

A DEEP DIVE



ASSESSING SOUTH AFRICA'S TRANSPORT SECTOR DECARBONIZATION POLICY IMPLEMENTATION

Authors: Seth Owusu-Mante, Kate Hua-Ke Chi, and Kwame Ababio



Key Insights

- Road transport decarbonization has become both an industrial and an economic imperative for South Africa, particularly as key export markets transition to electric vehicles (EVs).
- The Green Transport Strategy and Electric Vehicles White Paper establish a clear policy direction but provide limited guidance on implementation, institutional responsibilities, financing arrangements, and government support.
- Political will and competing socioeconomic priorities continue to shape the implementation of South Africa's road transport decarbonization policies. Unemployment, safeguarding employment in the automotive industry, fiscal pressures, and fuel tax revenues, among others, remain central considerations in government decision-making.
- Limited public and private financing remain a key constraint across South Africa's road transport decarbonization value chain, constraining investment in charging infrastructure, limiting access to vehicle finance, and slowing broader EV adoption.
- South Africa's established automotive industry, critical mineral endowment, and growing access to international climate finance create a strong foundation to accelerate road transport decarbonization, provided implementation challenges are effectively addressed.

Introduction and Country Context

Road transport decarbonization has become a central component of South Africa's climate and industrial policy agenda. The transport sector is the country's third-largest source of greenhouse gas (GHG) emissions, accounting for approximately 12.5% of national emissions,

with road transport responsible for more than 90% of transport-related emissions (DFFE, 2026). The sector's significance also extends well beyond its role in reducing emissions, as transport is central to the country's economic growth, trade, employment, and access to social services. South Africa's automotive industry is one of the country's largest manufacturing sectors. It is deeply integrated into global value chains, exporting vehicles to more than 150 countries, with 46% of domestic vehicle production destined for the European Union (EU) and the United Kingdom (UK) (DTIC, 2023). Because close to half of South African vehicle production is exported to markets that are themselves transitioning away from internal combustion engine (ICE) vehicles, road transport decarbonization has become a climate, economic, and industrial imperative, requiring South Africa to decarbonize the sector while safeguarding manufacturing, exports, employment, and international competitiveness.

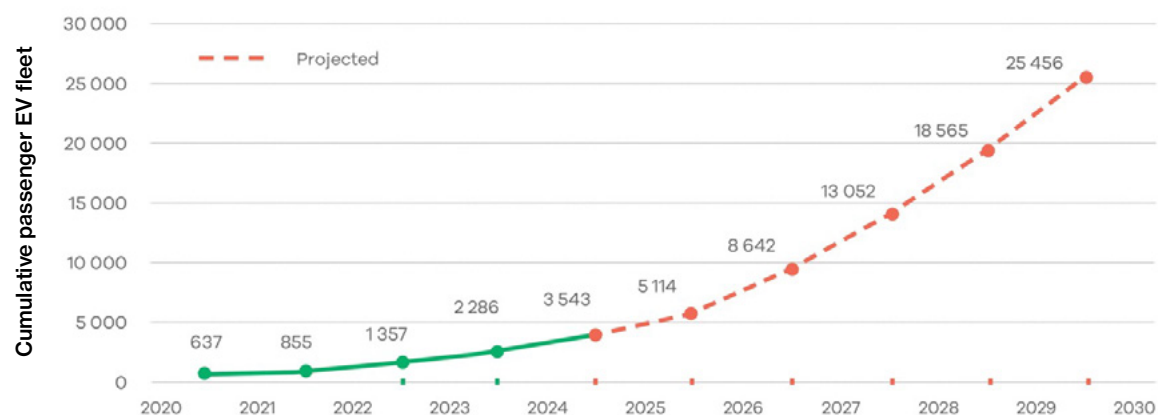
Recognizing these challenges, South Africa has progressively strengthened its transport decarbonization policy framework. The country's transport decarbonization agenda is principally guided by two national policies: the Green Transport Strategy (2018–2050) and the Electric Vehicles White Paper (2023). The Green Transport Strategy provides the overarching

framework for reducing emissions across the transport sector through investments in public transport, electric vehicles (EVs), cleaner fuels, modal shifts, and alternative vehicle technologies. The strategy further commits the transport sector to a 5% reduction in emissions by 2050. The Electric Vehicles White Paper complements this framework by positioning South Africa's automotive industry for the global transition to electric mobility through domestic EV production, investments, localization, export competitiveness, employment protection, and the development of the domestic EV market.

To support implementation, South Africa's government announced in the 2024 Budget the introduction of a 150% investment allowance for qualifying investments in electric and hydrogen-powered vehicle production (NAAMSA, 2024). Originally scheduled to take effect from March 2026, the incentive will allow manufacturers to claim 150% of qualifying investment expenditure in the first year.

However, early evidence suggests that progress in decarbonizing South Africa's road transport sector remains modest. Despite the existing policy framework, passenger EVs are projected to reach 25,456 vehicles by 2030, representing 0.3% of South Africa's passenger vehicle fleet (see Figure 1). While South Africa produces approximately 600,000 vehicles annually, only

Figure 1. Cumulative number of passenger EVs from 2020 to 2024 and projected up to 2030



Source: Green Cape (2025)

about 9%¹ are new energy vehicles (NEVs)², most of which are manufactured for export rather than the domestic market. Using the Climate Policy Lab's Implementation Gap Analysis (IGA) framework, this policy brief identifies and examines the most pressing implementation gaps constraining the decarbonization of South Africa's road transport sector, with particular focus on passenger EVs, in line with the implementation of the Green Transport Strategy and the Electric Vehicles White Paper.

Methodology

This study adopts the Climate Policy Lab's (CPL) Implementation Gap Analysis (IGA) framework to assess the implementation of South Africa's Green Transport Strategy and the Electric Vehicles White Paper. The IGA framework provides a structured approach to assess factors influencing the extent to which climate change mitigation and adaptation policies achieve their intended outcomes. The framework is organized around four broad categories: (i) governance and institutional capacity, (ii) political economy and interests, (iii) financial constraints, and (iv) technical and legal constraints, comprising 17 implementation challenges (Owusu-Mante & Chi, 2025).

A previous study (Owusu-Mante & Chi, 2025) using the IGA framework identified several implementation challenges that constrain climate policy delivery in South Africa, such as weak vertical and horizontal coordination, competing political priorities, limited public and private financing, inadequate institutional capacity, inelastic consumer behavior, and insufficient incentives. While this earlier study provides a broad assessment across multiple sectors, this policy brief narrows the analysis to the road transport sector.

To complement the policy analysis and offer in-depth insights, five semi-structured interviews were conducted with transport decarbonization

experts representing academia, industry associations, consulting, and non-profit organizations in South Africa (Table 1). Interview findings were analyzed using the IGA framework to identify key implementation gaps, assess the barriers influencing policy implementation, and identify opportunities to strengthen policy implementation.

Table 1: Interviewees and Organizations

Interviewee	Organization Type
#1	Academia
#2	Industry Association
#3	Academia
#4	Consulting
#5	Non-profit organization

Key Findings

IMPLEMENTATION GAPS

Previous application of the IGA framework (Owusu-Mante & Chi, 2025) identified several implementation challenges affecting South Africa's transport decarbonization, including vertical and horizontal coordination, political will and competing goals, public and private financing, institutional capacity, consumer behavior, and insufficient incentives. The interview findings for this policy brief largely corroborate these earlier findings. Among the implementation challenges identified, political will and competing goals, policy design, and public and private financing emerged most consistently as the principal constraints to implementing South Africa's road transport decarbonization policies.

Political will and competing goals

While the South African government has articulated a clear policy direction through the Green Transport Strategy and the Electric Vehicles White Paper, interviewees noted that transport decarbonization continues to compete with broader socioeconomic priorities. These include addressing the unemployment crisis, protecting jobs in the automotive industry,

1 New energy vehicles (NEVs) collectively refer to battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), hybrid electric vehicles (HEVs), and fuel cell electric vehicles (FCEVs).

2 Interviewee #2

reducing the budget deficit, and maintaining government revenues from fuel taxes. South Africa's unemployment crisis remains a dominant political priority, with a national unemployment rate of 32.7% in 2026, including 60.9% among those aged 15–24 and 40.6% among those aged 25–34 (Statistics South Africa, 2026). In this context, policymakers are often required to balance decarbonization objectives with broader socioeconomic priorities, including employment creation, education, healthcare, economic development, and fiscal sustainability. Interviewees emphasized that the ICE vehicle industry remains a significant source of employment. However, South Africa's lack of domestic EV manufacturing capacity constrains opportunities for new job creation, local value creation, and supplier development, limiting the economic gains that could otherwise support the transport decarbonization agenda. These competing socioeconomic priorities constrain the political will required to pursue more ambitious transport decarbonization measures. As a result, policymakers have adopted a more cautious approach to reforms that could adversely affect employment in the auto manufacturing sector and government revenues or worsen fiscal pressures before viable alternatives are established.

Policy design

South Africa's Green Transport Strategy provides insufficient guidance on institutional responsibilities, financing arrangements, and practical timelines required to achieve its objectives. Uncertainty over long-term government support, regulatory standards, and the respective roles of national, provincial, and local governments has contributed to a “wait-and-see” approach among both public agencies and private investors.

Similarly, interviewees noted that the Electric Vehicles White Paper is primarily designed to support industrial development and export competitiveness rather than domestic EV adoption. However, even with this industry focus, interviewees observed that the policy lacks clarity regarding institutional responsibilities, and the nature and extent of government support available to manufacturers, despite industry's repeated calls for greater certainty.

Consequently, the policy provides inadequate direction not only for accelerating domestic EV uptake but also for supporting the industrial transition it seeks to promote. In addition, limited research and empirical evidence on EV performance, freight applications, and low-carbon transport technologies in South Africa further inhibit evidence-based policy design. As a result, the policies and their targets are not always based on sufficient empirical evidence to establish a more practical and achievable pathway for South Africa's transport decarbonization.

Public and private finance

Fiscal factors constrain public investment in South Africa's transport decarbonization, particularly in charging infrastructure and financial incentives to support EV adoption and industrial growth. Interviewees noted that the government's challenging fiscal position reduces its capacity to make the necessary investments and provide meaningful financial support for the transition.

The limited availability of public financing has also affected private sector investment. Interviewees further noted that policy uncertainty and the absence of a clear implementation pathway have reduced investor confidence in charging infrastructure and related investments. Access to affordable financing for vehicle purchases remains a challenge, further slowing EV adoption, while the high upfront cost of EVs continues to discourage consumers. These financing constraints have slowed investment across the road transport decarbonization value chain, particularly in charging infrastructure, vehicle uptake, and supporting services.

OPPORTUNITIES

While these constraints are substantial, several developments create favorable conditions for accelerating road transport decarbonization.

First, South Africa possesses a well-established automotive manufacturing sector that contributes significantly to exports, employment, and industrial development. The sector accounted for more than 5% of the country's GDP in 2025, with vehicle and component exports responsible for 15.6% of total exports

and the industry sustaining 498,000 jobs across the formal economy (NAAMSA, 2026). As global vehicle markets move increasingly towards electric mobility, the need to preserve this position creates a commercial incentive for both government and industry to support the transition.

South Africa is also endowed with several minerals critical to global clean energy value chains, including manganese, platinum group metals (PGMs), and other minerals used in battery and fuel cell technologies. The country holds an estimated 88% of global PGM reserves and 80% of manganese reserves (DMPR, 2025). The Critical Minerals and Metals Strategy identify these endowments as an important lever for shifting from raw material exports to local value addition and advanced manufacturing in support of EV, battery, and hydrogen technologies (DMPR, 2025). This resource base therefore offers a route to deeper participation in regional and global electric mobility value chains while advancing domestic industrial development objectives.

Additionally, international climate finance and private sector interest in electric mobility present opportunities to mobilize resources for charging infrastructure, vehicle financing, and industrial upgrading. South Africa's Just Energy Transition Investment Plan identified new energy vehicles as one of three priority investment sectors (JET IP, 2022), and total pledges to the partnership have since risen to US\$13.7 billion, with a dedicated NEV program management office established under the Industrial Development Corporation (IPG, 2025). Directed through well-designed policy and investment frameworks, these resources could address part of the financing shortfall identified above.

Policy Implications and Recommendations

The implementation challenges identified in this policy brief point to several areas where targeted policy action could accelerate the implementation of South Africa's transport decarbonization agenda as discussed below:

1. Strengthen policy design and

implementation planning: The Department of Transport (DoT), in collaboration with the Department of Trade, Industry and Competition (DTIC) and other relevant agencies, could develop a coordinated implementation roadmap for the Green Transport Strategy and the Electric Vehicles White Paper. The roadmap should clearly define institutional responsibilities, implementation timelines, financing arrangements, and monitoring mechanisms across national, provincial, and local government. Greater investment in transport decarbonization research would strengthen the evidence base underpinning future policy design, particularly on EV performance, freight applications, charging infrastructure, and consumer adoption.

2. Better align industrial and transport

decarbonization objectives: The DoT, in collaboration with the DTIC, could consider updating the Electric Vehicle White Paper to strengthen the link between industrial development and transport decarbonization; that is, by complementing measures that support domestic vehicle manufacturing with policies that stimulate domestic EV adoption. Greater policy certainty regarding government support for manufacturers, charging infrastructure, and related investments would also provide clearer signals to industry and investors.

3. Strengthen financing for road transport

decarbonization: Expanding transport decarbonization will require greater public and private investment in charging infrastructure, domestic EV manufacturing and assembly, and supporting services. The government can explore financing mechanisms that leverage private capital, strengthen industrial investment for manufacturers, and improve access to affordable financing for EV purchases. Providing greater policy certainty and clearly defined public financing and investment pathways would further strengthen investor confidence and support long-term private sector participation.

4. Support a just and economically competitive

transition: Transport decarbonization policies should continue to recognize South Africa's employment and industrial priorities by

supporting domestic manufacturing, protecting jobs, and facilitating workforce transition along with emissions reduction objectives. Policy objectives that strengthen the economic benefits associated with the transition will be important for sustaining political support and long-term policy implementation. •

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ABOUT THE AUTHORS:

Seth Owusu-Mante is a Predoctoral Research Fellow at the Climate Policy Lab and PhD candidate at The Fletcher School, Tufts University.

Kate Hua-Ke Chi is a Predoctoral Research Fellow at the Climate Policy Lab and PhD candidate at The Fletcher School, Tufts University.

Kwame Ababio is a Junior Research Fellow at the Climate Policy Lab and PhD candidate at The Fletcher School, Tufts University.

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