



**Tamil Nadu
Green
Climate
Fund**

CASE STUDY

BUILDING A SUSTAINABLE GIG ECOSYSTEM

BEYOND EV ADOPTION



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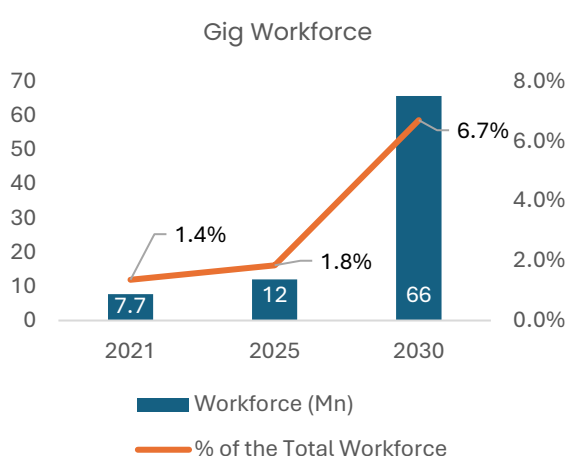
Building a Sustainable Gig Ecosystem beyond EV Adoption

1. Gig Economy – Crucial engine for employment generation in India

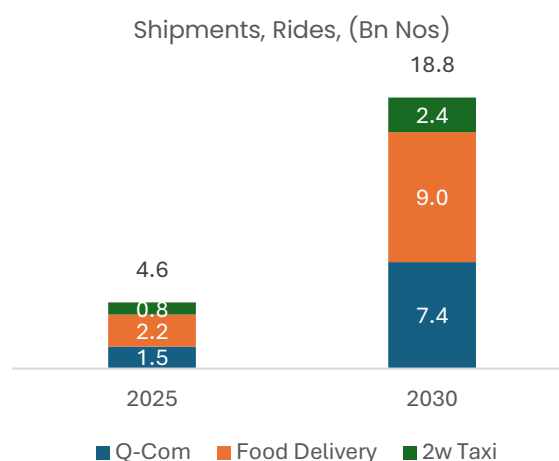
Gig economy consists of workers who perform temporary or task-based work outside traditional employer-employee arrangements, with digital platforms increasingly serving as the intermediary between workers and customers. (Throughout this article, online platform workers are referred to as Gig workers.)

India's gig economy is expanding rapidly, driven by rising demand across ride-hailing, e-commerce last-mile logistics, quick commerce, and food delivery. India's workforce is projected to reach ~980 million by 2030, with the gig workforce growing nearly 5x faster than the overall workforce (40.5% vs. 8.6% CAGR).

1 in every 10 new workers enter the gig economy, most continue to participate part-time, a trend reflected in Zomato's FY25 data where the average delivery partner completed only ~7 deliveries per day, compared with ~25 for a full-time worker.



Source: Shadowfax DRHP, Niti Aayog



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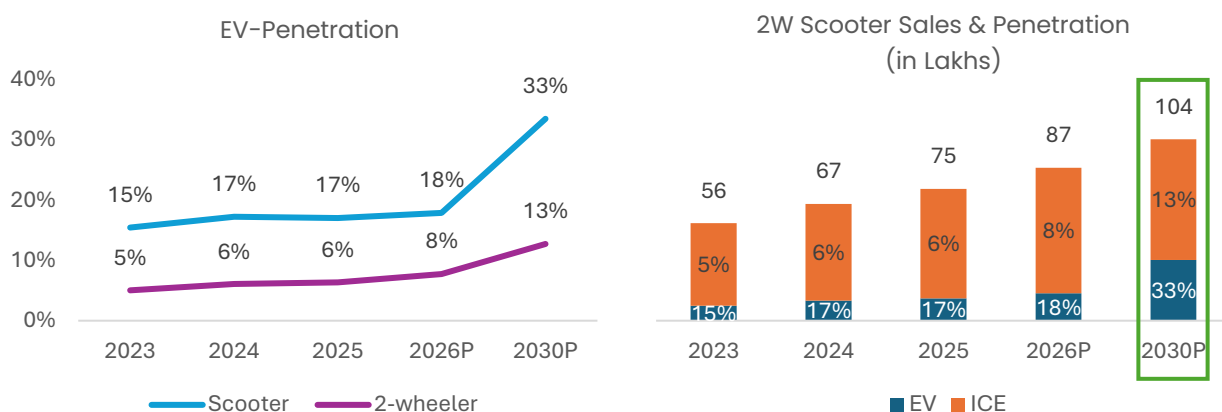
By 2030, shipments are expected to grow ~4x to 18.8 Bn (30% CAGR), which could support ~2.3 Mn full time online platform workers (~10Mn part time workers). Rising incomes, stronger digital infrastructure, urbanisation, and the shift toward nuclear families continue to fuel this growth.

As this flexible workforce expands, access to affordable mobility becomes critical. EV 2-wheelers are emerging as a key enabler, lowering operating costs, improving worker economics, and supporting the long-term growth of the gig ecosystem.

2. EV-2Ws are powering India's Gig Economy

a) EV Penetration is expected to cross ~18% in scooters in 2026

The rapid adoption of EV 2-wheelers reflects their growing economic and operational advantages. India sold over 2Cr 2-wheelers in 2025, with EVs accounting for 6.36% of total sales. However, over 97% of EV 2-wheelers sold are scooters, EV penetration in the scooter segment has already reached ~17% and is expected to increase to ~33% by 2030.



Source: Autocar, Vaahan & TNIFMC

b) EV ownership can enhance earnings of gig workers by ~15%

A typical gig worker travels 100-150 km and completes 20-25 deliveries daily, making vehicle efficiency critical. To quantify this advantage, we compare a high mileage ICE bike (Hero Splendor Plus) and a purpose-built EV (Hero Vida VX2) across different ownership models to evaluate their monthly operating costs:

	ICE - Own	EV - Own	EV - Baas	EV - Platform
Description	Owning the vehicle	Owning the vehicle	Battery as a service model, Paid to OEM per KM	Platform providing Rental options
Bike/Scooter	Splendor Plus	Vida Vx2	Vida Vx2	Vida Vx2
On road	INR 92,221	INR 1,18,610	INR 61,746	-
Down payment	INR 23,055	INR 29,653	INR 15,437	INR 10,000*
Monthly operational expenses				
EMI/Lease Amt	INR 3,354	INR 4,441	INR 3,083	INR 5,673
Fuel	INR 7,274	INR 951	INR 3,989	INR 951
Monthly Maintenance	INR 1,052	INR 758	INR 758	INR 83
Total Monthly Cost	INR 11,681	INR 6,150	INR 7,829	INR 6,708
Gross Income	INR 29,400**	INR 28,000	INR 28,000	INR 28,000
Net Income	INR 17,719	INR 21,850	INR 20,171	INR 21,292
*Security Deposit paid to the platform, Amortized under Lease Amt for 2Yrs.				
**Owners of ICE vehicle are paid INR 2-3 additional per delivery compared to EV.				

A typical gig worker earns ~INR 28,000 per month, and switching to an EV can increase take-home income by ~INR 4,000 (15%) through lower operating costs. Even riders who own a petrol bike spend more per month than those using an EV (INR 8,327 vs INR 6,150).

EVs reduce operating costs by ~35%, but financing remains a key barrier for many gig workers. Platform led EV models bridge this gap by removing upfront investment, uncertainty over battery life, maintenance costs and credit constraints, while delivering similar operating costs and earnings comparable to EV ownership. This makes the platform model the most practical pathway to scale EV adoption among gig workers.

3. Beyond EVs – need for an inclusive gig economy model

While rising shipments highlight the demand side of the gig economy, it is equally important to understand the supply who are the workers powering this growth? Typical profile of a Gig worker would look like:

28 Average Age <i>Predominantly young men; <1% women drivers</i>	32% Bachelor's Degree <i>vs 20.5% national youth average (OECD 2023)</i>	51% Are Migrants <i>24% within-state, 27% inter-state</i>
99% Had a Bank Account before Joining <i>Compared to India Average of 94.4%</i>		
67% Had jobs previously	95% Owned a Smartphone <i>vs India average of 71%</i>	73% Own a 2W <i>Compared to India Average of 54%</i>

Source: IDinsights

~51% of gig workers are migrants and ~45% have shifted from formal jobs, making gig work a key pathway to higher incomes. While smartphones and bank accounts are widely accessible, 2-wheeler ownership remains as an entry barrier for migrants and low-income workers.

Building a Sustainable Gig Ecosystem

Sustainable gig economy necessitates making gig work more formalised to emerge as a long-term livelihood option.

No single stakeholder can solve this challenge independently. Governments can create policy, financial institutions can unlock credit, and platforms can deliver these benefits at scale. Together, they can address three structural gaps: Formalisation, Financial inclusion, and Long-term livelihood creation.

Formalised worker centric Platform: Platforms can aggregate demand across delivery apps while providing EV leasing, maintenance, insurance, and earnings dashboards. Formal employment records and minimum income guarantees can further improve workers access to social security and credit. Platforms can leverage the Social Security Fund, e-SHRAM, gig worker ID cards, and can partner with microfinance institutions to provide income-linked credit and strengthen financial inclusion.

Long term livelihoods: Sustainability extends beyond earnings, with ~51% of gig workers being migrants, affordable housing remains a key requirement, where government and CSR initiatives can play a larger role. Platforms and urban infrastructure can also improve worker welfare by setting up AC rest pods with dining facilities at warehouses, public locations, and EV charging stations to beat heat stress.

As part of TNGCF's impact investing mandate, we evaluate both the financial and environmental impact of every investment. EV adoption not only improves worker earnings but also reduces lifecycle emissions compared to ICE by ~38% (from 60.9 to 37.5 g CO₂/km), creating measurable economic and environmental value.