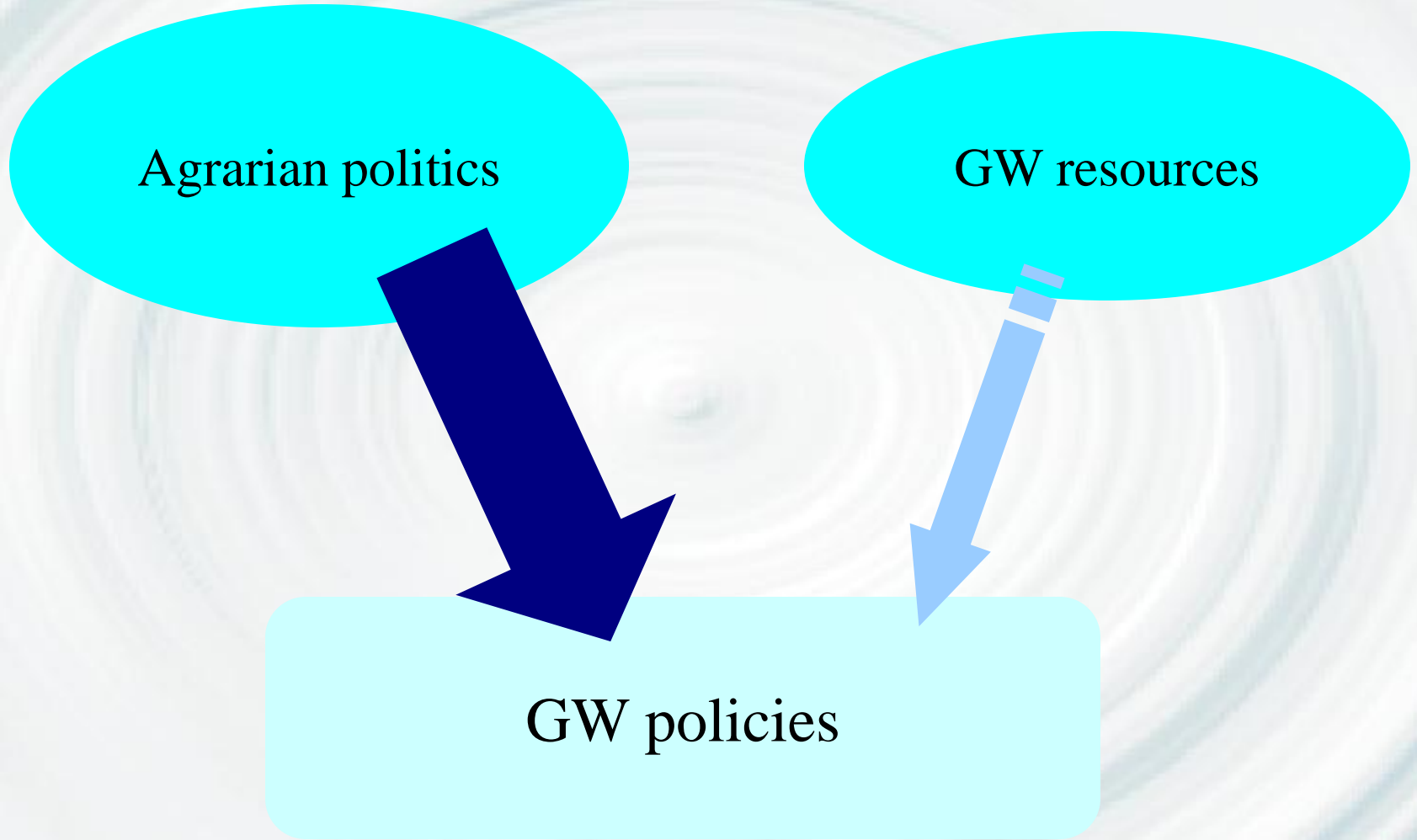
Leading to economic scarcity of GW in a land of abundance

And dieselised GW economy  
“The energy squeeze”

\* Figures for Gujarat, Karnataka, Maharashtra and Tamil Nadu are based on Minor Irrigation Census, 1986 as they have not been included in 1993-94 MI Census. For the other states, data relates to 1993-94 based on MI Census, 1993-94.



# If the solution exists, why not implement? The political ecology perspective



Thank You



# Water selling decision of farmers and motive power of pumps: Logit regression (N=294)

Variables	B	Wald statistic
MOTIVE	1.263	15.248*
FAMSIZE	0.002	0.002
OPHOLD	-0.022	1.350
ALTINCOME	-0.110	0.134
GWDEV	0.016	9.133*
Constant	0.077	0.036
Negelkerke R <sup>2</sup>	0.313	



# Quantum of water sold and motive power of pumps Results of OLS regression (N=243)

Variables	B	Beta
MOTIVE (d)	879.972*	0.514
TWEM (d)	702.358*	0.370
GCA	-9.142*	-0.194
ALTIRR (d)	-105.445	-0.062
GWDEV (d)	332.600*	0.173
Constant	294.867*	-
Adjusted R <sup>2</sup>	0.646	

