



The Decarbonization Targets of China and India: An analysis with the WITCH model

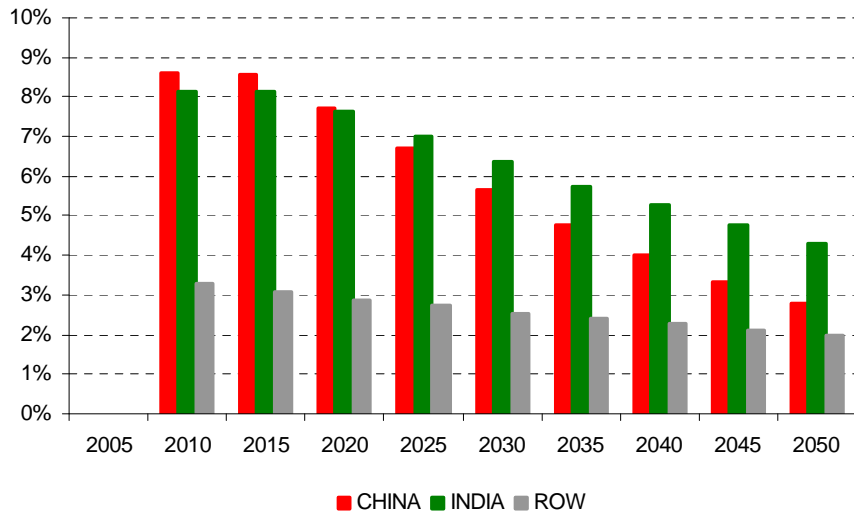
Emanuele Massetti, Fondazione Eni Enrico Mattei and CMCC

Asia Modeling Exercise

Tsinghua University
Beijing, 23-25 March 2010

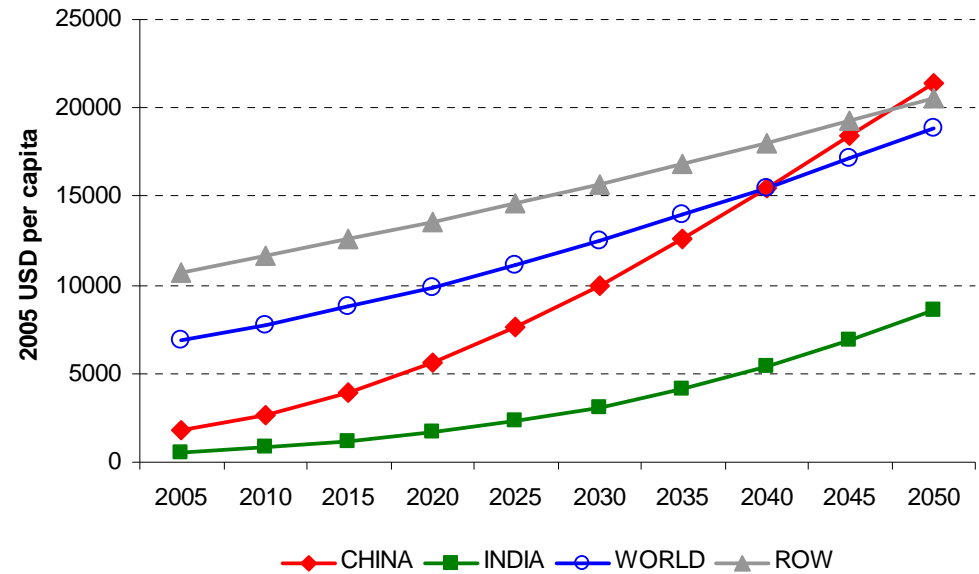
Convergence of GDP p

Average yearly GDP growth rate

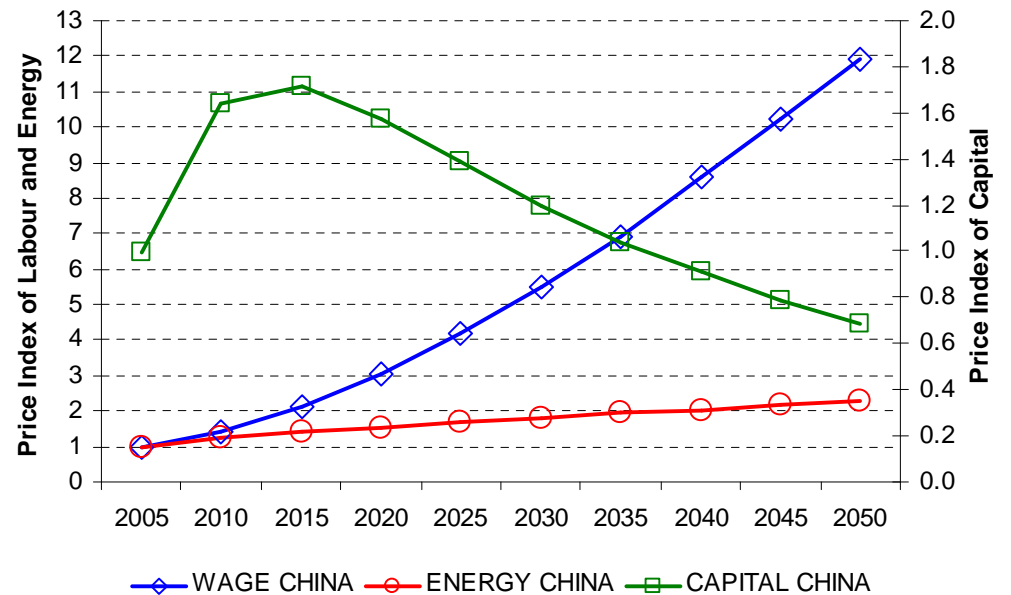


- Income per capita of China reaches ROW average in 2050
- India/China gap remains the same

GDP per Capita

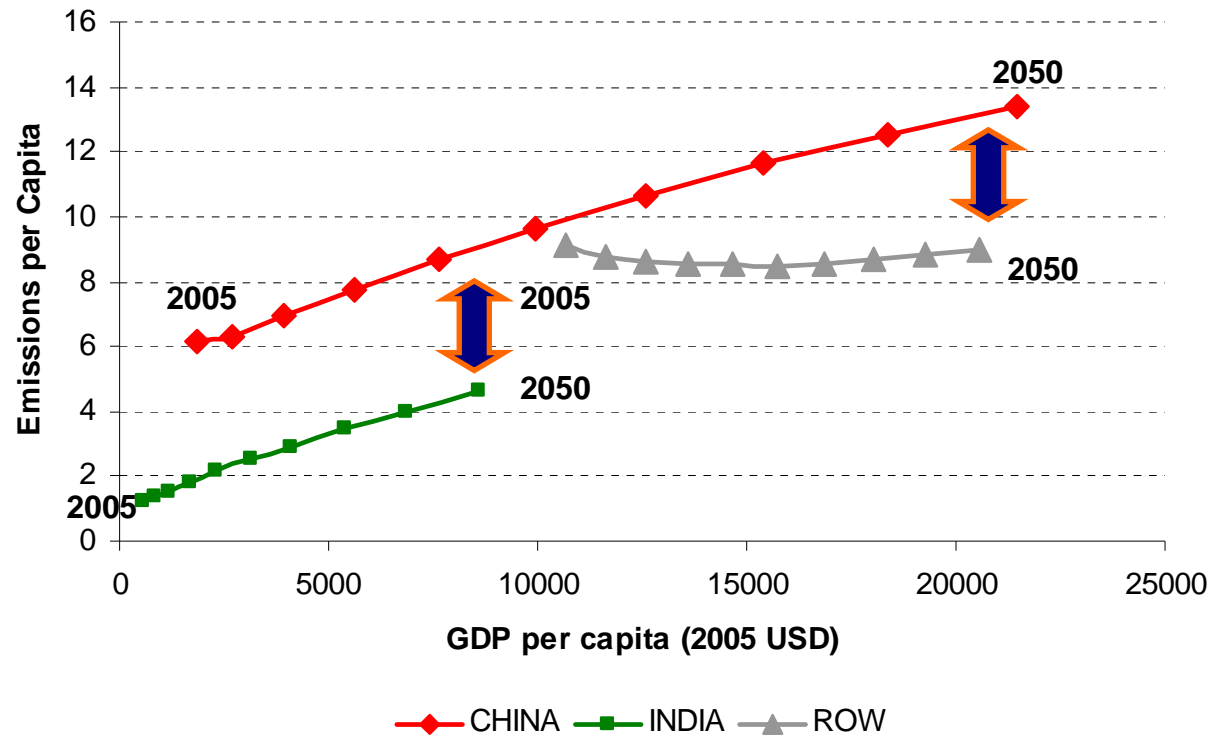


Price Indexes of Capital, Labour and Energy - China



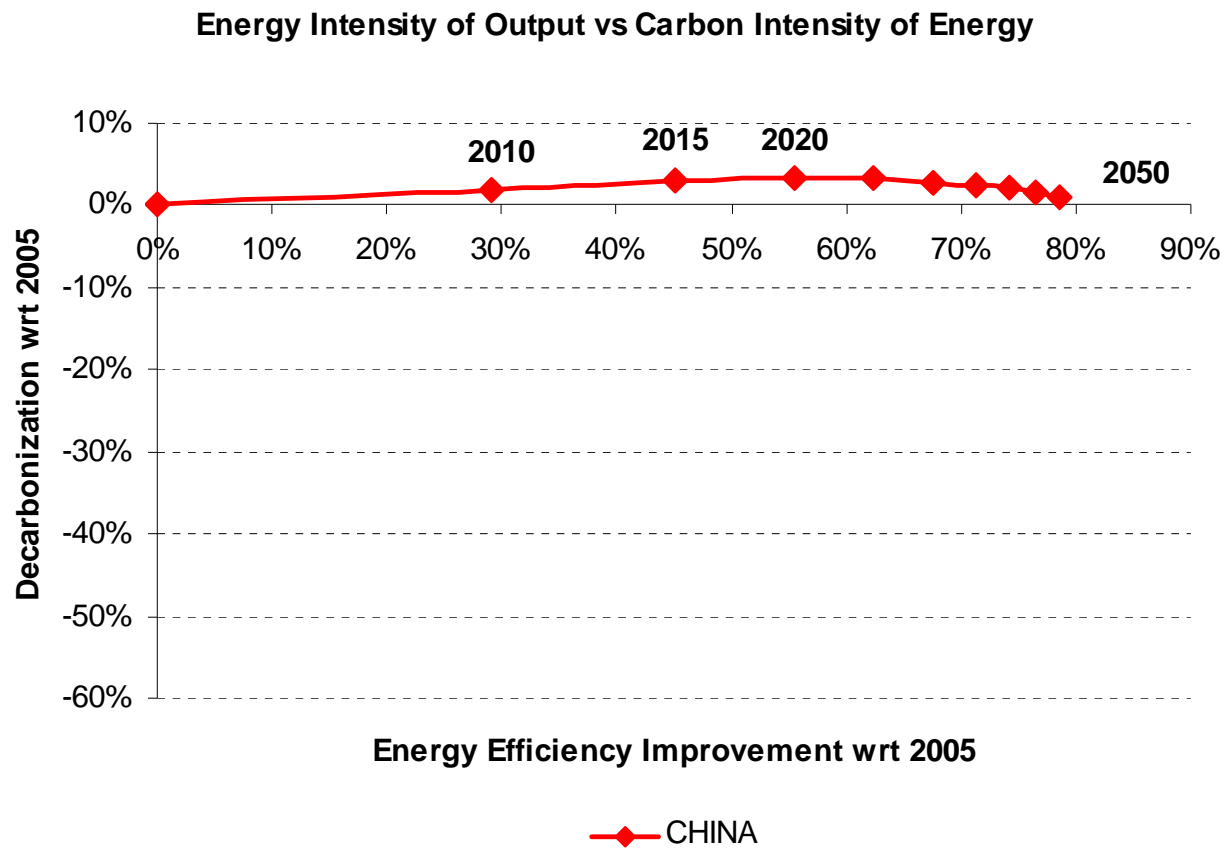
GHG emissions and GDP per Capita

Emissions and Development

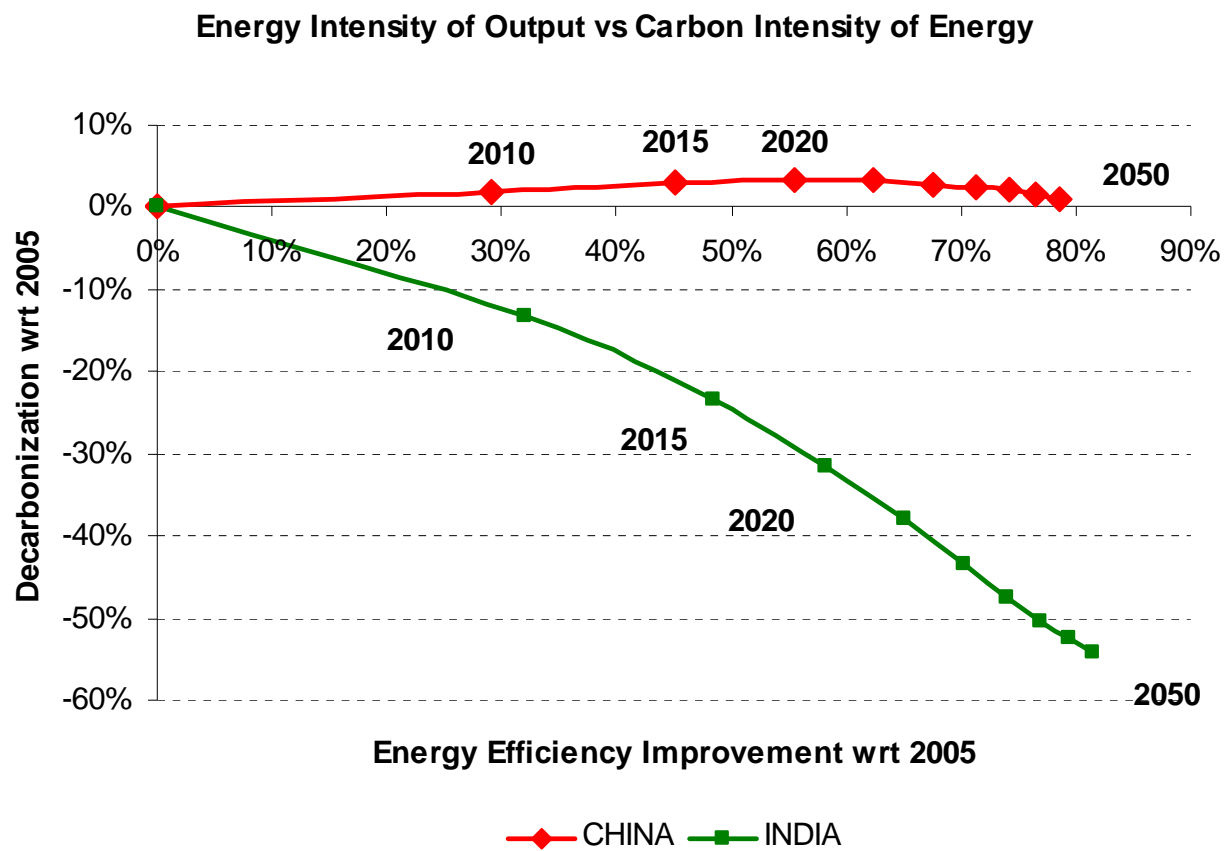


- China: carbon intensive pattern to development
- India: low carbon intensive pattern to development

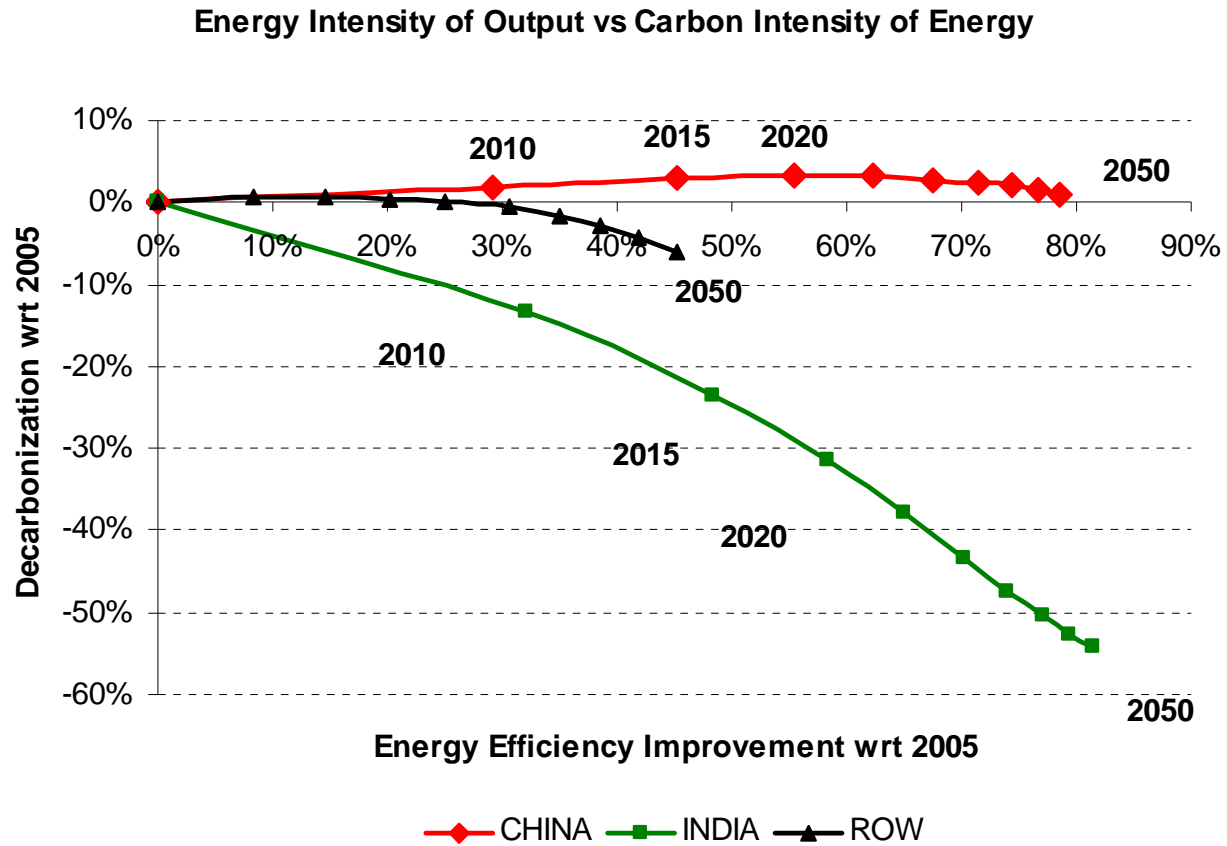
Energy Intensity and Carbon Intensity wrt 2005



Energy Intensity and Carbon Intensity wrt 2005



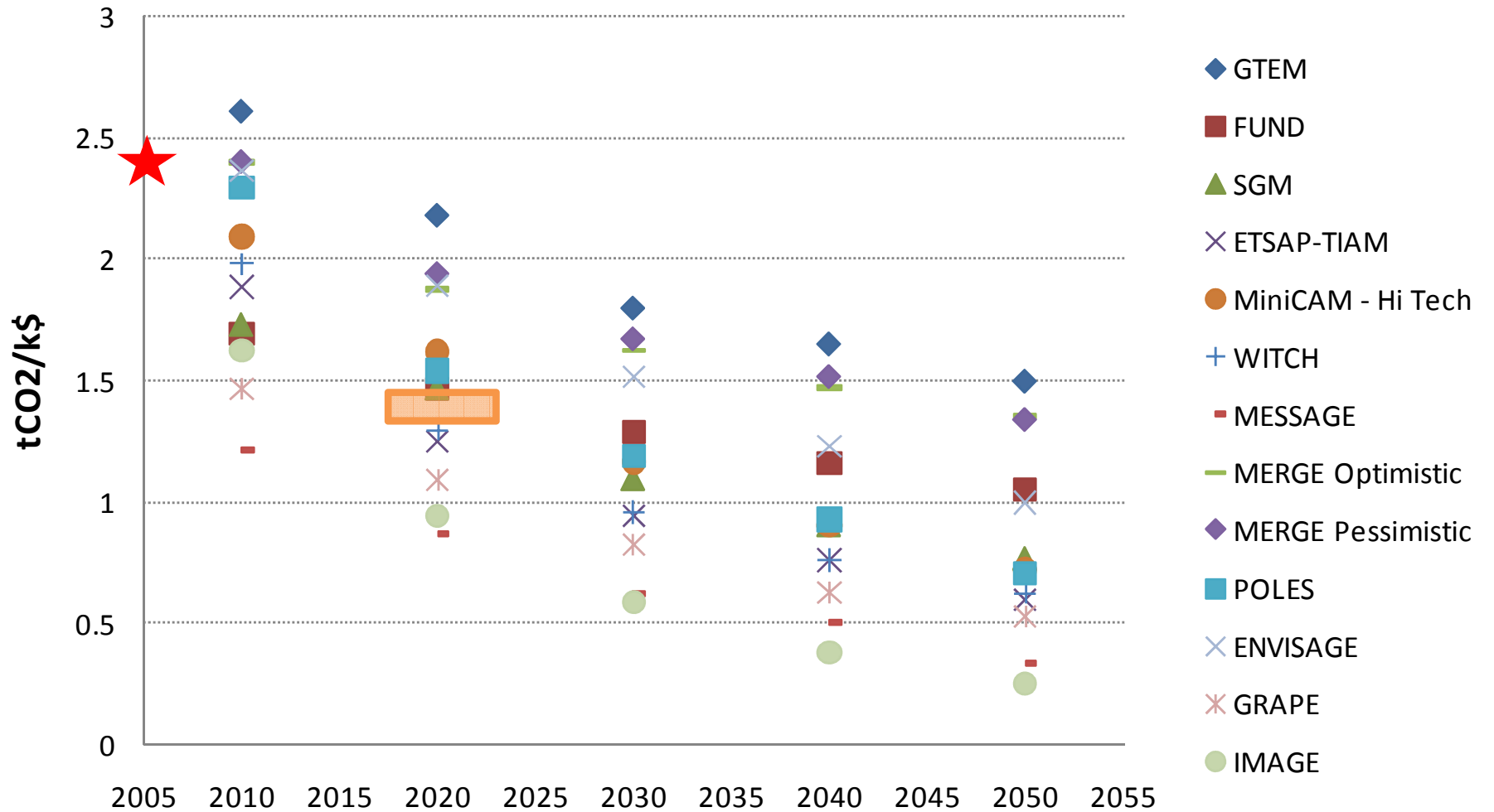
Energy Intensity and Carbon Intensity wrt 2005



- China: high energy efficiency, stable carbon content of energy
- India: high energy efficiency, increasing carbon content of energy

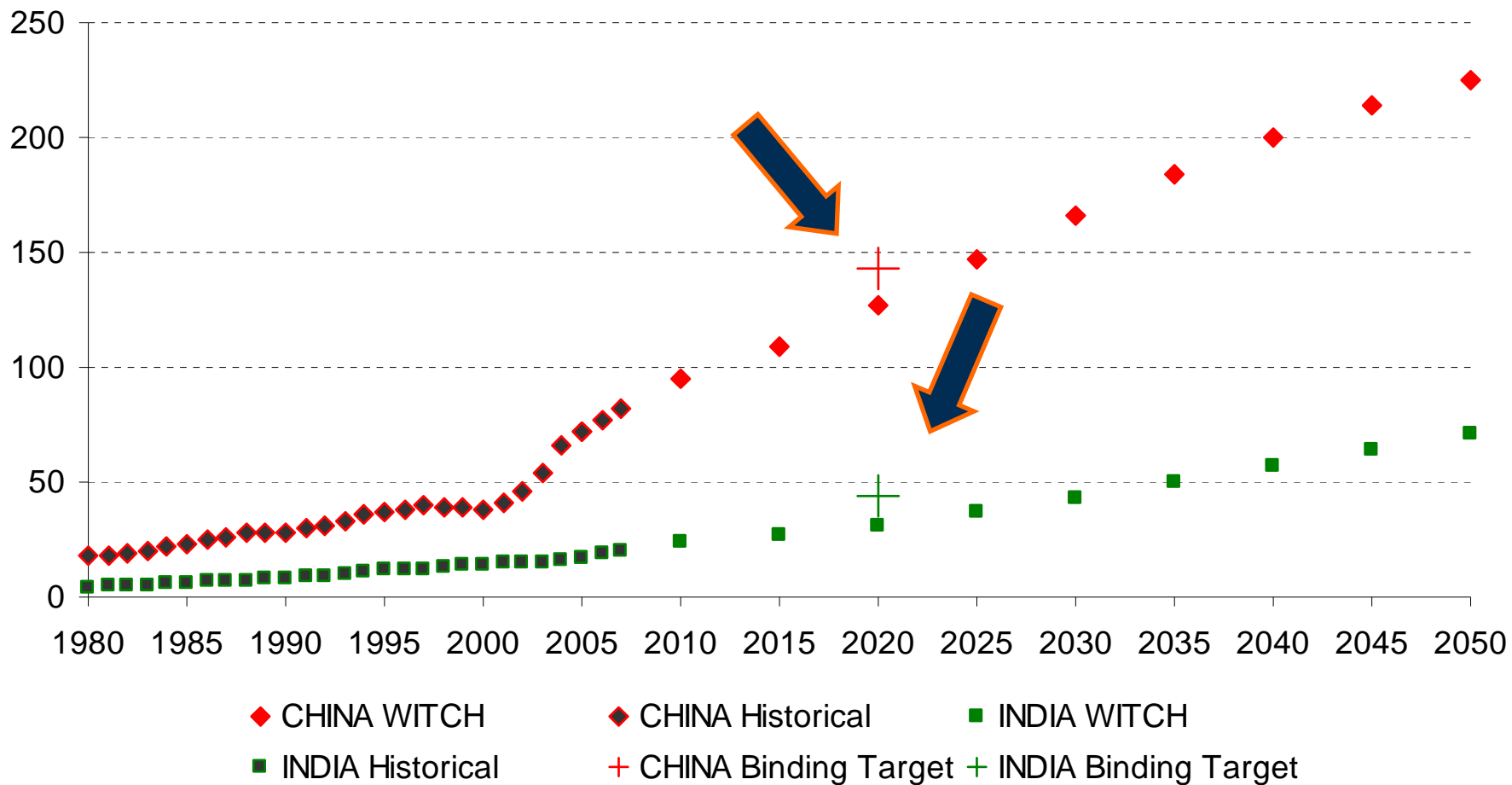
Carbon Intensity of Output: Long Term Trend

EMF 22: China Carbon intensity over time



The Copenhagen Commitments in Perspective - 1

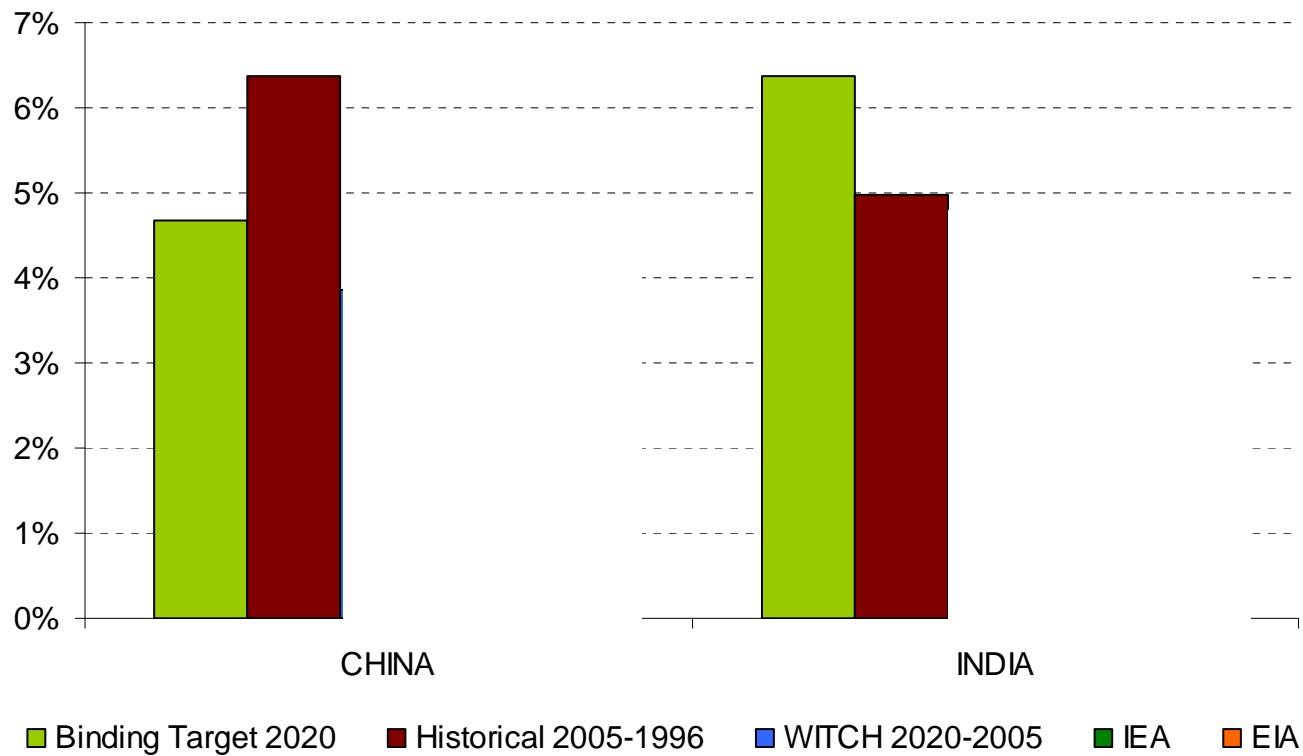
Historical and Future Trend of TPES



Source: IEA and WITCH model

The Growth Rate of TPES: History, Targets and Models

TPES Growth Rate





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www.economicclimatechange.com

www.witchmodel.org