



Decarbonizing Freight Transport: Strategies for Developing Countries

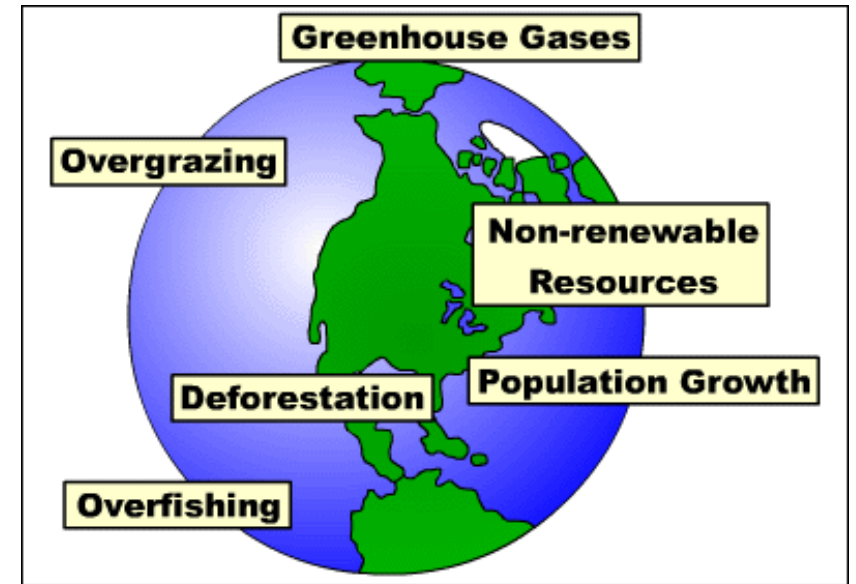
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Decarbonizing Freight Transport in Developing Countries

".....It is our considered professional judgment that this dilemma has no technical solution. If the great powers continue to look for solutions in the area of science and technology only, the result will be to worsen the situation."

J. B. Wiesner and H. F. York, Scientific America. 211 (No. 4), 27 (1964).



TRAGEDY OF THE GLOBAL COMMONS





Fragmented and low efficiency logistics systems

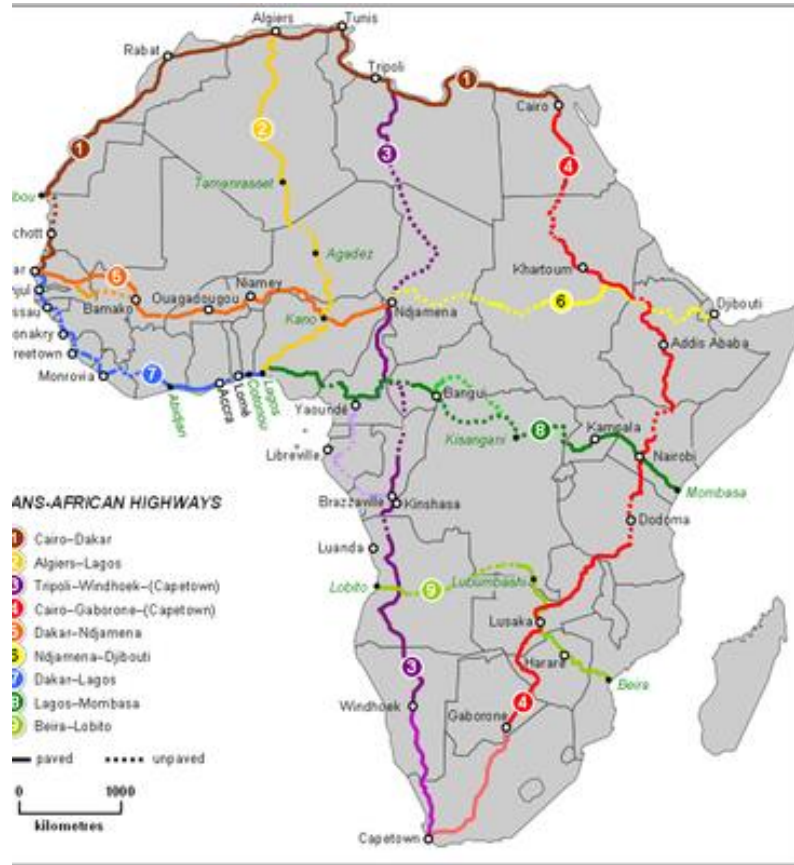
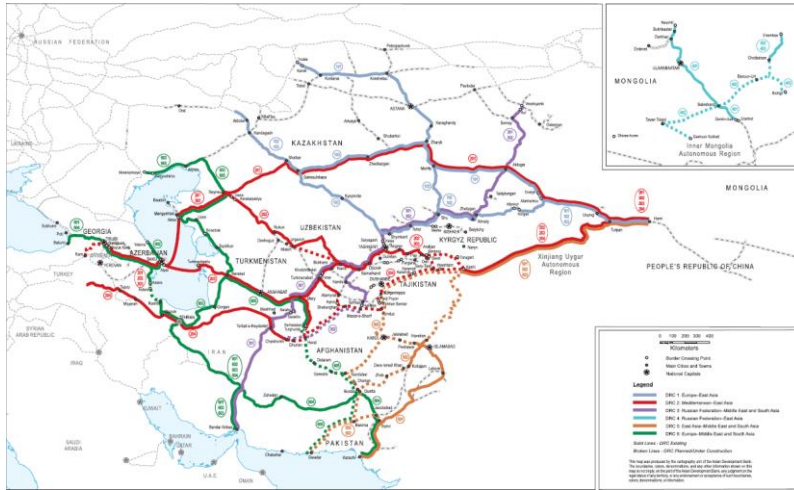


**Huge infrastructure gaps,
underutilized assets and
poor maintenance culture**

- **Poorly maintained rail infrastructure**
- **Inland waterways transport collapsed**
- **High logistics cost and underutilized assets**



The Port Hinterland Connectivity Challenge



Multiple (overlapping and often competing) visions of regional connectivity and trade

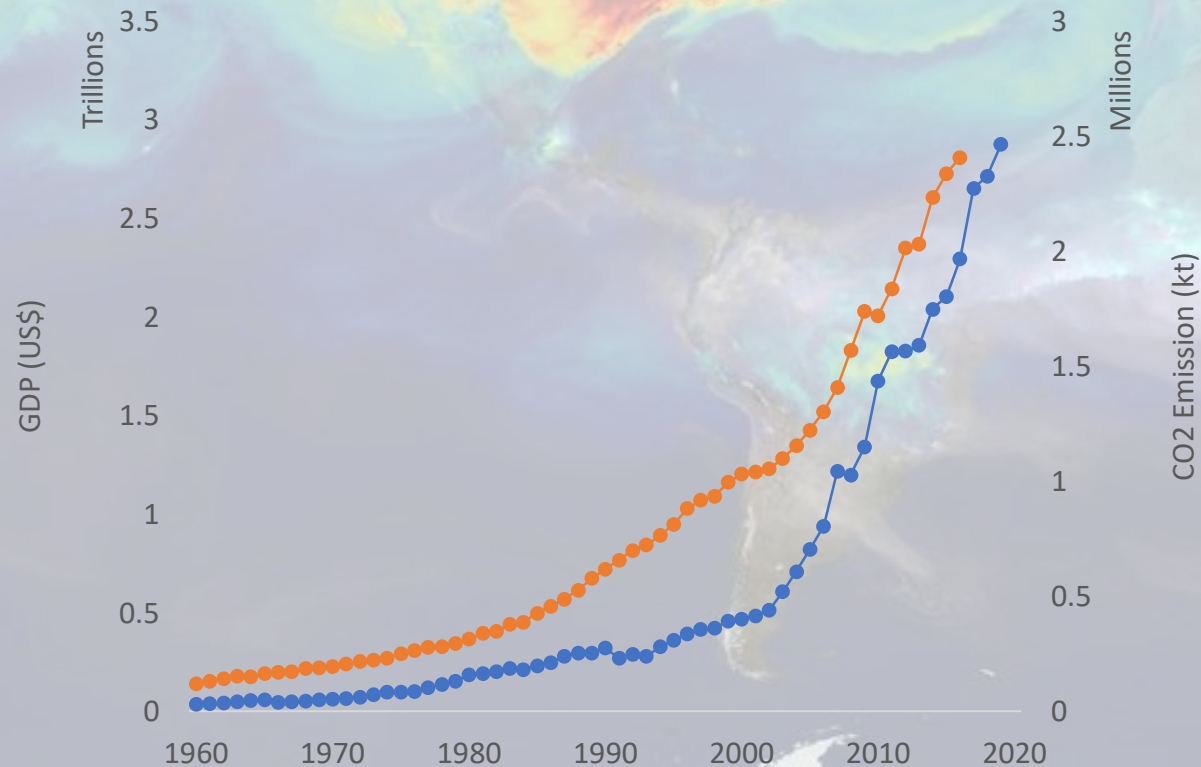
Economic Geography, Regional Economic Integration, Value Chains



Rapid growth of developing economies over past decades has been accompanied by equally rapid growth in GHG emissions

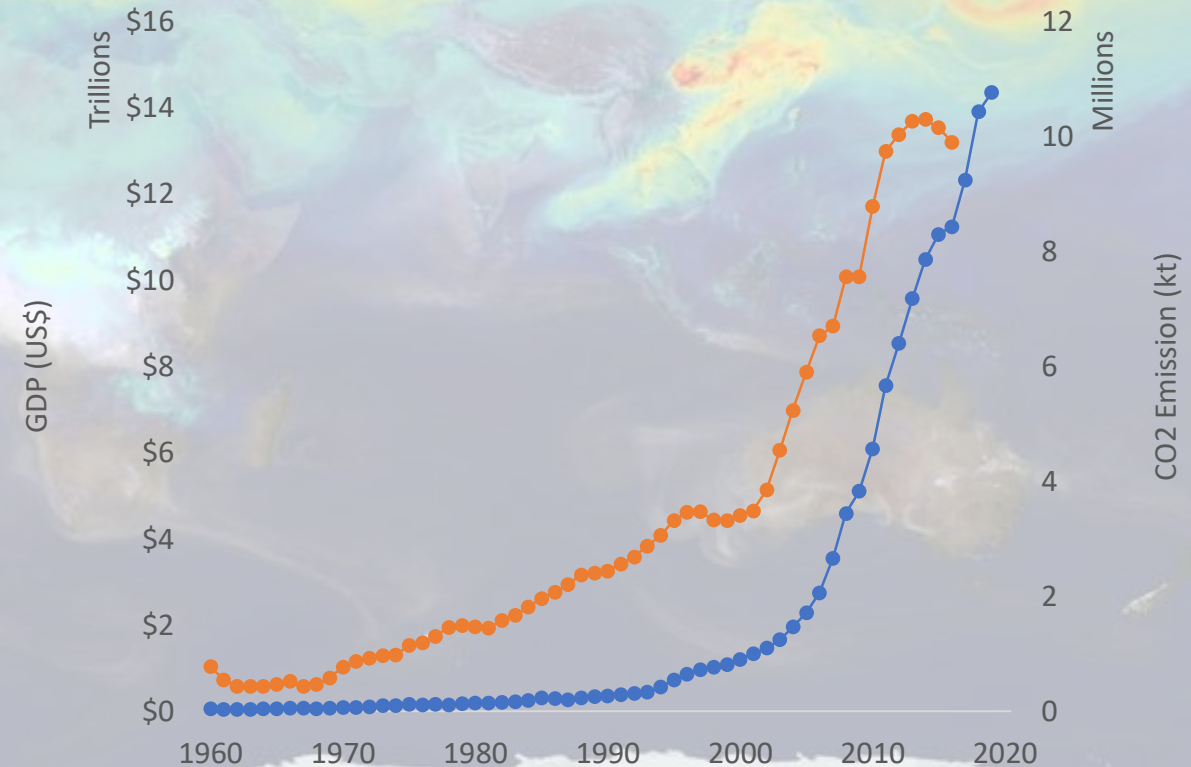
GDP Growth and CO2 Emission in India

— GDP (current US\$) — CO2 emissions (kt)



GDP Growth and CO2 Emission in China

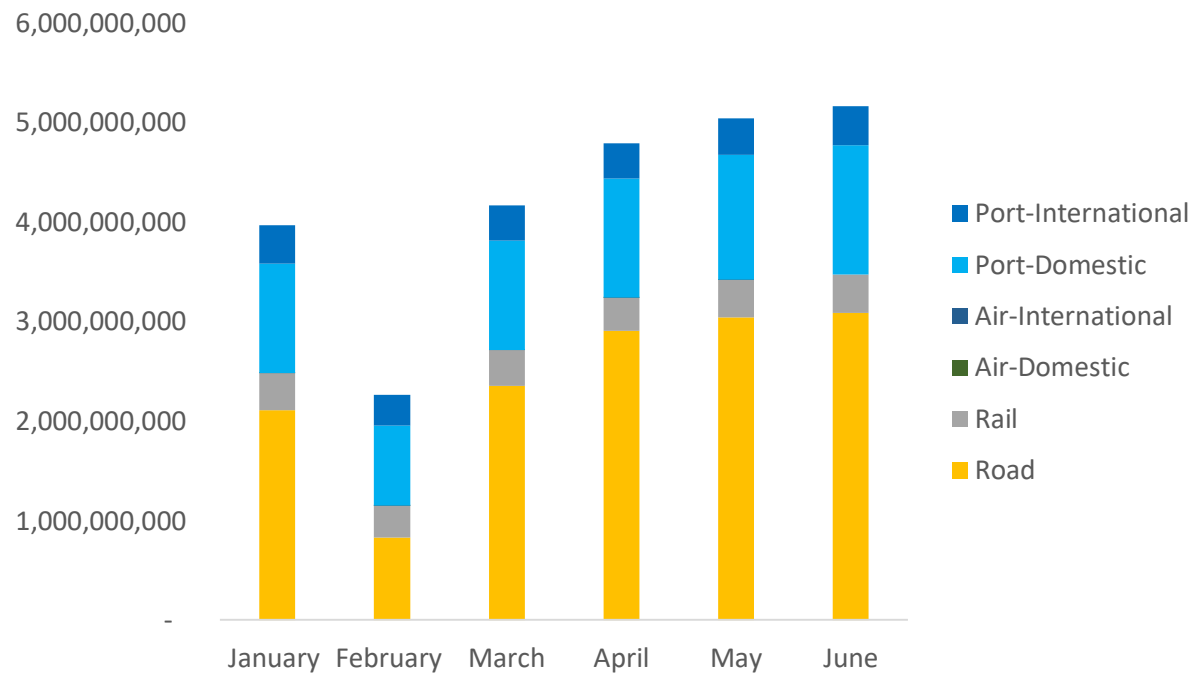
— GDP (current US\$) — CO2 emissions (kt)



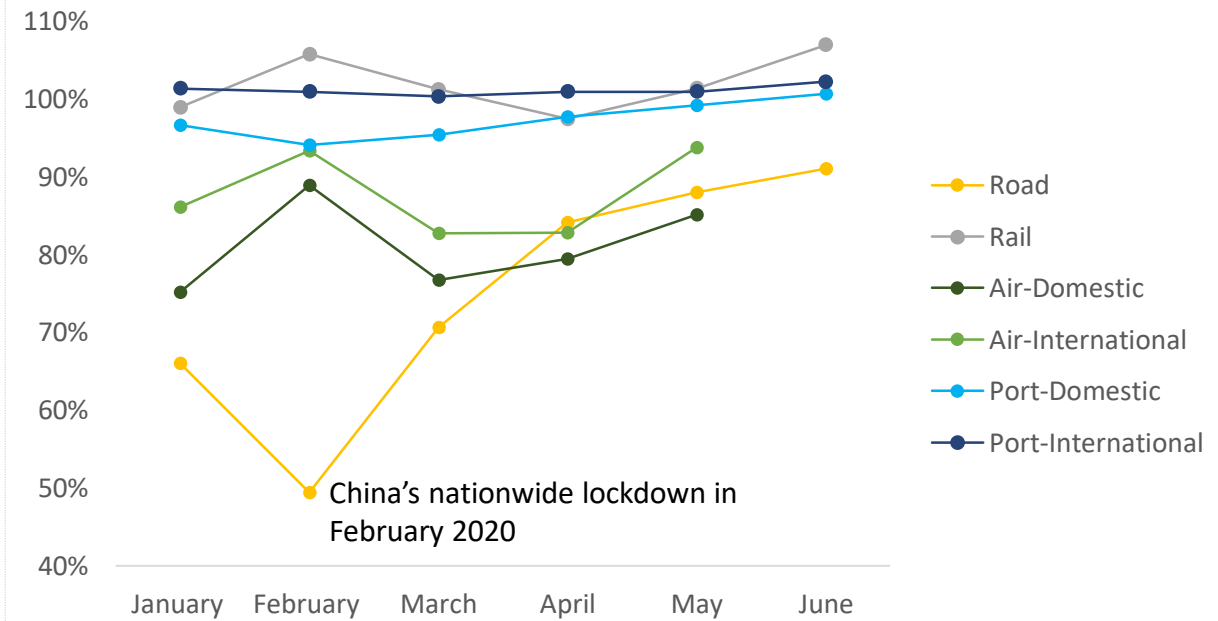
Data Source: World Bank Open Data

COVID-19 impact - Road freight transport, highly fragmented and moving 80 percent of freight in China

Freight Transport Volume by Modes in China (2020)
(tons)

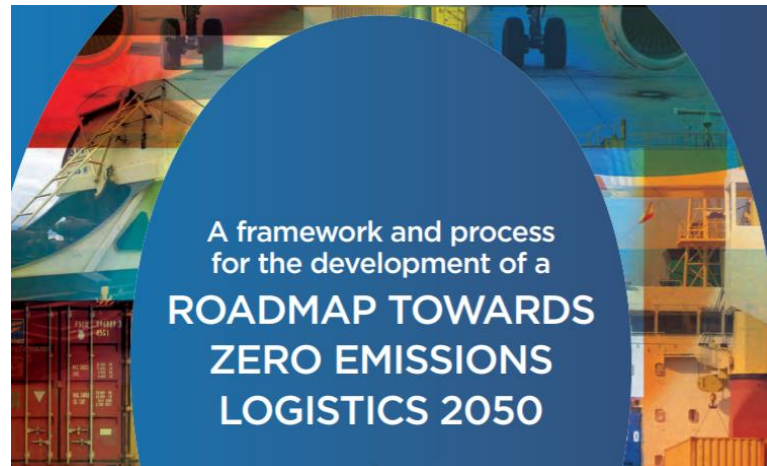


Freight Transport Volume Growth Rate by Modes in China (2020)
% of the same period last year

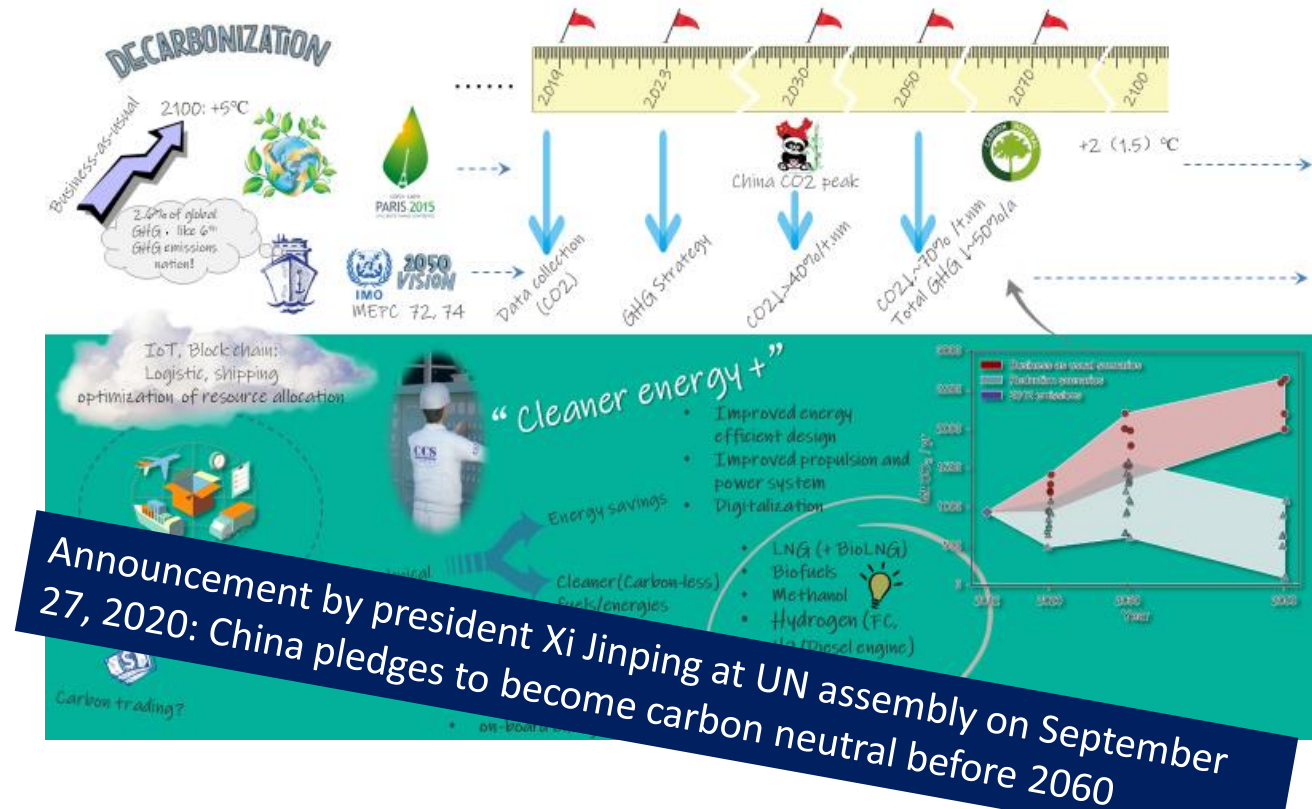


Data Source: Ministry of Transport of P.R. China

Light at the end of the tunnel but multilateral action urgently needed



Europe to be the first climate-neutral continent in the world by 2050. Reduce CO2 emissions by 2050 no later than 2030.



4 big opportunities to drive decarbonization in developing countries



Physical network and multilateral institutions that are fit for the future

Integrated and resilient network



Digital networks configured for a new normal

Digitalization a key driver for smart transport systems



Green energy networks as backbone for transport systems

Smart energy corridors and hubs, Multi-fuel (transition) network



Sustainable financing as driver for low-carbon transport in post-pandemic world

Financial instruments and leaders embed sustainability in decisions

Conclusion – Decarbonizing freight transport requires joint actions

- **Multilateral coalitions** to change behavior and provide safe space for brave policy champions
- **Role of financing sector**: the complex nature of future projects will require alignment (economic-social-environment)
 - Before project initiation. If investors are fully aligned, then becomes embedded. Green bonds and new investment instruments facilitate
 - Mechanisms to mobilize, measure and develop projects that are responsive to society, environment and economy
- **Synchronize policy instruments** - deployed in sync and decarbonization mechanisms embedded in entire transport and logistics sector

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