



Environmental Sustainability Index (ESI)

For Indian States

Informing Environmental Action

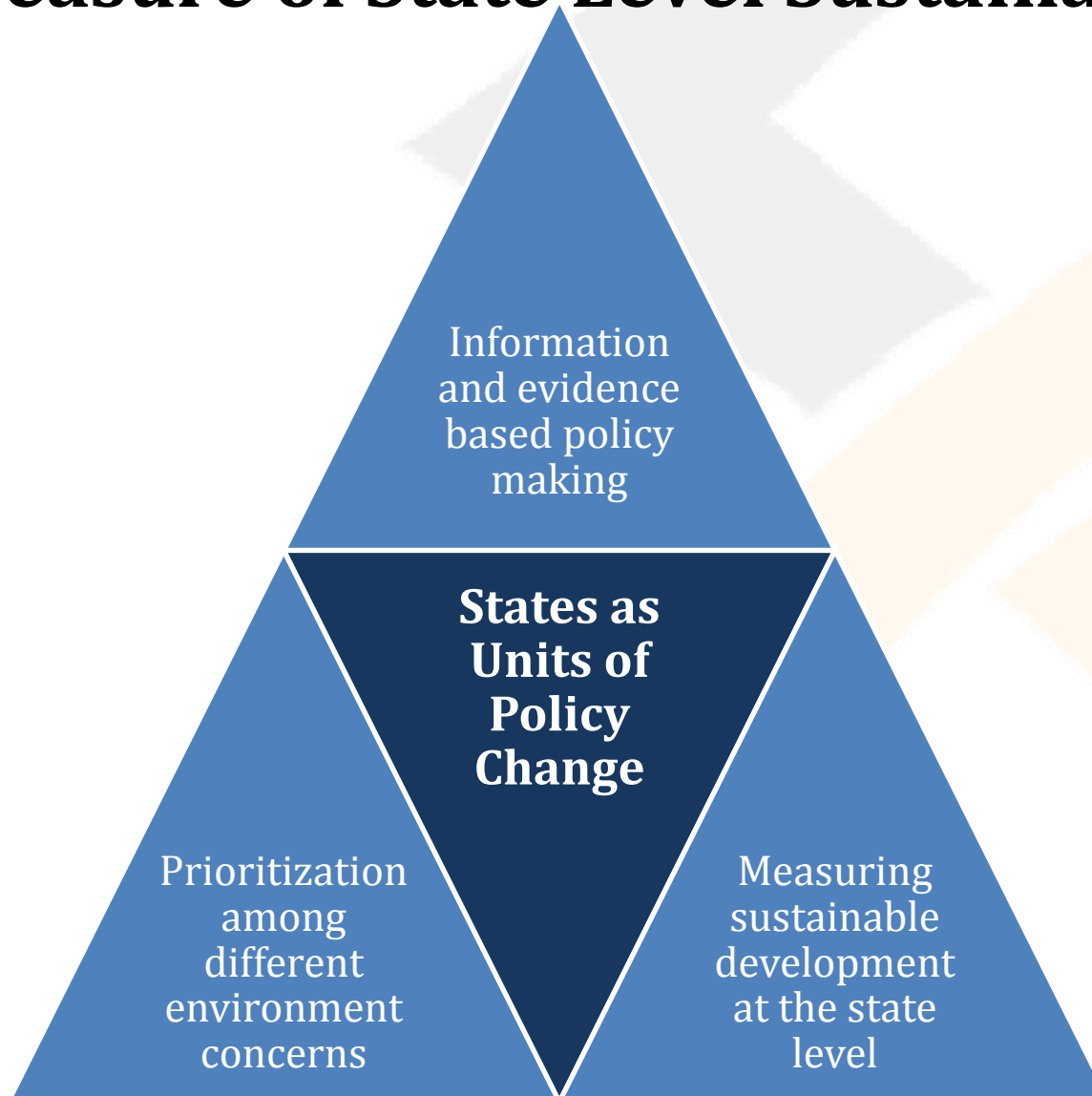
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IFMR, Chennai



Environmental Sustainability Index : A Measure of State Level Sustainability

- A **comparative analysis** of environmental achievements, challenges and priorities among Indian states
- Developed from **quantitative** datasets related to
 - ‘Stock’ and ‘Flow’ of environmental resources
 - Quantum of pollution
 - Efforts to maintain the environment
- Uses the Driving Force-Pressure-State-Impact-Response (DPSIR) framework

Environmental Sustainability Index : A Measure of State Level Sustainability





Why Focus on States?

- Diverse sustainability challenges across varied geography and development patterns
- Many of the sectors related to environment are under States' jurisdiction and responsibility, e.g.
 - Water, Agriculture, Land, Industries, Mining,
 - Public health and sanitation, waste management, local governments
- Forest, energy, population are the subjects jointly governed by the Union and States

ESI 2009 Reveals ...



Interpretation

Higher ESI means

- Higher initial endowments
and/or
- Less pollution
and/or
- Slower rate of extraction
and/or
- More responsive society &
policy

Contributing to better potential to maintain its environment in the future while growing

Lower ESI means

- Less initial endowments
and/or
- More pollution
and/or
- Faster rate of extraction
and/or
- Less responsive society &
policy

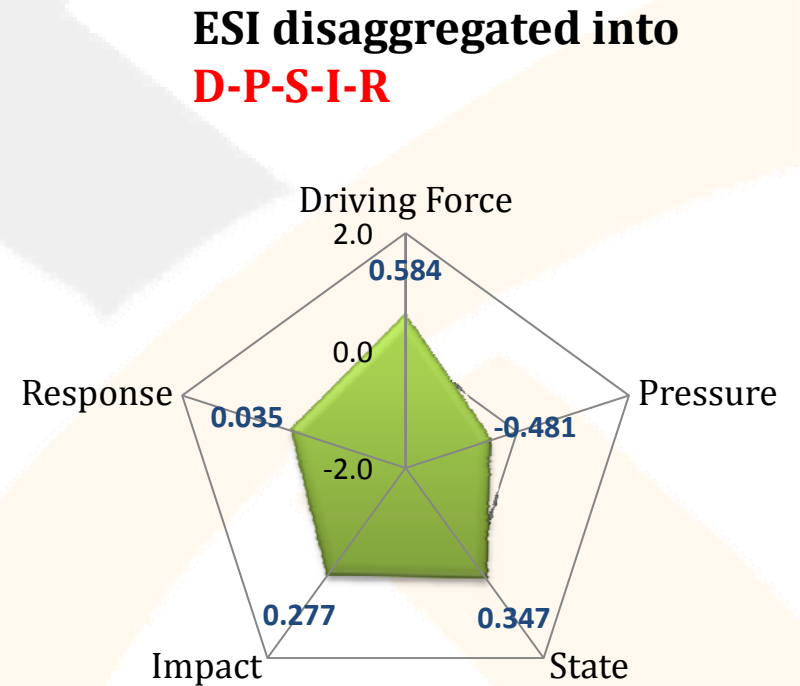
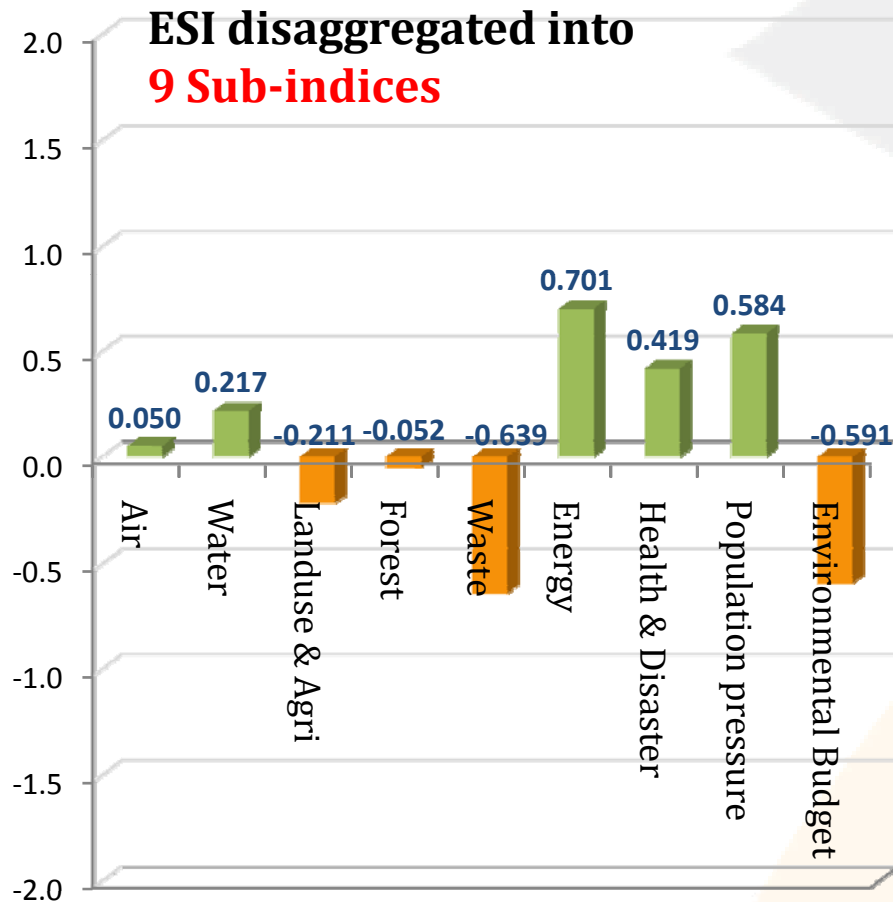
Contributing to greater challenges of balancing growth and sustaining its environment

The ESI Reveals....



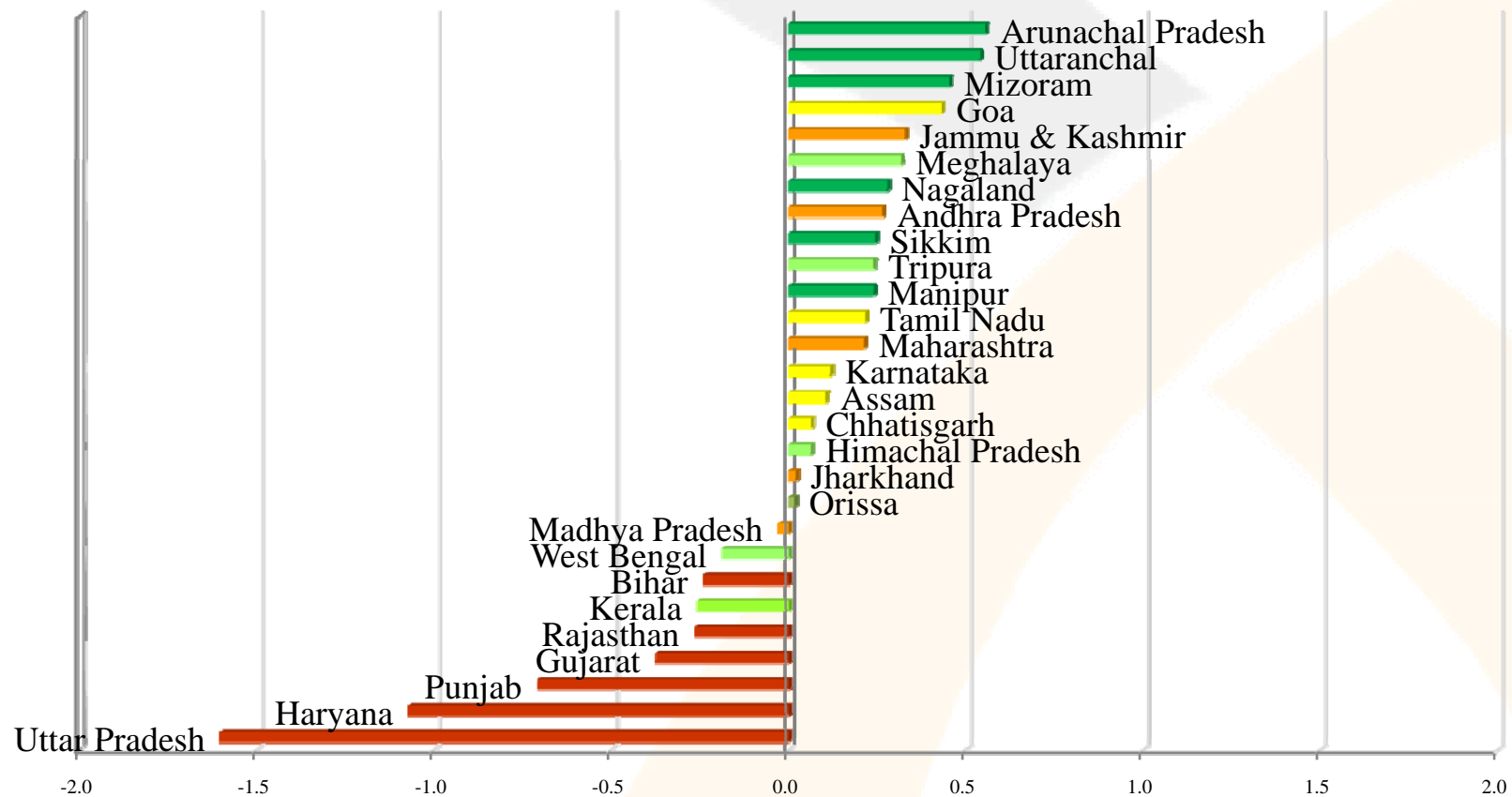
- The overall index is the summary picture
- More specific insights come from the 9 Policy Areas and the 5 Policy Dynamics

Tamil Nadu: ESI Profile



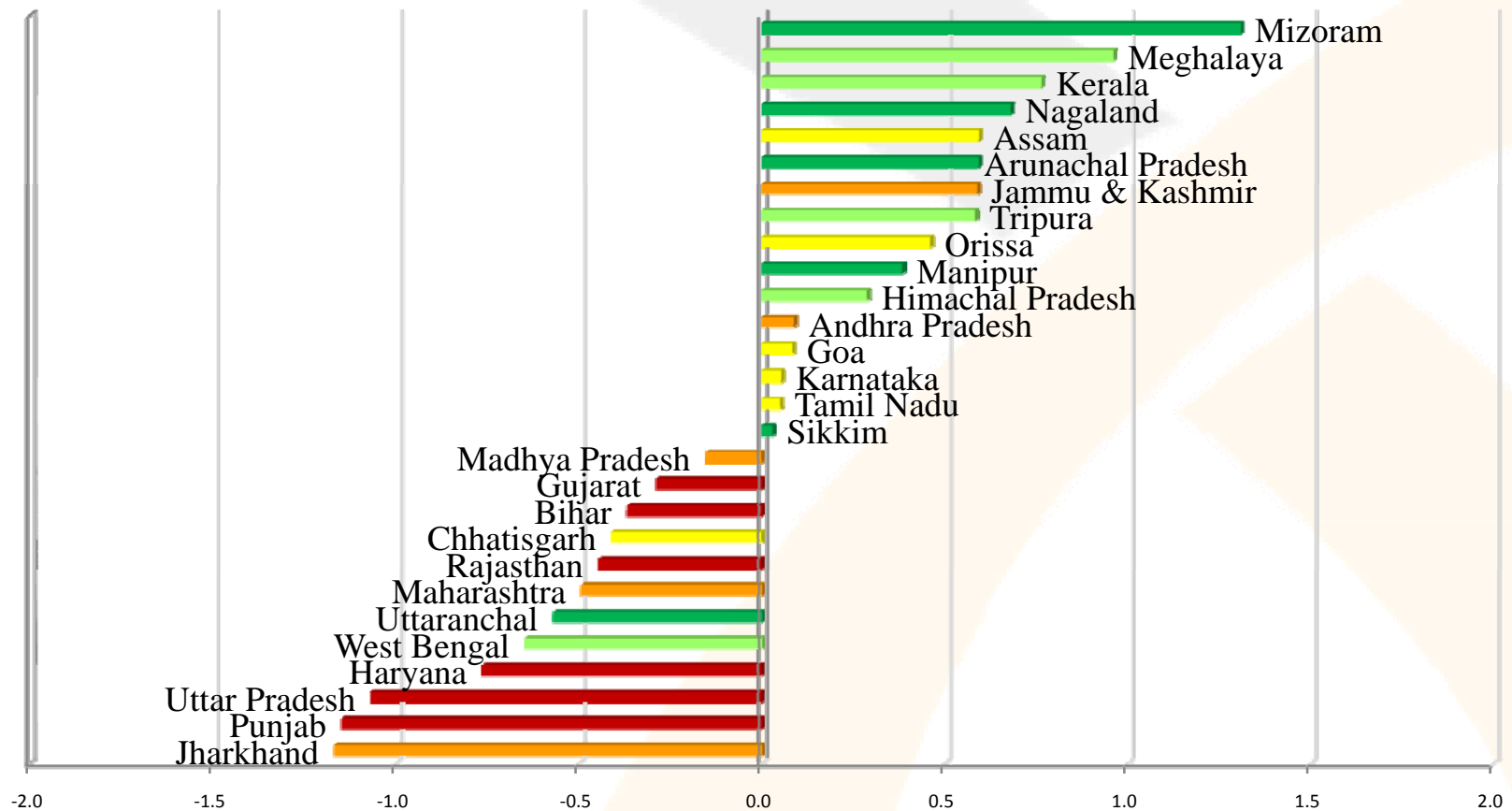
Inter-State Comparison: Policy Area-wise

State-wise standardized scores on **Water** Sub-index

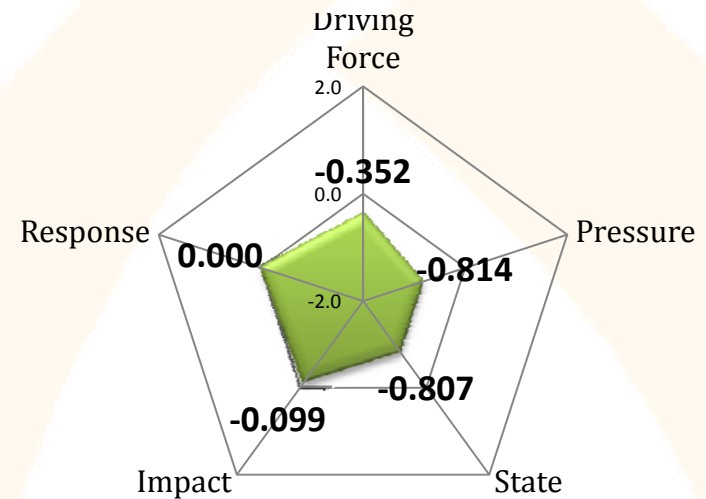
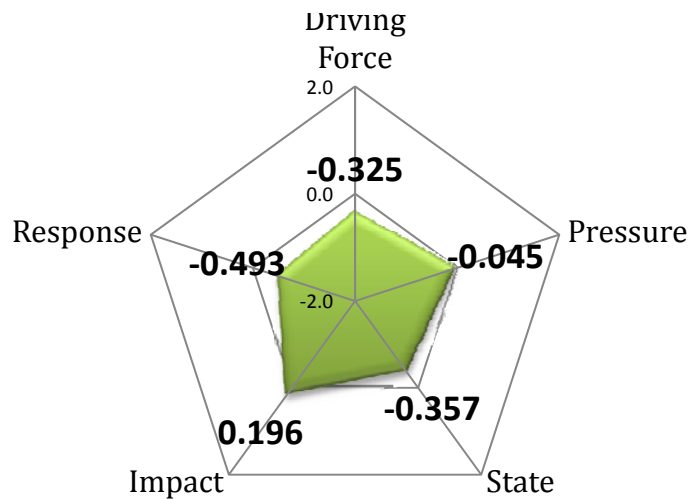
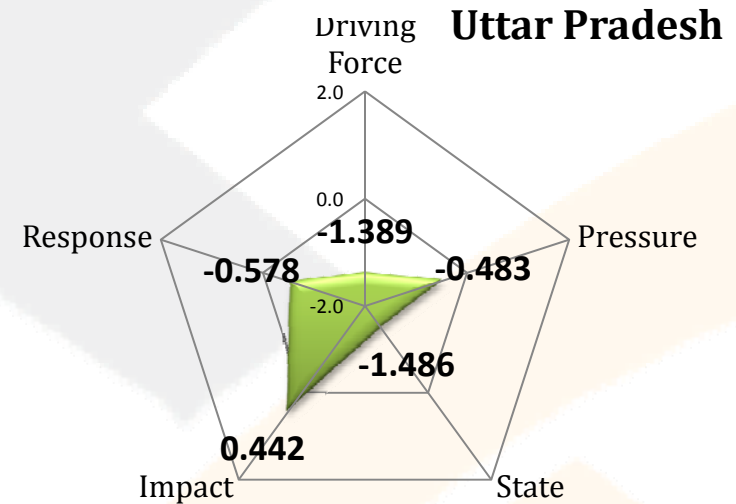
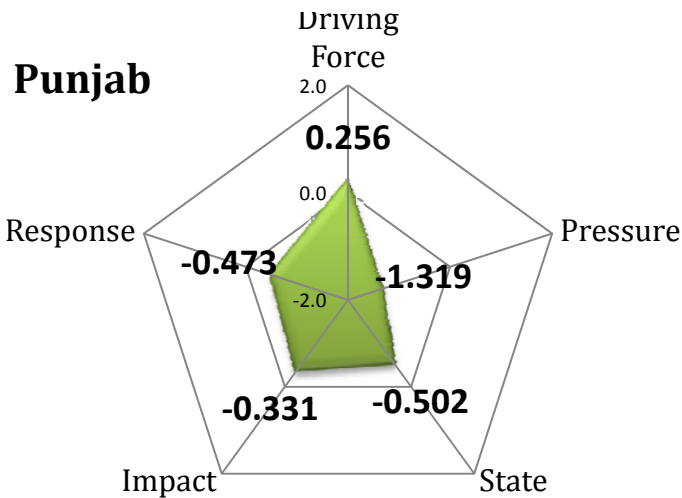


Inter-State Comparison: Policy Area-wise

State-wise standardized scores on **Air** Sub-index



Inter-State Comparison: DPSIR

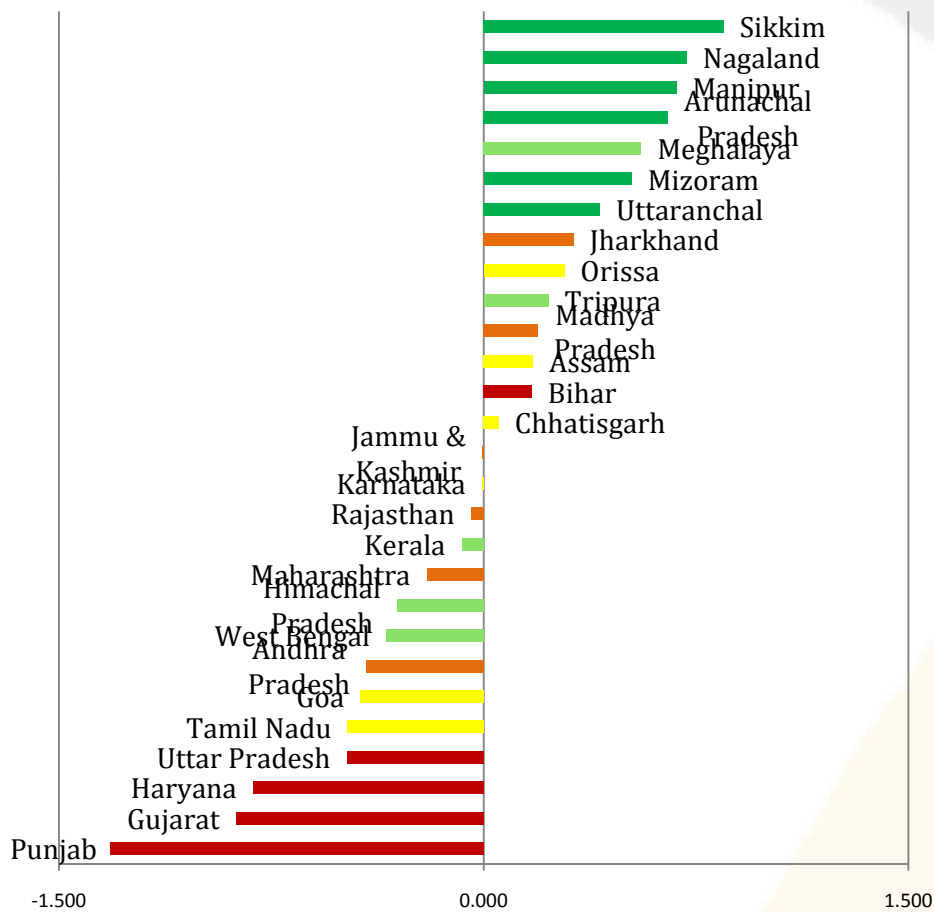


Rajasthan

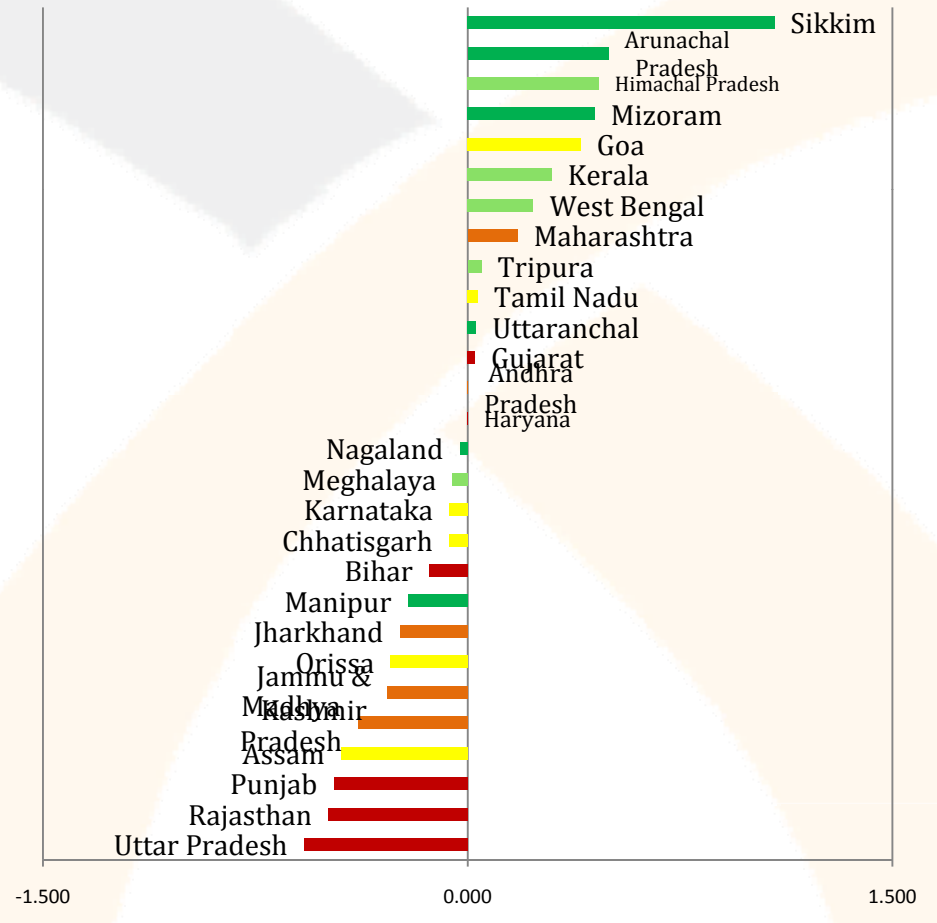
Haryana

Inter-State Comparison: DPSIR

Quality of Environment (S)



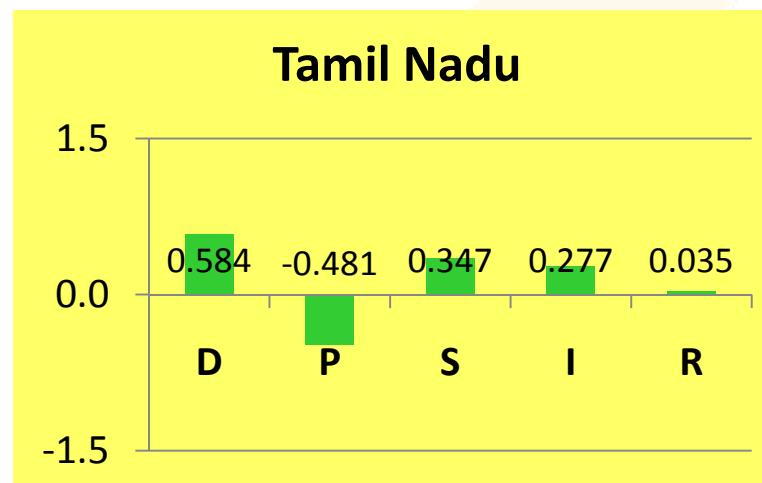
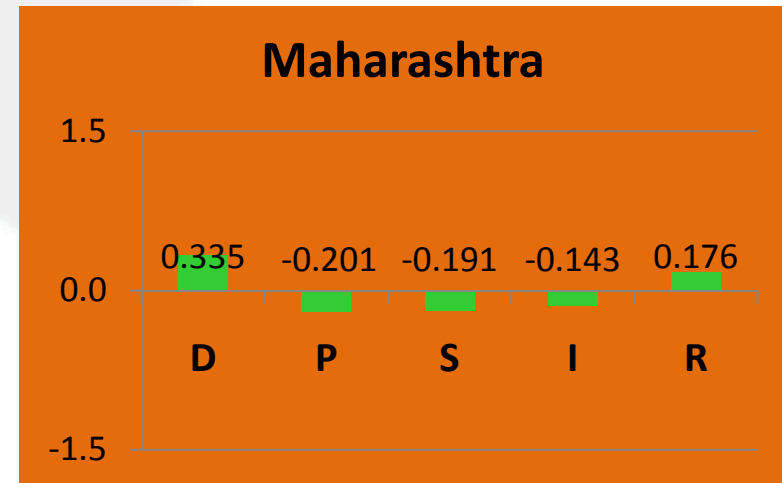
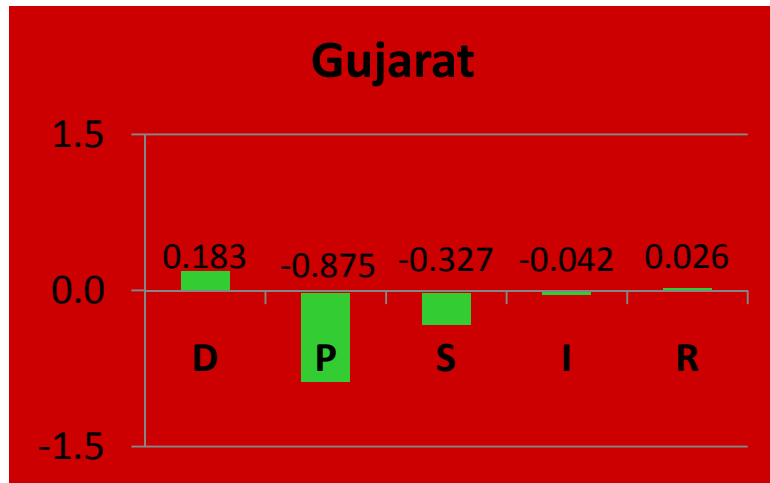
Responses to maintain the environment (R)



Peer Groups

	High % contribution to overall country's GDP	Medium % contribution to overall country's GDP	Low % contribution to overall country's GDP
High per capita Income	1 Maharashtra Gujarat Tamil Nadu	3 Kerala Punjab Haryana	5 Himachal Goa Sikkim
Low per capita Income	2 Uttar Pradesh West Bengal Andhra Pradesh	4 Karnataka Rajasthan Madhya Pradesh Bihar Orissa Jharkhand Chhattisgarh Jammu & Kashmir Assam Uttaranchal	6 Mizoram Manipur Meghalaya Tripura Arunachal

Peer Group 1: High Income High GDP contribution






ESI Reveals

- Most states have done well in some areas and poorly on others
- For states in similar development trajectory, some show more potential to remain sustainable than others
- Every state has something to learn from its relevant peers



Beyond ESI: Case studies & Dialogues

- Each states environmental challenges are unique, so is the capacity to deal with these challenges
 - Importance of local and participatory approaches, unique policy initiatives
 - Qualitative data needs to be factored in
 - ESI case studies and state level engagement
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Thank You

