Deep Decarbonization in Industries
what does it mean for India?

Joyashree Roy
Professor of Economics

Coordinator
Global Change Programme, Jadavpur University, Kolkata
@ COP 23 Wuppertal, September 7, 2016
Leadership by Industries: Energy Efficiency

Decomposition of energy demand -Indian manufacturing industries

Based on Annual Survey of Industries, India 1973-74 – 2010-11
Dasgupta and Roy (2016, forthcoming)
Initiatives ranged from low to high cost

Source: IPCC 2014
Big Industries acted as leaders: Driving forces behind actions

Source: Chakraborty & Roy 2012
Emergence of Policy framework

- National Enhanced Energy Efficiency Mission (for large energy intensive industries)

- Energy Certificates Market under PAT (like EU-ETS)

- Coal Cess (INR 400/ton of coal~ $6/ton)
What more?
New Potential
Results from GCAM

Potential beyond energy intensive industries

Implications for power generation

Long run green growth in industry requires large scale electrification

Projected consumption of fuel use for electricity generation in Indian in 2050: comparison of Reference scenario and green growth policy scenario

Acknowledgement
Global Change Programme Research Team
http://juglobalchangeprogram.org/
Jadavpur University

Thank you