



Philippine Country Experience

Forging inclusive roadmaps for paratransit modernisation and electrification

Transport and Climate Change Week, Berlin

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On behalf of

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany



Country Context: About the Philippines



- Country Population (2022): **115.6 M**
- Metro Manila Population: **13.4 M**
- GDP per capita: PHP 198k or **EUR 3258**

Top 5 Sources of GHG Emissions in PH

Agriculture 59 MtCO₂e

Energy 56.1 MtCO₂e

Transport 33.3 MtCO₂e

Industry 15.8 MtCO₂e

Waste 13.3 MtCO₂e

Country Context: NDCs

National Target

75%

Philippine commitment (2.71% unconditional and **72.29% conditional**) of projected cumulative GHG emission reduction and avoidance from a BAU scenario of **3,340.3 MtCO₂e** emissions from **2020-2030** (target to reduce to **835 MtCO₂e**)

Salient Features of the NDC

1. Aspirational Peaking
2. Climate Change Adaptation
3. International cooperation & market and non-market mechanism
4. Circular Economy
5. Traditional knowledge, education and public awareness



Existing Paratransit Challenges



- Industry is highly **fragmented** and often **individualized**
- Limited **financial literacy**
- Not **subsidized**
- No fleet **renewal**
- On-street **competition** with small-scale vehicles (e.g. minibuses)



Public Utility Vehicle Modernization Program



Full study: [The Jeepney+ NAMA: Transforming Public Transport in the Philippines](#)



Drivers of change in the jeepney market

Reforming the public transport system, including the jeepney sector, has been on the political agenda since decades **but never materialized** due to various factors:

Social Function

Most important mode of urban transport in the Philippines:
Social Service & Fills out a gap of missing mass-transport options

Outdated Technology

Safety and Comfort issues, Highly inefficient technology -> high fuel consumption and high emissions -> massive health impacts
Low service quality -> mode of last resort -> modal share shift

Outdated Operations

Inefficient operations due to lack of proper investments on assets and compensation for drivers + poor driving + competition on the street -> poor service quality & congestion

Outdated Regulation

Outdated franchising system: highly fragmented market Competition in the market rather than for the market & impossible to monitor or regulate market

Government Capacity

Resource pressures on government capacity for planning, monitoring, and regulation

Lack of Data

Lack of understanding the sector



Results of Early Evaluation Study

AVERAGE	TRADITIONAL JEEPNEY	MODERN ROUTES	AVERAGE CHANGE
Daily operating hours	14hrs	19 hours	36.00%
Vehicle utilization	127km	150km Diesel Jeepney (90km Electric Jeepney)	18.00%
Days of operation per week	5.6 days	6 days	7.00%
Staff per vehicle/day	1 driver	2 drivers, 1.5 conductors	350.00%
Staff earnings/day	PHP 650 (EUR 10.7)	600 + benefits	~
Vehicle capacity	20 seat (16-24 seat)	30 max (22-24 seated)	50.00%
Fuel Economy	5.9 km/l	5.2 km/l	-12.00%
Fuel economy per passenger/km	111 km/l	156 km/l	41.00%
Daily ridership Pax/day/unit	300 pax	460 pax (Euro IV Jeep 300-750) (EJeepney 200-250)	53.00%

Full study: [Reforming the \(semi-\)informal minibus system in the Philippines: The 'Public Utility Vehicle Modernization Program' Early Route Evaluation](#)



Fleet Financing

Php 15.6 B
(EUR 257 M)

Loan approvals for **7,128** PUV units

Php 729 M
(EUR 12 M)

Equity subsidy released for **4,659** PUV units

Php 133.3 M
(EUR 2.2 M)

Equity subsidy released for **313** PUV units

Php 63.8 M
(EUR 1 M)

Equity subsidy in reserved application for **178** units

FINANCING INSTITUTIONS



*and other private
financing institutions*



PUVMP Key Findings

Commercial Performance

- Majority of operators positive about commercial performance
- Commercial return on both diesel and electric jeepney seen to be strongly positive over life of investment
- Healthy NPV on investment and IRR >50%

Contributory Factors

- Larger vehicles
- Higher utilization rate
- Low capital investment requirement and preferential finance
- Benefits of operational and fleet management

A change of perspective on investment required

- Vehicles covering operating costs and amortization during repayment period for majority of operators
- More significant returns made post repayment period, enabling operators with a longer term vision to achieve strong commercial performance

⚡ Electrification Plans: Industry Goals

- ✓ Increase the utilization of EVs in the domestic market
- ✓ Deploy a sufficient number of EV charging points across the country between 2023 and 2040
- ✓ Position the Philippine EV industry to become a producer and exporter of EVs by 2040
- ✓ Promote sustainable economic growth and just e-mobility transition by protecting employment in the automotive industry and providing capacity-building activities and EV-specific transition programs
- ✓ Support research and development in battery research, and EVCS technology
- ✓ Digitalization to spur technological innovations and strengthen the competitiveness of the local EV industry



⚡ Electrification Plans: CREVI Projected Results

Projected Results of the CREVI on Cumulative EV and EVCS inventory by 2040

BUSINESS-AS-USUAL SCENARIO

At least ten percent (10%) EV fleet* by 2040

	Short term (2023-2028)	Medium term (2029-2034)	Long term (2035-2040)	Grand Total
EV Targets	311,700	580,500	850,100	1,744,400
EVCS	7,400	14,000	20,300	41,700

CLEAN ENERGY SCENARIO

At least fifty percent (50%) EV fleet* by 2040

	Short term (2023-2028)	Medium term (2029-2034)	Long term (2035-2040)	Grand Total
EV Targets	2,454,200	1,851,500	2,001,600	6,306,480
EVCS	65,000	42,000	40,000	147,000

*EV share from the total projected vehicle fleet



Upcoming Project: TRANSCEND

Activities under the Transformative Actions for Climate and Ecological Protection and Development project include:

- ✓ Providing **policy advice** at the national level to consolidate and develop financing mechanisms for public transport
- ✓ Liaising with operators and manufacturers to **identify further barriers and challenges** in the implementation of sustainable public transport measures.
- ✓ Collaborating with a national financial institution to develop a curriculum for financial training of cooperatives, specifically focused on **accessing and accounting loans** for modern vehicles
- ✓ Conduct a **train-the-trainer program** based on the developed curriculum





Upcoming Project: TRANSCEND

Activities under the Transformative Actions for Climate and Ecological Protection and Development project include:

- ✓ **Review** the PUV Modernization program
- ✓ Conduct an international review of **public transport fleet decarbonization** in cities.
- ✓ Develop an **electrification roadmap** for public transport in the Philippines
- ✓ Provide support to the Department of Environment and Natural Resources (DENR) in **reforming regulations** for the modernization of old vehicles





Thank you!

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