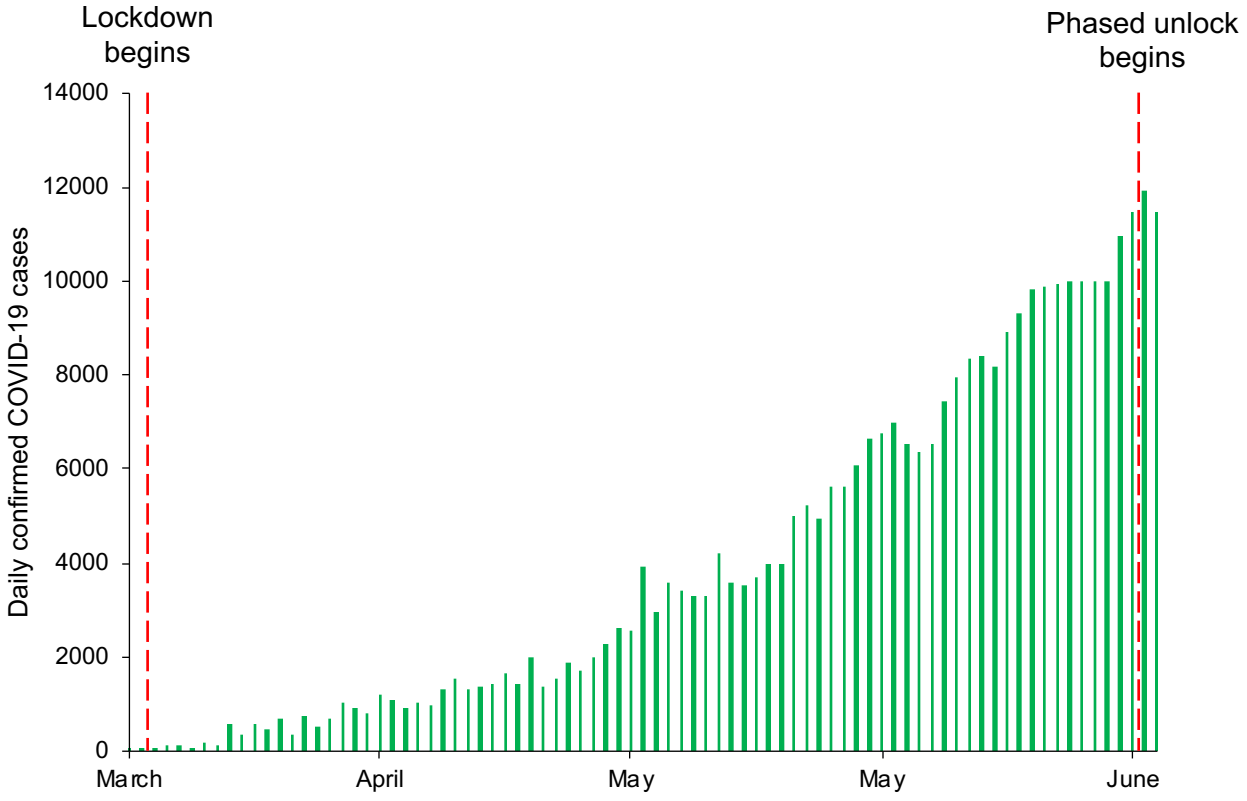
Industry Transition in India

- Current impacts of COVID-19
- Transition challenges
- Signs of hope

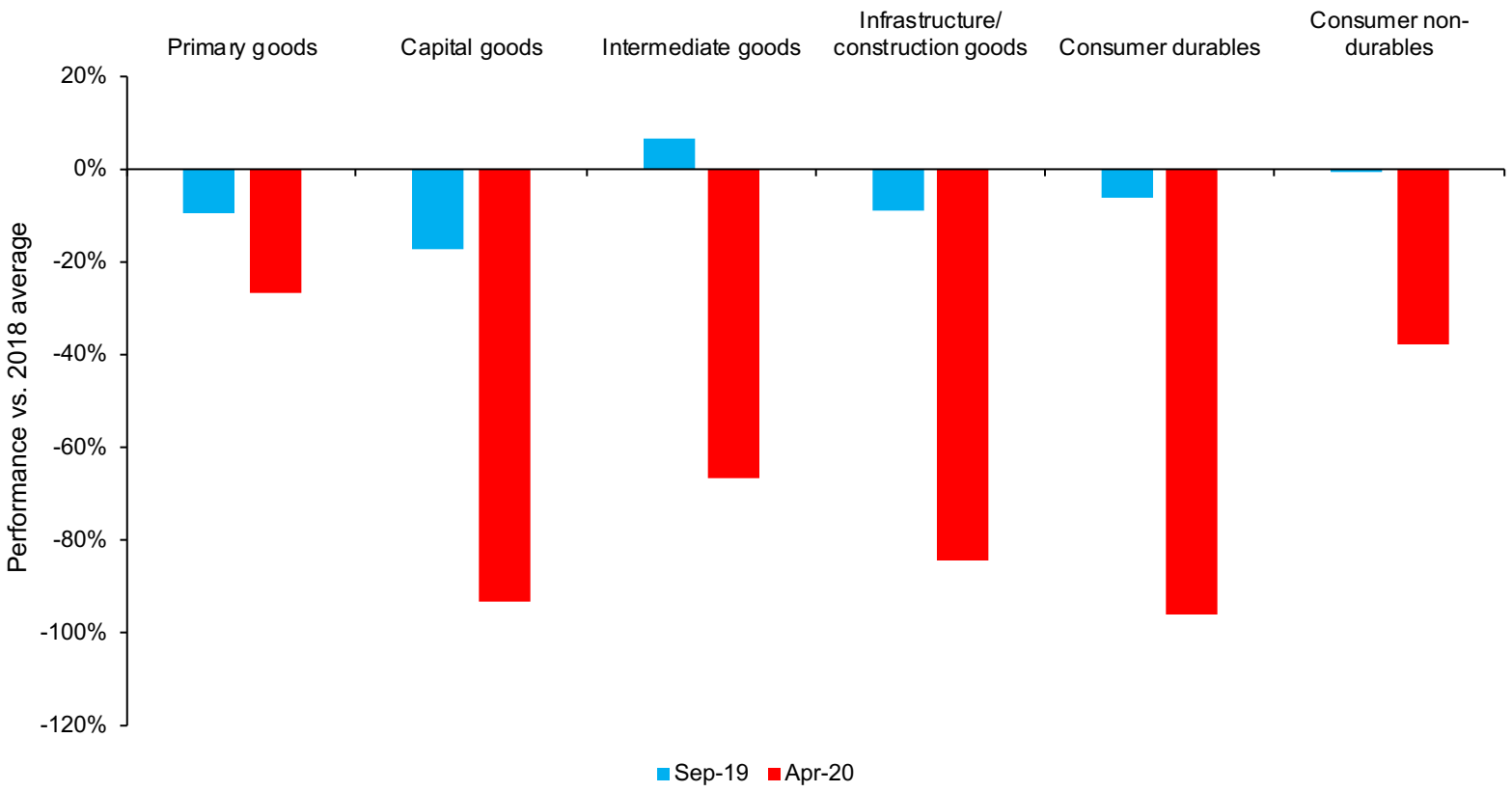
Current impacts of COVID-19



Source: COVID-19 Dashboard (John Hopkins University, 2020)

- Lockdown began early – and was highly restrictive
- Cases continued to grow rapidly, despite restrictions
- Weak public healthcare infrastructure
- Crisis still very much unfolding

Transition Challenge 1: Current state of industry



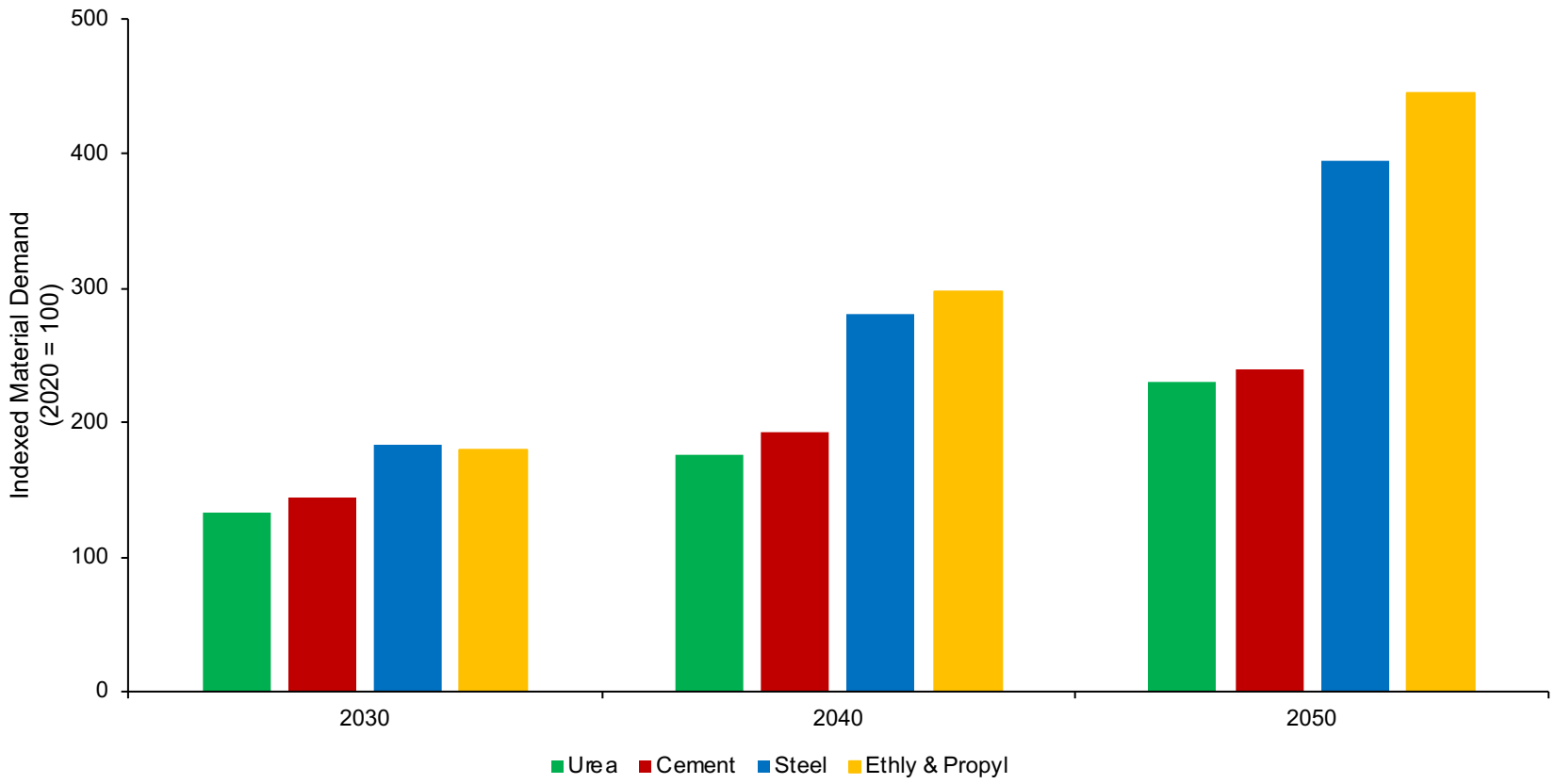
Source: Index of Industrial Production (MoSPI, 2020)

Even before COVID, the Indian manufacturing sector was in decline (Sep-2019).

It was poorly prepared for such a significant and sustained shock, with limited ability for investment in new technologies.

Heavily reliant on domestically available energy sources, namely coal.

Transition Challenge 2: Scale of demand growth



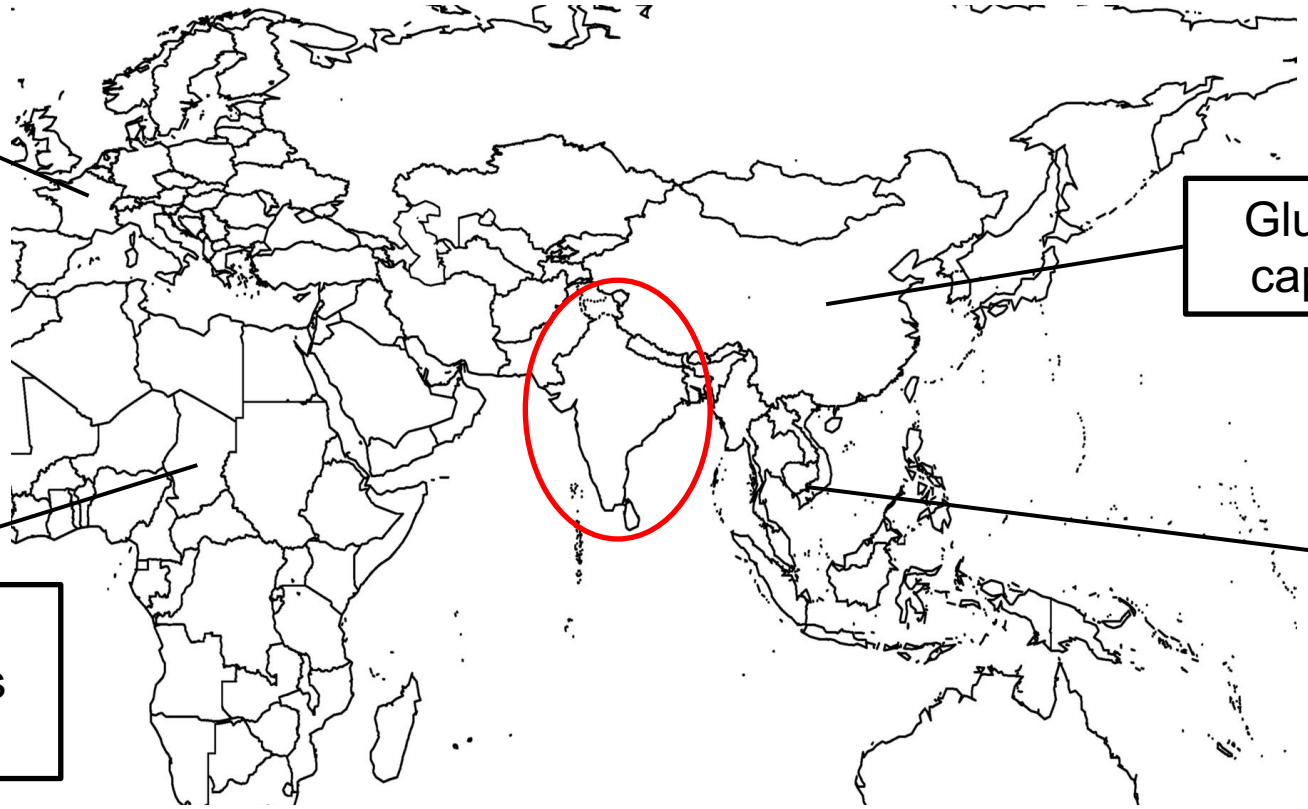
Source: TERI analysis based on (WSA, 2018); (USGS, 2018); (CPIM, 2019)

Demand for key materials is set to explode over the coming decades as India develops.

Resource efficiency measures will have relatively lesser impact vs. Europe, as supply of basic services still needs to drastically improve.

Transition Challenge 3: Maintaining competitiveness

Keep abreast of latest tech developments from industry leaders



Glut of production capacity in China

Regional free trade deals putting pressure on domestic producers

A need to expand into new overseas markets

Signs of hope for a green recovery

- Continued cost reductions in renewable power
- Ambitions to develop new technology solutions, such as hydrogen
- World-leading companies setting new direction
- Avenues for international collaboration

Continued cost reductions in renewable power

A recent tender for solar + storage (part batteries, part pumped hydro), which is now competitive with coal-fired generation.

More in News, Power Plants, Storage, Grids, Projects, Markets & Finance, Policy, Asia & Oceania, Central & East Asia

NSEFI: Tender shows Indian renewables-plus-storage now 'attractive' against coal

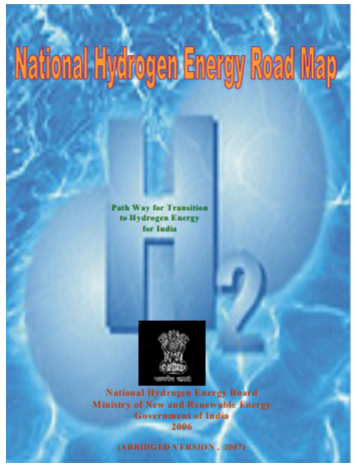
By Tom Kenning | Feb 04, 2020 12:42 PM GMT | 0 Share

For optimal locations in India, **renewables plus storage is now competitive with coal**. This represents a tipping point in the sourcing of low emissions energy.

Ambitions to develop new technology solutions

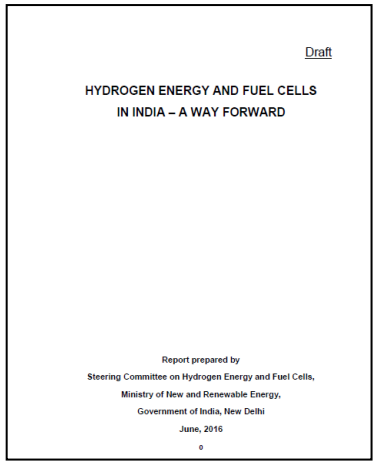
Example, green hydrogen

2006



National Hydrogen Energy Roadmap

2016



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HYDROGEN ENERGY AND FUEL CELLS
IN INDIA – A WAY FORWARD

Report prepared by
Steering Committee on Hydrogen Energy and Fuel Cells,
Ministry of New and Renewable Energy,
Government of India, New Delhi
June, 2016

Hydrogen Energy and Fuel Cells – A Way Forward

2020

Hydrogen Mission 2020

World-leading companies setting new direction

- Industry leaders signing up to low carbon initiatives, such as **Science Based Targets**

TATA
TATA CHEMICALS LIMITED

Mahindra

Dalmia
Bharat Limited

Shree
Cement

Avenues for international collaboration

There are a number of opportunities for India to engage within international fora to collaborate on technology and policy for industry transition:

- Mission Possible Platform
- Leadership Group for Industry Transition
- Clean Energy Ministerial
- Mission Innovation