Tata Companies' Necessity and Preparedness to Adapt to Climate Change

A STUDY OF TATA POWER, TATA CHEMICALS AND TATA MOTORS

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LSE

Adaptation

- *In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities* (IPCC, 2012

Climate Change in India

- India is at 'extreme risk' from climate change.
  - Increasing temperatures
  - Disruptions to monsoons and changes in rainfall in non-monsoon months
  - Increasing frecuency and intensity of cyclonic storms
  - Sea-level rise & flooding
  - Glacial melt

Sources: Maplecroft (2012); Mall et al (2006)

The Business Case for Adapting to Climate Change

We cannot prevent climate change impacts: **imperative to adapt.**

Avoid and mitigate climate risks by adaptation.

Harness **business opportunities** by adaptation.

Aims and Methodology

Project aim

- Assess *preparedness* and *necessity* of Tata Chemicals, Tata Motors and Tata Power to adapt to climate change

Data collection

- Value chain approach to climate risk and opportunity
- 13 semi-structured interviews based on a interview guide
- Snowball technique: SCOs advice on further stakeholders
- Qualitative content analysis

Good Adaptation Practice

1. Context of overall sustainability objectives
2. Understand risks and thresholds
3. Identify opportunities beyond existing products and services
4. Integrate adaptation into established business processes
5. No/low regrets and win-win adaptation options
6. Phased adaptation approach to manage uncertainty
7. Engage with businesses, civil society groups, universities and research organizations, government agencies, communities and customers
8. Review effectiveness

Sources: UN Global Compact (2012); UKCIP (2005)

Tata Chemicals: Preparedness to Adapt

Previous Responses to Extreme Weather	Strategic, long-term planning, sensitivity to community needs
Risk assessment	• Climate change risk intergrated into strategic, operations & compliance clusters, •Good awareness of climate change risks, especially in relation to consumer risk with fertilisers
Risk management	• Geographic diversification • Tata Kisan customer engagement • Energy efficiency • Focus on disaster planning on plant-level • Beyond existing products: customised fertiliser, Tata Swatch, nanotechnology and biotechnology applications

Tata Motors: Preparedness to Adapt

Previous Responses to Extreme Weather	Vendor park system as response to general supply chain risk
Risk assessment	• Climate change self-standing risk cluster in ERM •Proactive approach to regulatory risk •Detailed mapping of physical risks related to supply chain needed
Risk management	•Dealership 'Green Drive' •Energy efficiency •Harnessing business opportunities:mfuel efficiency, alternative fuels, hybrids

Tata Power: Preparedness to Adapt

Previous Responses to Extreme Weather	N/A
Risk Assessment	•Climate integrates to Envinronment & Safety risk category in ERM •Good awareness of climate change risks on a general level • Climate risk study being initiated
Risk Management	• Supply chain risk being addressed by geographic diversification •Renewable energy: pledge to maintain 20% of total production •Enerji Club: initial demand-side management

Barriers and Enablers to Adaptation

Barriers

- Strict regulatory oversight of the power sector and fertiliser industry →unwillingness to pass on adaptation costs to the consumer
- 'Adaptation bottleneck'

Enablers

- Incentives by regulation: energy regulations , emerging fuel efficiency standard, future climate regulation
- Senior-level support for addressing climate risk
- Tata Group Climate Policy provides general framework
- Geographic diversification in vendor and customer base

Climate Change Adaptation in Tata Chemicals, Motors and Power

- Risk from climate change from physical, regulatory and market drivers.
- A good understanding of climate change as mitigation, concept of adaptation needs clarity
- Focus on sudden shocks - little consideration of gradual change
- Local climate data probably captured but perhaps trends not escalated to the top
- Adaptation emerges in the context of broader business risk: focus on the supply chain, customers and community

Breaking through the Bottleneck: Recommendations

- Build **adaptive capacity** by:
  - Obtaining relevant site-level climate information and ensuring dissemination to the relevant stakeholders and escalation to top management
  - Collecting site-level climate data beyond the existing variables
  - Creating a more scientific approach to risk assessment for a comprehensive understanding of climate change impacts, likelihoods, thresholds and uncertainties

Breaking through the Bottleneck: Recommendations

- Consider extending value chain analysis to climate change risks and opportunities
- Create a repository of good Tata adaptation practices
- Consider joining international initiatives such as the UNFCC Private Sector Initiative
- Climate change adaptation vocabulary to be added on to the group climate agenda

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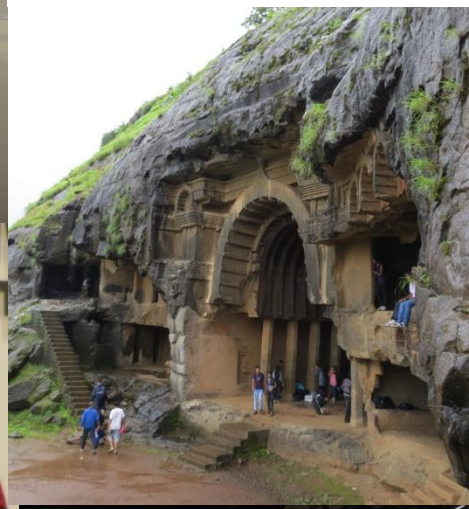

Thank You!