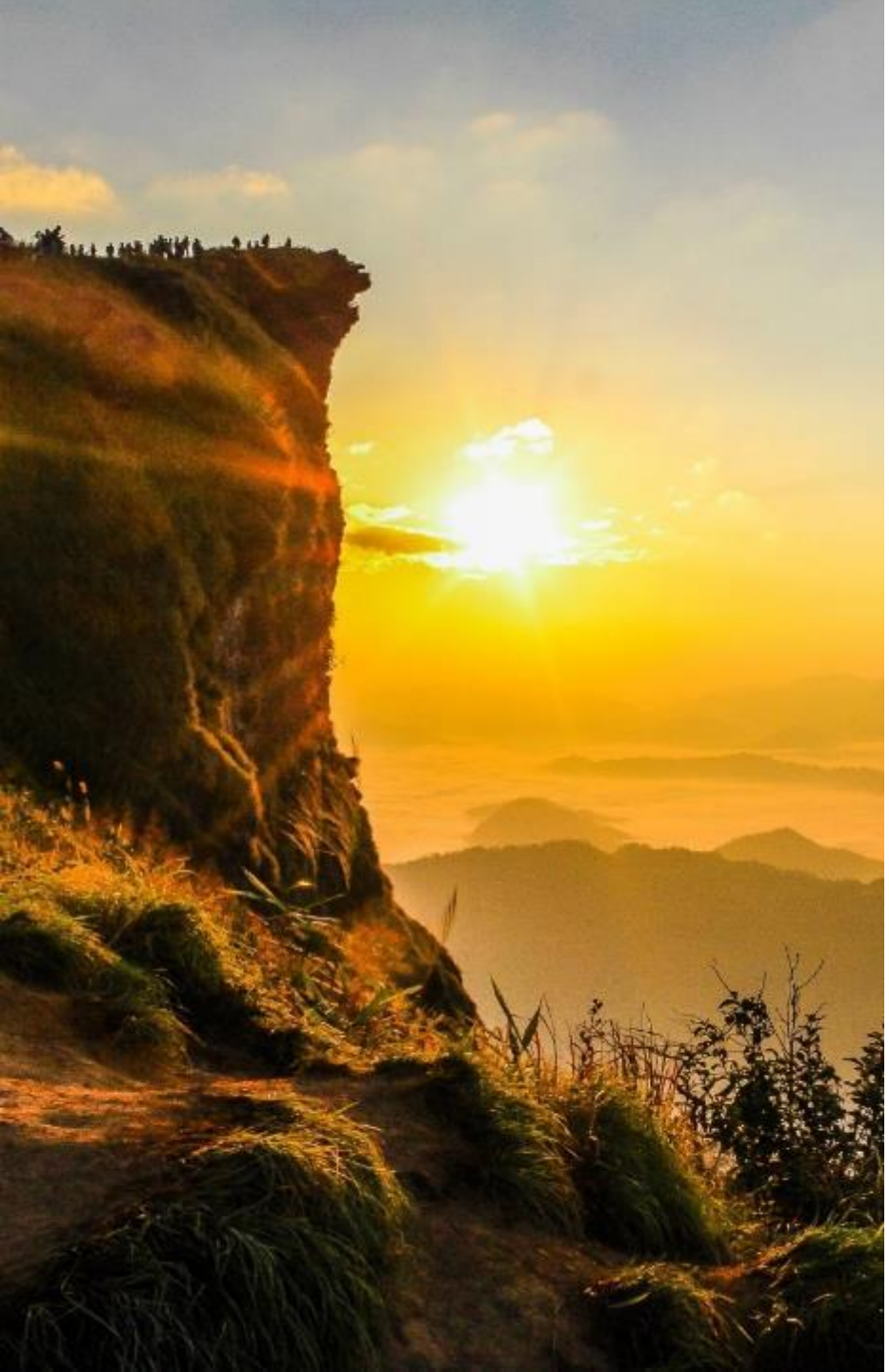

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Just Transition to Zero-emission Trucking in India

Highlights of the Report

20 August 2024

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Overview of road logistics in India



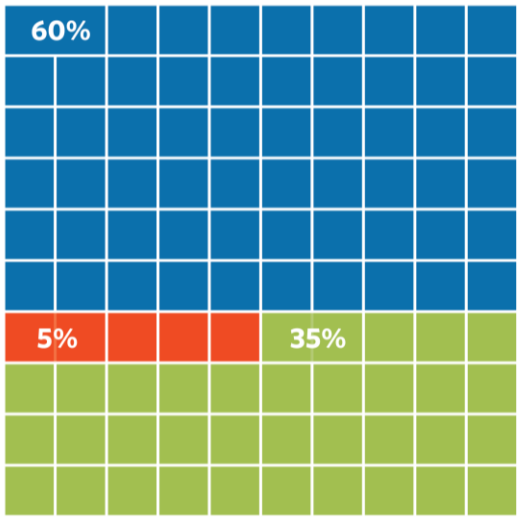
70% of domestic freight transported by road

5th India is the 5th largest market globally for trucks

4X No. of trucks in India expected to quadruple by 2050

Road logistics is responsible for **4%** of India's energy-related CO2 emissions and **53%** of particulate matter emissions

$300 Bn Industry expected to grow at a CAGR of 8% to reach USD 330 billion by 2025



Registered trucks in India (millions)

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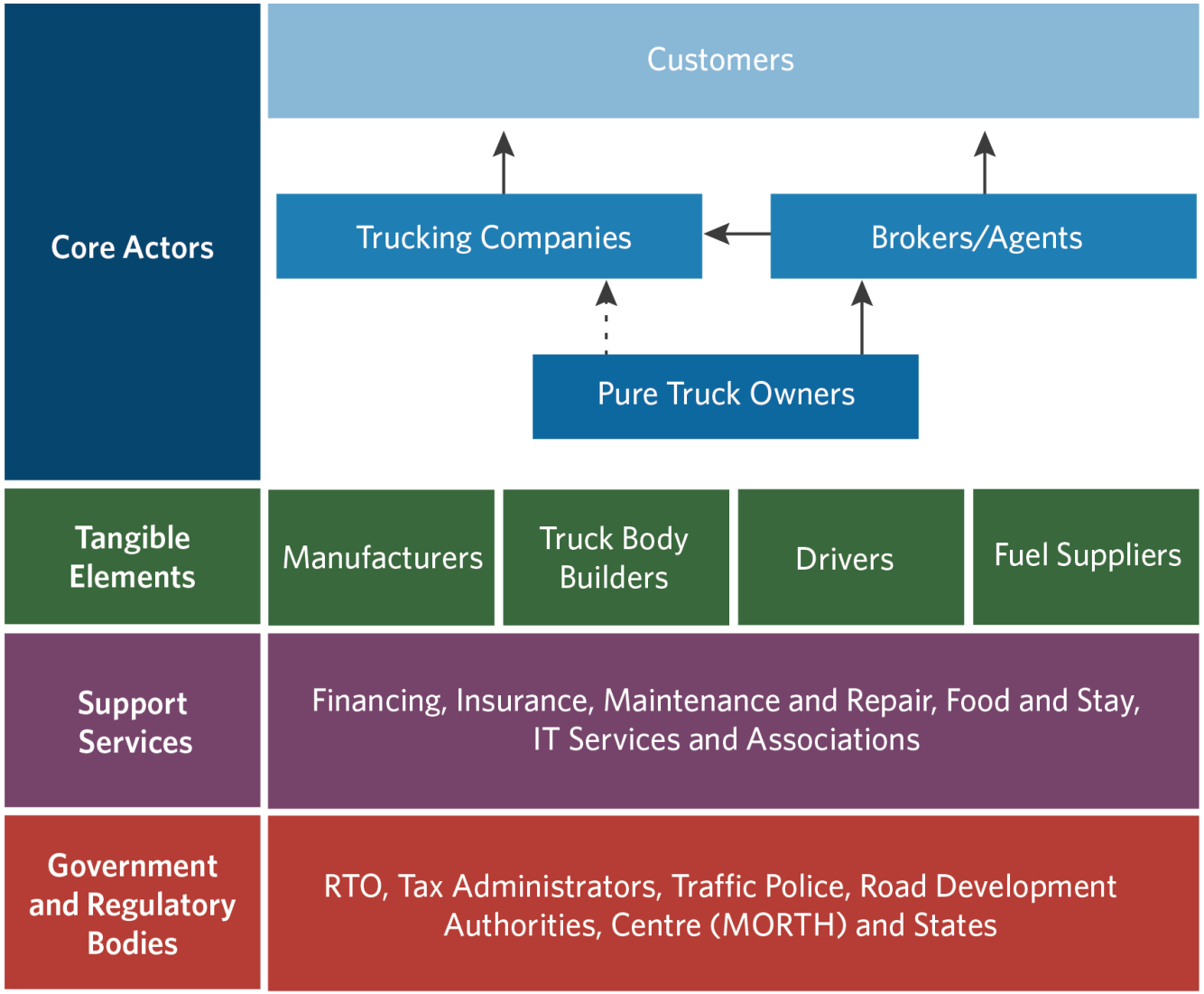
Value chain actors in the trucking sector



10% of fleet operators are large (>20 trucks)

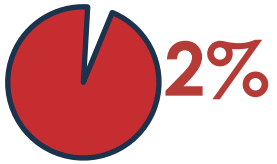
75% of fleet operators are small (<5 trucks)

25-30% Idle time for trucks – especially of small fleet operators

30% trucks have long-term annual contracts with consignors

8 mn direct jobs in the industry

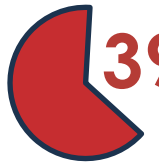
Need for electrification of trucks and policy initiatives



2% M/HDTs fleet size in India



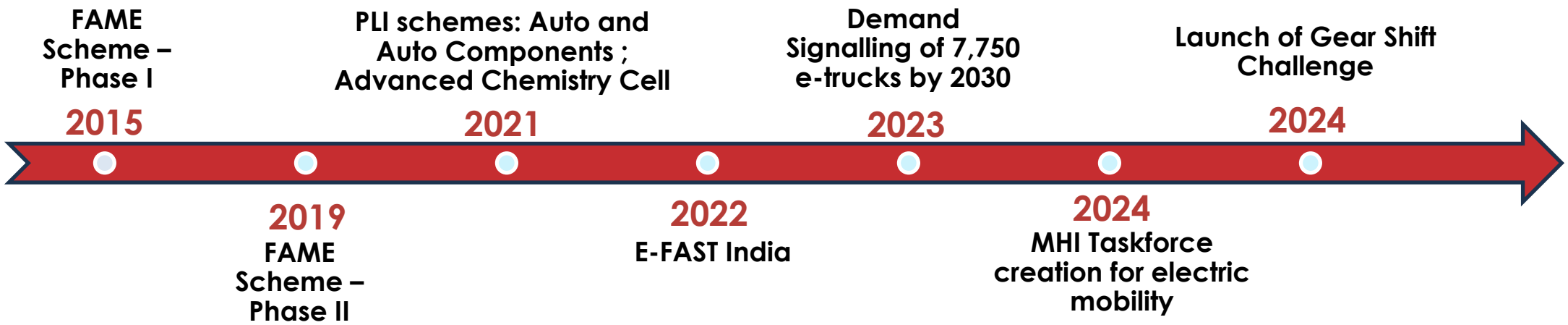
47% Contribution to transport CO2 emissions



39% Fuel consumed

- Need for scaled adoption of ZETs to meet the goals of NDC target and net-zero by 2070 target
- Battery electric is the best possible technology for zero emission trucking – given cost and tech availability

Government initiatives to support EV/EFV adoption



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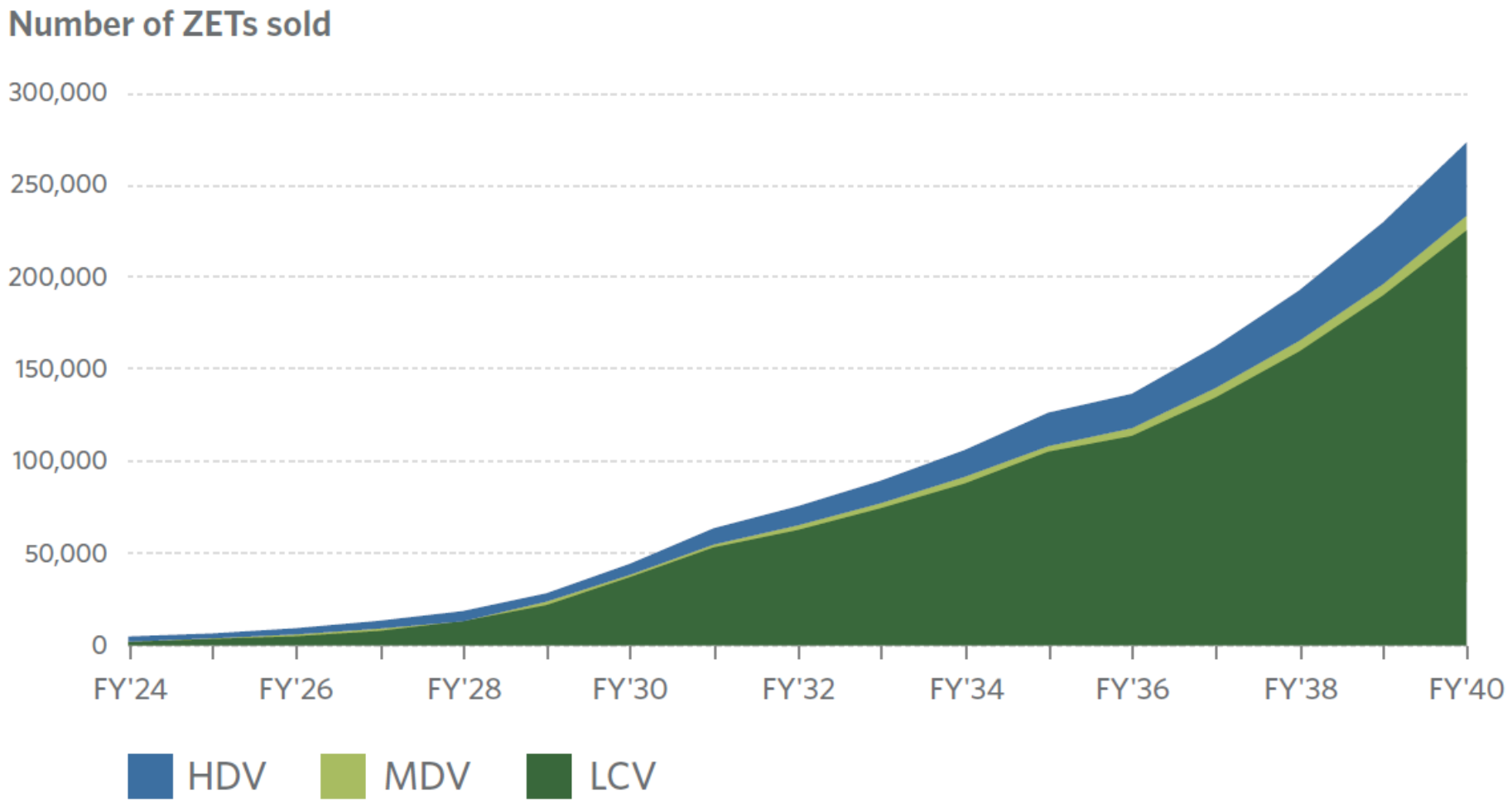
Projected sales of ZETs – Business as Usual Scenario



Source: *CPI analysis*

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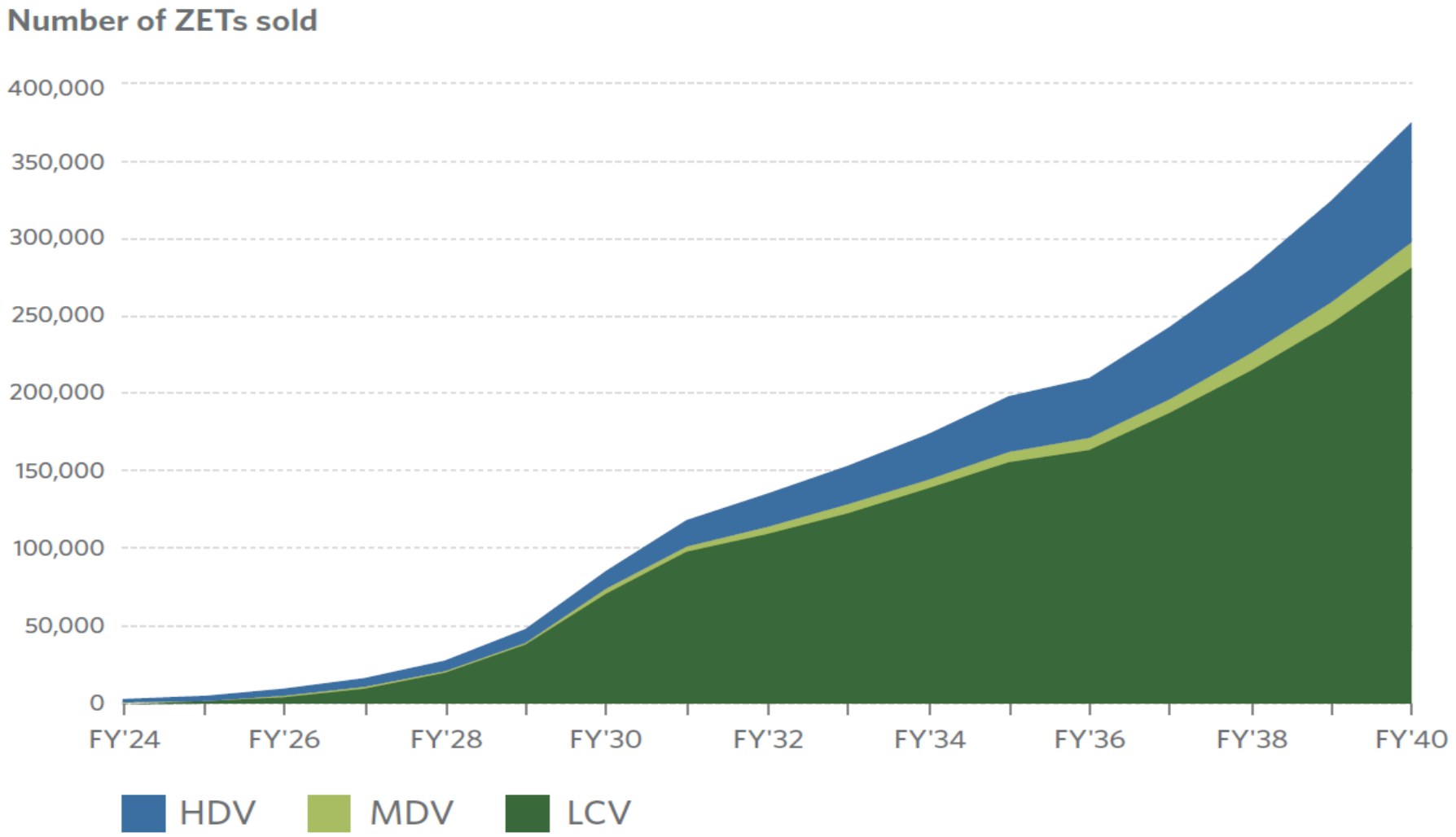
Projected sales of ZETs – Ambitious Scenario



***Source**: CPI analysis*

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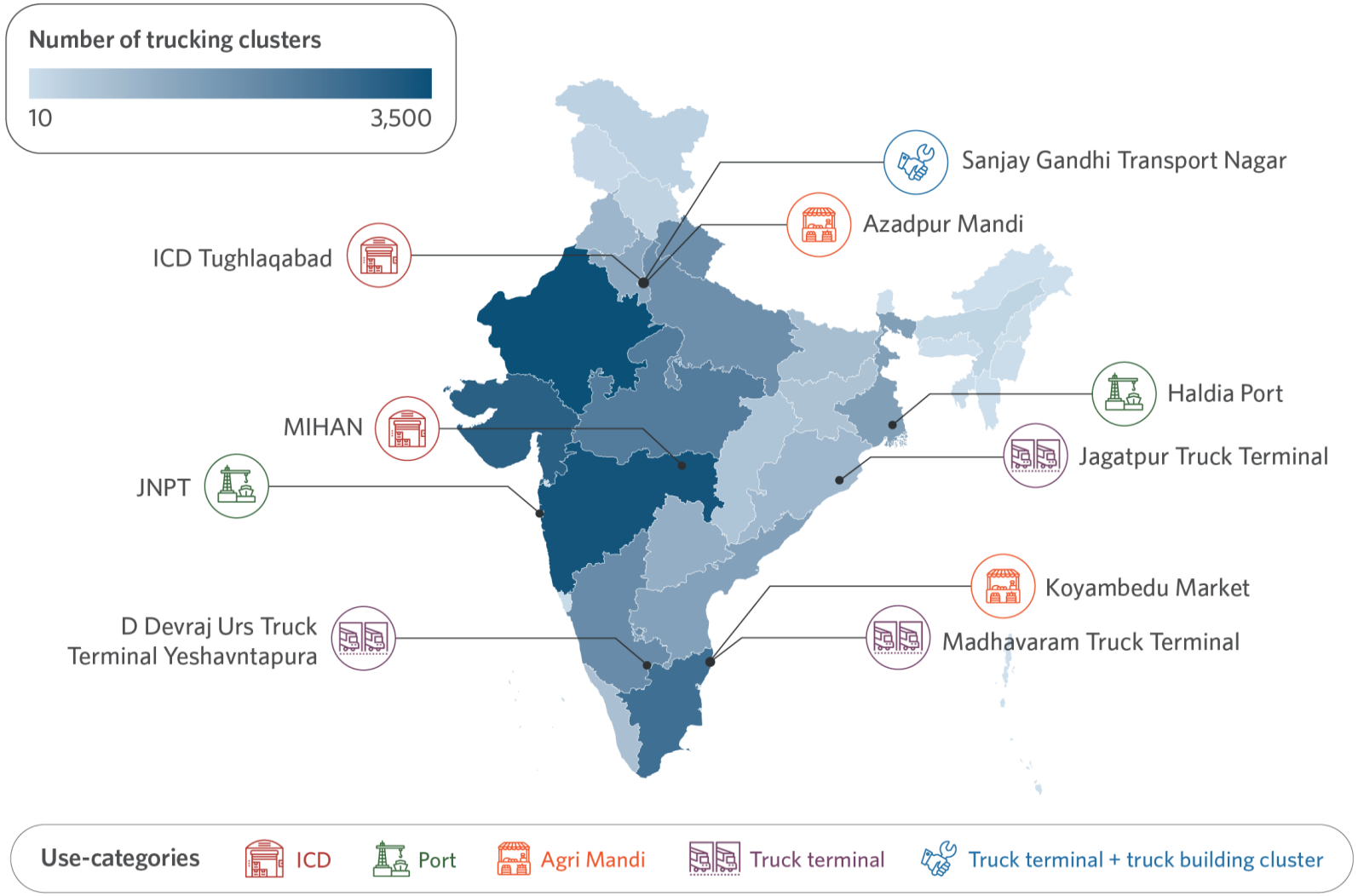
Trucking clusters in India and surveying them



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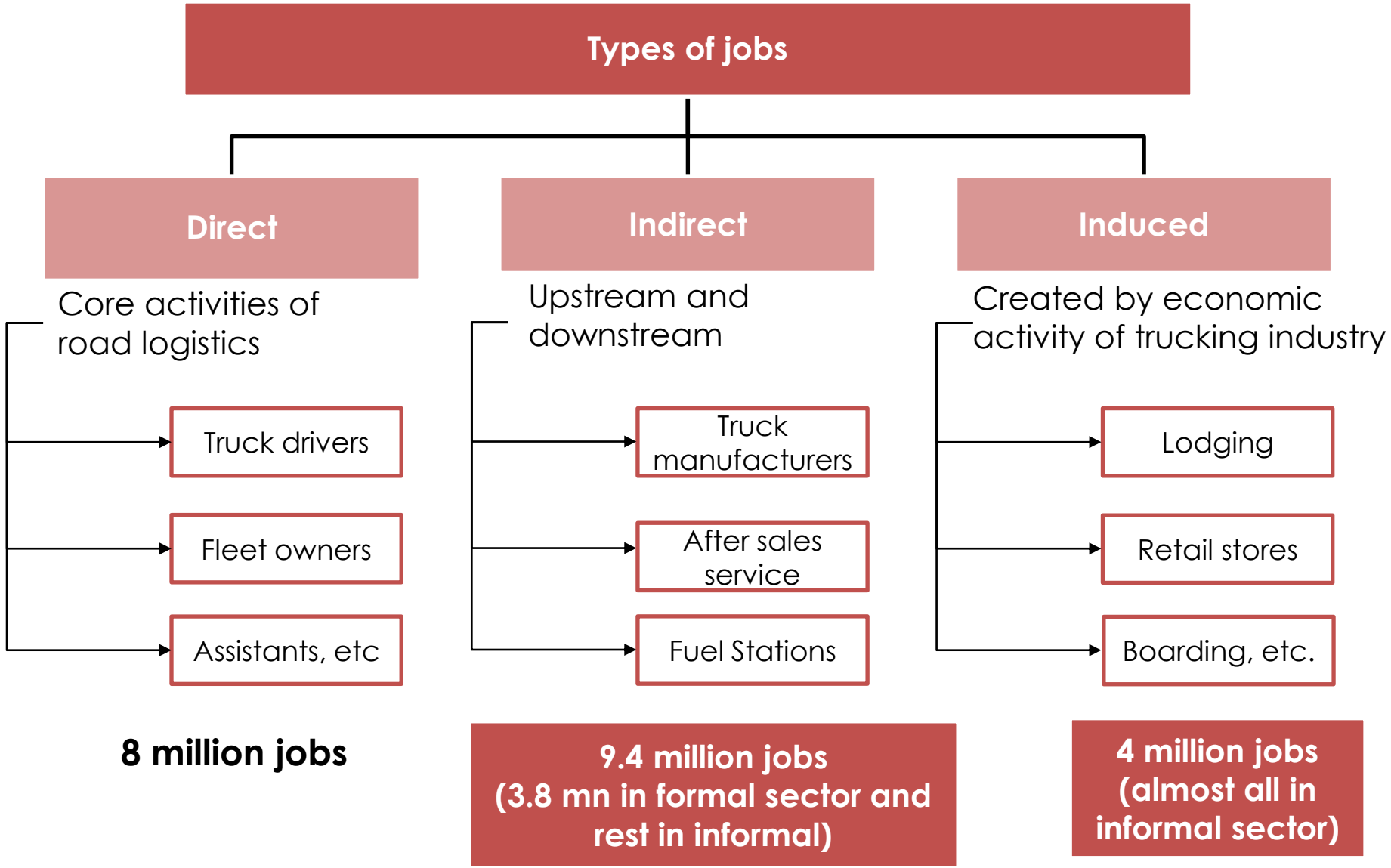
Survey finding – current employment in the trucking sector



Impact of the transition to ZET

Impact on trucking sector

- Increased formalization
- Improved infrastructure on highways
- Reduced no. of informal jobs – both indirect and induced
- **Reskilling** and **providing financing support** are two ways to make the transition just

Impact on government

- Economy will be less vulnerable to oil-related
- geopolitical risk and oil price shocks
- Help reduce foreign exchange outflow due to reduction in oil demand

Impact on others

- **OMCs** can adapt by setting up charging stations in fuel stations
- **DISCOMs** can develop charging stations

A Just Transition

"Greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind."

- International Labour Organization (ILO)

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Pillars of a just transition

Recognition Justice

Recognizes that some communities and individuals might be impacted due to the green transition; identifies such individuals and groups

Procedural Justice

Highlights the right to a fair process, and for different stakeholders to take part equitably in decision making

Distributional Justice

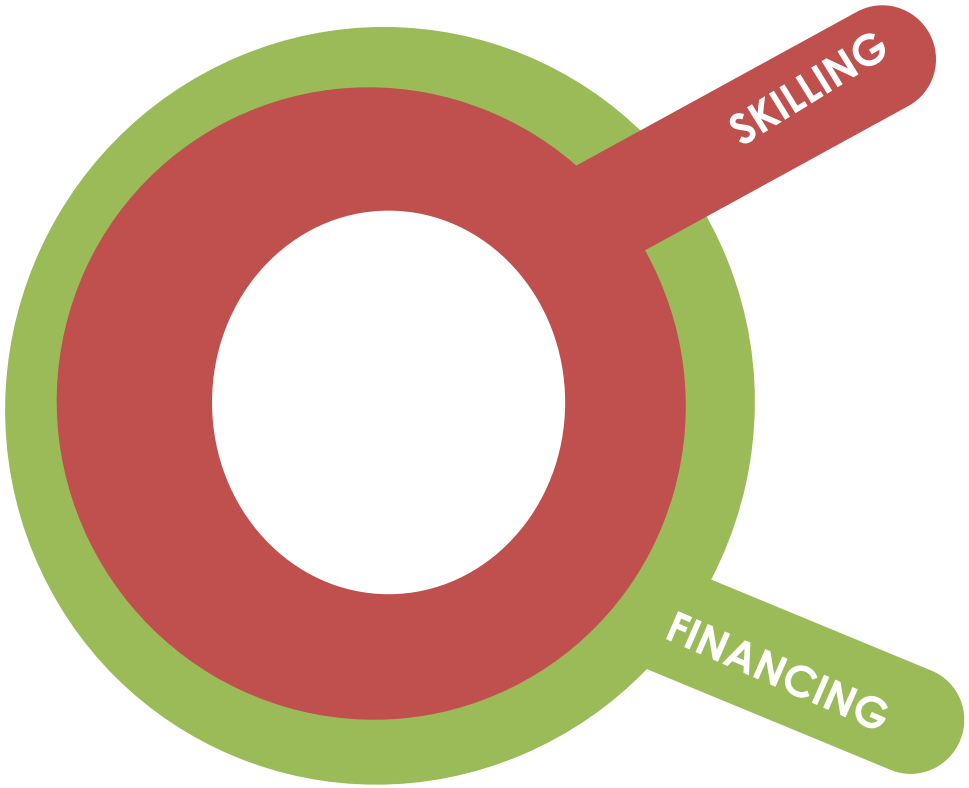
Concerns the equitable distribution of burdens and benefits of energy and environmental decisions

Restorative Justice

Primarily aims to repair the harm done to individuals, instead of focusing on punishing the offender

This framework should be customized to meet the needs of those likely to be impacted by the transition to ZETs, by identifying relevant parameters and metrics for each pillar.

Levers for making the transition to ZETs just



- For **indirect jobs**, reskilling and upskilling are tools to help workers navigate this transition
- Multiple models of skilling available – depending on the need of formal and informal sector workers
- CPI analysis shows that approx. **USD 1.65 billion*** will be required for reskilling impacted indirect job holders

- For **induced jobs**, reskilling will not be appropriate
- Govt. should assist impacted induced job holders to create alternative livelihoods
- CPI analysis shows that approx. **$1.45 billion*** required for providing financing for impacted induced job holders

* Assuming 50% of indirect and induced jobs are impacted by the transition

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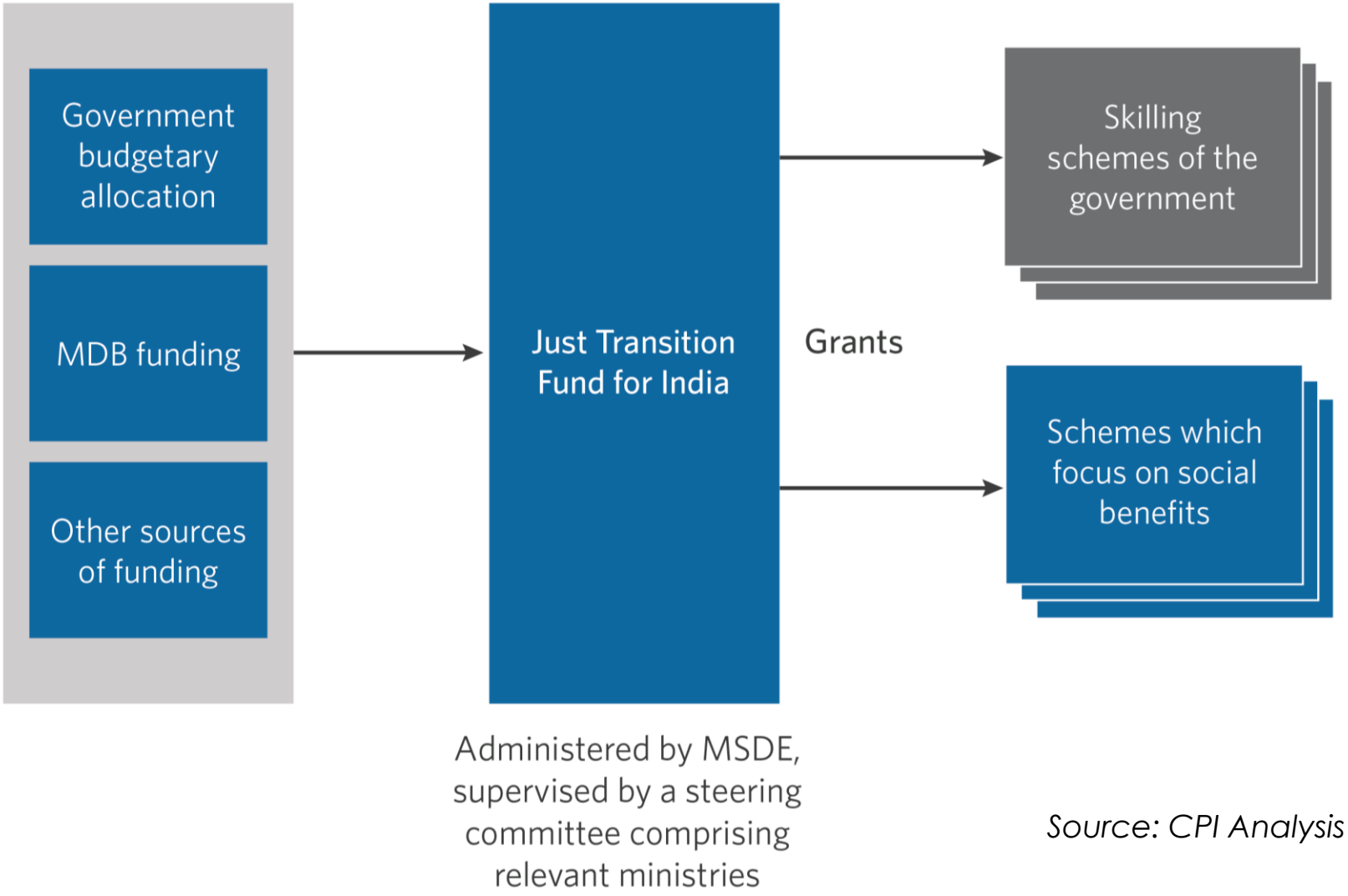
Skill development models

	Government-sponsored	Market-led	Private sector
Direct (Truck drivers, assistants & fleet owners)	PMKVY – STT & RPL		CSR; OJT
Indirect (manufacturing jobs, service jobs and fuel stations)	PMKVY – STT; NAPS; DDU-GKY	Fee-based training	CSR; OJT
Induced (local restaurants, hotels, retail stores, etc.)	DDU-GKY; Skilling programs offered by other sector skill councils - Tourism & Hospitality and Retail sector.		

Just Transition Fund for India - $3.1 Bn fund for reskilling & financing alternative livelihoods in the trucking sector



Source: CPI Analysis

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Way Forward

Data	• Trucking clusters in India should be mapped in greater detail and data on job roles must be clearly identified at a granular level
Plan	• Progress of ZET adoption should be planned and mapped in detail
Identify impact	• Identify impacted stakeholders and understand their needs in greater detail.
Design	• Design targeted policy responses, financial instruments • Obtain stakeholder feedback to get their buy-in
Pilot and scale	• Pilot programs can be conducted to help refine the design of these interventions • Once POC is established and feedback incorporated, scale up

Contact –

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Thank You