

Aligning Long-term Climate Stabilization Target with Near-term Actions

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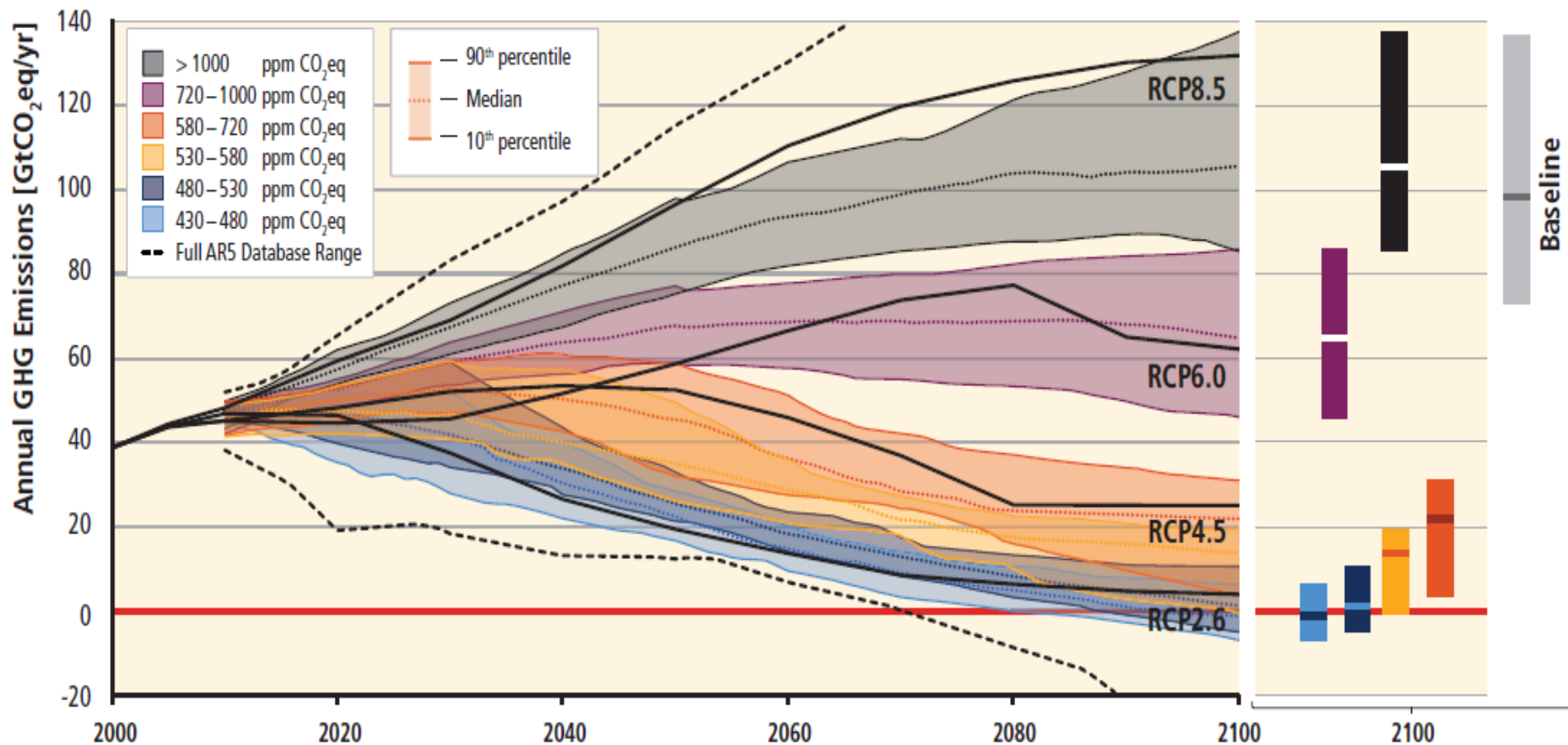
Minal Pathak

Subash Dhar

October 11-13, 2015



GHG Emission Pathways: 2000-2100





SUSTAINABLE DEVELOPMENT GOALS



Aligning Climate and Development Actions: Deep Decarbonization Pathways for India



Visions

Ban Ki-moon (UN Secretary General)

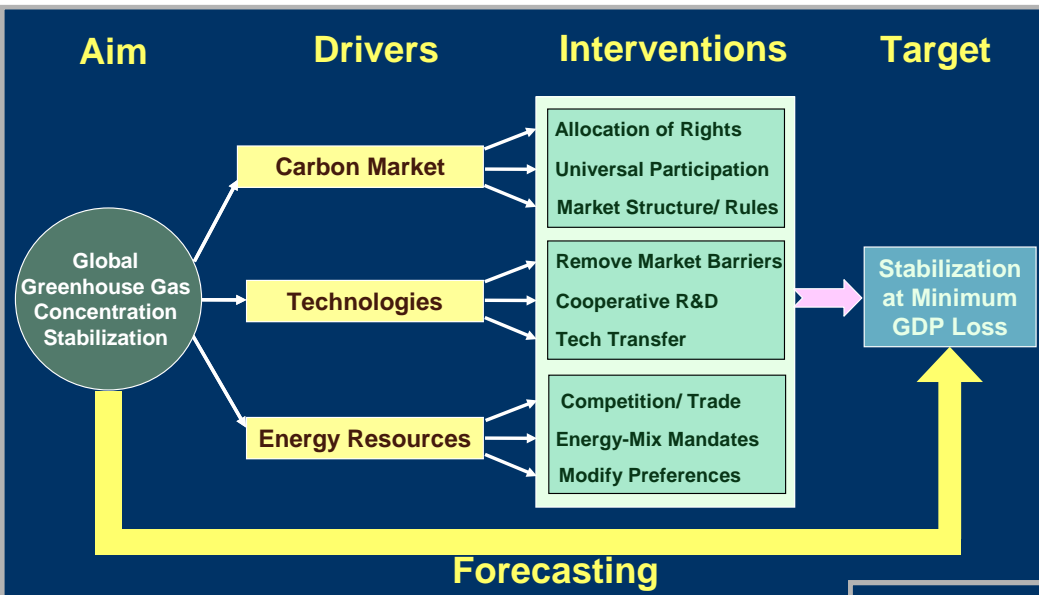
'.. there is no “Plan B” for action as there is no “Planet B” (UN News and Media, 2014).

<http://www.un.org/apps/news/story.asp?NewsID=48766#.VVL5LbeJh9A>

Mahatma Gandhi:

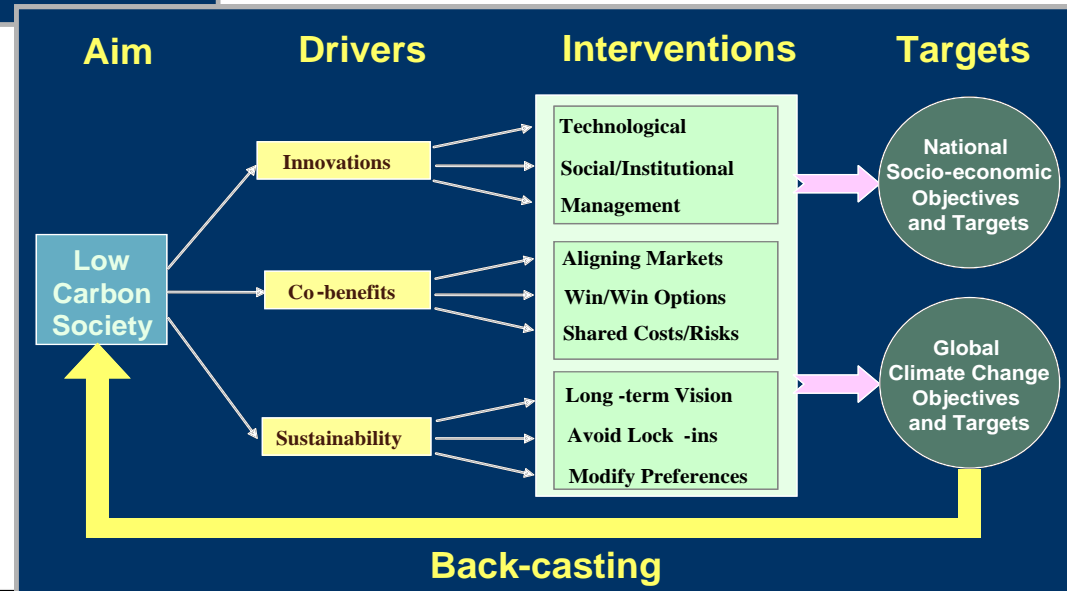
“A technological society has two choices. First it can wait until catastrophic failures expose systemic deficiencies, distortion and self-deceptions... Secondly, a culture can provide social checks and balances to correct for systemic distortion prior to catastrophic failures.”

Modeling Alternate Development Perspectives

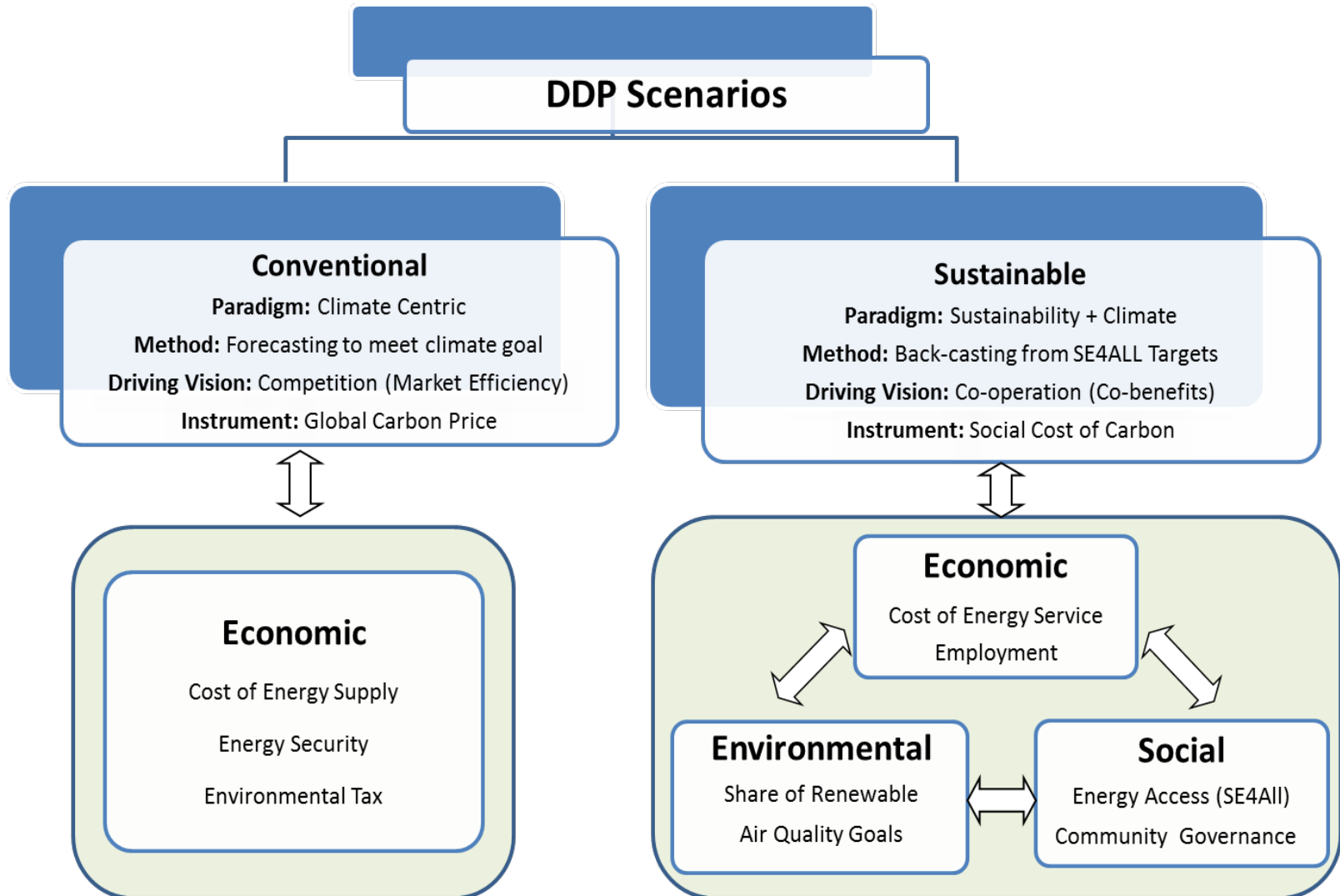


Conventional Climate Centric Paradigm

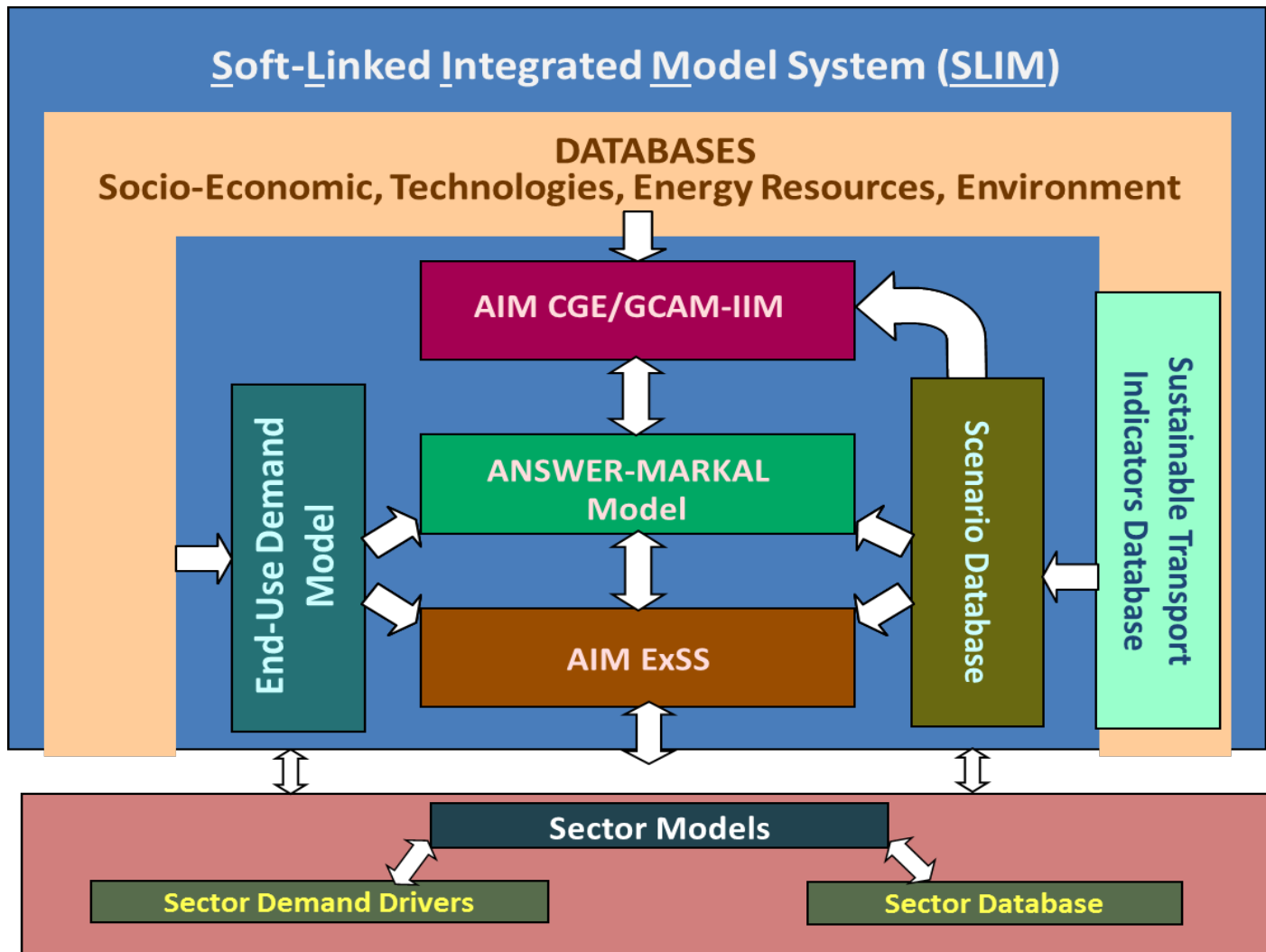
Sustainable Development and Climate Paradigm



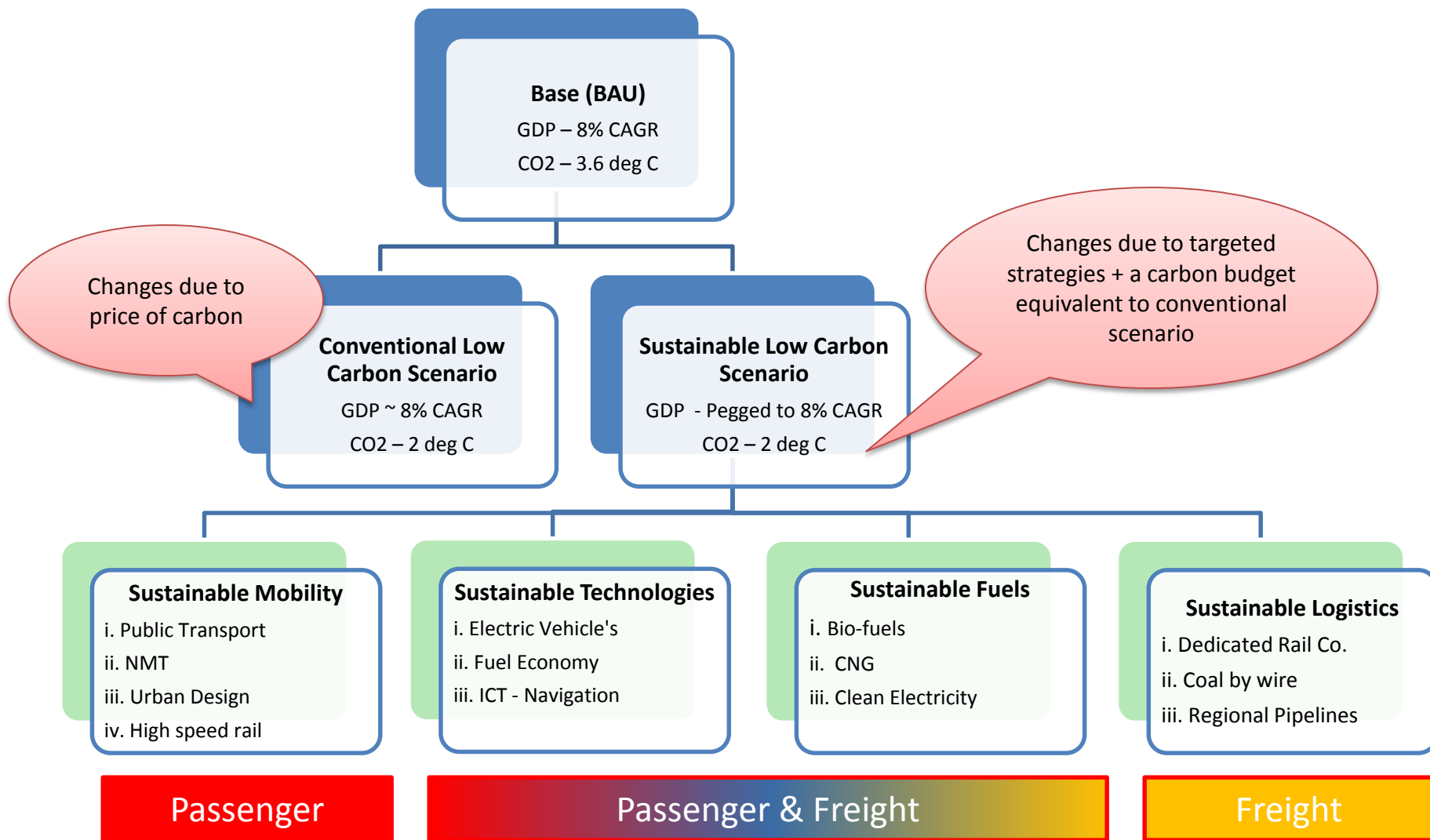
Alternative Development Pathways



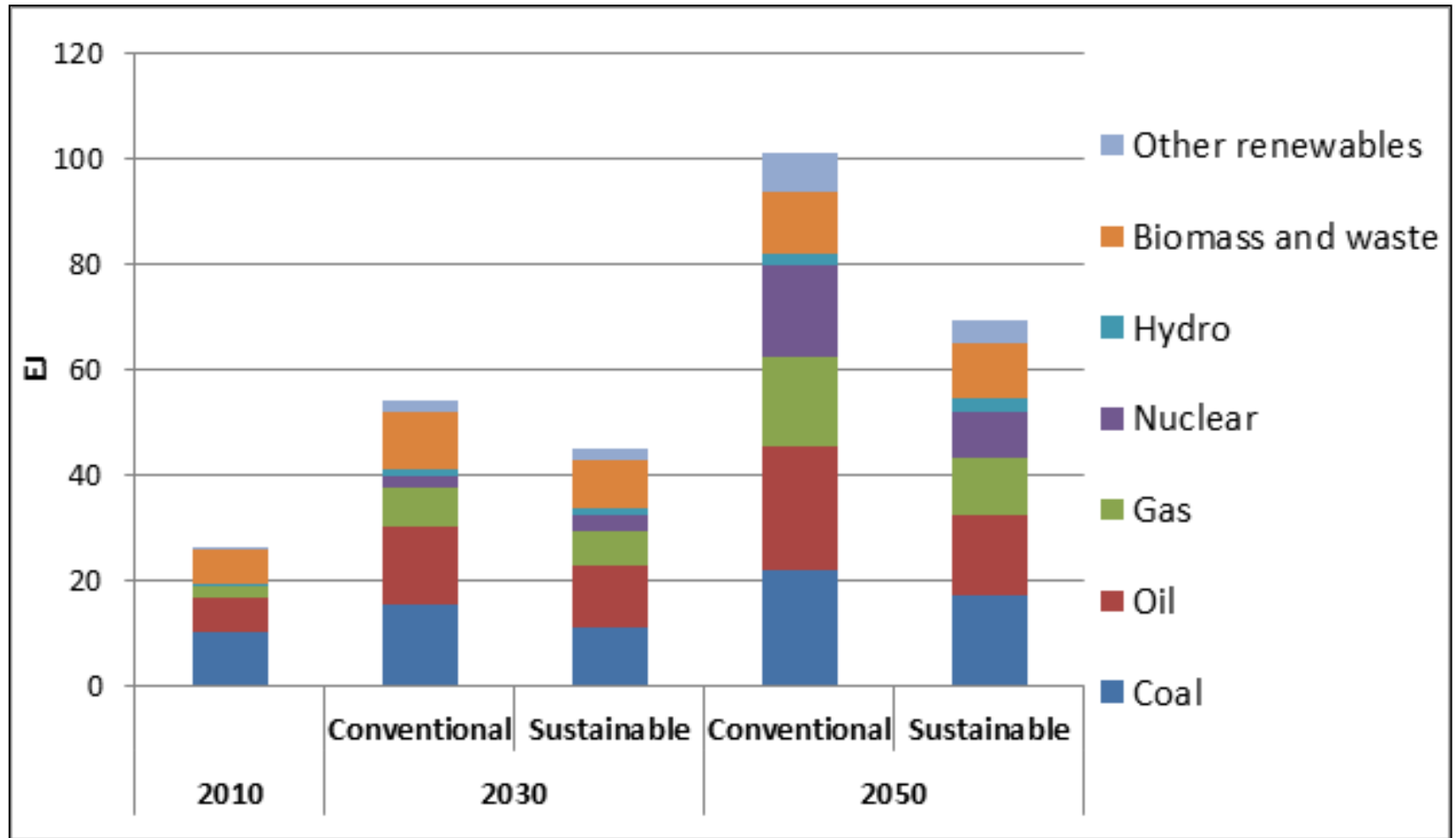
Soft-Linked Model Architecture: 'Horses for Courses' Approach



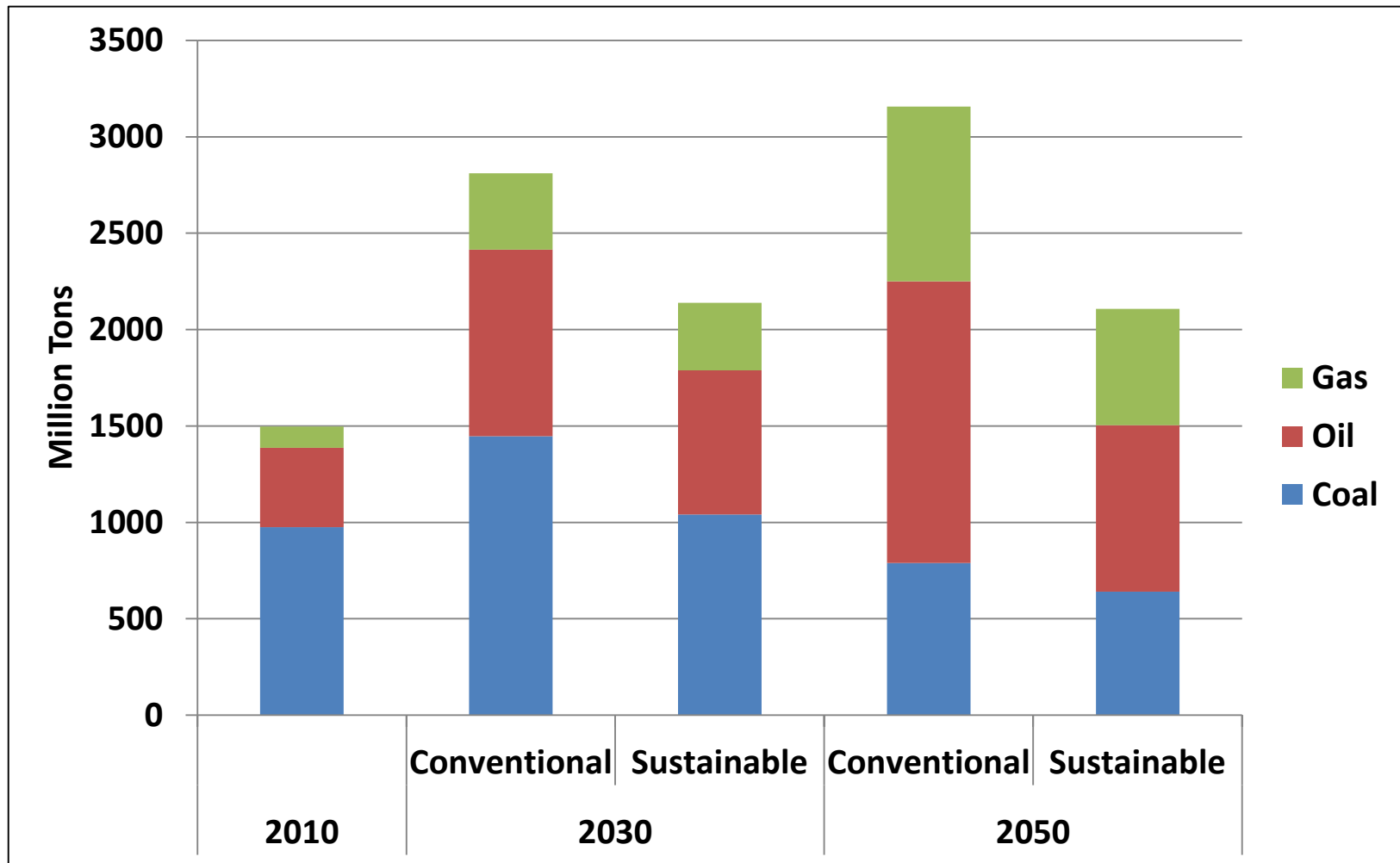
Sector Integrations: E.g. Transport Scenarios



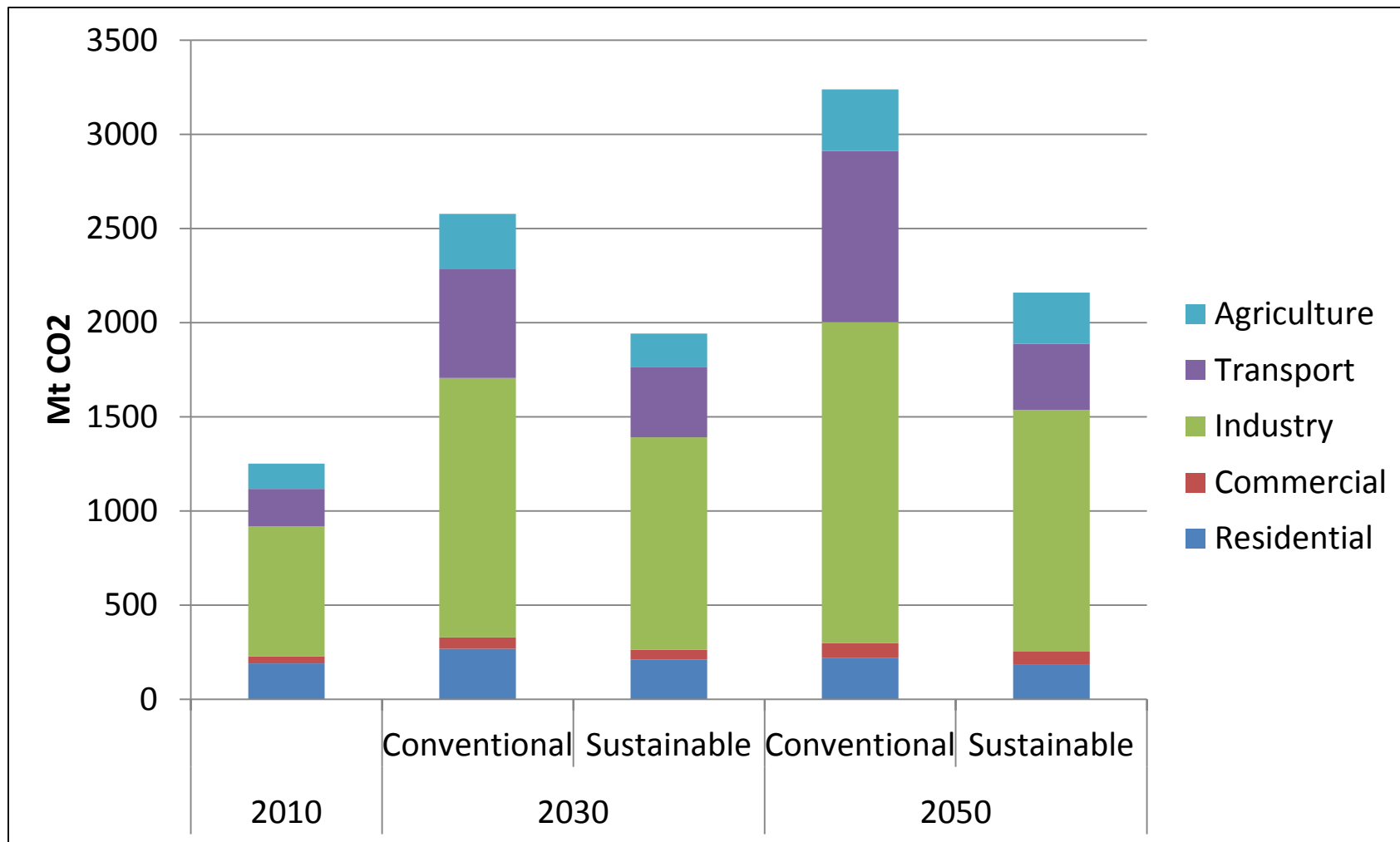
Primary Energy



Energy related CO₂ Emissions

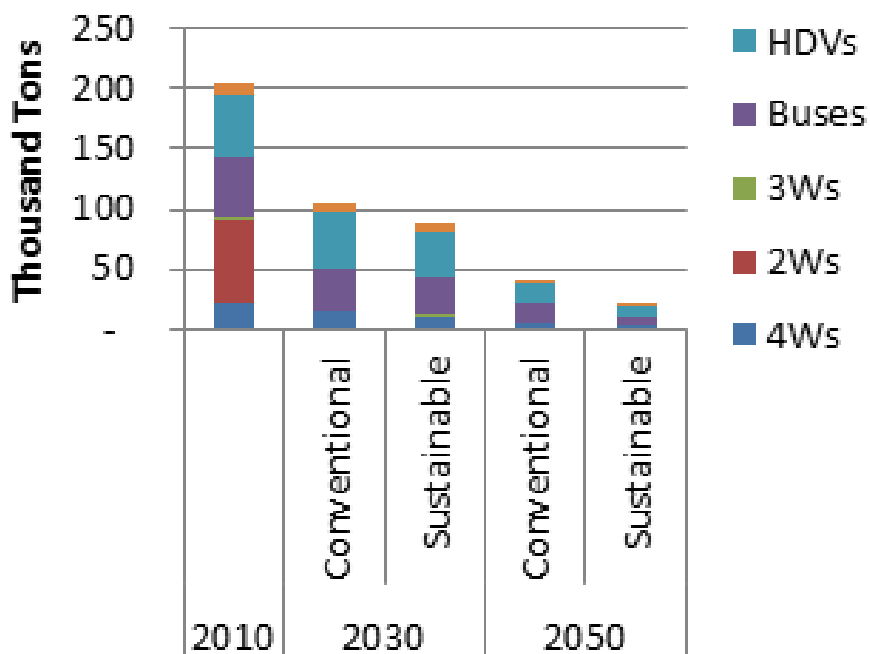


CO2 Emissions by Sector

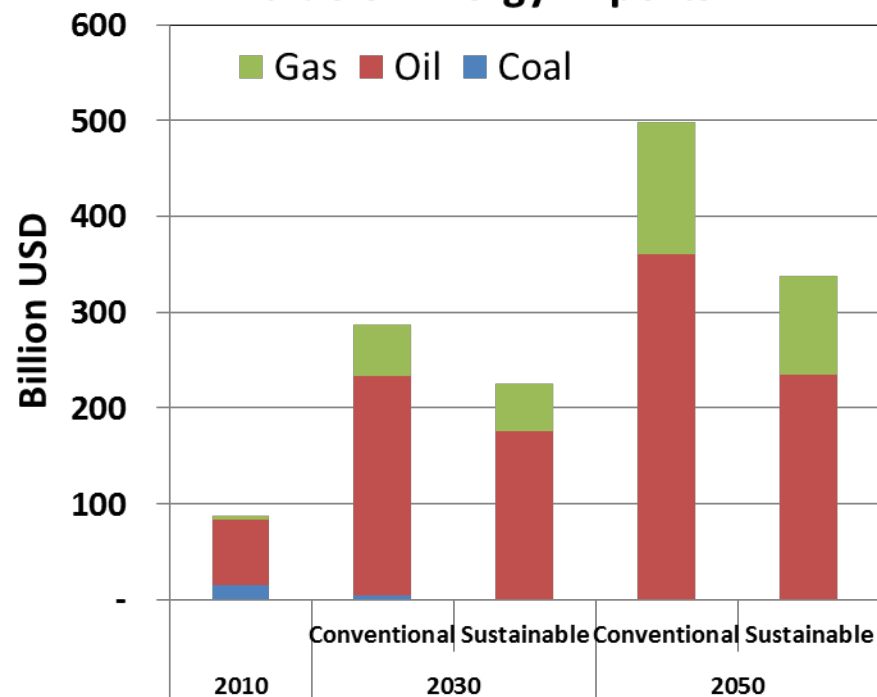


Air Pollution & Energy Security Co-benefits

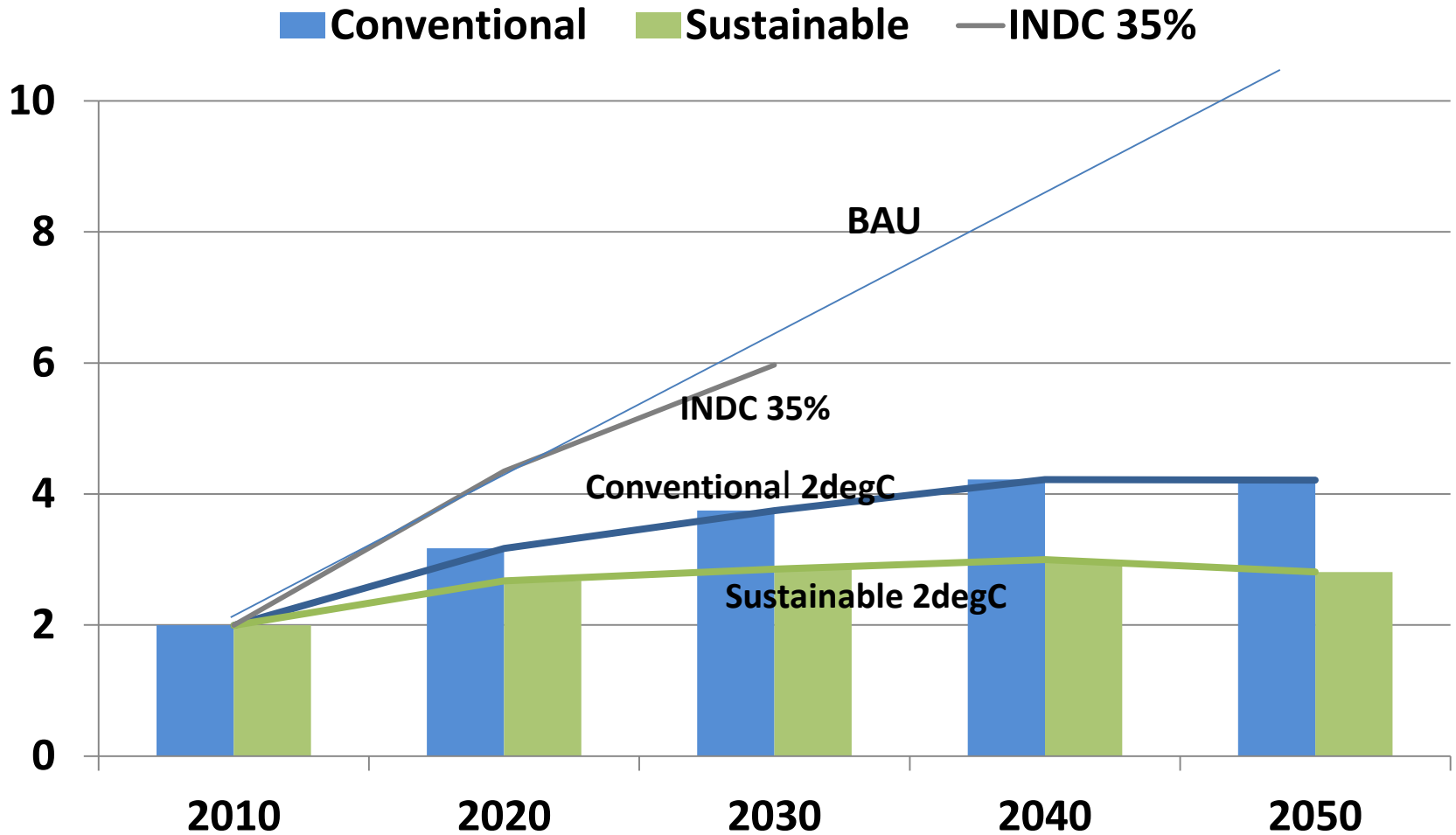
PM2.5 Emissions



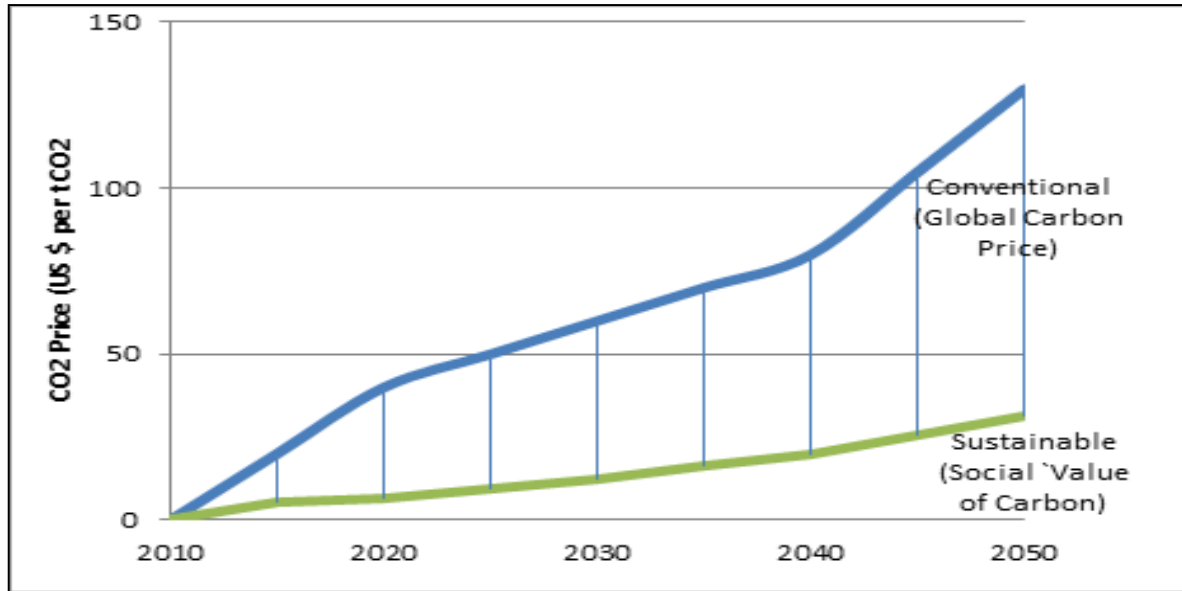
Value of Energy Imports



CO2e Emissions (BT)



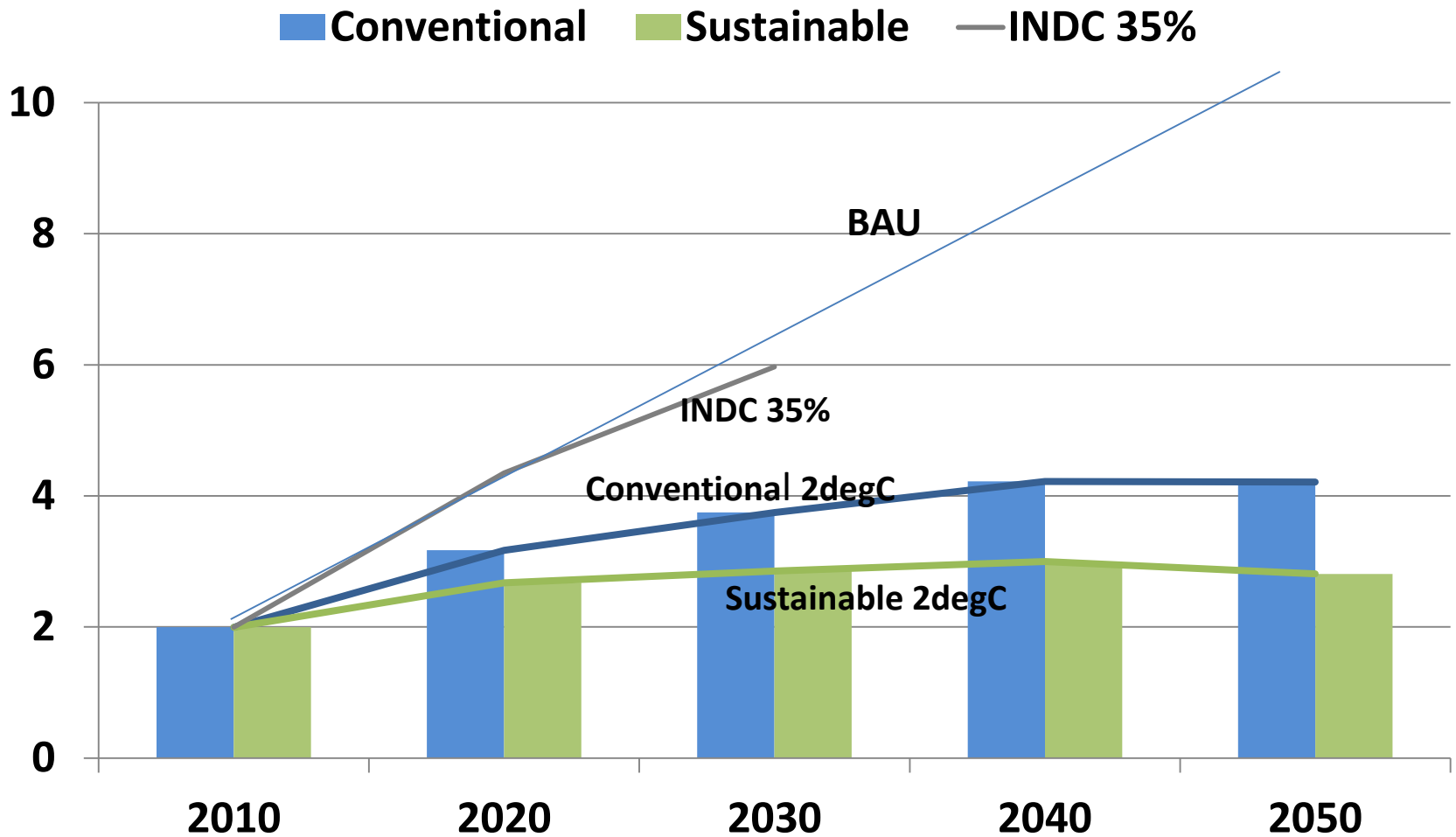
Co-benefits: Social Value of Carbon



Revenues from carbon saved in Sustainable Scenario

	2020	2030	2040	2050
CO ₂ saved (Million tCO ₂)	370.6	671.8	918.9	1049.4
Revenue from CO ₂ saved (Bn US \$ 2010)	16.6	45.1	82.3	152.9
Revenue as % of GDP	0.6%	0.8%	0.8%	0.7%

CO2e Emissions (BT): Bridging the Gap





Acknowledgements

Deep Decarbonisation Project

<http://www.iddri.org/Projets/The-Deep-Decarbonization-Pathway-Project>

Low Carbon Transport in India

<http://www.unep.org/Transport/lowcarbon/>