

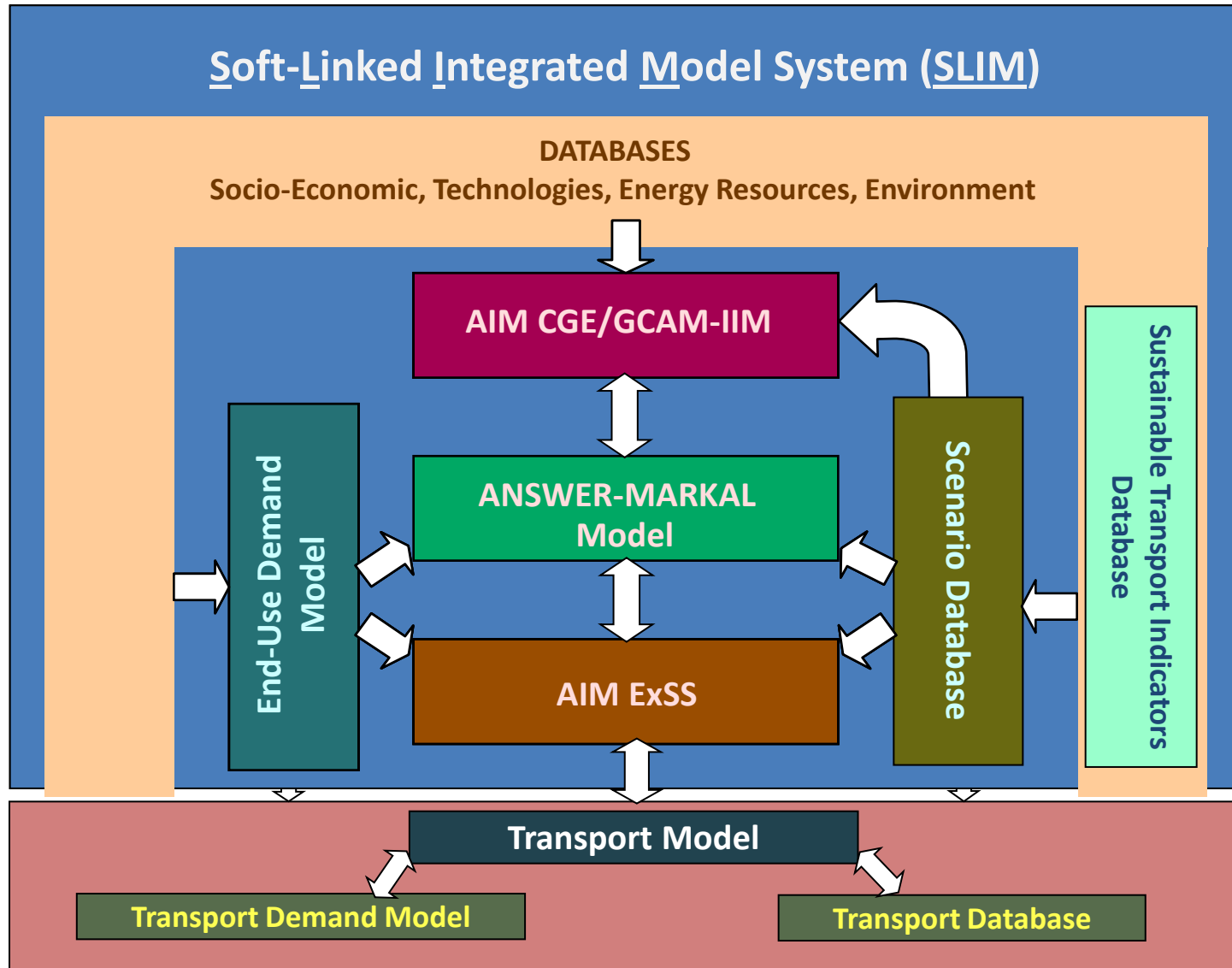
Mitigation Potential towards achieving global 2°C Stabilization Target: Assessment for India

Priyadarshi R Shukla

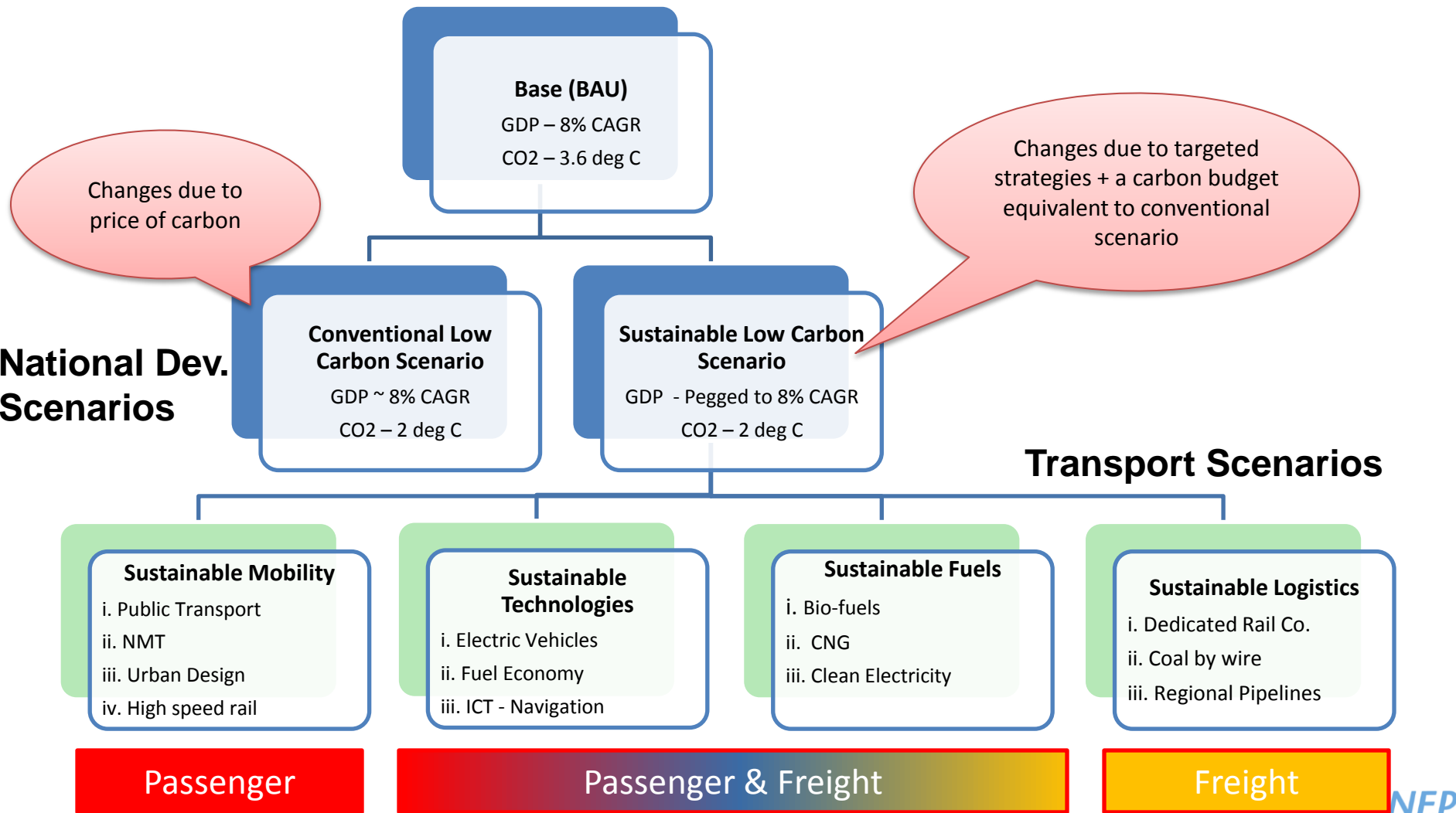
COP19 Side-event Organized by: Low Carbon Asia Research Network (LoCARNet) , IGES and NIES
GHG Emissions Reduction Potential in Asia for the Two Degree Target
November 15, 2013 (16:30 to 18:00 hours)
Warsaw, Poland



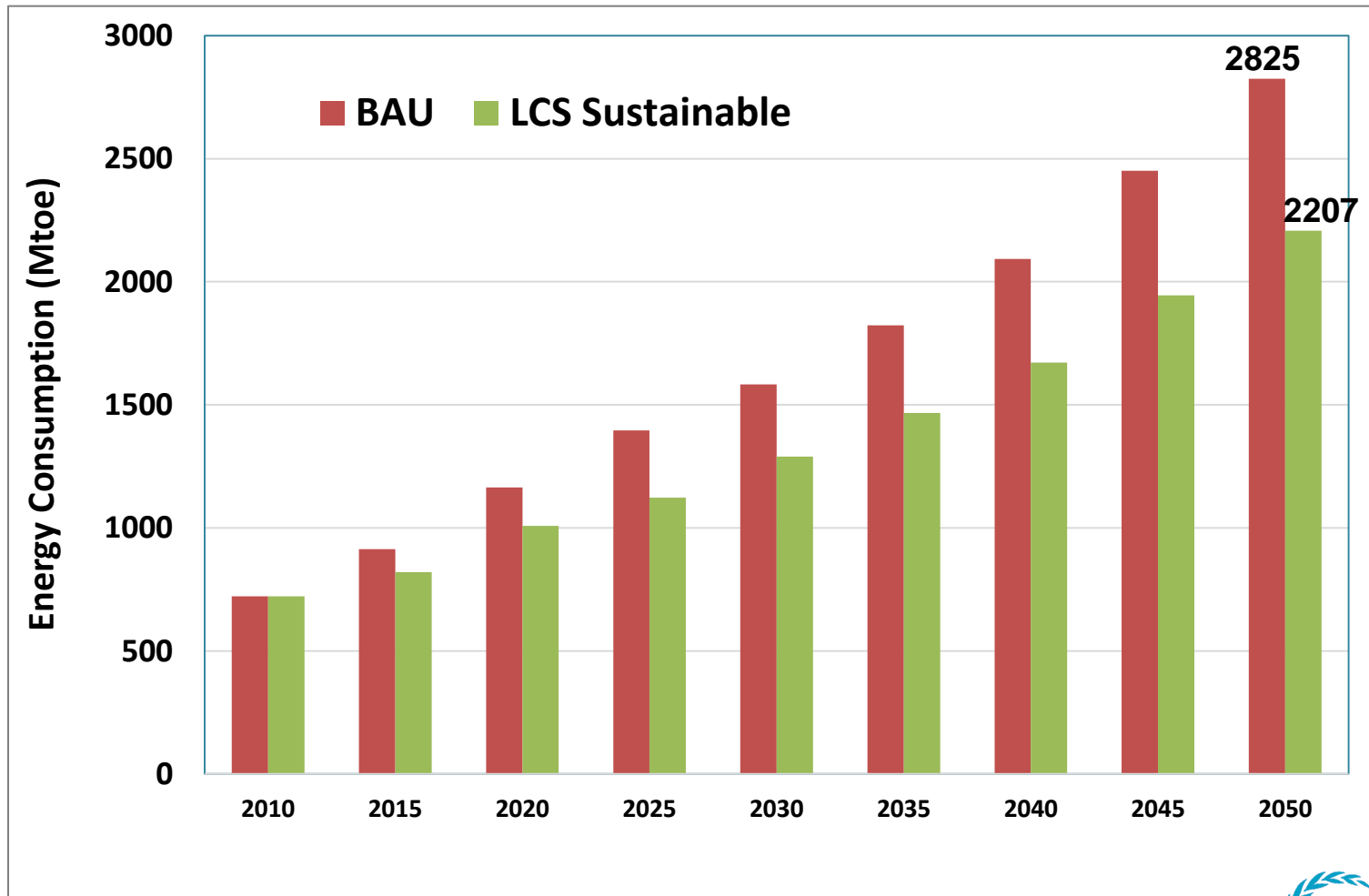
Soft-Linked Integrated Model



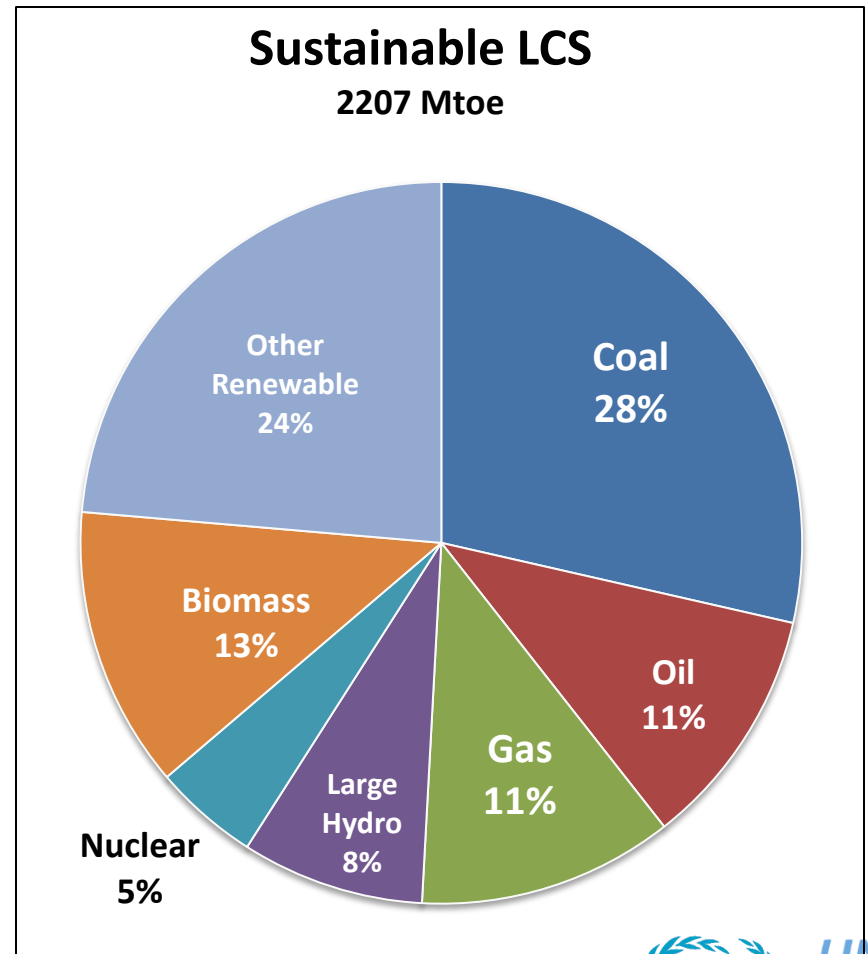
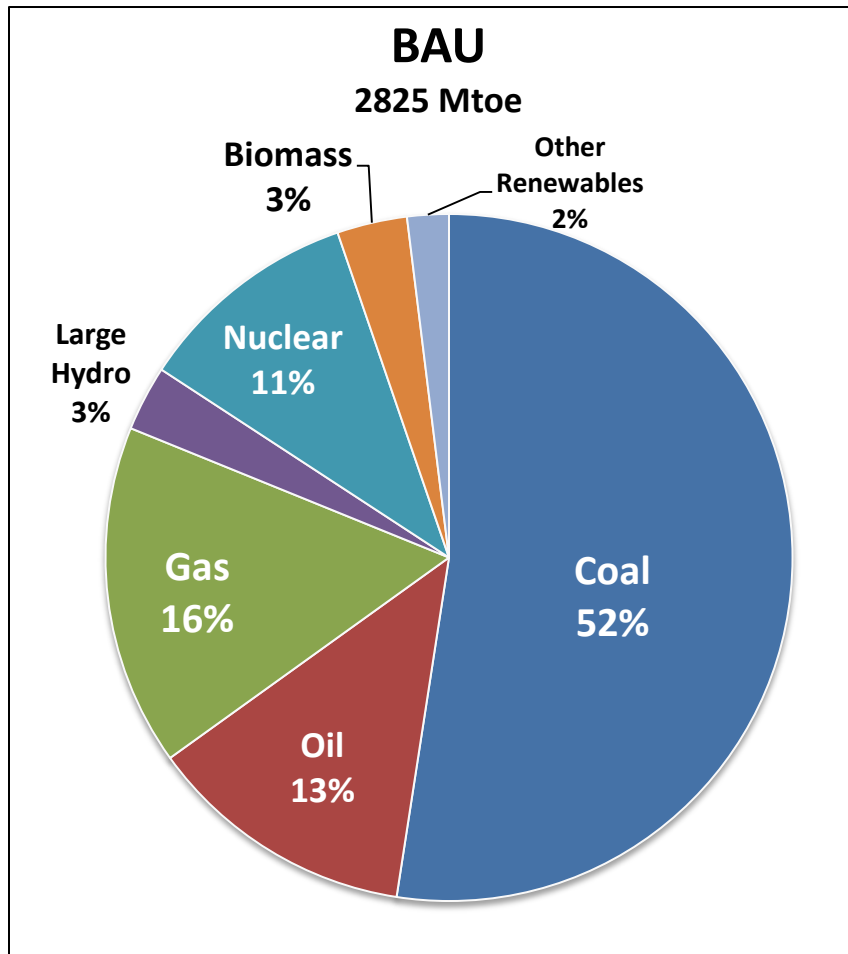
National Development and Transport Scenarios



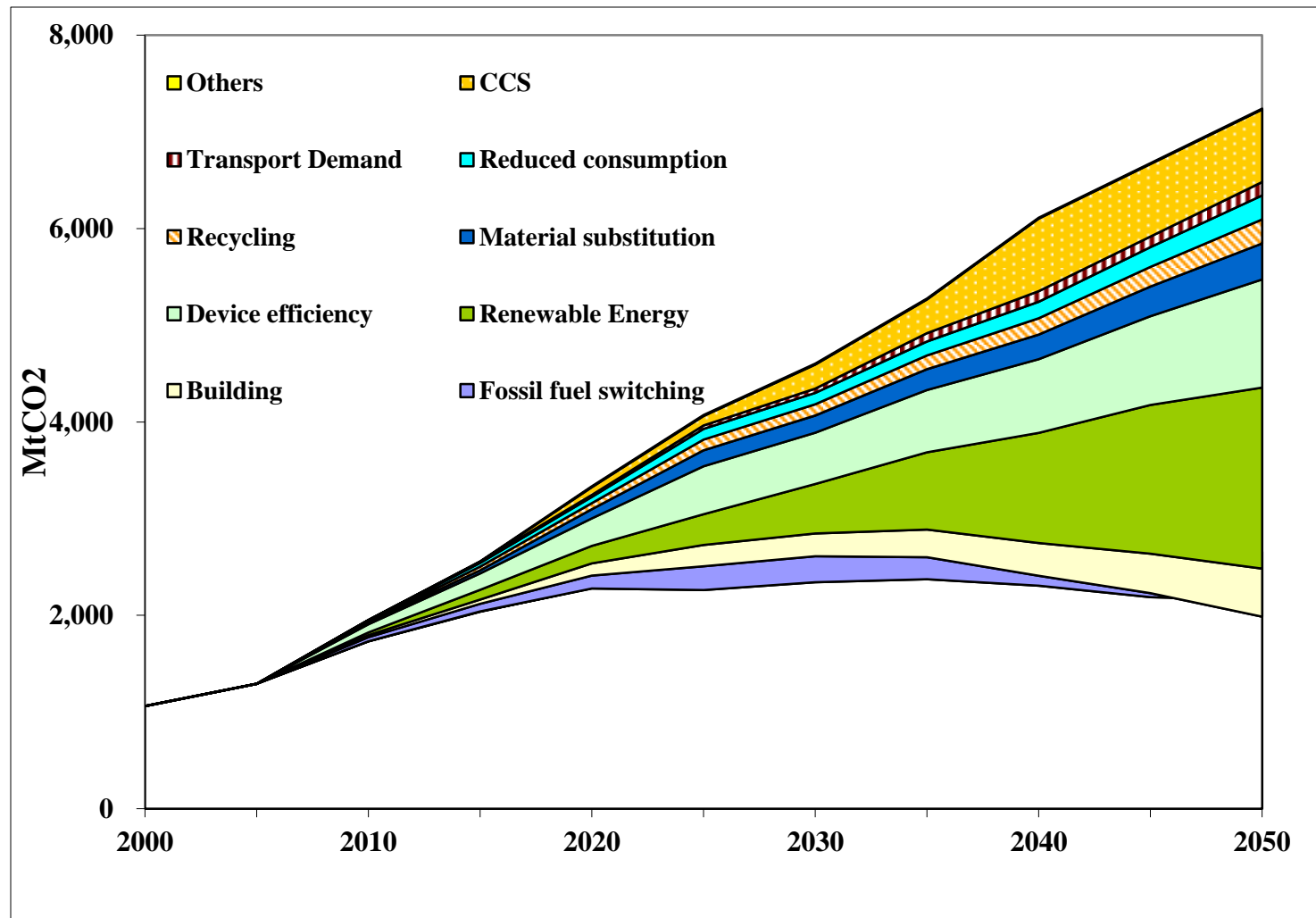
INDIA: Primary Energy



INDIA: Primary Energy Mix (2050)



CO₂ Reduction: Sustainable Low Carbon Scenario



Sustainable Low Carbon Transport: Results of Modeling Assessment

Sustainable Mobility Storyline

Non-Motorized Transport

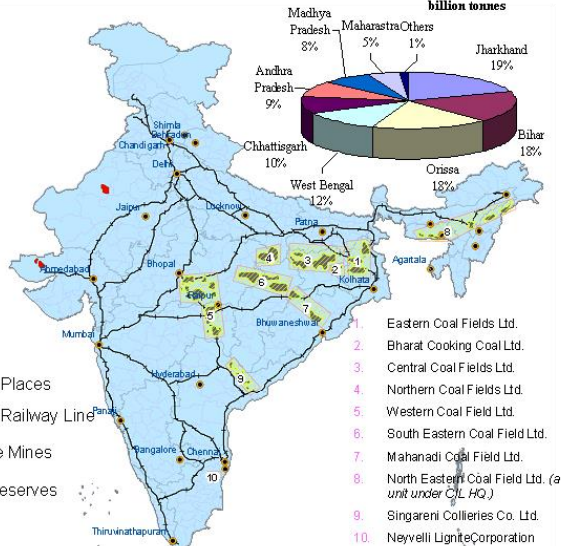


Pipe Transport



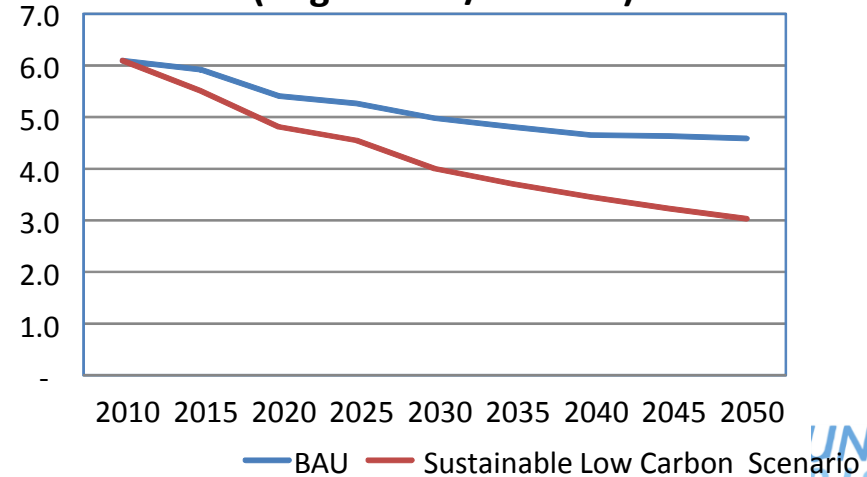
Coal-by-wire

State Wise Coal Reserves
Total Proven Reserves 959 billion tonnes

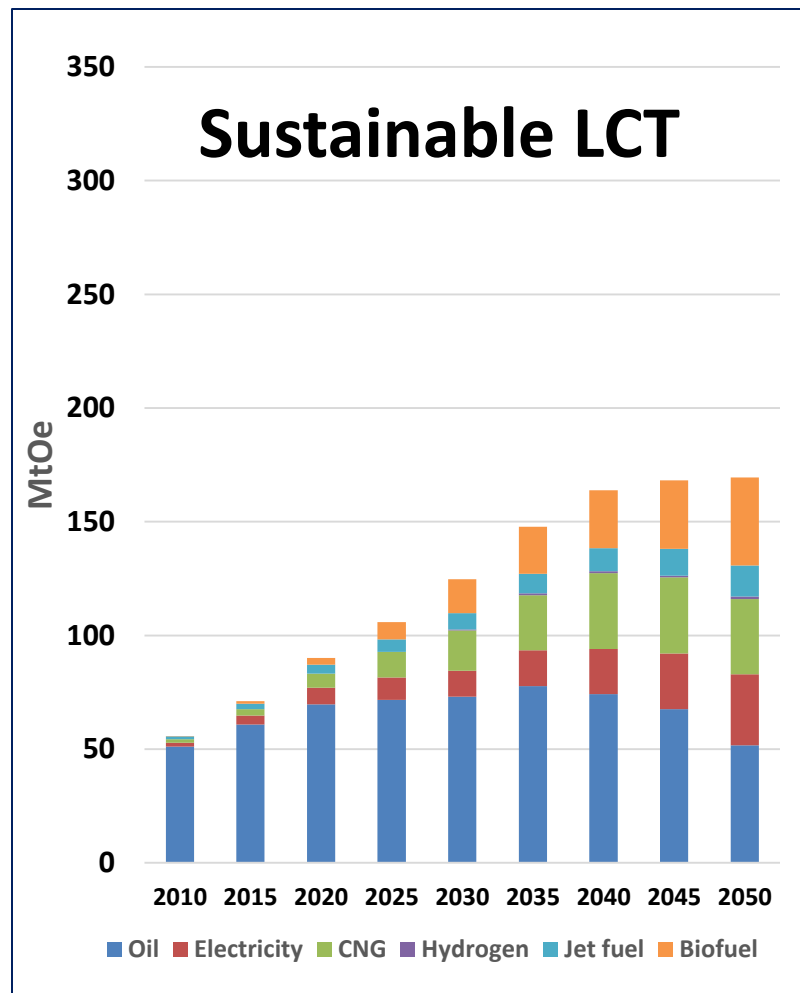
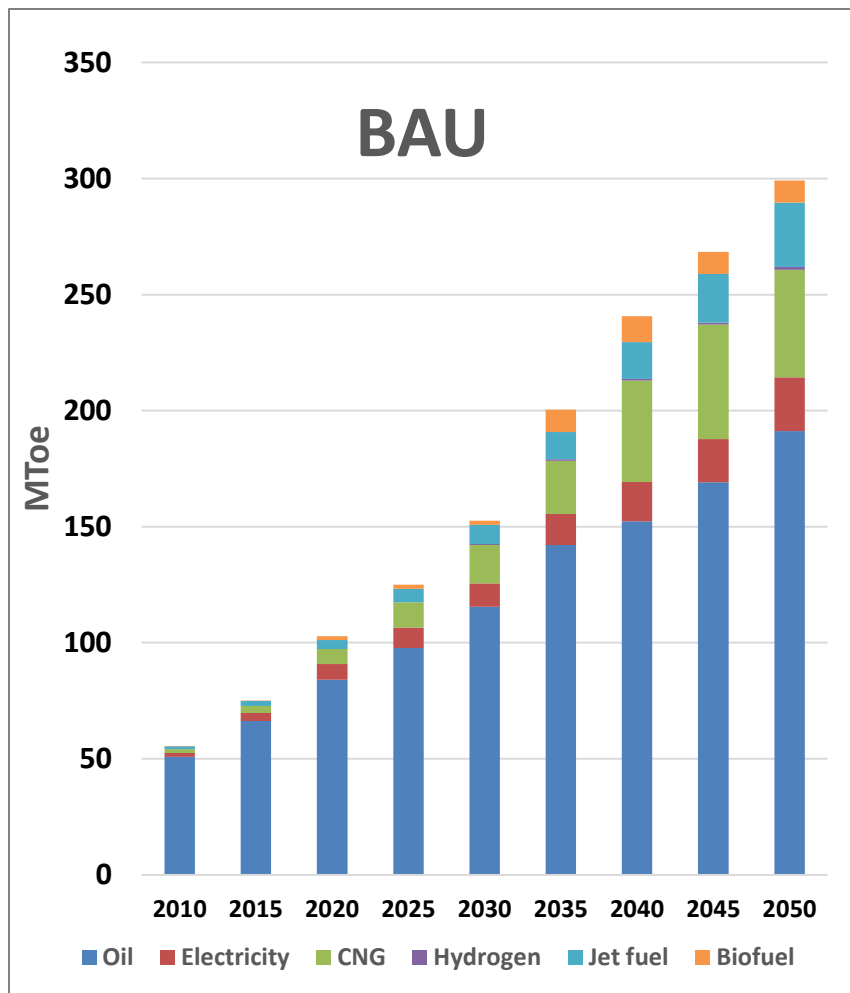


Fuel Economy (Cars)

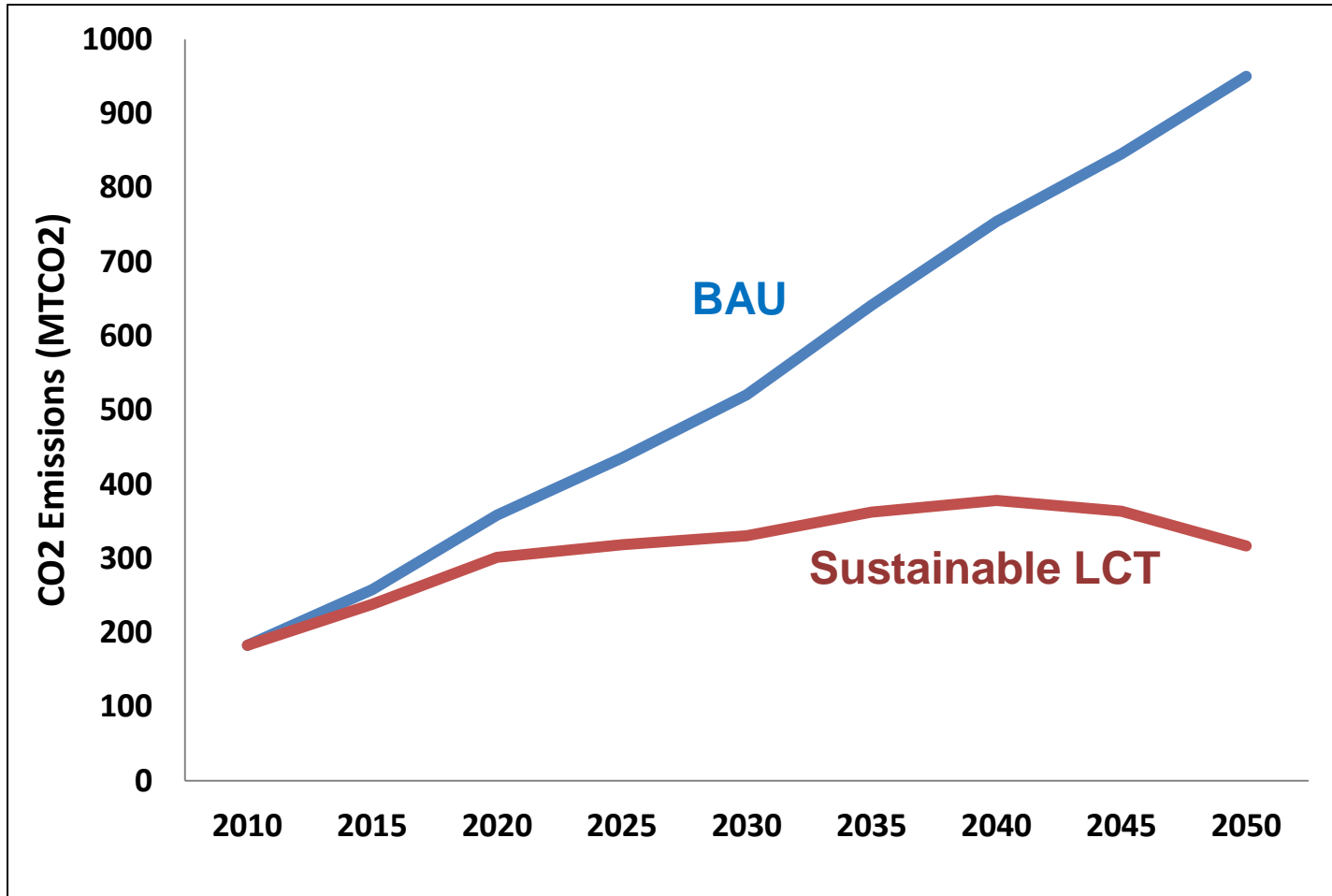
(lit gasoline / 100 km)



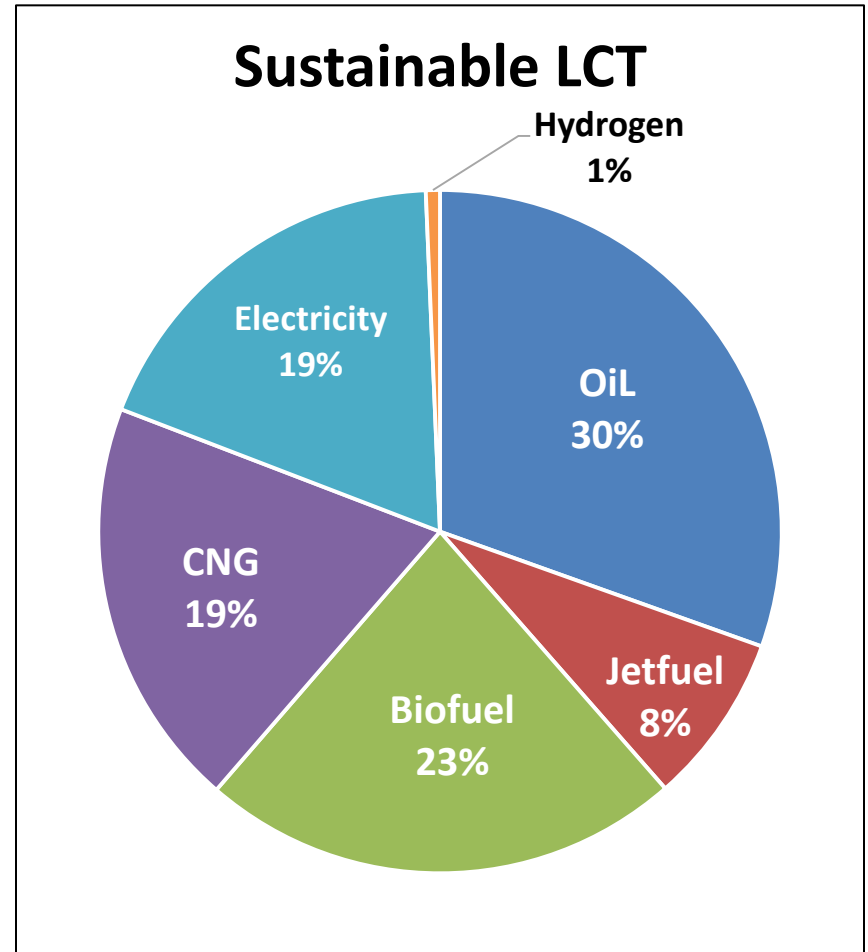
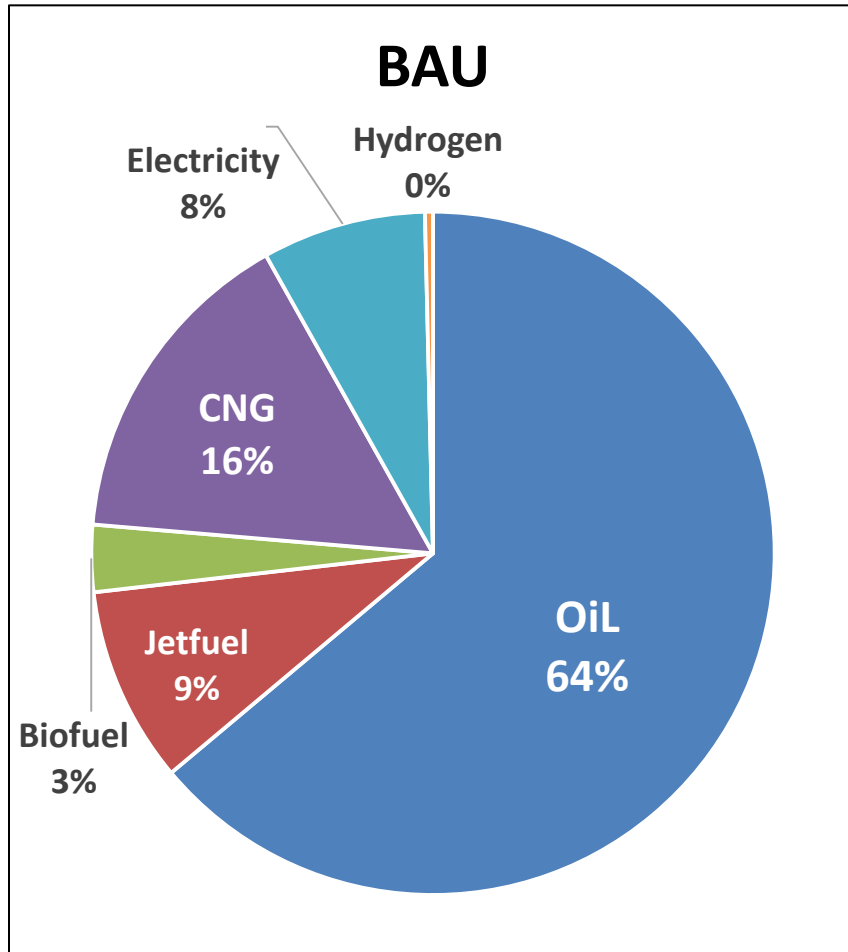
Energy Mix for Transport



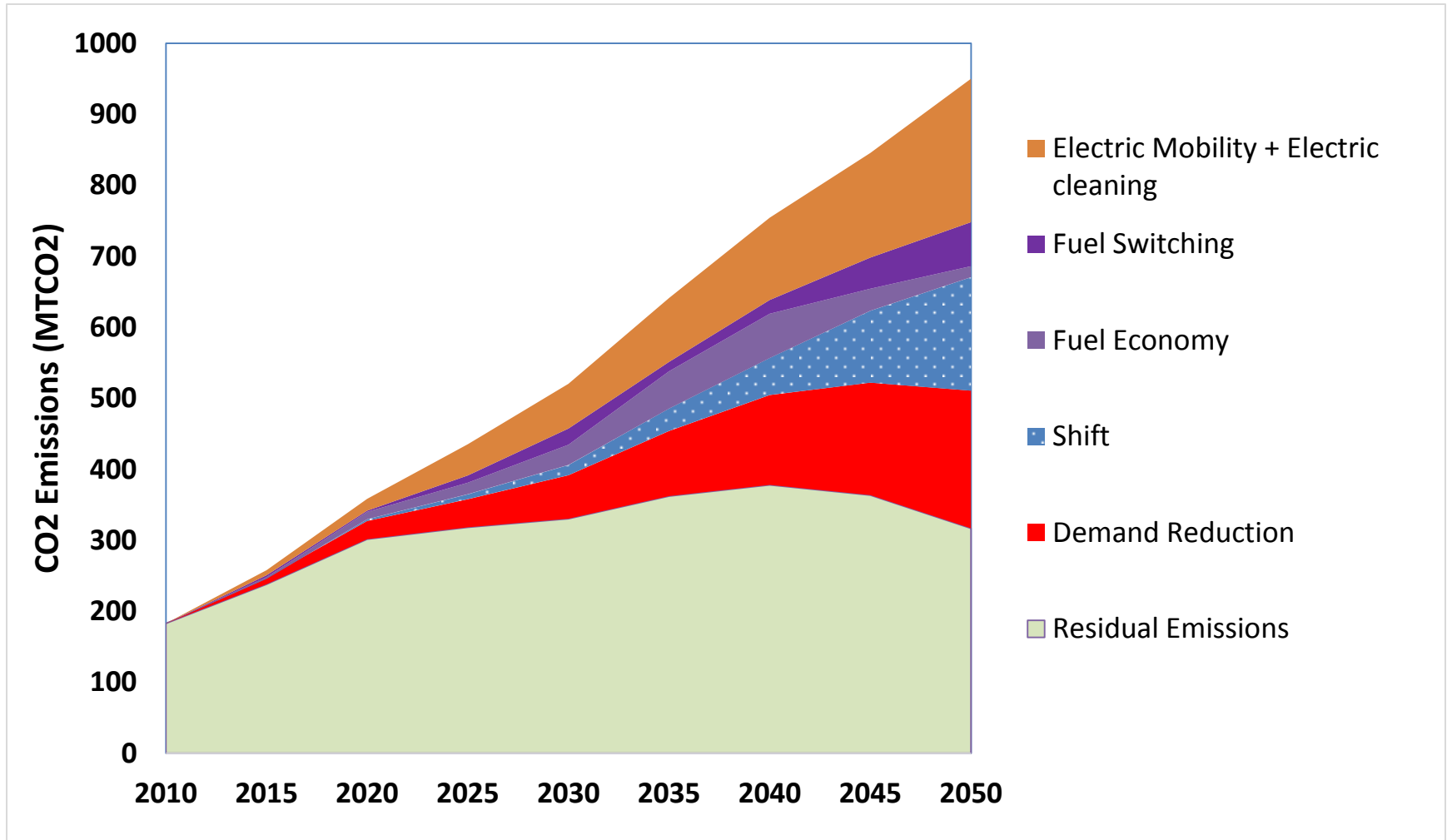
Transport Sector CO₂ Emissions



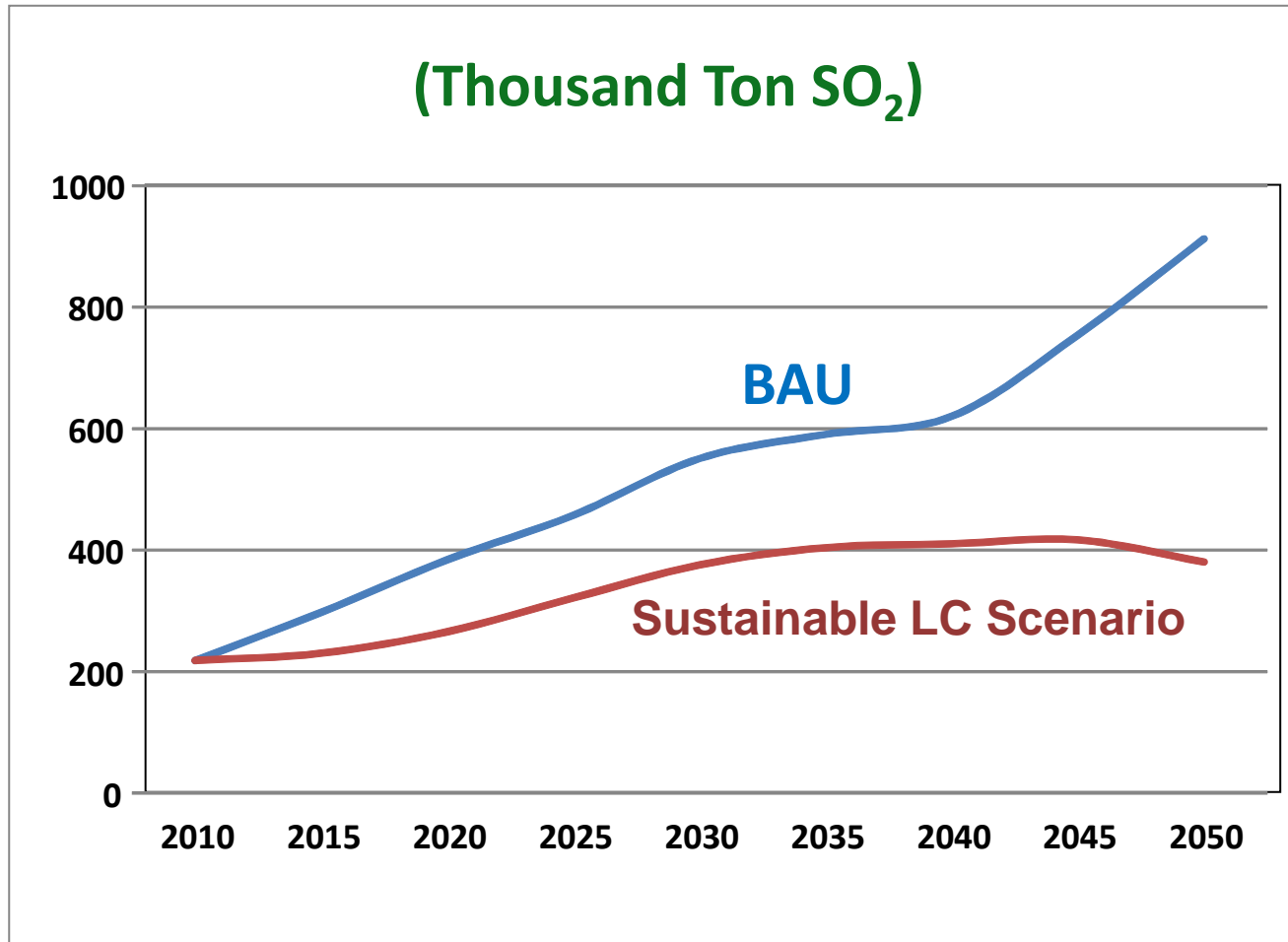
Transport Fuel Mix in 2050



CO₂ Mitigation: Sustainable LCT Scenario



Co-benefits: Improved Air Quality



Conclusions:

2°C Stabilization and Sustainable Development

1. Under Economically efficient 2°C Stabilization regime, India will have less than 2 ton per capita CO₂ emission in 2050
2. Participation in stabilization will cause substantial change in India's energy system and consumption behavior
3. Transport sector can deliver sustained emissions cuts if short-run infrastructure choices are made to avoid long-term lock-ins
4. Altered choices would add costs in the short-run and would require technology transfer as well as domestic innovations
5. Policies that align CO₂ mitigation and sustainable development can deliver significant co-benefits to off-set the added costs

Thank You

UNEP Project Website: www.unep.org/transport/lowcarbon

AIM Website: www-iam.nies.go.jp/aim/

LoCARNet Website: www.lcs-rnet.org/about_locarnet/