Ministry of Transport

Transport Sector Strategic Plan (2024-2028)

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Table of Contents

List of Figures **Page**

Indicators expected to be achieved through the implementation of the strategy

Executive Summary

The transportation sector, in its various forms, has witnessed many changes and transformations in recent years. Despite the implementation of several projects in this broad sector, the contribution of transportation to the Gross Domestic Product (GDP) remains below the desired level compared to the experiences of similar countries. Figure (1) indicates the percentage contribution of the transportation, storage, and supporting and auxiliary activities sector to the GDP, which has remained between 5.2% and 5.9% during the period from 2012 to 2018.

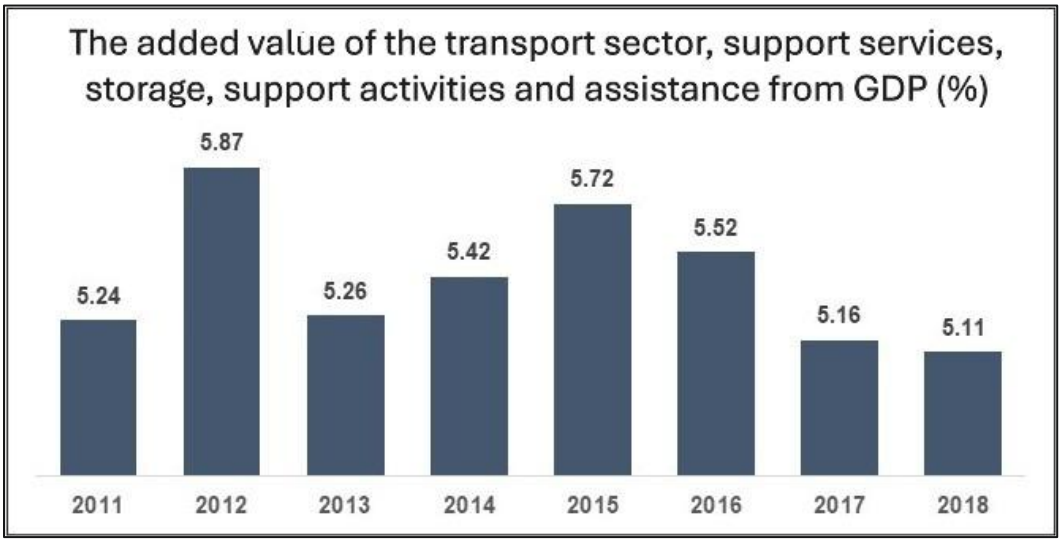


Figure (1): The percentage contribution of the transportation, storage, and supporting and auxiliary activities sector to the Gross Domestic Product (GDP) for the period (2011-2018).

It is evident that Jordan urgently needs to establish a comprehensive framework for transportation planning to achieve a holistic and sustainable transportation system. Such a system would improve access to jobs, education, and resources while mitigating the negative impacts of transportation on the environment and health. This can be achieved by adopting concepts of sustainability and green transportation, in alignment with the Economic Modernization Vision for the next ten years. The vision considers the transportation sector one of the key sectors responsible for transforming Jordan into a low-carbon emissions country through the adoption of green economy principles. To this end, the Ministry of Transport, in cooperation with its key partners and affiliated entities, is working to review and update the National Transportation Strategy for the next five years, covering all modes of transportation. This strategy is the result of a participatory approach with stakeholders. Since the development of the transportation sector relies on both the public and private sectors, and its success depends on achieving integration and harmony between these two sectors, the first strategic priority is to secure more public-private partnership (PPP) projects. The lack of public funding is the main reason for the limited progress in implementing transportation strategies. Given the limited funding for transportation projects through government budgets, the need to seek private financing to bridge part of the gap has become urgent. Jordan possesses numerous characteristics that qualify it to be an attractive hub for investment and an encouraging environment for private sector projects. These include its strategic location, political stability, availability of qualified human resources, competitiveness, and a range of incentives and exemptions that enhance the attractiveness of investment in the Kingdom. Additionally, Jordan's alignment with the global trend toward a green future and its push for sustainable transportation projects will facilitate access to green financing and attract a new wave of investments in sustainable transportation initiatives.

In **passenger transport services**, several critical challenges persist, including **inefficiency, lack of reliability, and poor service quality**. Additional issues include **increasing traffic congestion, high fuel consumption, and rising carbon emissions**, with the transport sector accounting for **34% of total emissions in 2021**, one of the highest rates globally. Other concerns include **low traffic awareness among drivers, non-compliance with regulations, high rates of fatalities and injuries from traffic accidents, and noise pollution** caused by traffic, which costs Jordan over **300 million Jordanian Dinars annually**. Furthermore, **limited accessibility and inadequate services for women and persons with disabilities** are key issues affecting the sector.

Population Growth and Vehicle Ownership Trends

According to statistics, Jordan's **population at the end of 2021** was approximately **11.08 million**, with projections estimating it will reach **12 million by 2030**, consisting of **8.6 million Jordanians and 3.4 million non-Jordanians**. These figures are based on **the medium-scenario projection study (2015-2050)** prepared by the **Department of Statistics**.

By **2021**, the number of **registered vehicles** in Jordan reached **1.8 million**, including around **650,000 private passenger cars**. Projections indicate that by **2030**, the total number of registered vehicles will exceed **2.3 million**, with **private passenger cars reaching 800,000**. Given these trends, **delaying improvements in the transport system** will have severe consequences. Failing to upgrade **transport infrastructure and operational capacity** will result in **increased congestion**, exceeding the **road network's capacity**, which will ultimately **undermine economic competitiveness, productivity, environmental sustainability, and road safety**. Therefore, **prioritizing the enhancement of public transportation systems** and implementing a **comprehensive, sustainable, and smart mobility network** is crucial.

Shift from Private Vehicles to Sustainable Transport Alternatives

The dominant mode of transportation in Jordan continues to be **private vehicles**, and this trend is **steadily increasing**. One of the key **social and cultural factors** driving this increase is the **public perception of transport services**, where **passenger transport and active mobility users** are often viewed negatively. Additionally, **car ownership is seen as a social and economic status symbol**, making private vehicles a perceived **necessity rather than a choice**.

Given these challenges, **alternative mobility solutions** must be promoted. Efforts are underway to implement projects listed in the **Economic Modernization Vision (2022-2033)** and the **Government's Economic Priorities Program (2021-2023)**. Key initiatives include:

- **Intelligent Transportation Systems (ITS)**: Enhancing public transport services through an **integrated electronic fare payment system using smart cards**, a **tracking system**, and a **clearing house system** for improved fare collection and monitoring.
- **Bus Rapid Transit (BRT) System**: Implementing and operating the **BRT in Amman and between Amman and Zarqa**, providing **efficient, reliable, and high-frequency public transport networks**.
- **Feeder Network Study for the Amman BRT**: Currently under development to **optimize connectivity** and extend accessibility.
- **Amman Public Transport Upgrades**: Advancing the **technical studies for Phase II of the BRT project** and launching **Phase II of the Amman Bus Project**. Additionally, **urban redevelopment efforts at Al Mahatta transport hub** aim to improve passenger services and infrastructure.
- **Urban Transport Restructuring in Irbid and Zarqa**: Implementing the outcomes of technical studies to **restructure urban transport networks**, including the development of **bus stops, dedicated lanes, modern eco-friendly buses, and improved transport infrastructure**.

Regarding **sustainable urban transportation**, several challenges hinder its development. These include the **lack of infrastructure** that encourages walking and cycling, **safety concerns** related to accidents and sharing the road with vehicles, **low physical activity levels**, and **fatigue** associated with walking and cycling. Additionally, **the absence of a database** for tracking the number of bicycle and e-bike users, **challenging terrain, unsuitable weather conditions, and societal perceptions** of cycling as a recreational activity rather than an efficient mode of transport further complicate the issue. The **older urban design** that does not support walking or cycling, along with the **lack of a clear strategy** for developing the sector, remains a significant barrier. Addressing these challenges is essential to establishing a **sustainable urban transport system** that serves all members of society.

Freight Transport Challenges

In the **freight transport sector**, several challenges persist. The **oversized fleet of Jordanian freight trucks** is a major issue, with **21,009 locomotive front** and **21,974 trailers** in operation. The **average operational lifespan** of locomotive front is **19.2 years**, and **individual ownership** dominates at **78.9%**, compared to company ownership, as per the **Q2 2023 statistics**. Non-compliance with **axle load regulations** significantly impacts the road network, particularly the **Desert Highway**, which accommodates more than **7,500 trucks annually**. These challenges highlight the **urgent need for a modern, integrated railway network** that is interoperable with neighboring countries, facilitating connectivity between existing and future **local and regional transport hubs**.

Additionally, **Aqaba Port** must be further developed as the **primary gateway** for Jordan and neighboring countries. This includes the establishment of **dry ports and logistics centers**, such as the **Madhouneh Dry Port project**, and the provision of **truck service areas at border crossings** in collaboration with the **Aqaba Special Economic Zone Authority (ASEZA)**.

Currently, feasibility studies are underway for the **National Maritime Carrier Project**, in partnership with stakeholders, recognizing the strategic importance of having a **state-owned national carrier** for **security and logistics purposes**. The COVID-19 pandemic underscored the **critical role of maritime transport** in maintaining supply chains while exposing the vulnerabilities of relying on third-party transport providers. This underscores the need to develop strategies to **secure supply chains during crises or future unforeseen events**, particularly since Jordan relies heavily on **Aqaba Port for most imports and exports**.

Airport Development and Air Transport

Airport development remains a **key strategy** for strengthening Jordan's connectivity regionally and globally. This includes the **Queen Alia International Airport (QAIA), Amman Civil Airport (Marka), and King Hussein International Airport in Aqaba**, in collaboration with the **Civil Aviation Regulatory Commission (CARC) and private sector partners**.

Ongoing projects include the **rehabilitation of Amman Civil Airport's infrastructure** to meet licensing requirements, attract investments, and enhance its operational capacity. Additionally, feasibility studies are being conducted to **identify a suitable location for an auxiliary airport to QAIA**, addressing the **rising demand for air transport services**. This project is expected to be developed **through private sector collaboration or foreign investment**.

Furthermore, several initiatives will support the **Meteorological Department**, which provides essential services for various transport sectors. These include **the implementation of an integrated meteorological system, acquisition of a weather radar, and the establishment of a radiosonde station** to enhance meteorological coverage in southern Jordan.

Multimodal Transport and Trade Facilitation

Efficient multimodal transport is critical for achieving strategic goals. An **effective and attractive multimodal system** requires **close coordination between operators** and **infrastructure investments** that facilitate walking and cycling to **reduce interchange distances** and **streamline connectivity between transport hubs**. The strategy aims to **establish a regulatory framework** that enables **high-level coordination among operators** to enhance efficiency.

Improving **transport and trade facilitation tools** is also essential for positioning Jordan as a **regional trade hub**. Building on recent **reductions in container dwell times**, further trade facilitation will be achieved through **legislative reforms** that enhance **procedural coordination among freight forwarders, importers, exporters, and logistics service providers**. Aligning transport legislation with the **updated customs strategy** will **reduce costs and transit times**. Additionally, Jordan has recently signed **two international trade agreements**, further integrating the country into the global trade network.

Tourism Transport and Accessibility

The **tourism sector** plays a **vital role in Jordan's economy**, contributing significantly to **GDP and employment opportunities**. However, its full potential has yet to be realized. One of the key challenges is the **lack of coordinated measures** between **tourism transport and other sectors**, which limits efficiency.

Developing the **land-based tourism transport sector** is an **important step** toward fostering **tourism growth in Jordan**. Air travel to Jordan remains **costly and challenging**, with **limited direct flight options**. Meanwhile, **maritime tourism transport** remains relatively **inaccessible** due to **irregular services and lack of information**, hindering development in this sector.

To ensure energy efficiency and reduce the negative impacts of the transportation sector, the concept of using alternative vehicles (hybrid and electric vehicles) has been adopted. Additionally, a set of measures has been implemented to reduce the average operational lifespan of vehicles, alongside launching projects that enhance the environmental sustainability of all transportation modes.

Road transportation, particularly through private vehicles, is the primary mode of transport in Jordan for both passengers and goods. However, the increase in trips by cars and trucks has led to a rise in air pollution, especially in urban areas. According to Jordan's National Communications Reports, the transportation sector became the most polluting sector as of 2020, contributing **33% of total emissions** in the same year. Additionally, the transportation sector consumed approximately **43% of the total final energy demand**, as stated in the **2022 Annual Report of the Ministry of Energy and Mineral Resources**, including pollutant emissions, greenhouse gases, and fuel consumption.

The renewal of the private fleet, including **passenger transport services and freight trucks**, is a core element of the proposed strategy. This is pursued through financial incentives, legal frameworks, and regulatory measures to reduce the average age of operational vehicles, enhance their efficiency on roads, and minimize pollutant and greenhouse gas emissions. Moreover, the strategy promotes the adoption of modern technologies that improve fuel efficiency in urban mobility by integrating electric vehicles into public transport fleets, including **public buses and the Bus Rapid Transit (BRT) system**, while also implementing **Intelligent Transportation Systems (ITS)** to drive a modal shift toward environmentally friendly transportation solutions.

To achieve Jordan's climate change target of reducing greenhouse gas emissions by **31% by 2030**, reducing transportation-related emissions is crucial. Implementing stricter regulations and policies is key to minimizing pollution caused by transportation. This reduction will be achieved through **six key pillars**:

1. **Enhancing the appeal of public transportation** to reduce dependence on private vehicles.
2. **Improving infrastructure** for cycling, walking, and shared mobility services.
3. **Expanding incentives** for replacing conventional fuel-powered vehicles (gasoline and diesel) with electric vehicles.
4. **Providing incentives** for replacing outdated trucks with newer, more efficient, and less polluting models.
5. **Advancing rail network connectivity** to encourage freight transport mode shift from road to rail.
6. **Enhancing urban connectivity, smart city planning, and sustainable urban mobility.**

It is worth noting that fully funded projects have been incorporated into the document, with an estimated total cost of **127 million Jordanian Dinars**, based on the financial resources allocated within the budget of the Ministry of Transport and relevant executing agencies. Projects lacking full funding have been referenced within the **Financing Gap Annex**, which includes projects that could be offered as **investment opportunities in partnership with the private sector**, such as railway networks, new airports, seaports, dry ports, and logistics hubs.

Jordan's new development model leans towards the **private sector as a key source of infrastructure financing** through **Public-Private Partnerships (PPPs)**. However, only a few transport projects have made significant progress under this financing model. Jordan will require **technical, financial, and legal expertise** to advance these projects and meet required standards. A notable example of a successful PPP in Jordan's transportation sector is **Queen Alia International Airport**.

Impact of the COVID-19 Pandemic on the Transportation Sector

The transportation sector, in all its modes, was severely affected by the pandemic. Measures were implemented based on the **epidemiological situation** and **defense orders issued under the Defense Law**.

In **land passenger transport**, restrictions varied from a **complete halt of services** to **partial operations**, either through an **odd-even license plate system**, limiting services to **intra-governorate routes**, or enforcing a **passenger capacity limit** of **50% to 75%**. Full capacity was restored in **September 2020**. Consequently, future plans emphasize **investing in infrastructure for passenger transport services**, promoting **active transport modes** such as walking and cycling, and strengthening **multimodal transport solutions** to ensure resilience against unexpected crises. Additionally, accelerating the implementation of **smart transportation technologies**, including **electronic fare collection systems, vehicle tracking systems, and passenger information systems**, is a key priority.

In **air transport**, social distancing measures led to **flight suspensions or reductions**. The resumption of flights was initially contingent upon passengers presenting a **negative PCR test within 72 hours before travel** and undergoing another test upon arrival. Subsequently, travelers from certain countries were **exempted from on-arrival testing**, provided they presented **proof of full vaccination (two doses)** and registered on the **Visit Jordan** platform.

Impact of the Pandemic on Freight Transport

The **COVID-19 pandemic** significantly impacted **freight transport**, disrupting **truck movement and supply chains**. Given the sector's critical role in **transportation, logistics, economic security, and food supply**, the government took measures to **minimize the negative effects** on freight operations.

During different phases of the pandemic, various **health and operational protocols** were implemented, including **mandatory testing for truck drivers, designated quarantine facilities, and the adoption of the back-to-back transport system**.

For **transit trucks** passing through Jordanian territory, a policy was introduced requiring **security escorts** to prevent interaction between foreign truck drivers and individuals within Jordan. By the end of **2021**, the **back-to-back transport system** at the **Omari border crossing** was lifted, while adhering to **health protocols**. Additionally, **transit movement for Egyptian trucks** was restored following the reopening of **maritime routes between Aqaba and Nuweiba**. Similarly, the **back-to-back transport system at the Iraqi border** was lifted in **August 2021**.

Inclusive Mobility and Accessibility in the Transport Sector

This strategy represents a **comprehensive approach** to developing all transport sectors, ensuring accessibility for all segments of society, including **older adults, women, children, and persons with disabilities**. **Freedom and independence in mobility** are fundamental rights, enabling individuals to access essential services such as **education, healthcare, employment, tourism, and recreation**.

To address the **challenges in the transport sector**, a range of **infrastructure projects and regulatory measures (legislation and policies)** will be introduced across **all transport modes**, including **land, maritime, and air transport**. These initiatives aim to create **an inclusive, efficient, and accessible transport system**, ensuring equal mobility opportunities for all individuals.

1. Introduction

The **introduction** includes the **vision, mission, national and strategic objectives**, as well as the **methodology used** to develop this document, the **key principles of transport policy**, strategic **inputs**, and a **list of stakeholders**.

Vision, Mission, and National Objectives

Vision:

A modern, safe, and advanced transport sector that positions Jordan as a regional transportation hub.

Economic Growth Drivers / Quality of Life Pillar:
Enhancing the **quality of life** for all Jordanians by developing and implementing **citizen- and environment-centered mobility solutions**.

Sectoral Goal:
Establishing an **integrated, sustainable, and resilient transport system** that strengthens Jordan's role as a **regional transport hub**.

Strategic Objectives:

1. **Developing the transport system and improving its services.**
2. **Minimizing the environmental impact of the transport sector.**
3. **Enhancing institutional performance.**
4. **Reducing traffic congestion.**

Economic Growth Drivers Quality of Life Pillar	Sectoral Goal	Sectors	Initiatives under the Economic Modernization Vision	Public Sector Modernization Vision Pillars	Strategic Objectives
Enhancing the quality of life for all Jordanians by developing and implementing citizen- and environment-centered mobility solutions.	Establishing an integrated, sustainable, and resilient transport system, positioning Jordan as a regional transportation hub.	• Quality of Life Sector • Logistics and Transportation Sector • Urban Development Sector	• Enhancing urban transport infrastructure • Aligning and streamlining transport and trade facilitation regulations and procedures • Developing land transport and port infrastructure • Implementing sustainable development principles and environmentally friendly projects • Adopting smart city standards and future city concepts • Strengthening public-private partnerships (PPPs) and investment opportunities • Developing environmental policies and regulations	• Services Pillar: Government services and digitalization • Institutions Pillar: Human resources development	• Developing the transport system and improving its services • Reducing the environmental impact of the transport sector • Alleviating traffic congestion • Enhancing institutional performance

Work Methodology

The methodology for reviewing and updating the **long-term National Transport Strategy** and its associated **implementation plans** focuses on evaluating the **performance of the current strategy** through the following steps:

- **Formation of a Steering Committee** for updating the **National Transport Strategy** at the **ministerial level**, chaired by the **Prime Minister** (**Official Letter No. 23/11/1/18325, dated 06/06/2021**). The committee is responsible for **endorsing the general policy and framework for the transport sector, approving the outcomes of the Technical Committee's work, and adopting the updated strategy's findings**.
- **Appointing liaison officers** for all transport modes to ensure a **participatory approach** in the strategy update process.
- **Assessing the progress** of projects launched under the **2015-2030 Long-Term Strategy**, identifying the **current gap** in relation to targets, and working on **updating and developing** projects to align with **new developments**. Additionally, proposals will be drafted to **improve infrastructure projects, regulatory frameworks, and legislative components** in the transport sector and to **restructure the sector**.
- **Reviewing and updating the strategy's performance indicators** to accurately reflect **real-time performance**, align with **emerging trends and developments**, and incorporate **newly introduced indicators**. This will be done in accordance with **government-issued reports and documents**, such as the **Government's Economic Priorities Program, the State of the Country Reports issued by the Economic and Social Council, and the impact assessment of the COVID-19 pandemic on the transport sector**.
- **Proposing enhancements** to the **transport sector's infrastructure projects, regulatory frameworks, and legislative structures**, while identifying **key challenges** in **financial, technical, human, and legislative resources**.
- **Reviewing investment initiatives** to develop a **realistic and reflective document**, outlining the **transport sector's priorities for the next five years**. The goal is to enhance the **integration of sector components** and align them with **strategies in other economic sectors**, such as **environmental and energy strategies**, as well as **sectoral plans** from relevant institutions, including the **Greater Amman Municipality, municipalities, and the Ministry of Public Works and Housing**.
- **Integrating environmental considerations**, **renewable energy projects**, and **sustainable green initiatives** into the ministry's action plan for **public transport development**.
- **Developing new frameworks** to regulate the relationship between the **public and private sectors**.
- **Incorporating feedback** from all stakeholders into the **updated strategy document** before its official adoption.

Key Principles of Transport Policy

The main pillars of **transport policy** are based on the following key principles:

- **Completing and optimizing existing transport infrastructure**, maximizing the **utilization of transport facilities**, promoting **active transport**, and implementing a **multimodal transport system** to enhance **competitiveness and facilitate transport and trade**.
- **Strengthening the role of the private sector** in transport projects, as **major infrastructure initiatives require direct government investment** or **public-private partnerships (PPPs)**.
- **Developing investment-driven strategies** to enhance the **sector's growth**, as economic development depends on an **efficient and effective transport system**.
- **Emphasizing regional integration** by leveraging **Jordan's strategic geographical location** for optimal transport sector development.
- **Enhancing transport safety, environmental protection, and carbon emission reduction** to promote **sustainability**.
- **Ensuring safe and affordable transport services** that support **social development goals**, making transport accessible to all segments of society, **regardless of socio-economic status, origin, gender, or geographic location**.

List of Stakeholders

Table 1: List of Stakeholders

Affiliated Entities			
Land Transport Regulatory Commission	Civil Aviation Regulatory Commission	Jordan Hejaz Railway Corporation	Jordan Maritime Authority
Ministry of Planning and International Cooperation	Ministry of Public Works and Housing	The Royal Court	Arab Bridge Maritime Company
Ministry of Interior	Ministry of Local Administration	Ministry of Finance	Ministry of Energy and Mineral Resources
Aqaba Container Terminal Company	Greater Amman Municipality	Ministry of Environment	Aqaba Special Economic Zone Authority (ASEZA)
Jordan Airports Company	Aqaba Company for Port Management and Development	Aqaba Development Corporation	Ministry of Investment
Civil Society Organizations	Municipal Councils	Aqaba Airports Company Operators	Organizations and Trade Unions

Strategy Inputs

Through an in-depth analysis of the **current state of the transport sector** and relevant **sectoral studies**, the key **inputs** for the strategy have been identified as follows:

- **National policy frameworks, Royal directives, and Royal vision statements.**
- **Economic Modernization Vision (2022-2033) and its associated roadmap.**
- **Jordan Vision 2025.**
- **The Executive Development Program.**
- **Transport Law No. (89) of 2003.**
- **Long-Term Transport Sector Strategy (2014-2030).**
- **General Transport Policies.**
- **The Ministry of Transport's budget and the budgets of affiliated entities and stakeholders.**
- **The Ministry of Transport's Strategy and its performance monitoring reports.**
- **Jordan's Economic Growth Stimulation Plan (2018-2022).**
- **Relevant agreements, treaties, and memorandums of understanding.**
- **King Abdullah II Award for Government Performance Excellence reports.**
- **Recommendations from the State of the Country Report.**
- **Government's Economic Priorities Program (2021-2023).**
- **Green Growth Plan.**
- **Diagnostic study and recommendations for public transport in Jordan (World Bank, 2022).**

Analysis of the Internal and External Environments of the Jordanian Transport Sector

Table 2: SWOT Analysis of the Internal and External Environments of the Jordanian Transport Sector

Weaknesses (W)	Strengths (S)
Lack of an integrated transport system.	Jordan's strategic location.
Limited financial resources and high costs of providing transport services.	Existence of institutional and regulatory frameworks that clarify roles in terms of policy-making, regulation, and operations.
Insufficient qualified technical personnel.	Financial independence of supporting entities that fosters the development of transport sector activities.
Lack of advanced infrastructure and technological systems in land transport.	Availability of advanced infrastructure and technology in maritime and air transport.
Low level of land transport services.	Appropriate transport service tariffs.
Weak coordination among entities responsible for regulating and overseeing transport.	Government support for environmentally friendly and sustainable projects.
Absence of railway infrastructure.	Government direction to encourage public-private partnerships in transport development.
Weak administrative capacity and financial resources.	

Threats (T)	Opportunities (O)
Political instability in neighboring countries.	Security and stability in Jordan.
Rising and fluctuating fuel prices.	Availability of external entities to provide technical and financial support.
Lack of alternative energy sources.	Existence of an attractive investment environment.
Low investment demand for transport projects due to high investment costs.	Jordan's accession to bilateral, regional, and international agreements aligned with best international practices for developing the transport sector.
Regional competition in land, air, and maritime transport.	
Global economic and geopolitical crises.	
Pandemics and infectious diseases.	

2. Long-Term Transport Strategy (2015-2030)

The Long-Term National Transport Strategy (LTNTS) (2015-2030) was prepared in 2014. At the time of its publication, the national economy was on an upward trajectory. However, the transport sector underwent numerous changes, rendering it unable to evolve in parallel with economic, social, and demographic developments. The strategy was built on three main pillars, which were to be addressed by enhancing the attractiveness of public transport, providing incentives for vehicle fleet renewal, and developing multimodal transport operations:

- **Pillar 1:** Focusing and directing the transport strategy in a way that contributes to achieving greater economic growth and development.
- **Pillar 2:** Addressing factors that negatively impact the transport sector.
- **Pillar 3:** Promoting the participation of multimodal transport.

Changes in Context Since 2014:

Globally:
The primary reasons for updating the strategy in the global context are the impact of the COVID-19 pandemic, increased attention to climate change, Jordan's commitment to reducing emissions, and road accidents. The impact of the COVID-19 pandemic is the most significant due to its major epidemiological effects on transport, international trade, and tourism. Demand for tourism in Jordan declined sharply, with only partial recovery. It is worth noting that the tourism sector contributed approximately 16% of GDP before the pandemic and was on an upward trend prior to 2020, despite regional instability.

Regionally:
In the regional context, the repercussions of the Syrian crisis, instability in Iraq, Lebanon, and other neighboring countries have hindered the return of trade to normal levels, particularly trade and transport between Jordan and its regional neighbors. Jordan aims to become a regional trade hub but faces intense competition from several other countries in the region with similar goals. Despite this challenge, Jordan can still achieve an important regional role in trade and transport by developing infrastructure, streamlining regional trade procedures, and accelerating their implementation.

Nationally:

In the national context, Jordan has lacked progress in the transport sector and has been unable to keep pace with the economic, social, and political changes that have occurred. The failure to achieve progress and GDP growth, which was expected to average 5% between 2015 and 2020 but remained below 2%, means that the available public sector resources are less than anticipated to address transport sector issues. Additionally, the impact of low economic growth and rising unemployment rates has increased pressure on the sector.

In Passenger Transport:

The Long-Term National Transport Strategy aims to improve the quality and attractiveness of passenger transport services, with a high priority on shifting demand from private to public transport. This will be achieved by enhancing the role of multimodal transport, providing strong links between public transport networks and service areas within cities, and offering intercity urban services. The strategy also aims to provide safe and highly accessible passenger transport services that cater to all segments of society through the following key pillars:

- Integrated implementation of the new bus network and services.
- Establishing and enforcing vehicle standards to improve safety and quality.

In Freight Transport:

The Long-Term National Transport Strategy sought to develop the truck freight transport system by creating a highly efficient logistics system and restructuring the truck transport sector. Some measures have been implemented to restructure the truck fleet, reduce its size, increase safety, and decrease the share of individually owned trucks. This has led to increased demand for transit trucks. However, instability in neighboring countries, the aging truck fleet, and individual ownership continue to hinder the sector’s progress.

In the Field of Maritime Transport and Ports:

The strategic objective of the strategy related to ports is to enhance the role of the Aqaba Port as a main port, a national gateway, and a regional transit hub by expanding the container port and relocating and developing the facilities of the southern industrial port. Additionally, the strategy aims to develop land ports and logistics centers. The planned infrastructure works for the port include: relocating the main port facilities to the southern port, establishing a new cruise ship terminal in the main port, further expanding the container terminal in the central port, and connecting the railway to the new temporary phosphate terminal (southern port).

In the Field of Rail Transport:

The strategic objectives related to rail transport are to stimulate exports and transit trade through railways to neighboring countries, reduce domestic trade costs, and lower vehicle emissions by using railways for freight transport instead of road transport.

In the Field of Air Transport:

The objective related to air transport in the long-term transportation sector strategy is to develop and privatize Jordanian airports to become a pivotal hub in the transportation system by seamlessly connecting long-distance passenger and cargo flows with public transport and logistics networks.

In Multimodal Transport:

The long-term national transportation strategy emphasized the importance of multimodal transport for passengers and goods and anticipated the achievement of effective multimodal transport through the design of stations that link cities and urban areas, reducing distances to facilitate transitions between different modes of transport. It also highlighted the need to enhance cooperation with relevant authorities.

In Environment and Climate Change:

All initiatives and recommendations approved by the long-term national transportation sector strategy and its derived executive plans, which primarily aimed to modernize and develop all modes of transportation, are also measures directly aimed at reducing carbon emissions from the transportation sector. This includes measures that reduce the number of kilometers traveled by cars and, consequently, fuel consumption.

The strategy included the following key policies to develop the transportation sector, increase its efficiency, and reduce carbon emissions:

- Adopting railways for freight instead of road freight and accelerating the construction of a national railway network, as carbon emissions per ton/kilometer for diesel-powered freight trains are about 9% of those for road freight trucks.
- Modernizing the road truck fleet, as new trucks are more fuel-efficient and emit less carbon dioxide per liter of fuel consumed.
- Implementing the Bus Rapid Transit (BRT) project and its feeder network, and enhancing public transport services to attract passengers from private cars and significantly reduce carbon dioxide emissions (approximately half of carbon dioxide emissions during transport come from private cars in urban areas).
- Using alternative fuels for transport vehicles.

In Transport Safety:

The long-term national transportation strategy established a national transport safety program as a priority, incorporating substantial improvements and measures aimed at addressing transport safety challenges in Jordan, which are centered around the road network. The measures covered by the strategy addressed three axes:

- Road user behavior
- Vehicle characteristics
- Infrastructure

A plan was also developed to ensure a reduction in road accidents and fatalities. However, due to the difficulty of challenges on the ground, these measures were implemented more slowly, coinciding with a faster-than-expected increase in the number of vehicles, exacerbating transport safety-related issues.

Challenges Facing the Transport Sector

This section highlights the most prominent challenges facing the transport sector, which relate to financing, shortcomings in technological and electronic infrastructure, institutional and legislative structures, a shortage of professional and technical staff, and other challenges that hinder the growth of the transport sector in Jordan.

- **Financing**

The challenges related to financing include limited financial resources and high investment costs in the transport sector, as follows:

- Limited financial resources to implement the planned projects within the strategy, reflected in the limited allocation of funding for transport projects in the general budget and weak government support for the public transport sector.
- High investment costs in the transport sector, particularly in passenger transport and railway transport, which has led to weak private sector interest in investing in these areas.
- Inability to borrow to finance transport projects due to constraints imposed by the public debt law.
- Reluctance of investors to invest in the transport sector due to low expected profits resulting from the service-oriented nature of the sector.

- **Shortcomings in Technological and Electronic Infrastructure**

  The challenges related to shortcomings in technological and electronic infrastructure include the lack of activated electronic services to link databases and information in the transport sector.

- **Institutional Structure and Legislation**

  There is a clear and urgent need to restructure the sector at the national level in an effective manner, ensuring that responsibilities and authorities are clearly defined. This would facilitate monitoring and follow-up among relevant entities. Additionally, there are gaps in some of the legislation governing and regulating the transport sector.

- **Shortage of Professional and Technical Staff**

  There is an insufficient level of technical expertise among transport sector employees and a lack of adequately trained labor.

- **Integration in Planning**

  The absence of comprehensive planning for the sector, where each entity plans for the transport mode under its responsibility and implements projects and programs within its budget allocations, leads to a lack of a holistic view of the sector.

- **Population and Economic Growth**

  The current transport system is unable to meet the demands due to population and economic growth in Jordan, as well as the increasing demand for transport, which has resulted in a decline in the level of services provided.

- **Safety**

  High rates of transport accidents, injuries, and fatalities, along with the economic costs associated with these accidents.

- **Environmental Impact**

  - Limited support for modern, environmentally friendly transport systems and the high cost of energy used in the transport sector.
  - The transport sector in the Kingdom accounts for the largest consumption of traditional energy (gasoline and diesel) among other sectors, with a percentage that continues to rise due to the annual increase in registered vehicles. Figure (3) illustrates the evolution of energy consumption in the transport sector (2011-2018).

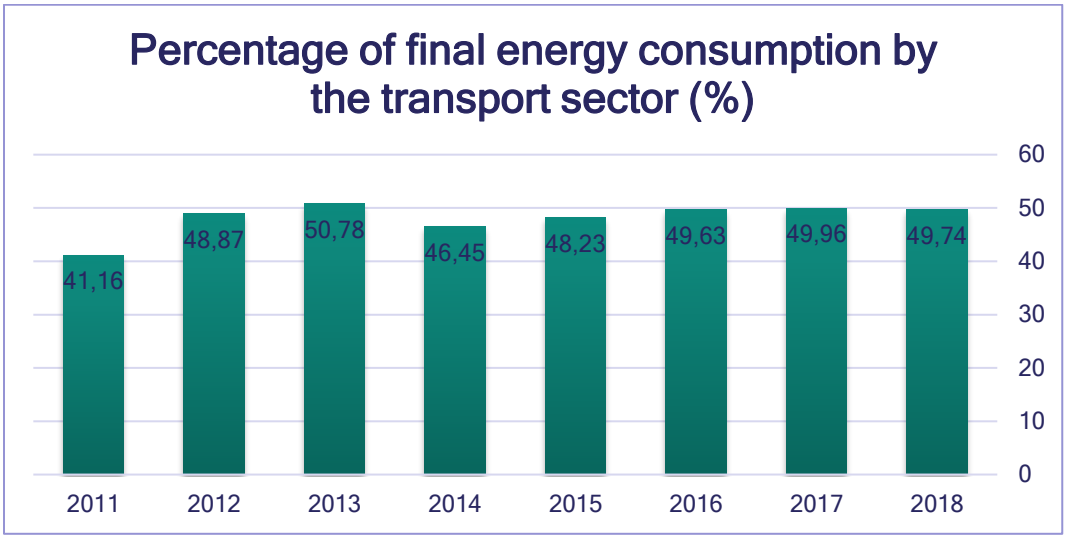


Figure (2): Evolution of transport sector energy consumption (2011-2018)

- **Fluctuating Fuel Prices and Lack of Alternative Energy Sources**
  Pricing is essential for achieving efficient operations in the transport sector. Therefore, transport tariffs, pricing policies, government subsidies, and incentives must be aligned with infrastructure investments and other policies.

- **Competitiveness**
  The low level of efficiency and effectiveness of the transport sector, along with its reduced ability to support the national economy, respond to changes, and maintain the competitive advantages of the national economy.

- **Geopolitical Situation**
  Due to the political conditions in the region and conflicts in neighboring countries, there has been a negative impact on transport movement, the flow of freight between countries in the region, transit freight, and passenger transport. Additionally, the increasing flow of refugees into Jordan due to regional instability has led to higher demand for various transport services.

- **Infectious Diseases / COVID-19 Pandemic**
  Due to the COVID-19 pandemic, the public transport and air transport sectors were adversely affected by travel restrictions and repeated, prolonged lockdowns. The implementation of social distancing measures led to the suspension or reduction of transport operations.

3. Sub-Sector Strategies

This chapter outlines the strategies for various sub-sectors and the proposed projects for each. The projects have been linked to the Sustainable Development Goals (SDGs) and the Nationally Determined Contributions (NDCs). It is important to note that these projects are aligned with the following SDGs:

- Goal 3: Good Health and Well-being
- Goal 5: Gender Equality
- Goal 8: Decent Work and Economic Growth
- Goal 10: Reduced Inequalities
- Goal 11: Sustainable Cities and Communities
- Goal 13: Climate Action

Figure (3): Sustainable Development Goals Linked to the Proposed Strategy Projects

Transport sector projects play a crucial role in enhancing Nationally Determined Contributions by improving quality of life and reducing emissions that contribute to air pollution. There is an urgent need to strike a balance between the demands of the transport sector and environmental protection, as well as combating climate change. This can be achieved through the adoption of a set of projects that contribute to fulfilling the Nationally Determined Contributions.

3.1. Road Network

Current Situation

The completion of infrastructure and the optimal utilization of existing transport networks are the two main pillars for formulating the proposed strategies for the road sector. Greater importance is given to maintenance measures and improving the safety of the existing network rather than investments in new roads or improvements. Investments have been carefully selected and phased based on the results of the computerized transport system, focusing on investments only where there is a genuine need. The rationale for this approach is the need to utilize the currently available financial resources and develop more environmentally sustainable and competitive alternatives to road transport.

The road infrastructure sector has seen significant progress in terms of design, construction, maintenance, and enhancing road safety requirements, in addition to keeping pace with the latest developments and modern technologies used in road construction. Figure (5) illustrates the development of the road network from 1990 to 2020.

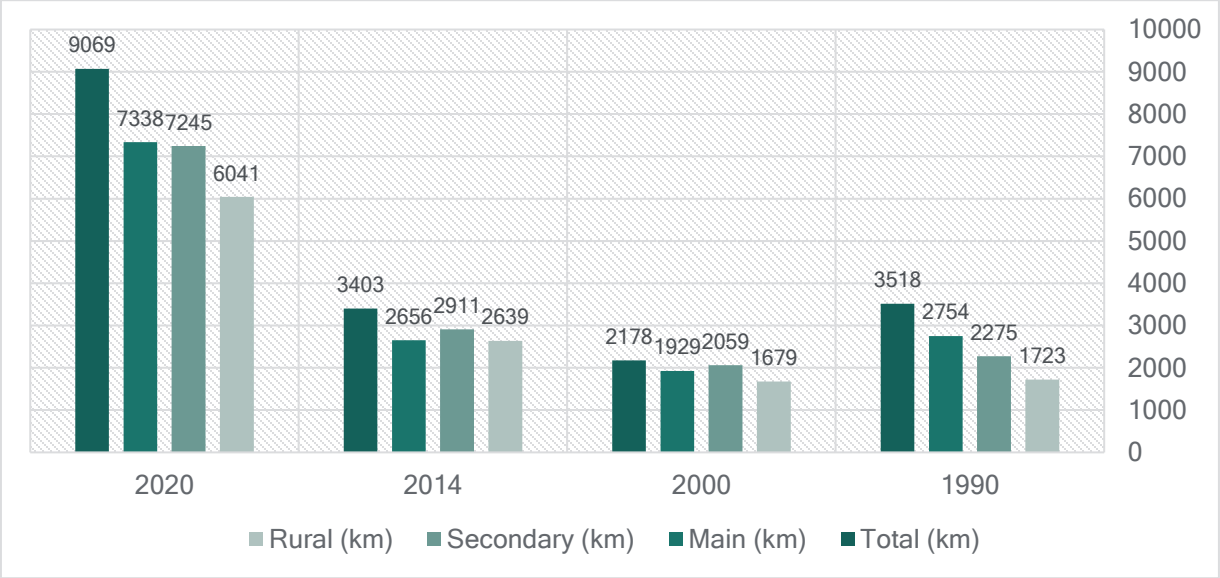


Figure (4): Development of the Road Network Under the Jurisdiction of the Ministry of Public Works and Housing

Despite investments amounting to approximately $2 billion in the road sector over the past decade, only a small portion of these resources has been allocated to maintenance. The maintenance cost for roads under the jurisdiction of the Ministry of Public Works in 2020 was approximately 3.5 million dinars, representing only 4% of the ministry's road projects. A mechanism for selecting and prioritizing infrastructure investments has been included within the framework of the Integrated Governance of Public Investment Management (PIM) - Public-Private Partnerships (PPP), approved by Cabinet Decision No. 7968 on May 21, 2018. Other infrastructure needs will depend on the more efficient use of public budgets and enhancing the sustainability of private sector participation to support public budgets.

Funding sources for the road sector rely on the Ministry of Public Works and Housing, which uses the financial allocations available in the state budget, in addition to some grants and loans, to finance road construction and maintenance projects using traditional contracts. To improve the efficiency of road maintenance spending, the Ministry of Public Works and Housing is transitioning to non-traditional methods of managing road investments through public-private partnership projects, as well as shifting from traditional input-based maintenance contracts to performance-based contracts (PBCs). This will allow for better utilization of funding sources by transitioning from traditional unit-price maintenance contracts to long-term output-based contracts (OBCs). The shift to performance-based contracts (PBCs) will also prepare for moving towards long-term public-private partnerships (PPPs) for building new roads and improving existing ones. At the same time, improvements in governance and efficiency in the road sector will be complemented by greater private sector participation to drive reform, introduce innovation, and bridge the infrastructure gap.

A key part of the updated strategy is to address funding gaps through public-private partnership projects, as well as securing green and sustainable financing by incentivizing investments in sustainable projects. This will meet the investment needs for road infrastructure and maintenance, helping to increase available funding for development and enhance the quality of key trade corridors in Jordan. There is a pressing need to invest in trade corridors, as reflected in Jordan's average performance in road connectivity compared to its regional competitors and countries with similar successful experiences in becoming regional trade hubs. Jordan currently ranks 10th in regional road connectivity and 6th in road quality out of twelve countries, as shown in the table below.

Table (3): Regional Road Connectivity and Road Quality

Regional road connectivity and road quality **Source: Global Competitiveness Index**		
Country	**Rank in terms of road connectivity**	**Ranked in terms of road quality**
Saudi Arabia	1	26
Oman	15	10
Morocco	30	41
Algeria	33	68
Turkey	34	31
Iran	42	79
Tunisia	46	96
Egypt	48	28
Georgia	65	81
Jordan	66	59
Lebanon	77	127
Armenia	114	91

Recommendations and Proposed Solutions

The new national development model directs investment focus towards the private sector as a driver of growth and job creation. The economic reform program, outlined in the Jordan Vision 2025 report, aims to revive growth and stimulate job creation. It also includes provisions for significant investments to expand and improve road infrastructure, laying the foundation for competitiveness, providing access to markets and essential services, and facilitating the movement of goods and services along supply chains. This will have a significant multiplier effect on the economy by increasing productivity and output.

To achieve the goals of sustainable national development, it is essential to invest in new roads and rehabilitate existing ones across the Kingdom. There is an urgent need to increase funding for road maintenance as a top priority. Adequate maintenance funding can reduce the total lifecycle cost of road infrastructure by more than 50%, in addition to lowering vehicle operating costs by up to 20%. It is also worth noting that the proposed roadmap for the Economic Modernization Vision includes an implementation plan for the road network under "Improving Transport Infrastructure and Services" from the first half of 2023 to the second half of 2024.

Below are the proposed solutions to improve and develop the road network:

- **Establish a specific mechanism** to comprehensively link the road network and define the criteria for prioritizing development.
- **Create a road maintenance revenue fund** to ensure sustainable funding for upkeep.
- **Implement road toll projects**, ensuring the provision of alternative routes to ensure the project's success.
- **Explore sustainable financing methods** for the maintenance and development of the road network.
- **Develop plans** to modernize and update pavement designs, adopting the latest and most effective, high-quality designs.
- **Develop plans** to improve drainage systems associated with road infrastructure.
- **Develop plans** for road automation and study the feasibility of smart roads.
- **Adopt designs** for environmentally friendly roads and sustainable urban transport.

Strategic Objective	Themes of the Public Sector Modernization Vision	Initiatives in the Economic Modernization Vision	Sectors	Sectoral objective	Key Principles of Transport Policy	Economic Growth Drivers / Quality of Life Drivers Goals
• Developing the Transport System and Its Services / Road Sector	• Institutional Axis / Human Resources Component:	• **Automation and Digitization** of government services in the transport and logistics sector. • **Enhancing Public-Private Partnerships** and investment opportunities. • **Developing and Strengthening Regional Connectivity** in the transport sector.	• **Quality of Life** • **Logistics and Transport Services** • **Urban Development Sector**	Providing an Integrated, Sustainable, and Flexible Transport System, and Positioning Jordan as a Regional Transport Hub	• Complete the basic infrastructure of existing networks and optimize the use of transport facilities, while implementing a multimodal transport system to enhance competitiveness and facilitate transport and trade. • Ensure safe and affordable transport to achieve social development goals, making transport services accessible to all segments of society regardless of social, economic, or gender status. Enhance transport safety, protect the environment, and reduce carbon emissions from the transport sector while achieving sustainability. Human Resources Policy	Improving the Quality of Life for Jordanians Through the Development and Application of Comprehensive Life Concepts Centered on the Citizen and the Environment

3.2. Passenger Transport Services

Current Situation

The public transport sector plays a prominent and vital role in light of the rapidly increasing demand for the movement of goods and passengers due to population and economic growth in Jordan and the region. The value added by the organized and unorganized land passenger transport sector constitutes more than 25% of the total transport sector's contribution to the GDP (as shown in Figure 6), reaching 31% in 2013. However, its role has been declining despite the increase in population and economic growth due to the lack of development in public transport services. Therefore, it has become necessary to reconsider plans and programs related to the sector's development, transforming it from a limited-growth sector to a driver of the economy, a sector that aligns with modern requirements, environmental standards, and dimensions, and a sector that does not rely on traditional, high-cost fuel sources with significant environmental impacts, such as increasing carbon emissions. Efforts must also be made to enhance accessibility and make the transport sector more inclusive for all segments of society.

Public transport in Jordan is also characterized by fragmentation and complexity at both the operational and institutional levels. It is primarily governed by the Passenger Transport Law No. 19/2017, the licensing regulations issued in 2002, and the regulations for passenger transport using applications (2017). The institutional organization of the transport sector in Jordan involves several ministries and entities, including the Ministry of Transport, the Ministry of Public Works and Housing, and regulatory bodies such as the Land Transport Regulatory Commission (LTRC), the Greater Amman Municipality (GAM), the Aqaba Special Economic Zone Authority (ASEZA), and the Petra Development and Tourism Region Authority (PDTRA). This complexity results in a lack of comprehensive and updated transport models, a fragmented national strategy, and a public transport system that is uncoordinated, inefficient, and has poor route coverage, unreliable services, no trip schedules, limited user information, low frequencies, limited and low-quality infrastructure, and poorly maintained vehicles. Additionally, the vehicle fleet is old, with an average age of 10.6 years.

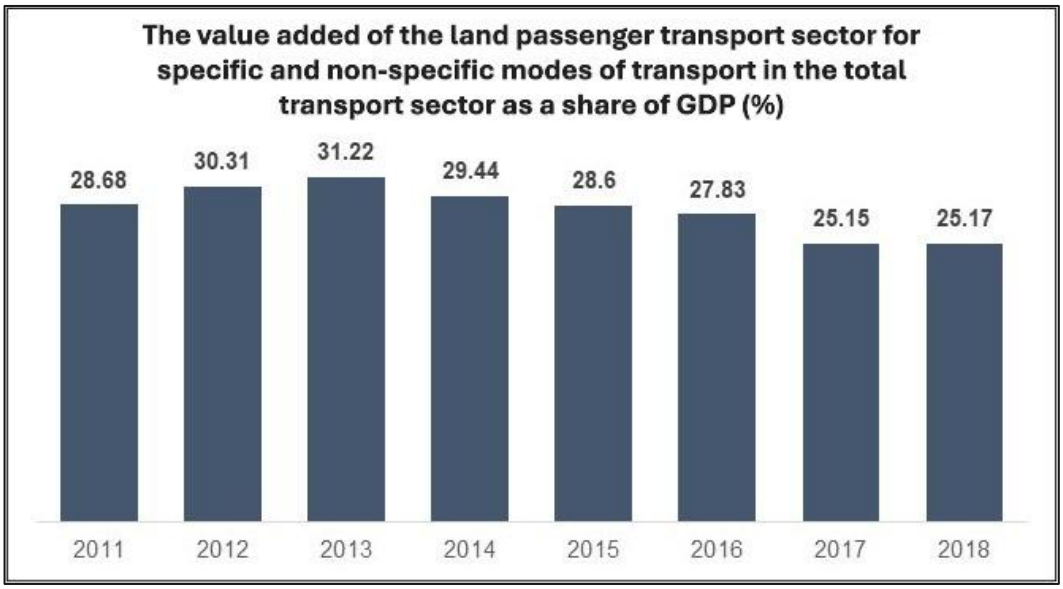


Figure (5): Value Added by Organized and Unorganized Land Passenger Transport as a Percentage of the Total Transport Sector's Contribution to GDP (%) for the Years (2011-2018)

The public transport sector in the Kingdom has seen significant developments in recent years in terms of infrastructure projects and operational contracts for public transport operators. However, the percentage of public transport users out of the total number of vehicle users continues to decline due to citizens' reluctance to use public transport and their preference for private vehicles. This is also due to the high operational costs of public transport caused by rising fuel prices, the random individual ownership of operators, the lack of fixed schedules and timetables for public transport, the random operation of vehicles, the high operational age of these vehicles, and other reasons related to safety, comfort, low efficiency, and difficulty of access, such as the termination of route lines far from the destination, forcing users to use multiple transport means to reach their desired location.

Public transport services in the Kingdom vary between passenger transport, tourist transport, hotel services, and others. The total public transport fleet is 37,184 vehicles as of 2020, representing 2.2% of the total number of registered vehicles in the Kingdom. The following table (5) shows the number of public transport vehicles in the governorates of the Kingdom.

Table (4): Number of Public Transport Vehicles in the Governorates of the Kingdom

Public Transport Buses							
Total	Inside Cities	Albalqaa	Madaba	Zarqa	Irbid	Amman	**Bus type**
1,393	670	26	0	46	36	615	**Big Bus**
2,949	990	270	89	554	844	202	**Medium Bus**
3,981	520	10	63	90	293	3,005	**Taxi services**
8,323	**2,180**	**306**	**152**	**690**	**1,173**	**3,822**	**Total**

The public passenger transport sector in Jordan is predominantly characterized by individual ownership, with approximately 85% of buses and taxis owned and operated individually. The exception is the capital, Amman, where there is a major operator, the Comprehensive Multiple Transport Company (CMTC), which manages 237 buses on 44 routes and 135 buses on 27 lines in partnership with the Turkish company Gürsel under the Amman Bus System. Additionally, there are four other companies that own 100 buses, and around 330 large buses are individually owned.

In contrast, the number of private vehicles in Jordan reached 1,729,343 in 2020, with a 60.8% increase in private vehicle numbers between 2010 and 2020. The number of private vehicles for personal use was 1,533,276 in the same year. In comparison, the increase in the number of public passenger vehicles has been slow.

Passenger transport services in Jordan are distributed across multiple modes, including:

- **On-demand passenger transport services**, which include specialized tourist transport services, rental services, and taxi services.
- **Scheduled passenger transport services**, with fixed routes, prices, scheduled trips, and announced timetables.
- **Private transport services**, such as those for employees, students, etc.

The figures below illustrate these distributions:

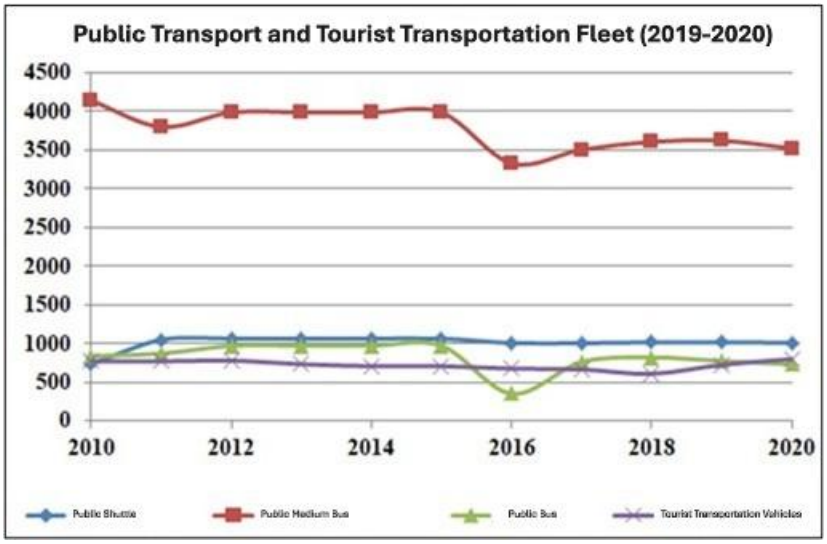


Figure (6): Public Transport and Tourist Transport Fleet (2010-2020)

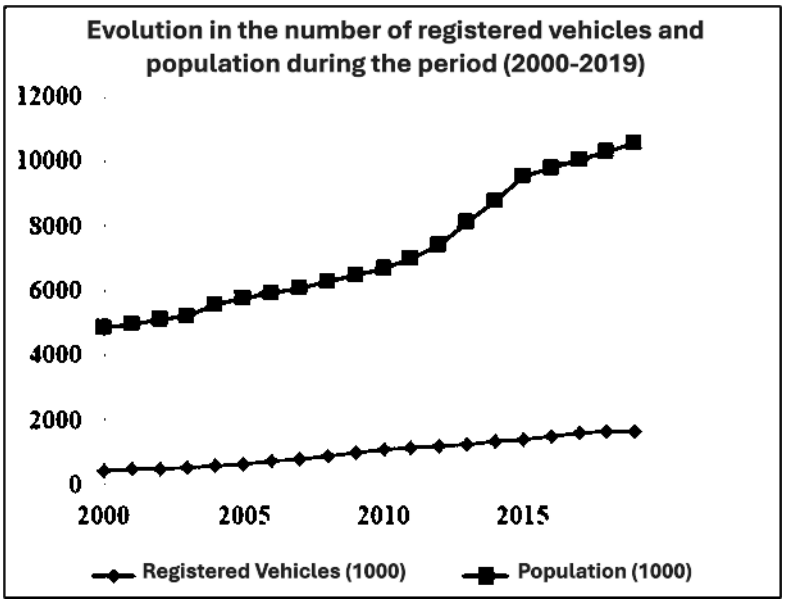


Figure (7): Evolution in the number of registered vehicles and population during the period (2000-2019)

As for the operational age of the public transport sector modes, it is considered high compared to international standards, as the average age of the public transport fleet for the year 2020 was about (10.6) years. As for the satisfaction of public transport users with the services provided, it reached about (68%) by the end of 2020, and this is an indicator that the sector needs to reconsider raising the level of its services and infrastructure and operational projects related to it.

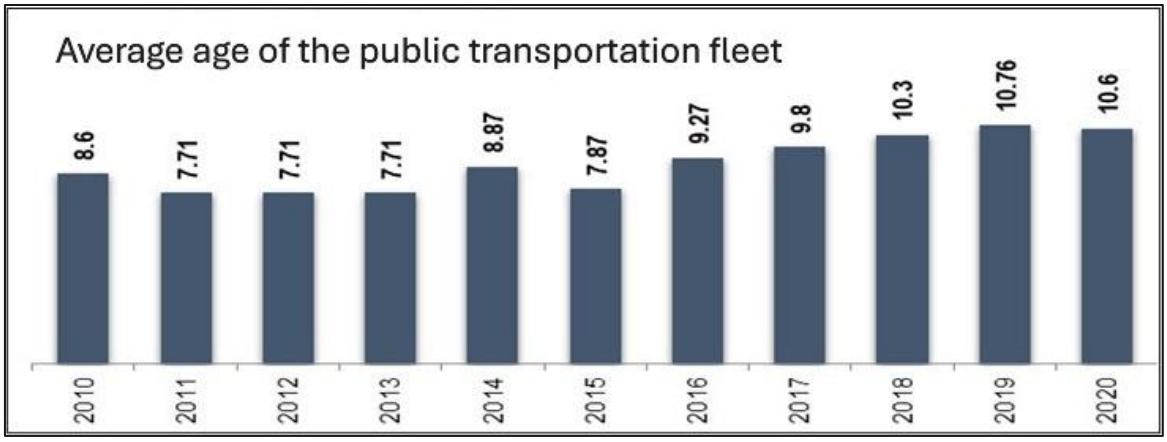


Figure (8): Average age of public transport fleet

Challenges

The transport sector is considered one of the fundamental inputs for sound economic development due to its direct impact on competitiveness and growth, as well as its active role in providing access to employment, education, and creating new job opportunities. Recently, there has been a growing need to review the sector's plans, strategies, and programs to mitigate the effects of the apparent decline in the sector, particularly in the urban transport system. This decline is due to the increased demand for mobility resulting from several factors, including population growth, the sudden and massive influx of refugees, and the concentration of populations in major urban areas. An assessment of the transport sector has revealed that public transport faces numerous gaps and challenges that have accumulated over the years. These challenges include:

- **Limited investment and resources** from both the public and private sectors.
- **Dominance of private vehicles**, leading to traffic congestion that affects the reliability of public transport services.
- **Lack of a clear and effective institutional structure**, resulting in unclear responsibilities among authorities and a shortage of qualified technical and professional staff to lead comprehensive planning initiatives in the sector, as well as shortcomings in the implementation of public passenger transport policies.
- **Insufficient green investment** and the absence of sustainable transport options in public transport, along with a lack of incentives to integrate zero-emission vehicles into public transport services. This leads to the use of environmentally unfriendly vehicles, which are a major source of air pollution, with transport-related air pollution being one of the largest sources of pollution in the Kingdom.

- **Clear shortcomings** in planning, implementing, and providing infrastructure for other sustainable transport modes, such as walking, cycling, and smart mobility.
- **High rate of individual ownership** and the absence of measures to reduce private vehicle use, such as car restrictions and parking management.
- **Lack of a scrappage program** for buses to reduce the number of old buses, minibuses, and service taxis.
- **Weak infrastructure** for departure and arrival points, as well as loading and unloading facilities.
- **Limited use of smart systems and technologies**.
- **Presence of unlicensed smart application companies**, with an estimated 30 unlicensed companies operating in the market, managing a fleet of 35,000–40,000 vehicles.
- **Lack of integration** in terms of services and pricing, leading to higher costs and longer travel times.
- **Lack of inclusive transport services** that cater to all individuals regardless of social identity or physical and mental abilities.
- **Low ridership rates** for public transport and high reliance on private vehicles, which include the following:
    - High household spending on transport, averaging about 23.2% of total expenditures, compared to a global standard of around 10%.
    - Lack of integration and connectivity between transport routes and public passenger transport modes, which, alongside traffic congestion, increases the average daily travel time to 2.5 hours.
    - Limited information provided to public transport users, such as schedules and routes.
    - Safety concerns, including vehicle age and maintenance, with an aging fleet that discourages users and leads to unreliable services. The average fleet age in 2020 was 10.6 years, an increase of 2.7 years since 2015 and more than 50% higher than the average of 6.9 years in 42 other countries.
    - Passenger safety and security issues, including safety for female passengers, especially at night, inadequate lighting near stops, and concerns related to theft and sexual harassment.

Mobility is one of the challenges facing passengers in Jordan, as public transport lacks the necessary requirements for individuals with mobility difficulties or disabilities. Approximately 13% of the population has a disability, and 84% of these individuals live in urban areas, leading to numerous mobility challenges, including accessing and using public transport. Most public transport vehicles are not equipped with seats or services designed for passengers with disabilities, often forcing them to rely on traditional taxis at higher costs.

Additionally, personal safety is a concern for public transport users, particularly women, children, the elderly, and people with disabilities, as vehicles are often overcrowded, unclean, and unsafe. Over 60% of women have experienced harassment while using public transport, and about 33.6% of women are dissatisfied with the current level of public transport services. As a result, women constitute only one-third of public transport users, contributing to the low rate of female participation in Jordan's labor force.

In terms of transport safety, public transport vehicles are involved in road accidents in both urban and rural areas, and passengers are at risk of injury or death in the event of an accident. Data from the Public Security Directorate indicate that nearly one-third and one-quarter of vehicles involved in traffic accidents are large and medium buses, respectively, while passenger cars account for less than 15% of accidents. Factors contributing to the high rate of public transport vehicles in accidents include poor mechanical condition of vehicles, inadequate fleet management, lack of strict enforcement of regulations governing driver working hours, and reckless driving.

Recommendations and Proposed Solutions

Many of the challenges facing the public transport sector have arisen due to the failure to implement strategies and other public transport policies. This shortfall is largely attributed to the institutional fragmentation of responsibilities for public transport. Institutional reform to unify the institutional and operational arrangements for the public transport system is a priority and a proactive step toward implementing many of the strategy's proposals. The establishment of a dedicated entity for the joint operation of the Bus Rapid Transit (BRT) project will be a key component of this institutional reform.

The integration of other transport modes with BRT is a fundamental pillar for the development of the passenger transport sector. Therefore, efforts must be made to enhance the integration and complementarity of BRT with other transport modes, ensuring that the services provided by other modes act as feeders and complements to BRT services. For other transport modes to effectively serve as feeders, these vehicles must be upgraded and modernized, and operational and information systems must be developed. This will lead to an integrated and highly efficient public transport system. BRT will play a pivotal role in improving all public transport services and reducing individual ownership of buses and other public transport vehicles. However, BRT alone cannot generate sufficient revenue to cover the costs of infrastructure development, bus procurement, and operational expenses. This is where the public-private partnership (PPP) model comes into play, as it is the preferred method for delivering BRT services. Under this model, the public sector contributes to infrastructure development, construction, and maintenance, while the private sector handles vehicle procurement, maintenance, and operation.

With appropriate regulatory reviews, the investment in new public transport vehicles can be leveraged to achieve the strategy's goals related to emissions and safety. This will require a high level of coordination among relevant stakeholders to set achievable targets and standards for reducing emissions and improving the safety of public transport vehicles. Below are the key recommendations for improving the passenger transport system in Jordan:

- **Activate the Passenger Transport Law of 2017.**
- **Modernize passenger transport facilities.**
- **Implement infrastructure for sustainable urban transport and active mobility.**
- **Apply strict standards and regulations regarding safety and environmental impacts (emissions) for public transport vehicles.**
- **Design and develop training and qualification programs for public transport drivers.**
- **Design and develop public transport service monitoring programs, including the "Mawasilati" app for public transport behavior guidelines.**
- **Provide support and incentives for operating BRT and other public transport modes using electric power (electric buses).**
- **Enhance service quality through key performance indicators (KPIs) for implementing public transport behavior codes.**

- **Develop strategic plans to address issues related to individual ownership, using a holistic approach and integrative proposals that leverage technology and digital transformation, particularly in electronic payment systems.**
- **Establish clear standards for evaluating passenger transport services using technology, moving away from traditional methods that do not consider service quality.**
- **Develop strategic plans to address inter-governorate transport issues and improve service levels by creating interconnected transport lines supported by multimodal transport systems.**
- **Review the technical and environmental requirements for passenger buses operating in neighboring countries.**

The following table shows the link between the national objectives and the key principles of the sectoral transport policy to the strategic objectives.

Table (6): Linking National Objectives to Key Core Principles of Sector Transport Policy to Strategic Objectives

Strategic Objective	Axes of the Public Sector Modernization Vision	Initiatives in the Economic modernization Vision	Sectors	Sectoral objective	Key Principles of Transport Policy	Economic Growth Drivers Goals/ Quality of Life Engine
Developing Transport System and Services / Public Transport	Organizations / Human Resources Component	• Improving urban transport infrastructure • Harmonise and simplify legislation and procedures related to transport and trade facilitation • Developing road transport infrastructure • Applying the principles of sustainable development and environmentally friendly projects • Adopting standards and concepts of future cities	• **Quality of Life** • **Logistics and Transport** • **Urban Development Sector**	Providing a sustainable and resilient integrated transport system and making Jordan a transport hub	Complete the infrastructure of existing networks, optimize the use of transport facilities, and implement a multimodal transport system to contribute to enhancing competitiveness and facilitating transport and trade. Ensuring safe and affordable transport to achieve social development goals so that transport services are available to all segments of society regardless of socio-economic status, origin and gender	Improving the quality of life for all Jordanians through the development and application of citizen-centered and environmentally friendly concepts
Contribute to reducing the negative environmental impacts of the transport sector					Enhancing transport safety, protecting the environment and reducing carbon emissions from the transport sector while achieving sustainability	
Reduce traffic congestion						
Increase organisational performance					Human Resources Policy	

Table (5): List of projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10 SDG 11 SDG 13	Project goal: 1. To use scientific and technological methodology in organisational work. 2. Developing areas of organisational performance and addressing transport challenges. 3. Apply and activate smart transport systems in public transport. 4. Strengthening the national partnership between government organisations and the private sector. 5. Evaluate and organise the movement of public transport on roads and improve the management of the public transport fleet. 6. Raising the level and quality of road transport services provided to service recipients and adding innovative services. 7. Improving the reliability and accuracy of available data for use in planning transport policies. 8. Moving towards smart and environmentally friendly transport. 9. Reducing the use of private transport	Ministry of Transport Amman Municipality Transport Operators Ministry of Digital Economy Central Bank	Land Transport Regulatory Commission	Implementation, application and operation of (150) buses operating on the lines of subsidised public universities and Jerash governorate lines within the project to implement the comprehensive plan (as a first phase). Reduce fuel and lubricant consumption by (25-30) per cent. Increase the service recipient's (passenger) satisfaction rate to 80%.	Budget	1 million/ stage	2022-ongoing	A comprehensive and national intelligent transport system (ITS) project to improve public transport service
SDG 10 SDG 11 SDG 13	The project aims to develop public transport services by implementing a project to restructure public transport services in accordance with the outputs of the Kingdom's master plan study / Level (1) Providing a public transport network (within the governorate) Phase I: Implementing the outputs of the master plan in	Ministry of Transport Greater Jerash Municipality Public Transport Operators	Land Transport Regulatory Commission	Completion Rate	General budget	(Total cost 2.4 million) per year	2017- ongoing	Restructuring public transport services: Implementing the outputs of the masterplan in Jerash.

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	Jerash by restructuring the network of public transport lines in Jerash Governorate, both existing lines and new proposed lines as a result of urban expansion, so that they are in the form of groups serving the tracks with a specific geographical direction, and the required frequencies were reviewed and the frequencies were adjusted based on reality. Work is being done to provide infrastructure for the project (loading and unloading sheds) The working mechanism: -The Technical Committee reviewed the operational plan, which includes the financial support, the mechanism for calculating it, and the schedule of flights, and was approved by the Board of Directors -The Policy Committee requested that the committee submit an alternative plan to implement the project outputs that is not linked to the ITS project to prevent project delays. The alternative plan is currently being worked on by the Smart Systems Unit. The project is conditional on the following: 1. Implementation of the ITS system. 2. Establishing and clarifying the financial support mechanism for operators. 3. Signing operational contracts with all operators							
SDG 10	• Project goals:	Ministry of Planning and	Ministry of Transport		European Bank for	Grant from the European	2017-2025	Restructuring public transport services

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 11 SDG 13	• Establishing new transport companies according to the bus management model. • Providing buses with modern design and high quality service. • Providing a fare payment service through an electronic payment system.	International Co-operation Ministry of Finance Ministry of Environment Ministry of Local Administration	Wsp Land Transport Regulatory Commission Irbid Municipality Zarqa Municipality	Final Study Report	Reconstruction and Development (EBRD)	Bank for Reconstruction and Development (EBRD)		(within the city) according to the outputs of the Kingdom's master plan study: Rehabilitation of urban transport lines in Irbid and Zarqa: Phase I - Project Study
SDG 11 SDG 13 SDG 10	• The project aims to solve traffic congestion and mass passenger transport issues in a safe way, reduce accidents and environmental pollution, and preserve the road network by reducing the number of modes of transport, operational costs and fuel consumption.	Ministry of Public Works and Housing Social Security Investment Fund Ministry of Finance Zarqa Municipality Ministry of Planning	Ministry of Transport Greater Amman Municipality Land Transport Regulatory Commission	Number of passengers transported by BRT buses per year	Financial Leasing from the Social Security Investment Fund +Gulf Grant +Ministry of Transport Budget +Amman Municipality Budget	225 million (213 million of which is the responsibility of the Ministry of Transport)	2014 – 2023 2023 – 2026	Amman-Zarqa Bus Project The first phase: Infrastructure works (tracks and roads) Phase II: Infrastructure for complexes and facilities Phase III: Structuring the feeder line network
SDG 10 SDG 11 SDG 13	• Completion of the Shaheed Interchange and Tariq Ain Ghazal Link: The project includes the construction of a tunnel and two bridges on the Shaheed Interchange to serve buses and traffic, and the construction of two	Amman Municipality / Ministry of Transport	Amman Municipality	Infrastructure Completion Rate	Secretariat Budget + Ministry of Transport	20 (Twenty Million Dinars)	2021 – 2024 (expected completion date)	Phase II of the Tariq Ain Ghazal Link/ Completion of the Shaheed Interchange and Ain Ghazal Link Project

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	passenger stations equipped with pedestrian bridges, lifts and electric stairs. This project is the second package to connect with the Amman-Zarqa high-frequency bus.							
SDG 10 SDG 11 SDG 13	• The project aims to organize the existing public transport lines surrounding the Amman-Zarqa BRT project.	Ministry of Transport Zarqa Municipality	Land Transport Regulatory Commission Amman Municipality	Study Completion Rate	Greater Amman Municipality	160000	2022 – 2024	Amman-Zarqa feeder lines study project
SDG 10 SDG 11 SDG 13	• Implementation of the feeder line network for the Amman-Zarqa BRT project.	Ministry of Transport Zarqa Municipality	Land Transport Regulatory Commission Amman Municipality	Implementation Completion Rate	The source of funding will be determined after the study is finalized	The cost will be determined after the study is finalized	2025 – 2028	Implementation of the Amman-Zarqa feeder lines project
SDG 10 SDG 11 SDG 13	• This project is part of the Greater Amman Municipality's plan to expand the City Bus / Phase II network within the management and operation system and the use of technology to improve the level of service through the supply of 199 buses, 15 of which run on electric power.	Amman Vision/Supplier/Funder (EBRD)	Amman Municipality	Passengers per year	Amman Municipality	125 million dinars for the next five years	2019 – ongoing	Manage the Amman Bus Project's operating contract according to the Amman Vision Company's agreement with the Amman Council.
SDG 10 SDG 11 SDG 13	• The project aims to organize the existing public transport lines surrounding the high-frequency bus project in the city of Amman. The project will increase the demand for the use of high-frequency buses, which reflects positively on the desired	Consultant/ Land Transport Regulatory Commission/ Ministry of Transport	Amman Municipality	1. Number of feeder line studies 2. Preparing the operation plan for the feeder lines	Secretariat budget	Technical Studies 1 million Implementation through Ruya	2022 – 2024 (average end date)	Connecting Suburbs with Bus Rapid Transit routes

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	objectives of the project, and will also organize the public transport situation in the mentioned area by cancelling, merging, or creating new lines by cancelling, merging, or creating new lines.							
SDG 10 SDG 11 SDG 13		Amman Municipality Land Transport Regulatory Commission	Ministry of Transport / Land Transport Regulatory Commission	Study Completion Rate		1 million	2023 – 2025	Feasibility study for a regular transport project between Sweileh and Queen Alia International Airport
SDG 11 SDG 13 SDG 10	• Implementation: • All the main centers in the governorates have been completed except (Balqa and Zarqa), where each of the departure and arrival centers (Mafraq, Irbid, Jerash, Ajloun, Madaba, Ma'an, Karak and Tafila) have been rehabilitated. • • Study: • Engineering studies and plans were completed for the launch and arrival centers in the brigades (Ramtha, Petra Interior, Irbid North, Giza, Tafila Expansion, Petra Exterior, Southern Jordan Valley (Safi and Mazraa)).	Ministry of Public Works and Housing / Ministry of Local Administration / Land Registration and Survey Department / Court of Audit / Land Transport Regulatory Commission Operators and Users	Land Transport Regulatory Commission	Project Completion Rate	Budget	25 million without land acquisition and additional studies	2023 – 2027	Rehabilitating the infrastructure of the departure and arrival centers in the governorates and districts and providing them with facilities according to technical standards that ensure the provision of appropriate services to the parties to the transport process. The rehabilitation includes the departure and arrival center in Salt, Wadi Musa, Ramtha, Zarqa, Southern Jordan Valley complexes (Safi and Mazraa), Giza bus complex, Naour bus complex.

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10 SDG 11 SDG 13	• 464 public transport stops (umbrella) were implemented in Jerash, Madaba, Giza, Rusaifa, Sahab, Muwaqar, Zarqa. • Currently being implemented: • The final phase of Jerash/Urban Transport Lines • Umbrellas for loading and unloading stations in Qatrana	Ministry of Public Works and Housing Concerned municipalities Provincial councils	Land Transport Regulatory Commission	Project Completion Rate	Budget	500 Thousand	2023 – 2027	Completing the construction of passenger loading and unloading stations on public transport routes.
SDG 10 SDG 11 SDG 13	• Establish a passenger station: The passenger station is a connecting station between the Amman Express Bus and the Amman Express Bus, which is planned to be built within the station complex.	Amman Municipality / Ministry of Transport / Land Transport Regulatory Commission / Contractor	Amman Municipality	Implementation Completion Rate	Secretariat Budget + Ministry of Transport	31 million dinars	2023 – 2026 (average end date)	Construction of the passenger station "Al Mahatta"
	• Supply, installation, operation and maintenance of electronic payment systems, electronic tracking and CCTV cameras for 350 public transport buses within the boundaries of Amman Municipality by utilising the infrastructure of existing transport systems.	Bus Operators/ Bus Owners and Amman Vision.		Number of buses equipped with intelligent transport systems	Amman Municipality	700000 for the installation of devices and equipment in addition to JD60000 monthly operating costs	2022 – 2024	Implementation of Intelligent Transport System to improve public transport service within Amman Municipality
SDG 9 SDG 11	• Objective: To organise the queuing, loading and unloading of passengers.	Ministry of Transport Public Security	Land Transport Regulatory Commission	Study Completion Rate	Budget	JD 50000	2022 – 2024	Study to establish modern bus service areas near the King Hussein Bridge cross
SDG 9 SDG 11	• Objective: Develop infrastructure and establish modern transport services for passengers and drivers.	Ministry of Transport Public Security	Land Transport Regulatory Commission	Project Completion Rate	Budget	JD 1.5 million	2024 – 2026	Implementation of a study to establish modern bus service areas near the King Hussein Bridge crossing

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Developing regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10 SDG 11	• It aims to provide accurate information about the daily behaviour of household members and their daily movement outside the dwelling and identify current mobility patterns to provide a database and a detailed description of the socio-economic status of individuals and link it to their mobility behavioural patterns.	Land Transport Regulatory Commission Telecommunications Regulatory Authority Euro-Mediterranean Transport Project Telecommunications companies	Ministry of Transport	Study Completion Rate	Grant + Budget	350000	2025 – 2027	Study examines individuals' mobility behaviour using telecommunications data
SDG 10 SDG 11	• The project aims to include the specifications to be provided in buses for persons with disabilities and the elderly, provide two places for persons with disabilities in each bus (35 passengers and more) in addition to a suitable slope, and provide public tourist transport adapted for persons with physical disabilities in public and specialised tourist transport companies.	Ministry of Transport Supreme Council for the Rights of Persons with Disabilities	Land Transport Regulatory Commission	Number of drop-off and pick-up centres accessible to persons with disabilities. Number of buses for people with disabilities	Through the terms of the invitations	No funding is required (global ratios are calculated for requirements for persons with disabilities and their cost is included through projects that are linked to them)	Ongoing	Providing persons with disabilities with special equipment in public transport facilities and modes
SD8 SD9 SD11	• The role of the Ministry of Transport/ Land Transport Regulatory Commission: Providing a labour transport service to transport workers in industrial cities to and from companies/institutions operating in the targeted industrial zones in cooperation with the Ministry of Labour			The number of permits granted to transport modes that will transport labour to and from companies/institutions operating in the targeted industrial zones.		No cost	2024 – 2027	Providing public transport services to industrial cities

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Developing regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10 SDG 11	• By amending legislation related to bus specifications, conditions and requirements to modernize the public transport bus fleet.	Ministry of Transport / Bus and Truck Owners Companies / General Syndicate of Public Car Owners and Internal and External Travel / Public Transport Operators / Driver and Vehicle Licensing Directorate / Traffic Department	Land Transport Regulatory Commission	Number of buses and intermediate buses modernized	No cost	No cost	Ongoing	Modernising the public transport bus fleet: In line with the gradual implementation of the hierarchical network levels
SDG 10	• The initial draft of the fund's management system has been prepared and is awaiting approval from the Land Transport Regulatory Commission (LTRA).		Land Transport Regulatory Commission		No cost	No cost	Ongoing	Issuing the necessary regulations and instructions to activate the Passenger Transport Law No. 19 of 2017, especially with regard to the Passenger Transport Sector Support Fund, Article 11(c) of the law

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-cantered life concepts								
Strategic Objective Reduce traffic congestion								
The program develops regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 10	• With the aim of developing services related to transporting students and employees of educational institutions for a fee by school transport from their residence or collection points to the headquarters of educational institutions and vice versa, and managing the organisation and operation of school transport modes.	-	Land Transport Regulatory Commission	Number of licensed companies	Investment Opportunity for Operators	No cost	Ongoing	School Transport Project
SDG 8 SDG 10	• The idea of this project is to promote university and school transport for university and school students: • Project objectives: • Minimise traffic congestion during peak hours. • Contribute to reducing carbon emissions. • Promote public transport at the expense of private transport	Public universities	Land Transport Regulatory Commission	Spending percentage	General budget	100 Million	Ongoing	Wage subsidy project for public university students
SDG 9 SDG 11	• Objectives of the project • Increase economic productivity and reduce travel time and cost for the benefit of the state, the traveller and the operator. • Improve road safety. • Reduce congestion and improve the level of services. • Reduce energy consumption and preserve the environment. • 7 companies have been licensed and are currently studying the need and volume of demand in the Kingdom for smart application services	Driver and Vehicle Licensing Department	Ministry of Transport Land Transport Regulatory Commission	Number of licensed companies	Private Sector	No cost	**2018-Ongoing**	Organising passenger transport through the use of smart applications

SDG 8 SDG 11	• The project aims to study the need and volume of demand in the Kingdom for tourist rental, limousine and passenger transport services through the use of smart applications and taxi services. • The tender was launched at the end of 2023 • The tender was referred to the company and the implementation of the study will start at the beginning of 2024 with the consultant	Ministry of Transport, Amman Municipality. Referred Consultant	Land Transport Regulatory Commission/ Consultancy firm	A smart application that provides on-demand transport for users through yellow taxis and/or buses. - Study Completion Rate	General budget	200000	2023-2025	A study to determine the need and size of demand in the Kingdom for tourist rental, limousine and passenger transport services through the use of smart applications and taxi services
SDG 10	• Transporting public and private sector employees by organisation-owned buses to common departure and arrival areas and stations to reduce traffic congestion by reducing the use of private cars				No Costs	No cost	2022-2027	Administrative transfer study for public sector employees
SDG 10	• Project Objective: Reduce traffic congestion at peak times, and requires the issuance of legislation to regulate working hours, taking into account all relevant data such as schools, universities, nurseries, and vital sectors and services. • The implementation of the project is linked to the implementation of the outputs of the administrative transport study for public sector employees.				No Costs	No cost	Ongoing/Based on the results of the Public Sector Administrative Transfer Study	Studying the organisation and distribution of working hours (flexible working hours)

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective Raise the level of organisational performance								
The programme develops regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10	• To raise the level of efficiency of workers in the transport sector, improve the quality of transport services provided and enhance road safety	Ministry of Transport Royal Automobile Club Public Security Jordanian Society for Road Accident Prevention	Land Transport Regulatory Commission	Number of employees benefiting from training	At the expense of the trainee	No cost	2021 – Ongoing	Rehabilitation and Training of Land Transport Sector Workers / Phase II
SDG 11	• The project aims to ensure that all government vehicles are included in the system and restructure the government fleet of vehicles through a comprehensive database. The project also aims to achieve an environmental impact by reducing gas emissions from government vehicles as a result of their use	All government entities Private sector companies implementing the project Public Security	Ministry of Transport	Installation, operation and maintenance of 12600 electronic tracking devices. (including 93 government buses and 1540 government buses)	Budget + Support from the Rural Phils Fund	JD 2.53 million	2015 – Ongoing	Government vehicle tracking project (12,600 vehicles/vehicles/ buses) in its first, second and third phases.
SDG 9	• Objective: Increase the quality of road transport services	Amman Municipality	Land Transport Regulatory Commission	Project Completion Rate	Budget	350,000	2023 – 2025	Computerised Transport Forecasting System Development Project / Enhancing Public Transport Services
SDG 9 SDG 11	• Objective: Upgrading and developing the infrastructure of the road transport sector	Information Technology Centre Amman Municipality - Ministry of Digital Economy - Public Security Directorate - Jordan Customs	Land Transport Regulatory Commission	Project Completion Rate	Budget	800,000	2021 – 2025	Modernising and building a database for all modes of transport

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective Raise the level of organisational performance								
The programme develops regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
		- Ministry of Industry and Trade Information Technology Centre						
SDG 9 SDG 11	• Developing, updating and building a geographical database containing the data of the lines in the governorates included in the project, so that the result is a centralised system that contains all the data that will be collected in the surveys of various types (images, video, spatial data, etc.) and display them in an appropriate way. • Restructuring the systems used in the passenger transport sector in the Kingdom and improving the movement of citizens and providing them with high quality service. • Modernising and developing land transport services and minimising the necessary procedures. • Achieving financial savings under difficult economic conditions	Ministry of Digital Economy	Land Transport Regulatory Commission	Number of targeted governorates (9 governorates). Number of lines surveyed, number of loading and unloading places surveyed, and number of bus stops surveyed. The number of illustrative maps of the lines and the number of human cadres trained on the geospatial base.	Budget	400,000	2022 – 2024	Land Transport Regulatory Commission Geospatial Base Building Project / Phase II
SDG 9 SDG 11	Goal: • To create an electronic means of monitoring public transport modes and their availability at departure and arrival centres. • Manage the public transport fleet optimally in terms of distributing buses on busy lines during peak hours.	Ministry of Transport Private Sector	Land Transport Regulatory Commission	The number of departure and arrival centres that will be covered by electronic surveillance. Number of cameras to be installed	Budget	100,000	2022 – 2024	Project to provide electronic surveillance systems for public transport at departure and arrival centres (CCTV) / Phase II

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective Raise the level of organisational performance								
The programme develops regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	• Evaluate the work of the Authority's controllers at the departure and arrival centres. • Provide a holistic and integrated view of the departure and arrival centres in terms of bus availability and congestion management. • Provides information on the movement of buses through the departure and arrival centres. • Providing means for public transport users to feel safe within the departure and arrival centres. Evaluate the work of the Authority's controllers at the departure and arrival centres. • Provide a holistic and integrated view of the departure and arrival centres in terms of bus availability and congestion management. • Provides information on the movement of buses through the departure and arrival centres. • Providing means for public transport users to feel safe within the departure and arrival centres.							
SDG 10	• The Code is designed to protect the rights of all public transport workers and users in accordance with high ethical standards in order to achieve a distinguished public transport service and an optimal work environment.	Ministry of Transport Regulatory Authority Amman Municipality.	Land Transport Regulatory Commission	Blog Implementation	Grant	None	2017 – 2025	Implementation of the Code of Ethical and Professional Conduct for users, workers and operators of public passenger transport facilities and modes

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective Raise the level of organisational performance								
The programme develops regulatory procedures for the public transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	Justification of the project • Improving the efficiency of public transport services • Increase public transport users • Providing wider coverage of transport services	Public Transport Operators/Users	Land Transport Regulatory Commission	Implementing the study and reflecting the recommendations	General budget	60,000	2025 – 2026	Public Transport Services Evaluation Study

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Contribute to reducing the negative environmental impacts of the transport sector								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 11 SDG 13	• 10 per cent of all buses will be electrified to evaluate the experience	Ministry of Transport / Land Transport Regulatory Commission	Amman Municipality / Operator	Operation of green buses in the Bus Rapid Transit (BRT) project	Grant	7.5 million	2025 – 2026	Operation of green buses in the Bus Rapid Transit (BRT) project
SDG 8 SDG 11 SDG 13	• Environmentally sustainable: Does not emit polluting gases either during combustion or during production. • Storable: Hydrogen is easy to store, allowing it to be used later for other purposes and at other times after production. • Versatile: Green hydrogen can be converted into electricity or synthetic gas and used for domestic, commercial, industrial or transport purposes. • Transportable: It can be blended with natural gas up to 20% and use the same gas pipelines and infrastructure.	Ministry of Environment Ministry of Transport Ministry of Water Ministry of Planning	Ministry of Energy	Study Completion Rate	Grant	500,000	2024 – 2025	Study the feasibility of using green hydrogen (produced by electrolysis of water into hydrogen and oxygen, without any by-products) as an alternative to fossil energy
SDG 8 SDG 11 SDG 13	• The project aims to catalyse and accelerate the promotion of electromobility in Jordan's tourist areas	Ministry of Transport Ministry of Environment Ministry of Planning	Petra Region Tourism Development Authority	Number of electric buses	Grant	5 million	2023 – 2025	Operating electric green buses for tourist transport in the city of Petra and the surrounding archaeological and tourist areas.

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
80%	79%	76%	73%	70%	68%	68%	2020	Satisfaction with public transport services	Developing Transport System and Services / Public Transport
68%	0.66	**0.63**	**0.60**	**0.58**	0.58	0.7	2020	Number of public transport vehicles per 1000 inhabitants	
800	762	722	672	622	572	412	2021	Number of eligible upload and download positions	
18%	18.5%	19%	20%	21%	22%	23%	2019	Percentage of household expenditure on transport	

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
12.8	12.9	12.9	13	13.1	13.4	13.7	2020	Average operating life of public transport buses	Contribute to reducing the negative environmental impacts of the transport sector
12	12	12	12.4	12.5	12.6	12.8	2020	Average operating life of medium buses	
40%	35%	20%	10%	5%	1.32%	-	-	Proportion of electric or hybrid public vehicles (smart apps / public buses / taxis) to total public vehicles	
65%	60%	55%	50%	45%	40.11%	-	-	Proportion of hybrid public vehicles (smart applications / public service / taxi) to total public vehicles	

The value Targeted 2028	The value Targeted 2027	The value Targeted 2026	The value Targeted 2025	The value Targeted **2024**	Value	Base year	Measurement indicators	Strategic Objective
25.40	25.35	25.30	25.27	25.22	25	2022	Value added to the passenger road transport sector	Improving organisational performance
> 6	> 6	> 6	6	4	3.5	2021	Savings realised from the implementation of the e-tracking system (million dinars)	

3.3. Sustainable Urban Transport

Current Situation

Sustainable urban transport is centered around individuals in society, aiming to improve their access to services, reduce the distances they travel, and encourage the use of non-mechanical transport, shared mobility, and public transport to minimize trips relying on private vehicles.

Walking is the natural choice for short trips under 2 kilometers. It is particularly important for low-income groups, as it serves as a primary mode of transport, enabling them to access various services. Increasing the number of trips made by cyclists, especially for short and medium distances, improving access to services using bicycles, and providing safe spaces and infrastructure for cyclists while integrating them into all stages of design and planning are key elements for achieving the strategy's goals.

Sustainable urban transport is also crucial in the context of school transport, particularly for school trips. Many students in public schools walk to school, which plays a significant role in their long-term health and physical activity. However, it is essential to provide safe and efficient infrastructure that allows children to reach their schools without direct exposure to traffic risks.

Although the total kilometers traveled decreased during the COVID-19 pandemic, the number of trips made by walking and cycling increased globally. This trend can be leveraged by encouraging active transport, the use of electric bicycles, shared mobility, and various transport modes to reduce reliance on private vehicles. However, overall fitness and physical activity levels are low in Jordan, and smoking rates are high, with 6% of Jordan's GDP spent on smoking. According to the World Health Organization (WHO), 8 out of 10 Jordanians smoke or regularly use nicotine products, including e-cigarettes. Therefore, walking and cycling are ideal solutions to this problem. Encouraging walking and cycling will significantly improve health levels and life expectancy across Jordan. According to the WHO, 23% of adults aged 18 and older were physically inactive in 2010 (20% of men and 27% of women). In high-income countries, 26% of men and 35% of women were physically inactive, compared to 12% of men and 24% of women in low-income countries. Low or declining levels of physical activity often coincide with high or increasing levels of gross national product. The decline in physical activity is partly due to inactivity during leisure time and sedentary behavior at work and home. Similarly, the increased use of "passive" modes of transport also contributes to physical inactivity. The WHO recommends making walking, cycling, and other forms of active transport accessible and safe for everyone.

Challenges

The low number of users of sustainable urban transport can be attributed to the lack of a clear strategy and action plan, despite sustainable urban transport being one of the least costly and most effective modes, especially for short trips. Additionally, safety remains the most influential factor regarding walking and cycling. Therefore, providing safe infrastructure and dedicated lanes that separate cyclists from other transport modes is crucial to encouraging more people to adopt active transport. According to the 2021 Annual Report on Traffic Accidents in Jordan, the table below shows the number of pedestrian injuries based on their actions at the time of the accident. In Jordan, there were 208 pedestrian fatalities, including 5 pedestrians walking on sidewalks, 157 pedestrians walking on the road, and 6 cyclists. This highlights the urgent need for safe infrastructure to reduce road casualties.

Table (7): Pedestrian Injuries in Accidents by Their Actions in 2021

Death	Severe injury	Medium injury	Minor injury	Pedestrian behavior
157	220	1598	1449	Walking on the road
5	6	34	26	Walking on the sidewalk
2	2	7	1	Walking or standing on center islands
11	5	76	78	Running on the road
4	1	12	21	Off the road
6	13	56	55	Bicycle
1	0	1	0	Pushing or pulling a cart
1	1	6	10	Waiting to ride
3	3	47	46	Walking on the road because there is no sidewalk
0	0	1	5	Walking on the road against the direction of travel
18	28	186	221	Other
208	279	2024	1912	**Total**

The following points outline the main challenges facing sustainable urban transport systems in the Kingdom:

- **Lack of infrastructure** that encourages walking and cycling.
- **Fear of accidents** and difficulty sharing roads with vehicles.
- **Low levels of physical activity and fitness**.
- **Fatigue and exhaustion** associated with walking and cycling.
- **Lack of a database** on the number of bicycle and electric bicycle users.
- **Challenging terrain** and unsuitable weather conditions, especially during summer and winter.
- **Perception of cycling** as a hobby or sport rather than an effective mode of transport.
- **Outdated urban design** that does not encourage walking or cycling.

Recommendations and Proposed Solutions

The strategy aims to achieve an integrated transport system that connects various sustainable transport modes by planning to develop infrastructure that is attractive for walking and cycling while enhancing public transport services. Active transport, including walking, cycling, or using electric bicycles, along with various public transport modes, is viewed as an integrated transport system that aligns with national and strategic goals. This will require joint cooperation among various entities and ministries, as well as support from the private sector. Effective administrative methods for profit-sharing, cost-sharing, risk management, and success evaluation must be developed. Additionally, changing the current societal perception of cycling and electric bicycles and promoting their daily use for short and medium trips is essential, as they play a significant role in reducing traffic congestion, environmental and noise pollution, enhancing urban attractiveness, reducing the need for parking spaces, and improving public health. Furthermore, active transport can empower women by providing a relatively affordable and accessible mode of transport, thereby increasing their productivity and integration into society. To ensure this, efforts must be made to provide comfortable options, such as bicycles designed for mothers and working women, to encourage their broader participation in society.

The key recommendations for achieving a comprehensive and sustainable transport system include:

- **Developing a clear strategy** for sustainable urban transport.
- **Creating dedicated bicycle lanes** and providing parking and storage facilities for bicycles.
- **Conducting comprehensive studies** on sustainable urban transport, focusing on active transport such as cycling and walking.
- **Launching awareness campaigns** to encourage the use of bicycles and walking.
- **Providing shared bicycle programs** at symbolic prices.
- **Improving and amending laws** to make them pedestrian- and cyclist-friendly.
- **Offering incentives** to companies and institutions that provide infrastructure for pedestrians and cyclists and encourage their employees to use these modes.
- **Enhancing pedestrian facilities** in commercial and tourist areas, as well as around schools and universities, to make urban areas pedestrian-friendly.

Active transport, such as cycling and walking, is environmentally friendly and helps reduce the number of private vehicles, making it a proposed solution for lowering transport-related emissions, pollution, and noise.
Shared mobility aims to maximize the number of passengers per vehicle and promote road-sharing by encouraging passengers to share trips to the same destination, such as universities or workplaces. This significantly reduces trip costs, congestion, and environmental pollution. Providing an effective shared mobility service will also help reduce individual vehicle ownership and increase reliance on public transport. There are three main ways to encourage shared mobility:

- **Prioritizing buses, minibuses, and Bus Rapid Transit (BRT)** by creating dedicated lanes for buses and minibuses and completing the BRT project.
- **Encouraging app-based shared mobility** and giving priority to shared trips, while creating a database to help passengers book shared rides.
- **Providing incentives** to car owners who offer shared mobility services.

Table 8: List of Projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / public transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 3 SDG 9 SDG 11 SDG 13	• The project aims to prepare studies for pedestrian and cycling paths that are pursued within the modernisation vision of the projects included in the Amman Smart City Map. • Model sidewalks project within main streets (within the concept of accessibility for all and urban rehabilitation) and in cooperation with the Supreme Council for Disability Affairs, including but not limited to (Model Neighbourhood in Jabal Al Hussein / Phase 1 (outlet), Model Neighbourhood in Jabal Al Hussein / Phase 2, rehabilitation of King Abdullah I Street / Marka, streets surrounding Abdali Boulevard project, Luweibdeh Street and Baounia Street ..... etc.)		Amman Municipality	Number of pedestrian-related accidents	Amman Municipality Budget	10 million	2024	Pedestrian Arterial Street Rehabilitation Project

3.4. Road Freight Transport

Current Situation

The freight and cargo transport sector is a vital contributor to the economy due to its direct impact on the movement of goods to and from the Port of Aqaba and through land border crossings, ensuring the continuous flow of goods to and from neighboring countries. However, the road freight transport sector using trucks has undergone significant changes in recent years, leading to its decline, particularly in trade with neighboring Arab markets. This decline is primarily due to political developments in Iraq and Syria, which resulted in the closure of land borders for several years.

The economic importance of the freight transport sector lies in its contribution of approximately 50% of the total value added by the transport sector to the Gross Domestic Product (GDP). Despite this, the sector's contribution to GDP remains below its potential. Figure (10) illustrates the value added by road freight transport as a percentage of the total value added by the transport sector to GDP for the period (2011-2018).

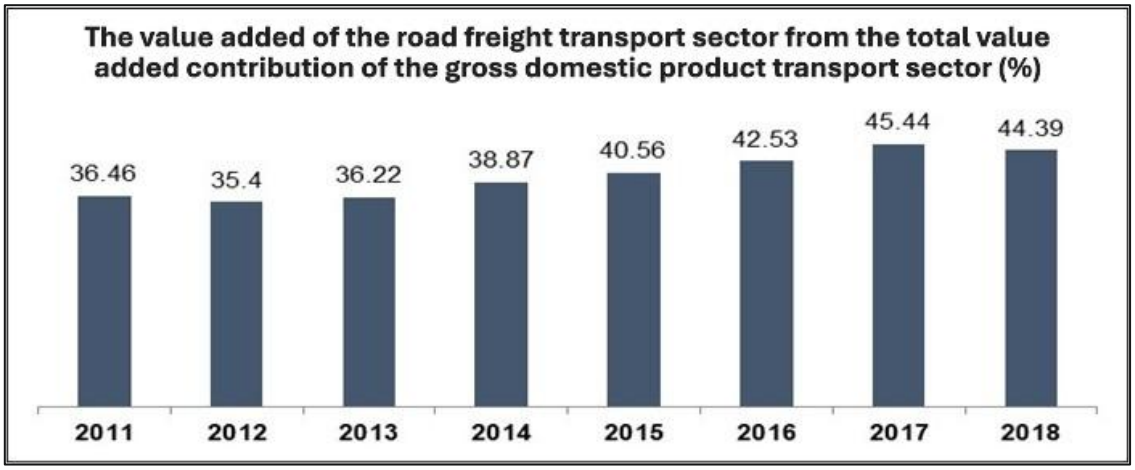


Figure (9): Value Added by Road Freight Transport as a Percentage of the Total Value Added by the Transport Sector to GDP (%) for the Period (2011-2018)

In Jordan, there are four primary markets for freight transport:

1. **Local Container and General Cargo Transport**: A highly competitive market with numerous operators and customers, characterized by abundant supply, relatively low service quality, low tariffs, restrictive regulations, and low profitability.
2. **Local Dry and Liquid Bulk Products**: A less competitive market with fewer operators and customers, limited supply, high tariffs, reliable services, and high profitability.
3. **Export and Import of Goods**: Goods whose origin or destination is Jordan.
4. **Transit Freight**: Freight that neither originates nor is destined for Jordan but passes through the country, with Jordan providing a cost-effective transit route.

Currently, all these markets are served exclusively by trucks transporting goods on roads, especially since the Aqaba Railway Company ceased its operations. Therefore, developing and reactivating rail freight transport is a priority. A modern, interconnected, and interoperable freight transport network with neighboring countries is seen as the way to link and integrate current and future transport terminals and hubs with industrial/commercial destinations and development zones. In this regard, the following measures have been implemented:

- **Enhancing the Port of Aqaba** as a major gateway for exports, imports, and transit trade (expanding the container port and relocating/developing key terminals in the Southern Industrial Port).
- **Developing Land Ports and Logistics Centers**: Including container handling and storage, customs clearance and inspection, packaging, bonded storage with warehouses, value-added services, and commercial offices.
- **Truck Service Areas at Border Crossings**: With facilities for both vehicles and drivers.

The lack of funding for the railway project, the slow modernization of the truck fleet, and the absence of toll highways are obstacles to the development of the freight transport sector. However, given the importance of these measures in providing Jordan with a competitive advantage and reducing local trade costs, they remain top priorities for the strategy. If the railway project is implemented alongside the modernization of truck transport—including incentives for fleet renewal, enforcement of legislation and licensing, toll highways, and alternative routes—Jordan will gain a competitive edge in the region. These improvements, particularly in rail transport, are expected to move over 20 million tons of goods annually and reduce road traffic by 4,200 million ton-kilometers.

Key indicators for the road freight transport sector show a decline in demand accompanied by an increase in supply, leading to lower transport fees. By the end of 2022, the number of transport trucks reached 20,308, with only 60% in operation. The significant increase in the number of trucks in the Kingdom has flooded the market, reducing competitiveness and limiting business opportunities.

Compared to the demand for freight transport services, the current truck fleet is relatively large, especially for fixed-axle trucks and semi-trailers. Approximately 10,000 trailers are operated by individual owners, while about one-third are operated by companies, most of which are small businesses owning 10 trucks or fewer. Only 10% of trucking companies have fleets of 50 trucks or more. To address this issue, a ban was imposed on purchasing new trucks unless they replaced existing ones, but this solution has not been effective. Registering individual owners under contracts with companies has partially reduced the share of individually owned trucks, which was estimated at 68% in 2021, down from a peak of 72% in 2017, as shown in the figure below.

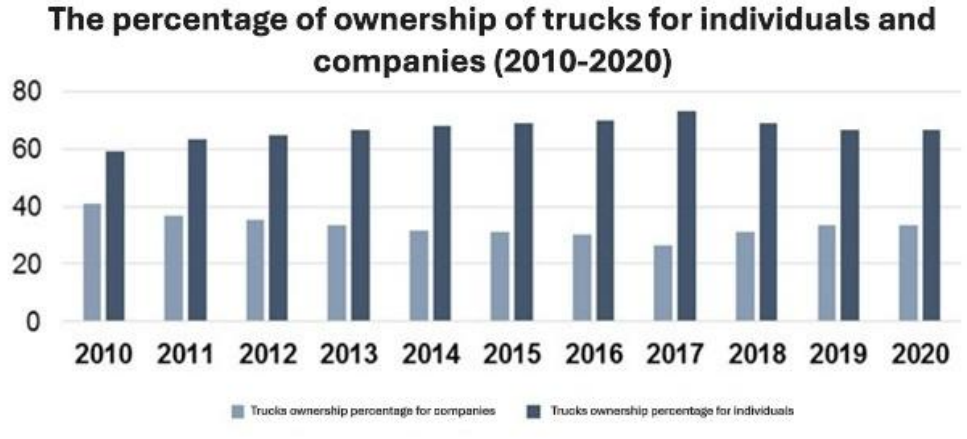


Figure (10): Percentage of Truck Ownership by Individuals and Companies (2010-2020)

The average age of the road freight transport fleet reached approximately 19.2 years in the second quarter of 2023, according to data from the Land Transport Regulatory Commission's website. This indicator, if it continues to worsen, could prevent the trucking sector from accessing other external markets, particularly in the Gulf region.

Despite the surplus in the number of trucks, there is a shortage of dedicated facilities for trucks, such as truck parking areas with driver rest stops, maintenance facilities, and storage and loading facilities. These facilities are typically provided by the private sector but sometimes require support and encouragement from the public sector. The strategy aims to support the implementation of such projects through public-private partnerships.

Challenges

The freight transport sector faces numerous challenges, the most prominent of which include:

- **Overcapacity of the Jordanian freight truck fleet** and insufficient cargo loads compared to the number of operating trucks.
- **Low safety standards** for trucks, high emissions from trucks, and rising maintenance costs, along with an aging truck fleet, which affects local trade costs and international trade competitiveness.
- **High individual ownership**, particularly of general cargo and container trucks, compared to company ownership.
- **Competition with foreign refrigerated trucks** due to the high operational costs of Jordanian refrigerated trucks, fuel price differences, and lower prices of foreign refrigerated trucks.
- **Limited number of trucks meeting international agreement requirements**, despite Jordan's interest in joining international agreements that facilitate truck entry and exit procedures, opening new markets for Jordanian trucks.
- **Lack of service facilities** for the freight sector in Jordan, such as truck parking and rest areas, logistics centers, and land ports, as well as the absence of a legislative framework regulating the establishment, management, and operation of these facilities.
- **Aging freight transport fleet**, leading to a lack of compliance with safety standards, higher operational costs, and reduced competitiveness.
- **Political instability in the region**, limiting the activities of Jordanian trucks, especially transit transport, and reducing goods transiting to neighboring countries through the port.
- **Inability to enforce or monitor safety standards** by the relevant regulatory authority due to individual truck ownership.
- **Inability to issue cargo insurance** for goods transported by individually owned trucks.
- **Difficulty in fleet modernization** under the current project, as the exemption from sales tax is insufficient, evidenced by the limited number of trucks and individual beneficiaries of the project.
- **Inability to collect income tax** from individual owners on transport operations.

Recommendations and Proposed Solutions

The following points outline the recommendations and proposed solutions related to freight transport:

- **Review safety and emissions regulations** to reduce the size of the truck fleet while improving safety and reducing emissions.
- **Review current vehicle ownership plans**.
- **Propose measures and initiatives** to replace old trucks with modern ones that comply with emission standards and safety principles, ensuring a reduction in individual truck ownership.
- **Complete plans for establishing land ports and logistics centers**, including financing plans.
- **Conduct studies to review vehicle emissions and safety regulations**.
- **Conduct a study to reduce individual ownership**, including individual owners who may change their scope of operations.
- **Prepare tender documents** for the establishment of land ports and logistics centers (based on public-private partnerships).

- **Consult and decide on new tax exemptions** for truck imports.
- **Develop a plan to update regulations and information systems** for road freight transport.
- **Implement new systems and laws** for vehicle taxation.
- **Provide attractive incentives** to encourage more individual owners to register with trucking companies.
- **Implement a new electronic information system** for road freight data.
- **Propose projects to provide transport services** for workers in free zones.
- **Enhance the competitiveness and protection of Jordanian carriers**, especially in vehicle transport, by improving the skills of workers in this sector, providing highly efficient Jordanian carriers, and concluding international agreements and understandings.
- **Study a clear and dedicated project** to address the high rate of individual truck ownership.
- **Form a task force** to review all laws and regulations related to transport operations and coordinate with all relevant entities to ensure optimal operation of carriers and operators in the freight sector, such as the Customs Clearance Syndicate, the Land Transport Syndicate, the Jordan Navigation Syndicate, the Logistics Syndicate, the Ports Corporation, port operators, and relevant authorities under the Ministry of Transport and the Jordan Customs Department.

Table 9: Linking key transport policy and sectoral objectives to strategic goals

Strategic Objective	Axes of the Public Sector Modernisation Vision	Initiatives in the Economic Modernisation Vision	Sectors	Sectoral objective	Key Policy Principles	Economic Growth Drivers Goals/ Quality of Life Engine
Developing the transport system and services / Road freight transport	• **Services Axis / Government Services Component and Procedures and Digitisation Component**	• **Harmonise and simplify legislation and procedures related to transport and trade facilitation** • **Developing road transport infrastructure** • **Implementation of sustainable development principles and environmentally friendly projects** • **Developing road transport infrastructure and ports**	• **Logistics and Transport**	**Providing a sustainable and resilient integrated transport system and making Jordan a transport hub**	**Develop strategies that incentivise investments to develop the sector in order to stimulate economic growth, which is achieved through an effective and efficient transport system.** **Emphasise the regional dimension and take advantage of Jordan's geographical location and optimise it.**	Improving the quality of life for all Jordanians through the development and implementation of citizen-centered and environmentally friendly concepts
Contribute to reducing the negative environmental impacts of the transport sector					**Enhancing transport safety, protecting the environment and reducing carbon emissions from the transport sector while achieving sustainability.**	

Table 10: List of Projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / road freight transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 9 SDG 11 SDG 13	The project aims to prepare a new holistic plan for the area in line with the existing investment opportunities) In preparation for linking it with the railway network, a technical committee is working on the study		Ministry of Transport	Study Completion Rate	Budget	100,000	2023 – 2024	Study the redistribution of land owned by the Ministry of Transport in the Madouna area adjacent to the new Amman Customs Centre (to prepare a new comprehensive plan for the area in line with the existing investment opportunities in preparation for linking it to the railway network
SDG 9 SDG 11		Ministry of Transport Jordanian Customs Ministry of Public Works Land Department (State Property) Truck Owners Syndicate Private Sector	Land Transport Regulatory Commission	Project Completion Rate	Budget or through an investor Investment Opportunity	1.5 million	2025 – 2027	Implementation of a truck parking centre in Amman

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / road freight transport								
The software: Developing regulatory procedures for the transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 11 SDG 13	The project aims to: Modernize the heavy transport fleet with trucks that have a lower environmental impact, and reduce the economic costs of transport by reducing the impact of trucks on infrastructure and energy, which constitute the largest proportion of their operational costs. Giving Jordanian trucks a more competitive opportunity to enter the international transport market and to neighbouring countries.	Ministry of Transport Ministry of Finance Jordan Customs Public Security / Drivers and Vehicles Licensing Department	Land Transport Regulatory Commission	Number of updated trucks		No cost (Procedural pack and studies)	Ongoing	Replacement modernisation of the trucking fleet to increase competitiveness and comply with the requirements of international agreements
SDG 8 SDG 11	Objective: To provide a standardised reference for road transport cost and wage accounts. Mechanism: Identify the elements of cost and wage calculation for road transport. Develop a mechanism and formulas for calculating the cost of wages (freight and general transport). Training the relevant employees of the Authority on this mechanism		Land Transport Regulatory Commission	Study Completion Rate	--	No cost	2023-2024	Study of road freight costs to total fuel cost

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / road freight transport								
The software: Developing regulatory procedures for the transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 11 SDG 13	The project aims to: Modernize the heavy transport fleet with trucks that have a lower environmental impact, and reduce the economic costs of transport by reducing the impact of trucks on infrastructure and energy, which constitute the largest proportion of their operational costs. To encourage workers in the freight transport sector to use electric trucks, Cabinet Decision No. (12788) was issued on 6/8/2023, exempting electric-powered locomotive heads from the special tax imposed on them and exempting locomotive heads to be imported for the purposes of replacement modernisation from the general sales tax, in addition to allowing the import of locomotive heads that are 8 years old according to Cabinet Decision No. (11342) dated 9/4/2023. Giving Jordanian trucks a more competitive opportunity to enter the international	Ministry of Transport Ministry of Finance Jordan Customs Public Security / Drivers and Vehicles Licensing Department	Land Transport Regulatory Commission	Prepare the necessary legislation and study the financial impact of the exemptions required for the replacement modernisation process		No cost (Procedural pack and studies)	Ongoing	Individual Operator Licence

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / road freight transport								
The software: Developing regulatory procedures for the transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	transport market and to neighbouring countries.							
SDG 8 SDG 11	Objective: To provide a standardised reference for road transport cost and wage accounts. Mechanism: Identify the elements of cost and wage calculation for road transport. Develop a mechanism and formulas for calculating the cost of wages (freight and public transport). Training the relevant employees of the Authority on this mechanism	Ministry of Transport Military Retirees Association / Airport Cargo Rollers Aqaba Logistics Village Concerned unions	Land Transport Regulatory Commission	Study Completion Rate	Budget	50,000	2025-2026	Study on the regulation of light and medium freight (20 tonnes gross weight and below)
SDG 8 SDG 11	Building a new database of cargo transport patterns and issuing all related documents within the jurisdiction of the Authority and the Aqaba Special Economic Zone Authority, as well as integrating all services and linking them with partner organisations.	Ministry of Digital Economy and Entrepreneurship + Aqaba Special Economic Zone Authority + Customs + Public Security Directorate	Ministry of Digital Economy and Entrepreneurship	Number of documents and authorisations		No cost	2023-2024	Unified Transport System Project

Table 11: Measuring indicators at the strategic goal level

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
57%	55%	55%	53%	51%	49%	58.7%	2021	Proportion of towing heads with an operational age of 20 years or less to total heads	Developing the transport system and services / Road freight transport
374	364	364	354	344	334	350	2020	Number of specialised transport companies	
21,000	20,000	19,000	19,000	19,000	19,000	-	2021	Number of trucks with electronic tracking systems	

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
18.7	18.8	18.9	19	19.1	19.2	19.1	2021	Average age of shipping fleet (years)	Contribute to reducing the negative environmental impacts of the transport sector
5000	5000	4975	4925	4875	4825	4161	2021	Number of trucks owned by organised companies.	

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
44.74	44.69	44.64	44.59	44.54	44.49	44.39	2018	Value added to the road freight transport sector	Raising the level of organisational performance

[redacted]

3.5. Railway Transport

Current Situation

The Aqaba Railway Company manages part of the existing narrow-gauge railway, which is 294 kilometers long. It previously transported phosphate and other mining products from the mines to the Port of Aqaba (the old phosphate port). However, operations ceased in 2018 due to the relocation of the phosphate port to the new southern port, which is not connected to the railway, as well as a lack of funding. The Aqaba Railway Company used to transport approximately 3 million tons of phosphate to the port annually. Meanwhile, the Hejaz Jordan Railway Corporation manages other sections of the railway (210 kilometers), which are currently not operating regular services due to their century-old infrastructure. The figure below compares the railway networks in Jordan and neighboring countries in the region.

The Hejaz Railway primarily offers tourist services using old trains from Amman to Wadi Rum. Scheduled passenger services, such as Amman-Damascus and Amman-Zarqa, along with city center connections to railway stations, were discontinued in recent years due to low demand and political reasons.
The establishment of a railway network in Jordan is of strategic importance for developing the transport sector and enhancing Jordan's role in the region. Railways play a vital role in regional connectivity between the Middle East and the Gulf on one side and Europe on the other, as well as linking major industrial cities and logistics centers across Jordan. The importance of this lies in the following:

- **Direct impact on national economic growth**.
- **Securing and enhancing regional connectivity** with railway networks in Gulf Cooperation Council (GCC) countries, Syria, and Iraq, and from there to Europe and Asia.
- **Creating integration and connectivity** between the railway system, maritime and air transport, and road transport.
- **Linking the network to economic, industrial, and commercial zones** to maximize the benefits of rail freight transport by providing essential connections between major economic activity centers in the Kingdom.
- **Increasing freight handling capacity**, reducing transport costs, improving competitiveness, lowering road maintenance costs, and creating new job opportunities.
- **Improving safety and reducing accidents** on major roads.
- **Enhancing environmental protection** by reducing smoke and gas emissions from trucks and heavy machinery.

The envisioned benefits of enhancing railway connectivity in Jordan (especially from a regional perspective) have expanded to include:

- **Reducing congestion on roads and highways** and lowering road maintenance costs.
- **Saving fuel consumption** and reducing greenhouse gas emissions, estimated at 10% compared to road freight for the same shipment volumes.
- **Improving the competitiveness** of mining products in the international market.
- **Enhancing Jordan's attractiveness** as a trade and shipping hub for the Middle East.
- **Transit routes through Jordan** being seen as an alternative to the Suez Canal, with the potential to link Beirut and Latakia in Lebanon through Jordan to the new Faw Port in Iraq.

Financing the national standard-gauge railway network remains a major obstacle to its implementation, as no part of it has been built yet. Although funding has not been secured, feasibility studies for the first and second phases of the standard-gauge railway network have been updated, and engineering designs and tender documents for the first phase (from Amman via Ma'an to Aqaba) have been prepared. Approximately 66% of the land required for the project has been acquired. The Aqaba Development Corporation is currently conducting a study to assess the impact of the first phase of the national standard-gauge railway network on road freight transport and its economic and social impact. This study is essential for understanding the socio-economic consequences of the national standard-gauge railway network and will help design the project to maximize positive impacts and minimize negative ones.

The strategic objectives of the Economic Modernization Vision are directly linked to railway transport, as railways are a key component of achieving the vision by enhancing regional connectivity and improving transport and services infrastructure. The strategic objectives related to railway transport include:

- **Stimulating exports and transit trade** through railways to neighboring countries.
- **Reducing domestic trade costs**.
- **Lowering vehicle emissions** by using railways for freight transport instead of road transport.

Challenges

- **Institutional and Financial**:
    - Focus on road-based planning and connectivity has reduced emphasis on railway connectivity.
    - Lack of public funding and limited private sector interest in the national standard-gauge railway project. The public sector's inability to borrow due to high public debt and the need for sovereign government guarantees.
    - Difficulty in proving financial feasibility due to low potential demand and high investment costs.
- **Infrastructure**:
    - Lack of financial feasibility limits the possibility of extending the railway to the new Aqaba port.
    - Incompatibility of the narrow-gauge Aqaba railway with the planned national standard-gauge railway network.
    - Need to rebuild the only international railway line to Syria.
    - Need to build new railway infrastructure for other international railway connections.
- **Political and regional instability** in neighboring countries negatively affecting railway connectivity.

Recommendations and Proposed Solutions

- **Conduct a detailed study** on the feasibility of connecting national and international railways.
- **Complete the operational plan** for the first phase of the railway.
- **Issue tenders for railway operation and investment**.
- **Prepare financing documents** for railway development and construction, securing funding from the private sector (through public-private partnerships) and the general budget law.

The following table shows the national objectives and how they are linked to the key principles of the transport policy and the sectoral objective to the strategic objectives

Table 12: Linking National Objectives to Key Principles of Transport Policy and Sectoral Objectives to Strategic Objectives

Strategic Objective	Axes of the Public Sector Modernisation Vision	Initiatives in the Economic Modernisation Vision	Sectors	Sectoral objective	Key Policy Principles	Economic Growth Drivers Goals/ Quality of Life Engine
Developing the transport system and services / Railway transport	Services Axis / Government Services Component and Procedures and Digitisation Component	• Promoting public-private partnerships and investment opportunities • Harmonise and simplify legislation and procedures related to transport and trade facilitation	Logistics and Transport	Providing a sustainable and resilient integrated transport system and making Jordan a transport hub	Completing the infrastructure of existing networks, optimising the use of transport facilities, and implementing a multimodal transport system to contribute to enhancing competitiveness and facilitating transport and trade.	Improving the quality of life for all Jordanians through the development and implementation of citizen-centered and environmentally friendly concepts

Table 13: List of Projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / railway transport								
The software: Infrastructure and Services Development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 9 SDG 11 SDG 13	66 per cent expropriation rate **It should be noted that there is no new expropriation due to a decision by the Council of Ministers that no new expropriation should be announced without financial allocations, and that what is currently being paid are cases of previously announced expropriations, and that the current 66% expropriation rate is what has been expropriated by the government where part of it has been paid and the rest is being finalised.**	Budget/ Ministry of Finance	Ministry of Transport	Completion Rate of Acquisitions	General budget	3 million For the years 2024/2025/2026	Ongoing until the finalisation of the acquisition of all track lands The process began in 2008	Establishment of a national railway network/acquisitions

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / railway transport								
The software: Infrastructure and Services Development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 9 SDG 11 SDG 13	Studies of the Madouna railway link (a link connecting the national network to the land port in Madouna) will be prepared (under a contract between the Ministry of Works and the consultant Dar Al-Handasah and the consultant's fees will be paid from the budget of the Ministry of Public Works and Housing). -A study to redistribute the lands owned by the Ministry of Transport in the Madouna area (Master Plan). The study was recently tendered through the Government Tenders Department. (From the budget of the Ministry of Transport).	Ministry of Works + Customs Department + Land Transport Regulatory Commission + Partnership Unit	Ministry of Transport / Ministry of Works /	Completion rate of studies	Budget	800,000 For the years 2024/2025/2026	2022-2024	Establishment of a national railway network/studies

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Developing the transport system and services / railway transport								
The software: Infrastructure and Services Development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 9 SDG 11 SDG 13	Objective of the project: To provide a new means of transport for passengers between the cities of Amman and Zarqa to Queen Alia International Airport by constructing an electric train on the existing 65-kilometre-long Hijazi Line track.	Ministry of Transport	Hijazi Railway Corporation	Completion rate of studies	International Grant from the Standing Committee for Economic and Commercial Cooperation of the Organisation of Islamic Cooperation (COMCEC)	23444.4 USD 4380 to be borne by the organisation	**2023–2025**	Preparing an economic feasibility study for an electric train between Amman-Zarqa and Queen Alia International Airport

The following table shows the measurement indicators at the level of the strategic objective

Table 14: Measuring indicators at the strategic objective level

2028 Targeted	2027 Targeted	2026 Targeted	2025 Targeted	2024 Targeted	Value	Base year	Measurement indicators	Strategic Objective
75% If funds are allocated for the purpose of announcing new acquisitions for the route	70% If funds are allocated for the purposes of declaring new track acquisitions	66%	66%	66%	66%	2022	Completion rate of expropriations - National Railway Network	Developing the transport system and services / Railway transport
				100% (Completing the design of the Madouna link + studying the redistribution of land owned by the Ministry of Transport in the Madouna area and creating a Master Plan)	5%	2022	Completion rate of studies - National Railway Network A study for the redistribution of land owned by the Ministry of Transport in the Madouna area / Master Plan and preparation of investment tender .documents Studies of the Madouna railway + link (a link connecting the national network to the land port in Madouna)	
To be implemented and operated as an investment opportunity (currently in negotiations with an investor (Saudi Jordan Investment Fund)) The vision will be clear after the finalisation of these negotiations							Completion rate of tender submission and award - National Railway Network Implementation Completion Rate	

3.6. Maritime Transport and Ports

Current Situation

The Port of Aqaba is Jordan's only maritime port. Located on the Red Sea, the Arab Bridge Maritime Company operates regular ferry services several times a day from the Port of Aqaba, some for passengers and others for vehicles and trucks. Egypt is the primary destination for passenger transport through the Port of Aqaba. In 2004, most port facilities and operations were relocated to a new site, except for container services, which operate under a 25-year concession agreement signed in 2006. The Port of Aqaba is a cornerstone of maritime transport, offering an integrated system of ports, logistics, and multimodal transport with world-class standards of service quality and the capacity to handle all types of cargo, containers, dry bulk, and liquid bulk. It also receives tourist ships year-round, enabling the Port of Aqaba to establish itself as a key player in both commercial and tourist maritime transport.

The strengths of Aqaba's ports include advanced infrastructure and high handling capacities that meet local needs and transit trade to neighboring countries. The ports feature exceptional specifications in terms of berth depths, drafts, and ship displacement, allowing them to accommodate most types of vessels. Additionally, an international road network connects the port system to distribution areas across the Kingdom and neighboring countries, supporting transit trade routes. The Port of Aqaba is not congested, thanks to the implementation of a queuing system for the container terminal and sufficient berths for other types of cargo. Furthermore, a global operator, ranked among the world's best port operators, manages the Aqaba Container Terminal. The Port of Aqaba provides:

- **12 port terminals** for general cargo, containers, oil, liquefied petroleum gas (LPG), liquefied natural gas (LNG), and specialized terminals for phosphate, fertilizers, sulfur, ammonia, and a multipurpose terminal for grain, livestock, and other cargo.
- The new Aqaba Port offers **9 multipurpose berths** and a specialized grain storage facility with a basic capacity of 100,000 tons, expanded to 200,000 tons.
- **32 operational specialized berths** for all types of cargo.
- **6 main logistics and storage sites** with a total storage area of 2 million square meters.
- Customs facilities for transit cargo, including an integrated inspection and clearance system with pre-clearance options.
- **Discounts for transit cargo** (general cargo, dry bulk, liquid bulk, containers) of up to 75%.
- An efficient electronic system for regulating truck movement through **4 main truck parking areas**.
- A container terminal with a handling capacity of **1.3 million TEUs (Twenty-foot Equivalent Units)**, expandable to 2 million TEUs immediately through improved customs clearance processes, increased manpower, and extended working hours.

The Aqaba Special Economic Zone Authority (ASEZA), through its development arm, the Aqaba Development Corporation (ADC), in partnership with the Jordanian Ministry of Transport and the Jordan Maritime Authority, plays a key role in port development and operations. ADC contracts with **6 port and maritime service operators**:

1. **Aqaba Company for Ports Operation and Management** (formerly the Aqaba Ports Corporation) manages the new port, the oil and LPG terminal, the passenger terminal, general cargo berths, and dry bulk berths.
2. **Aqaba Container Terminal Company** develops, manages, and operates the container terminal.
3. **Jordan Phosphate Mines Company** operates the new phosphate terminal.
4. **Jordan Industrial Ports Company** operates the industrial port.
5. **National Electric Power Company** operates the LNG terminal.
6. **Aqaba Port Marine Services Company** provides tugboat and pilotage services for ships visiting Aqaba's ports.

In 2020, the port handled over **19 million tons of cargo** and approximately **850,000 TEUs of containers**. The largest imports handled at the Port of Aqaba include grains, crude oil, and consumer goods, while exports are dominated by phosphate, potash, and fertilizers. The number of ships flying the Jordanian flag arriving at the port was 33, while the total number of ships (excluding Arab Bridge Maritime ferries) was 1,266 in 2020, down from 1,447 in 2009. The Arab Bridge Maritime Company, which operates regular services between Aqaba and Nuweiba, transported approximately **880,865 passengers** in 2020. Total cargo movement (excluding vehicles and containers) through Aqaba peaked at **27 million tons** in 2014 but has declined annually since then, reaching **14.4 million tons** in 2020. Imported vehicles peaked at **0.23 million** in 2011 and have since stabilized at around **0.10 million**. Passenger numbers have declined since 2009, reaching only **0.25 million** in 2019. Tourist numbers peaked at **0.23 million** in 2013, dropped to **0.09 million** in 2015, and recovered to **0.19 million** in 2019. The tables below illustrate these trends.

Table 15: Freight Movement in Aqaba Ports in Tonnes (2012-2020)

Oil Handling	Transit	Exported	Local imported	Imported	Total handling	Year
6685437	673604	7411012	11270166	11943770	19354782	**2012**
5612550	664826	4531249	11119533	11784359	22903892	**2013**
7299758	636843	5201269	13206684	13843527	27050211	**2014**
6448685	401481	5233379	12747166	13148647	25895813	**2015**
3741851	182257	4547560	12036244	12306724	24353243	**2016**
4978752	149438	5589718	12037694	12212414	16888208	**2017**
4516537	208280	5031930	10884627	11092907	16124837	**2018**
4853500	241667	4822434	10662326	10903993	15726427	**2019**
3753553	172305	4530042	9684934	9857239	14387281	**2020**

Table 16: Passenger, Car, Tourist and Ship Traffic at Aqaba Port (2012-2020)

Vessels passing through the harbour	Number of tourists	Number of passengers	Imported cars	Year
3061	199920	725434	207897	**2012**
2885	228773	498147	174008	**2013**
2703	90272	450691	169048	**2014**
2676	88733	412406	123784	**2015**
2436	124466	317449	96463	**2016**
2305	124357	285158	87028	**2017**
2183	147335	270406	94269	**2018**
2097	188322	252259	116793	**2019**
1580	10936	66752	116347	**2020**

Table 17: Vessel and Container Traffic at the Container Port (2012-2020)

Exported Containers (TEU)	Imported Containers (TEU)	Container port incoming vessels	Year
406751	410683	445	**2012**
432781	440031	443	**2013**
386604	394687	424	**2014**
380007	378212	441	**2015**
393542	399298	435	**2016**
394150	401938	417	**2017**
404553	411816	383	**2018**
392164	405996	346	**2019**
242297	434309	325	**2020**

Despite the port expansion project and its significant impact on activating the movement of cargo and containers in Aqaba, the value-added contribution of the maritime transport sector to the overall transport sector of GDP (%) for the years (2011-2018) is still around 3%, as shown in the figure below, which is low compared to neighbouring countries and international experiences, as most of the Kingdom's maritime transport revenues are still within the scope of port and customs fees within the port.

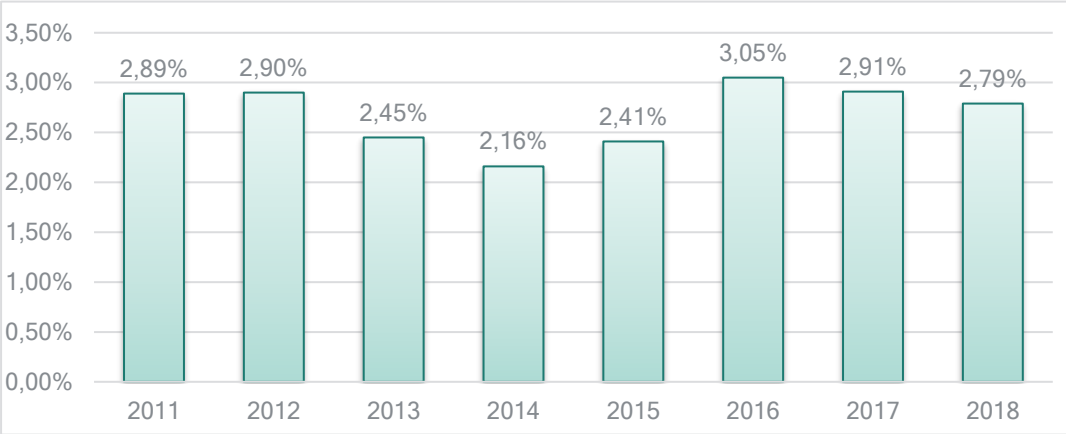


Figure (11): Added value of the maritime transport sector in the total transport sector of GDP (%) for the years (2011-2018)

Challenges

The maritime sector faces challenges in several key areas:

Safety and Marine Environmental Protection:

- **Need for joint coordination** among relevant entities in the field of safety and marine environmental protection.
- **Absence of a modern Jordanian maritime law** that keeps pace with all developments in the maritime sector at local, regional, and international levels.

Support and Investment in Maritime Education and Training:

- **Lack of an attractive work environment** for sailors, leading to increasing difficulty in recruiting, retaining, and attracting highly skilled personnel.
- **Need for regulatory frameworks** to support investment in maritime education.
- **Limited training opportunities** for new sailors.
- **Brain drain of maritime talent**.

Facilitation of Maritime Transport:

- **Insufficient technological infrastructure** for providing efficient logistics services related to cargo handling and ship movement management.
- **Inadequate use of electronic systems** for cargo clearance, simplification, and standardization of documentation for cargo delivery and receipt, and improved coordination and promotion.

Aqaba Port System:

- **Geographical location of the port**, which hinders the attraction of transshipment cargo.
- **Direct impact of the efficiency of other transport sectors**, particularly road transport and the efficiency of the Jordanian truck fleet, on port operations and overall port efficiency.
- **Impact of customs procedures** and clearance efficiency on the transport and supply chain through Aqaba's ports.
- **High shipping costs** for Aqaba's ports.
- **Weak export activities** of local industries, leading to limited ability to attract regular shipping lines and increased import costs due to imbalance charges imposed by shipping lines on goods imported through the port.

Recommendations and Proposed Solutions

- **Review container dwell times** and implement a unified measurement method.
- **Enhance safety systems** at all terminals to ensure full compliance with the International Ship and Port Facility Security (ISPS) Code and other international maritime safety and security agreements.
- **Improve port navigation systems**.
- **Design and develop a pre-arrival ship information system**.
- **Implement environmental standards** for the port.
- **Develop and upgrade smart port systems**.
- **Launch a maritime training program**.
- **Coordinate with neighboring countries** to establish the Port of Aqaba as an approved entry point for imports to local and regional projects, and develop a dedicated corridor in coordination with road transport, clearance, and customs authorities.
- **Form a committee** representing Jordanian manufacturers and the Aqaba Development Corporation to identify requirements for facilitating the export of various types of goods, especially those currently exported only by road or those that cannot be exported in bulk through the Port of Aqaba.
- **Review storage capacities** at the Port of Aqaba, particularly for petroleum products, and study their impact on ship dwell times and import costs.

Table 18: Linking national goals to strategic objectives, programmes and projects

Strategic Objective	Axes of the Public Sector Modernisation Vision	Initiatives in the Economic Modernisation Vision	Sectors	Sectoral objective	Key Policy Principles	Economic Growth Drivers Goals/ Quality of Life Engine
• Developing the transport system and services / • Maritime transport • Contribute to the reduction of negative environmental impacts resulting from the transport sector • Raise the level of organisational performance	Services Axis / Government Services Component and Procedures and Digitisation Component Organisations / Human Resources Component	• Harmonise and simplify legislation and procedures related to transport and trade facilitation • Developing infrastructure for the road transport sector and ports • Developing environmental policies and regulations • Promoting public-private partnerships and investment opportunities	• Logistics and Transport	Providing a sustainable and resilient integrated transport system and making Jordan a transport hub	• Completion of infrastructure and optimisation of existing transport networks • Enhance transport safety, protect the environment and reduce carbon emissions from the transport sector while achieving sustainability • Human Resources Policy	Improving the quality of life for all Jordanians through the development and application of citizen-centered and environmentally friendly concepts

Table 19: List of proposed projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / Maritime Transport								
The subprogram: Maritime transport infrastructure development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	Establishing a specialised civil defence centre in the Southern Industries and Ports Zone to deal with hazardous materials incidents	and industrial companies	Civil Defence Aqaba Development Company		Budget	250,000	2022-2026	Establishing a civil defence centre Specialised in chemical and hazardous materials
SDG 9 SDG 11	Development and management of the cruise ship marina located in Marina Zayed to provide a qualified port capable of handling more cruise ships and international standards		Aqaba Development Company with Abu Dhabi Ports		Budget	20 million under consideration		Establishment of a cruise ship port
SDG 9 SDG 11	Objective: - To fulfil the obligations of the Jordan Maritime Authority as a maritime administration in its domain as a coastal state - Increase the efficiency of search and rescue operations and investigation of maritime accidents	General Supplies Department Government Procurement Department Budget Department Telecommunications Regulatory Authority Financing Entities	Jordan Maritime Authority	Number of updated devices	Budget	230,000	2024-2026	Procurement of wired and wireless equipment to develop the coastal station

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / Maritime Transport								
The subprogram: Maritime transport infrastructure development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	for vessels inside and outside Jordanian territorial waters							
SDG 10	- The importance of this project comes from the fact that having a national maritime carrier comes as an urgent security and logistics necessity, as this project has been adopted as one of the priorities of the Land Transport and Ports Infrastructure Development Initiative in the Modernisation Vision to study the economic feasibility of operating the project as an investment opportunity through the private sector to enhance the security, logistics and national policy dimensions, and stimulate economic growth within the Land Transport and Ports Infrastructure Development Initiative (LTIDI).	Ministry of Planning	Ministry of Transport	Completion of the study	Grant	400,000	2023-2024	National Maritime Carrier Establishment Study Project

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Raise the level of organisational performance								
The software: Developing regulatory procedures for the maritime transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 10	- Objective: To meet the international standards stipulated in the International Convention on Standards, Certification and Watchkeeping for Seafarers (STCW 78) and to enhance the competence and recognition of the Jordanian maritime certificate at the international/regional/national level and promote the field of exchange and recognition of maritime certificates between countries	Jordan Academy for Maritime Studies Aqaba Maritime Education and Training Centre Maritime Academies and Universities around the world	Jordan Maritime Authority	Maintaining the Jordanian certificate on the IMO whitelist and the EU's continued recognition of the Jordanian certificate Number of maritime graduates and the number of foreign nationalities attracted	Budget	60,000	2024-2026	Promoting maritime education and training
SDG 10	- Objective: Raise the competence of the human element to provide specialised technical and administrative maritime qualifications adapted to the maritime field, and ensure the sustainability of human element development.	Training centres and international and national bodies specialised in training and capacity building	Jordan Maritime Authority	Number of trained staff Number of training programmes	Budget/ Grants	Depending on what's required	2024-2026	Human Resources Capacity Building

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Raise the level of organisational performance								
The software: Developing regulatory procedures for the maritime transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 9	- Objective: Streamlining the logistics chain in port management and operation companies to become more efficient in providing services and facilitating the reception of ships calling at the port, and streamlining the role of the Jordan Maritime Authority in regulating, monitoring and developing the maritime transport sector.	Ministry of Digital Economy Information Technology Centre Budget Department	Jordan Maritime Authority	Number of procedures re-engineered Number of services computerised	Budget/ Grants	500,000	2024-2026	The e-transformation project and automation of all procedures and services of the Authority
	-	Court of Opinion and Legislation Aqaba Special Zone Authority Jordan Navigation Maritime Agents	Jordan Maritime Authority	Issuance of the regulation of allowances for services provided by maritime navigation agents		No cost	2024	Preparation and promulgation of a system of regulations on allowances for the services of maritime navigation agents (from the vision alignment projects), to establish legislation that determines the value of allowances for the services of navigation agents and simplify and facilitate procedures in maritime transport

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Contribute to reducing the negative environmental impacts of the transport sector								
The software: Developing regulatory procedures for the maritime transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 11 SDG 13	- Objective: To minimise air pollution from fuel combustion in ships in accordance with the requirements of the international convention (MARPOL)	Petroleum Refinery Technical laboratories Aqaba Special Economic Zone Authority / Prince Hamza Pollution Centre	Jordan Maritime Authority	Number of regulations governing the protection of the marine environment. Number of vessels technically impounded for environmental offences.	Budget/ Grants	No cost	2024	Modernising legislation to control greenhouse gas emissions from ship
SDG 11 SDG 13	- Objective: Ensure the preservation of the marine environment, obligate and penalise vessels for discharging waste and oily residues into the sea and adopt a "zero tolerance policy for illegal	Jordan Maritime Authority Waste Treatment Companies Waste and Oil Receiving Stations Aqaba Special Economic Zone Authority /	Within the jurisdiction of the Aqaba Special Economic Zone Authority	Number of regulations governing the protection of the marine environment Number of vessels technically impounded for environmental offences	--	No cost	Ongoing	Management of ship-generated waste (garbage and oily waste) in line with international conventions

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Contribute to reducing the negative environmental impacts of the transport sector								
The software: Developing regulatory procedures for the maritime transport system								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of Funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	discharges from vessels".	Prince Hamza Pollution Centre						
SDG 11 SDG 13	Objective: - Preserve the marine environment from harmful marine invasive species - Conservation of fish stocks and biodiversity in the Gulf of Aqaba region - Preserve tourism and industry	Jordan Maritime Authority Technical laboratories Shipowners Maintenance companies Aqaba Special Economic Zone Authority	Within the jurisdiction of the Aqaba Special Economic Zone Authority	Number of regulations governing the protection of the marine environment Number of vessels technically impounded for environmental offences	--	No cost	Ongoing	Management of ship biofouling in line with international conventions

Table 20: Strategic Objective Level Measurement Indicators

2028	2027	2026	2025	2024	2023	Value	Base year	Measurement indicators	Strategic Objective
Targeted	Targeted	Targeted	Targeted	Targeted					
1700	1685	1665	1645	1625	1605	2107	2022	Number of ships passing through Aqaba Port	Developing the Transport System and Services / Maritime Transport

Handling volume / tonnes						Value	Base year	Item	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023					
Targeted	Targeted	Targeted	Targeted	Targeted						
11719742	11489943	11264650	11262397	11260145	11257893	14.3m	2022	Dry casting	Items handled at the Port of Aqaba*	Developing the Transport System and Services / Maritime Transport
6548897	6420487	6294595	6293337	6292078	6290820	6m	2022	Liquid Casting		
121753.9	119366.5	117026	117003	116979	116956	325897	2022	El Roro		
845222	828649	812401	812239	812076	811914	91970	2022	Livestock		
891914.1	874425.6	857280	857109	856937	856766	852k	2022	Container goods		
4.24	4.16	4.08	5	5.50	6		2022		Container dwell time/day**	

* The volume of cargo handling for the years 2022 to 2026 has been estimated according to the expectations of increasing the volume of cargo handling by 2% annually, taking into account the impact of these expectations by increasing or decreasing according to global variables, the efficiency of the economy and the return of transit trade.

** This indicator is linked to the extent to which the customs pre-clearance mechanism is activated, the efficiency of road transport logistics, and the reduction in the number of free storage days at the container port.

Value						Value	Base year	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023				
		Targeted	Targeted	Targeted					
3	2	1	1	1	1	2	2022	Number of companies licensed to receive oily residues and waste	Contribute to reducing the negative environmental impacts of the transport sector
420	390	55	50	45	40	379	2022	Number of maintenance forms issued by the Jordan Maritime Authority to maintenance companies	

Value						Value	Base year	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023				
Targeted	Targeted	Targeted	Targeted	Targeted					
3.14	3.09	3.04	2.99	2.94	2.89	2.84	2022	Contribution of maritime transport to transport value added	Raising the level of organisational performance
92	82	72	62	52	42	22	2020	Number of qualified workers in maritime transport	

3.7. Air Transport

Current Situation

Air transport is one of the most important drivers of the national economy and a strategic tool to support economic and investment growth. In Jordan, air transport plays a significant role by contributing to the development of trade, the tourism sector, and, consequently, economic growth. The air transport sector has undergone many changes and transformations in recent years, such as the Queen Alia International Airport (QAIA) rehabilitation project. The value added by the air transport sector as a percentage of the total transport sector's contribution to GDP for the years (2011-2018) is as follows:

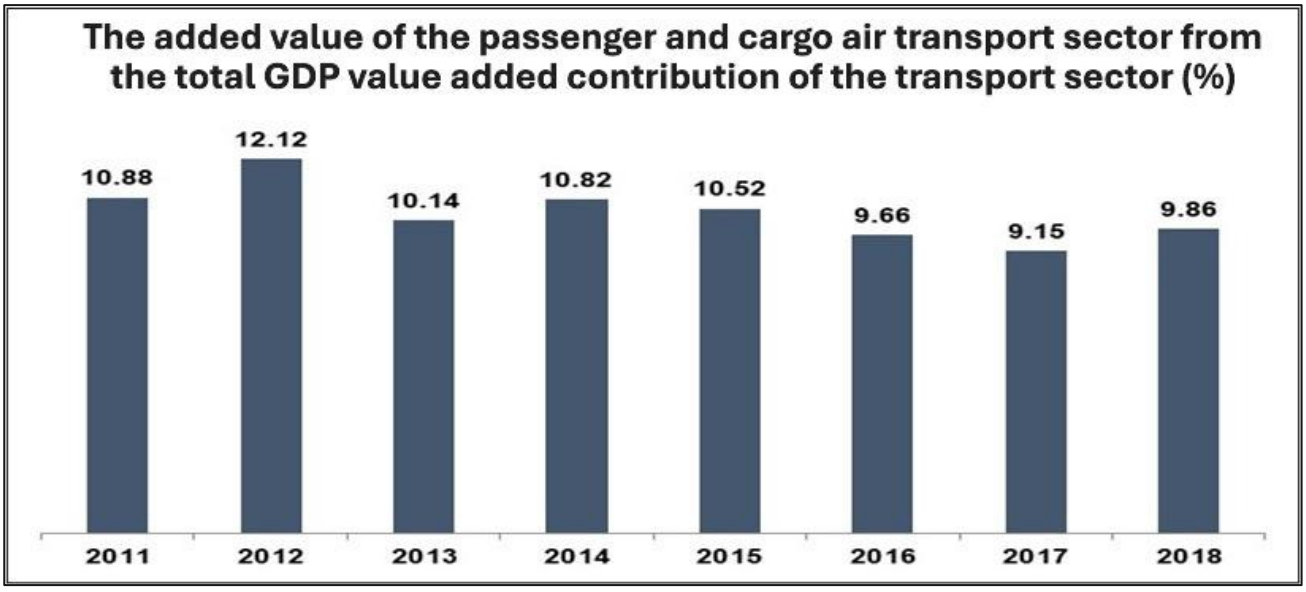


Figure (12): Value Added by Air Transport for Passengers and Cargo as a Percentage of the Total Value Added by the Transport Sector to GDP (%)

Queen Alia International Airport is the main gateway for air transport in Jordan. It was opened in 1983 with an initial capacity of 3.5 million passengers. Then, it was rehabilitated, expanded, and operated by the Airport International Group (AIG), increasing its capacity in the first phase to 9 million passengers. The total capacity of the airport is expected to reach approximately 12 million passengers by 2030.

The number of passengers traveling through Queen Alia International Airport has increased at an average annual rate of 6% since 2009, reaching 8.9 million in 2019. However, aircraft movements have increased by only 5% annually, reaching around 80,000 in 2019. As a result, the average number of passengers per aircraft has risen from 86 to 112. Given the slow annual increase in aircraft movements, runway capacity issues are unlikely to arise in the near future. The following tables highlight key developments in air transport indicators for passengers and cargo:

Table 21: Arriving and Departing Aircraft at Jordanian Airports (2012-2019)

Grand total		Queen Alia Airport		King Hussein Airport		Amman International Airport		Year
Arriving	Departures	Arriving	Departures	Arriving	Departures	Arriving	Departures	
40962	**40964**	33602	33588	3020	3004	4340	4372	**2012**
40725	**40786**	34052	34060	2448	2472	4225	4254	**2013**
41863	**41938**	36578	36637	2156	2154	3129	3147	**2014**
40765	**40740**	35911	35882	2020	2020	2834	2838	**2015**
41807	**41793**	36897	36887	1920	1918	2990	2988	**2016**
41815	**41755**	37048	37003	1956	1949	2811	2803	**2017**
42344	**42351**	38442	38447	2053	2053	1849	1851	**2018**
43792	**43773**	39880	39861	2361	2362	1551	1550	**2019**
14764	**14722**	12128	12093	1552	1557	1084	1072	**2020**

Table 22: Departing and Arriving Passengers at Jordanian airports (2012-2019)

Grand total		Queen Alia Airport		King Hussein Airport		Amman International Airport		Year
Arriving	Departures	Arriving	Departures	Arriving	Departures	Arriving	Departures	
3320265	**3395587**	3093529	3156109	87169	88258	139567	151220	**2012**
3432269	**3480678**	3246640	3273224	68331	83220	117298	124234	**2013**
3588640	**3705292**	3489943	3599200	77926	85459	20771	20633	**2014**
3580677	**3669127**	3506938	3589924	60261	65174	13478	14029	**2015**
3789341	**3849506**	3680438	3729820	81934	85981	26969	33705	**2016**
4076456	**4063688**	3966697	3950126	100413	104699	9346	8863	**2017**
4345623	**4314878**	4232554	4192396	107651	116463	5418	6019	**2018**
4618154	**4609108**	4473725	4450385	140199	153350	4230	5373	**2019**
1102163	**1136136**	1010257	1040578	88418	91551	3488	4007	**2020**

Table 23: Inbound and Outbound Freight (tons) to and from Jordanian Airports (2012-2019)

Grand total		Queen Alia Airport		King Hussein Airport		Amman International Airport		Year
Outbound freight (tonnes)	Inbound freight (tonnes)	Outbound freight (tonnes)	Inbound freight (tonnes)	Outbound freight (tonnes)	Inbound freight (tonnes)	Outbound freight (tonnes)	Inbound freight (tonnes)	
43691	**92877**	37050	57503	6625	35367	16	7	**2012**
39336	**62722**	36492	56411	2840	6308	4	3	**2013**
36917	**59319**	36182	57695	735	1624	0	0	**2014**
41925	**62450**	39609	61084	2316	1366	0	0	**2015**
41062	**62307**	39658	61514	1404	793	0	0	**2016**
48940	**63486**	47804	62633	1136	853	0	0	**2017**
43338	**62969**	42283	62021	1055	948	0	0	**2018**
43796	**61607**	42531	59929	1265	1678	0	0	**2019**
19651	**30050**	18435	29791	1216	259	0	0	**2020**

The Civil Aviation Regulatory Commission (CARC) is responsible for regulating and overseeing the air transport sector in Jordan. It was established on August 1, 2007, under the Civil Aviation Law No. (41) of 2007 and its amendments, replacing the Civil Aviation Authority. CARC is an independent regulatory body responsible for regulating and monitoring civil aviation and air transport in all its components. Operational matters are handled by Jordanian airport operators. There are three international airports in Jordan:

1. **Queen Alia International Airport (QAIA)**
2. **Amman Civil Airport (Marka)**
3. **King Hussein International Airport (Aqaba)**

The COVID-19 pandemic significantly reduced passenger numbers, but figures are expected to return to long-term growth by 2025, albeit with a baseline scenario 15% lower than pre-pandemic levels. Therefore, the need for a new terminal is expected to be delayed by up to three years. Identifying and developing a site for a new airport takes more than nine years, so the priority is to explore currently available alternatives, such as utilizing existing terminals and runways or diverting demand from Queen Alia International Airport to Amman Civil Airport (Marka) or King Hussein International Airport (Aqaba).

Table 24: Key Indicators for Queen Alia International Airport

Key Indicators for Queen Alia International Airport					
Public					Indicator
2040	2030	2019	2015	2010	
28.54	16.41	8.92	7.1	5.42	Travelers
138,873	106,632	79,741	71,793	62,867	Aircraft traffic
206	154	112	99	86	Passenger/Aircraft

Amman Civil Airport (Marka), established in 1950, is Jordan's first airport, with an annual capacity of 1 million passengers. It is managed and operated by the Jordanian Airports Company, and in 2019, it handled approximately 11,400 passengers.

King Hussein International Airport (Aqaba), established in 1972, has an annual capacity of 1 million passengers. It is managed and operated by the Aqaba Airports Company under the supervision of the Aqaba Development Corporation. The airport was declared an open airport without restrictions in 2003, and in 2019, it handled approximately 293,549 passengers.

A decision regarding increasing the capacity of Jordanian airports must be made as soon as possible to allow for the development and preparation of necessary studies and projects before reaching the expected maximum capacity by 2030. This involves choosing between the following two options:

1. **Funding the expansion project of Queen Alia International Airport**.
2. **Funding the development project of Amman Civil Airport (Marka) and increasing its capacity**.

As of the end of 2020, there were **3 licensed Jordanian airlines** for scheduled air transport, **1 for non-scheduled (charter) air transport**, and **1 for private aviation (business jets)**.

Royal Jordanian Airlines, established in 1963, is the national carrier. It was privatized in 2007, although the majority of its shares are still owned by the Jordanian government. As of the end of 2020, Royal Jordanian had **25 aircraft** registered in its name, while the total number of aircraft registered in the Jordanian Civil Aviation Registry reached **85**.

Challenges

- **Political instability in neighboring countries**.
- **Fluctuating fuel prices and lack of alternative energy sources**.
- **Low investment demand for air transport projects due to high investment costs**.
- **High regional competition in air transport and limited capacity of national companies**.
- **The migration of skilled professionals due to attractive opportunities abroad**.
- **Infectious diseases and pandemics**.
- **Emissions and noise pollution**.
- **Lack of qualified technical specializations in the local market**.
- **Insufficient funding for air transport-related projects**.
- **Traffic conditions around Amman Civil Airport and the need for traffic solutions**.

Recommendations and Proposed Solutions

- **Conduct a study to assess the demand and supply for airport services over the next 40 years**.
- **Study increasing airport capacity through public-private partnership projects**.
- **Study the feasibility of improving land access to Queen Alia International Airport**, and the study should cover how to improve access to the airport through the creation of a ring road or enhanced bus services.
- **Issue a tender to update the master plan for the development of King Hussein International Airport in Aqaba**.
- **Conduct a study on the supply and demand for air cargo services**.
- **Rehabilitate the meteorological security point at Queen Alia International Airport**.
- **Replace X-ray machines at the navigation facilitation center**.
- **Upgrade and develop navigation equipment at terminals and airports**.
- **Review and update air service licensing measures** to improve passenger services.

Strategic Objective	Axes of the Public Sector Modernisation Vision	Initiatives in the Economic Modernisation Vision	Sectors	Sectoral objective	Key Policy Principles	Economic Growth Drivers Goals/ Quality of Life Engine
Developing the transport system and services/ Air transport	Services Axis / Government Services Component and Procedures and Digitisation Component Organisations / Human Resources Component	• Harmonise and simplify legislation and procedures related to transport and trade facilitation • Developing infrastructure for the land transport sector and ports • Developing environmental policies and regulations	• **Logistics and Transport**	Providing a sustainable and resilient integrated transport system and making Jordan a transport hub	Emphasising the regional dimension and taking advantage of Jordan's geographical location and optimising its investment	Improving the quality of life for all Jordanians through the development and implementation of citizen-centered and environmentally friendly concepts
Raising the level of organisational performance					Human Resources Policy	

Table 25: List of Proposed Projects

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 9 SDG 16	The project includes three other packages that will be progressed according to the availability of financial allocations, namely The third package: Rehabilitation of the runway safety area (Strip Area), the fourth package: Rehabilitation of the runway surface and lighting system, and the fifth package: Increasing the length of the auxiliary taxiway.	Ministry of Transport Civil Aviation Regulatory Authority	Jordan Airports Company	Completion rate	Budget	**31,990,000**	2023-2024	A project to fulfil the security requirements for the Amman Civil Airport/Marka licence includes:
						1,510,000		1. Protection and inspection devices for the airport and centre
						600,000		2. The conveyor belt
						1,530,000		3. Heavy machinery/civil defence machinery
						28,350,000		4.1.Rehabilitation of Amman Airport / Construction of infrastructure
						6,350,000		4.1 Backfilling the second valley phase one
						6,000,000		4.2 Filling the valley last stage and increasing the bypass
						10,000,000		4.3 Maintenance and rehabilitation of the runway

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
						6,000,000		4.4 Runway Lighting Rehabilitation
SDG 9 SDG 11 SDG 16		Airport Security Authorities Airport International Group Civil Aviation Regulatory Authority	Ministry of Transport	Completion Rate	Budget	600,000	2023-2024	Queen Alia International Airport Rehabilitation Project
SDG 9 SDG 11	Objective: Developing the air transport system Mechanism: Issuing tenders to modernize and develop navigation devices at airports and terminals Increase air transit traffic	Civil Aviation Regulatory Authority	Civil Aviation Regulatory Authority	Air traffic growth rate of 3% per annum	Budget	10.3 million	2024-2026	Modernising and upgrading navigation devices at terminals and airports
SDG 9 SDG 11	This project has been adopted as one of the priorities of the Land Transport and Ports Infrastructure Development Initiative in the Economic Modernisation Vision	Airport Security Authorities Airport International Group Civil Aviation Regulatory Authority	Ministry of Transport	Completion of the study	Budget	186,622	2019-2025	Preparing a feasibility study for the establishment of an air cargo centre at Queen Alia Airport

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 9 SDG 11	This 4.8 MW project will be implemented at QAIA to reduce consumption, minimize emissions and secure electricity supply to QAIA from a clean source. This project has been approved as one of the priorities of the Environmental Policies and Regulations Development Initiative in the Economic Modernization Vision after taking the approval of the National Electricity Company for the grid impact study The project was approved by the National Electricity Company (NEC) after the approval of the grid impact study, installation, receipt and technical inspection of the project from the contractor, and the inspection and approval of the operation from the National Electricity Company.	Ministry of Transport Civil Aviation Regulatory Authority National Electricity Company	Airport International Group	Project Completion Rate	Airport International Group	At AIG's expense 4 million	2024-2026	4.8 MW solar power project at Queen Alia International Airport

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Infrastructure and Services								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 9		Civil Aviation Regulatory Authority	Ministry of Transport	Study Completion Rate	Ministry of Transport	100,000	2024-2026	Study the current operational challenges at Queen Alia International Airport and find appropriate solutions to ensure the continued operation of the airport as a model airport in the region (rehabilitation and expansion of QAIA).
SDG 7	Mechanism: The mechanism will be agreed with the International Civil Aviation Organization (ICAO)	International Civil Aviation Organization	Civil Aviation Regulatory Authority	Study Completion Rate	Grant	No cost	2024-2026	Study the readiness of Jordanian aviation to replace the used fuel, in light of the availability of alternative fuels from biological sources (Bio-Fuels).

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Organizational Development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
SDG 8 SDG 11	Mechanism: Negotiate with the target countries, send the proposal of the agreement according to the Jordanian project compatible with the transport policy, agree on the final agreement, and then recommend to the Council of Ministers to adopt and sign the agreement in preparation for its entry into force.	Ministry of Transport Ministry of Foreign Affairs and Expatriates National Airlines	Civil Aviation Regulatory Authority	Number of agreements signed or amended annually: 6 agreements per year	No cost	No cost	2024-2026	Conclusion or amendment of bilateral agreements to liberalise the air transport market on a reciprocal basis
SDG 10	Updating and developing current legislation and adopting a smart regulations approach in air transport to keep pace with global legislation and reflect it on local legislation as one of the priorities of the initiative to harmonize legislation	Supreme Council for Persons with Disabilities	Civil Aviation Regulatory Authority	Approve the instructions	No cost ---	No cost	2024-2026	Developing civil aviation legislation and adopting a smart regulations approach Draft instructions for passengers with disabilities on the sector and draft instructions for civil aviation environment part (301) aligned with international best practices and revision of

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts								
Strategic Objective: Develop the transport system and services / air transport								
The software: Organizational Development								
Link to the Sustainable Development Goals (SDGs)	**Notes**	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordan Dinar)**	**Implementation Timeframe**	**Projects**
	and procedures related to transport and trade facilitation and simplification in the vision of economic modernization:							consumer protection instructions part (209) and the approval of the Civil Aviation Regulations Part 211 on the rights of travellers with disabilities.
SDG 9	Mechanism: Inventory the Authority's needs for computer systems and devices and provide, develop and modernize computer devices and systems	Ministry of Digital Economy	Civil Aviation Regulatory Authority	Percentage of covering the Authority's needs for devices and systems annually	Treasury	620,000	2024-2026	Provision, development and modernisation of computer hardware and systems

Objectives of the Economic Growth Engine Quality of Life Engine: Improving the quality of life for all Jordanians through the development and application of citizen and environment-centered life concepts							
Strategic Objective: Raise the level of organisational performance							
The software: Organisational Development							
Notes	**Partners**	**Concerned Party**	**Project Performance Indicator**	**Source of funding**	**Cost (Jordanian Dinar)**	**Implementation Timeframe**	**Projects**
Mechanism: Prepare a training plan, train staff, send experts and attract international events	-	Civil Aviation Regulatory Authority	Number of employees trained	Treasury	690,000	2024-2026	Organisational Capacity Building

Table 26: Strategic Objective Level Measurement Indicators

Value						Value	Base year	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023				
Targeted	Targeted	Targeted	Targeted	Targeted	Targeted				
12.4 million travellers	11.6 million travellers	11 million travellers	10 million travellers	9.5 million travellers	7.2 million travellers	8 million travellers	2022	Number of travellers and departures from airports	Developing Transport Systems and Services / Air Transport
100	97	92	88	84	80	75	2022	Number of aircraft arriving and departing from airports (thousand)	
60	60	61	62	63	64	68	2022	Quantity of incoming and outgoing cargo from airports (thousand tonnes)	
6	5	5	5	4	4	4	2022	Number of national operators in air transport	

Value						Value	Base year	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023				
Targeted	Targeted	Targeted	Targeted	Targeted	Targeted				
10.21	10.16	10.11	10.06	10.01	9.98	9.96	2022	Percentage of air transport contribution to transport value added	Raising the level of organisational performance
325	310	295	280	265	250	200	2022	Number of employees trained	

3.8. Meteorology

Current Situation

The Jordanian Meteorological Department (JMD), formerly known as the Meteorological Directorate, was established as a weather observation and forecasting office at Jerusalem Airport in 1951. At that time, the number of weather observation stations was limited, and their tasks were confined to issuing weather bulletins, forecasts, and occasional climate information. Over the years, the department expanded its network of stations and adopted the latest equipment, evolving into the modern meteorological service we see today. Today, meteorology plays a vital role in various aspects of daily life, not only by issuing weather forecasts but also by providing services in climate, transport, water, energy, agriculture, construction, the Royal Air Force, and the Arab Army.

Jordan has achieved a qualitative leap in meteorology, thanks to the unlimited support of successive governments, which has had a clear and tangible impact on improving the quality of services provided. This reflects the importance of protecting lives, property, preserving the environment, and contributing to the development of sectors supporting sustainable growth.

The JMD joined the World Meteorological Organization (WMO) in 1955 and is represented in all its committees. In 1955, it also became a member of the Meteorological Subcommittee of the Permanent Transport Committee of the Arab League, which was renamed the Arab Permanent Committee for Meteorology in 1972. In 1967, under Regulation No. (19), the JMD became an independent department under the Ministry of Transport and was renamed the Meteorological Directorate.

In recent years, the JMD has adopted a policy based on scientific principles and openness to the international and Arab scientific community to gain expertise, train human resources, and strengthen relations with the WMO and its members. It has signed several memoranda of understanding to improve its performance, enabling it to provide the best services in a professional manner, positively impacting the needs of individuals, service recipients, and overall partner activities.

Regarding royal initiatives, the JMD continues to contribute to improving and sustaining infrastructure for the transport, water, energy, tourism, and environmental protection sectors. It is developing programs to enhance electronic infrastructure in line with the e-government initiative and is committed to social responsibility and collaboration with local community institutions focused on awareness and development.

In line with the government's direction to streamline public institutions for greater efficiency and cost control, Regulation No. (65) of 2020 abolished the Meteorological Directorate, making the Ministry of Transport its legal and practical successor. The ministry has adopted the JMD's strategic goal of "contributing to the protection of lives and property" and is implementing several projects to support its work, including providing a high-precision numerical model for atmospheric simulation, installing a weather radar, and establishing a radiosonde station to cover the southern regions of the Kingdom.

Capacity Building

- **Training employees** and enhancing their skills in weather observation and forecasting, communication, information technology, software, and weather observation equipment through internal and external training programs.

- **Conducting 100 training courses** in weather observation and forecasting at the Training Center for Weather Observation and Forecasting for 751 employees from the JMD and sister Arab countries.

- **Participating in external courses** related to weather observation and forecasting.

- **Recruiting specialized staff** in information technology and computer programming.

Development of Communication and Information Technology Systems

- **Operating the data transmission and reception system (MESSIR.COM)**.

- **Operating the communication system (MESSIR.net)** by Corobor, enabling the JMD to provide some aviation services via the internet.

- **Updating the satellite image reception system (MESSIR.SAT)**.

- **Archiving weather observation data** (all JMD data and climate records) through cloud storage (CLOUD) in collaboration with the Ministry of Digital Economy and Entrepreneurship and the National Information Technology Center.

- **Updating the JMD's electronic website**.

- **Connecting JMD servers to the secure government network**.

- **Launching a smartphone application**.

- **Creating a JMD page on Facebook**.

- **Setting up a dedicated studio** for weather bulletin broadcasts, distributing them to all TV stations, the JMD website, social media, and the smartphone app.

- **Installing wall-mounted display screens** for weather bulletins.

- **Updating climate database software**.

Updating Weather Observation and Forecasting Equipment and Systems, and Maintaining JMD Buildings and National Stations

- **Installing and operating 29 automatic weather observation stations** from a Japanese grant, increasing weather observation coverage across the Kingdom and automating weather data collection. These stations are linked to the Climate Division, Forecasting Directorate, and Training Center.

- **Installing and operating an advanced weather radar** to improve weather forecasting and early warning systems for severe weather events affecting the Kingdom, protecting lives and property.

- **Purchasing a radiosonde system** to measure upper atmospheric weather elements.

- **Developing a calibration laboratory** for weather observation equipment (purchasing temperature, humidity, and rain calibration devices) to minimize errors in observation equipment and ensure their sustainability and maintenance.

- **Installing 5 electronic rain gauges** at various locations.
- **Operating digital barometric devices** at civil and military airports.
- **Developing training halls and establishing a laboratory** at the Training Center for Weather Observation and Forecasting.
- **Updating weather observation equipment** at traditional stations and performing necessary maintenance to ensure their continuous operation.
- **Converting the JMD and Forecasting Directorate buildings to solar energy systems**.
- **Upgrading and equipping meeting rooms** with visual and audio systems.
- **Updating computers and printers** in all JMD directorates, departments, and affiliated stations.

Challenges in Meteorology

- **Shortage of technical staff** (forecasters, observers, and specialists in photography, sound, and editing) and brain drain of technical expertise.
- **Lack of funding** for meteorology-related projects.
- **Need to expand the network of automatic weather observation stations**.
- **Insufficient advanced training** in meteorology.
- **Weak internet coverage** from service providers.
- **Unregulated competition from the private sector**.
- **Inadequate advanced training** in maintaining communication systems, automatic station equipment, and radar systems.
- **Need for training courses** for weather bulletin presenters.

Recommendations and Proposed Solutions

- **Signing a contract** to review the services provided by the JMD.
- **Improving the accuracy and effectiveness of weather forecasts** by providing detailed and highly credible weather bulletins in a timely manner.
- **Enhancing the JMD's capacity** to issue warnings and early alerts for severe and extreme weather conditions promptly.
- **Improving services for aviation navigation** by applying the highest quality and efficiency standards in line with international standards set by the International Civil Aviation Organization (ICAO) for aviation meteorology services.
- **Enhancing weather forecasting services for maritime navigation** and developing marine weather observation services.
- **Developing and automating the weather observation network** and expanding its coverage to include most regions of the Kingdom.

Table 27: Linking National Objectives to Key Principles of Transport Policy and Sectoral Objectives to Strategic Objectives

Strategic Objective	Sectoral objective	Key Policy Principles
Developing the transport system and services / Meteorology	Providing a sustainable and resilient integrated transport system and making Jordan a transport hub	Enhancing transport safety, protecting the environment and reducing carbon emissions from the transport sector while achieving sustainability

Table 28: Measuring indicators at the strategic objective level

Value						Value	Base year	Measurement indicators	Strategic Objective
2028	2027	2026	2025	2024	2023				
Targeted	Targeted	Targeted	Targeted	Targeted	Targeted				
80	76	74	73	72	71	69	2022	Number of weather stations	Developing the transport system and services / Meteorology
96%	96%	95%	95%	95%	94%		2022	Accuracy and comprehensiveness of information provided to users	

4. Integration and Cross-Sectoral Challenges

4.1. Transport and Economic Development

Current Situation

The transport sector plays a vital role in creating job opportunities and increasing both gross and net domestic product. The transportation services provided by the sector enable individuals, especially women and youth, to access better job opportunities. This sector is a key factor in linking high-value industries to Jordan's strategic geographic location, which facilitates regional transport.

The transport sector contributes **5.4% to the GDP**, amounting to **1.6 billion dinars**, and employs **93,600 workers**, representing **5.9% of total employment**. The GDP per employee in the sector is **17,500 dinars**, which is **8% lower than other sectors**. Transport exports are valued at **0.4 billion dinars**, accounting for **3.6% of total exports**.

The new national development model directs investment focus towards the private sector as a driver of growth and job creation. The economic reform program, outlined in the Jordan Vision 2025 report, aims to revive growth and stimulate job creation. It includes provisions for significant investments to expand and improve road infrastructure, laying the foundation for competitiveness, providing access to markets and essential services, and facilitating the movement of goods and services along supply chains. This will have a significant multiplier effect on the economy, reducing poverty, unemployment, regional imbalances, and improving education and healthcare, thereby enhancing national development.

The transport sector alone employs approximately **125,000 workers**, contributing significantly to the economy. The annual growth rate of employment in the sector is **4.5%**, and it is expected to reach **158,400 employees by 2033**. Jordanian workers represent **99.1% of the sector's workforce**, leaving little room for replacing foreign labor with Jordanian workers. In terms of gender, women represent **3.4% of the workforce** due to the nature of the work. However, with future technological advancements, women's participation in the sector is expected to increase.

The strategy aims to empower women and enhance their participation in the labor market by providing safe public transport. The lack of safe public transport is one of the main barriers limiting women's access to employment in Jordan. Therefore, creating safe public transport systems that enhance women's mobility and access to job opportunities is one of the most important measures to improve public transport and its efficiency, as outlined in the Economic Reform Matrix 2018-2024.

The transport sector contributes **7.6% to GDP** and is a key enabler for all other sectors related to the movement of goods and people. Over the past decade, the transport sector in Jordan has grown at a steady rate of **9.1%**, despite numerous economic and social challenges. The United States, India, and Saudi Arabia are Jordan's main trading partners for exports, covering most operations that include contributions to the logistics of the transport sector.

The recently approved investment environment regulation system did not include any amendments to foreign ownership in the transport sector, as outlined in the previous system (Amended Regulation of Non-Jordanian Investments No. 80 of 2019). According to the investment environment regulation system, many activities related to the transport sector have restricted foreign ownership. For example, foreign ownership is limited to less than **50%** in road, maritime, and air transport services. However, the maritime, air, and railway transport sectors benefit from income tax exemptions and reductions stipulated by the system. Therefore, liberalizing restrictions on foreign ownership in the transport sector will help its growth and development.

Challenges

Jordan's strategic geographic location and political stability can be leveraged to enable regional mobility. Jordan has strategic plans for this, but limited implementation hinders the development of the transport sector. Limited funding, insufficient government financing, and weak incentives for private sector participation are among the most significant challenges facing Jordan's transport sector. Additionally, slow clearance processes due to sampling and testing mechanisms negatively impact the freight transport sector.

The transport sector is a fundamental input for sound economic development due to its direct impact on competitiveness and growth. It plays an active role in providing access to employment, education, and creating new job opportunities. Recently, there has been a growing need to review the sector's plans, strategies, and programs to mitigate the effects of its apparent decline, particularly in urban transport systems (roads and public transport). This is due to increased demand for mobility resulting from population growth and the concentration of populations in major urban areas—as previously mentioned. This situation is exacerbated by the prevailing culture of private vehicle ownership and reliance on unsustainable transport modes, leading to the sector's exhaustion.

Recommendations and Proposed Solutions

- **Encourage investment in sustainable transport** by providing guarantees and incentives for investors.
- **Establish a support fund** for mobility-related issues for low-income individuals.
- **Study the provision of monthly subscriptions** for passenger transport services.
- **Implement strict regulations and laws** to protect women and facilitate their access to safe transport.
- **Develop plans to support companies and institutions** that provide dedicated transport for female employees.
- **Provide safe infrastructure** and establish supportive policies and procedures for women, the elderly, and people with disabilities using public transport.
- **Liberalize restrictions on foreign ownership** in the transport sector.
- **Enforce a code of conduct** for public transport users and operators and provide an application for reporting inappropriate behavior.
- **Develop plans to encourage women** to work in the public transport sector.

4.2. Multimodel Transport

Current Situation

Multimodal transport involves the use of at least two modes of transport for passenger or freight movement. For passenger transport, medium and small buses, sustainable transport, or smart application-based transport can be used to efficiently integrate with Bus Rapid Transit (BRT) systems. This allows passengers to switch between modes, reducing waiting times, emissions, congestion, and reliance on private vehicles while increasing transport service accessibility. For freight transport, multimodal transport is essential to connect seaports and freight terminals. Railways can complement trucks in freight movement, offering benefits such as reduced delays and lower logistics costs.

Improving the efficiency of multimodal transport is a key objective of the strategy. Future BRT services will rely on integration with other public transport modes and sustainable active transport (walking and cycling) to reduce private car use, congestion, emissions, energy consumption, and parking demand. Implementing intercity transport projects is also crucial to ensure seamless journeys using public transport.

Challenges

Jordan has made limited progress in multimodal transport, as evidenced by the suspension of railway services to Aqaba instead of developing a new multimodal port with railway connections. Before the suspension of railway services to Aqaba, there was significant improvement in connecting maritime and road transport for containers, reducing container dwell time in Aqaba to about three days for green lane cargo. The lack of rail freight services has hindered the introduction of rail/road multimodal services at land ports. For passengers, BRT services are planned to operate on an effective multimodal basis by integrating with other public transport services. Additionally, walking and cycling infrastructure must be developed to support these modes.

Recommendations and Proposed Solutions

Effective integration can only be achieved through digital technology, artificial intelligence, and adopting the concept of Mobility as a Service (MaaS) to enhance connectivity among public transport operators. The Ministry of Transport's executive plan includes projects related to digitizing the sector and intelligent transport systems. Modern buses equipped with intelligent transport systems should be deployed to provide real-time data, helping to build a unified database for all transport modes.

To ensure the success of multimodal transport, significant attention must be paid to employee training, capacity building, and raising awareness of cybersecurity, as cyberattacks are a growing threat even in advanced transport systems. Adopting sustainable active transport concepts and eco-friendly cities, such as 15-minute cities, is also essential. The standard-gauge railway should adopt an effective multimodal model, integrating maritime transport in Aqaba and road freight transport in Ma'an and Madouna to achieve operational feasibility, as the short distances between Aqaba and land ports do not allow for competition between rail and road transport but rather enable productive collaboration.

Key recommendations for multimodal transport include:

- **Establishing a coordination committee** between BRT operators and other bus operators.
- **Building and rehabilitating sidewalks and pedestrian pathways** near major bus stations and BRT stops.
- **Conducting a study** on bus/BRT intersections and parking facilities at intercity transport stations.
- **Designing parking spaces for cars and bicycles** when planning bus stations and stops.
- **Implementing proposals** from BRT and bus operator coordination committees.
- **Deploying the smart port system** in Aqaba (Port Community System).
- **Developing proposals and issuing tenders** to improve railway access to Aqaba, the phosphate terminal, and port stations.
- **Establishing a coordination committee** between the railway concessionaire, Ma'an and Madouna terminal operators (if different), and truck operators to ensure efficient multimodal operations for terminals and inland hubs.

4.3. Environment and Climate Change

Current Situation

In 2021, Jordan submitted its updated Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC), committing to reduce greenhouse gas (GHG) emissions by **31% by 2030**, with **26%** contingent on international support and **5%** through national efforts. This target is directly linked to the National Adaptation Plan and aims to steer Jordan's post-COVID-19 recovery towards a low-carbon, climate-resilient development path by adopting green growth priorities and fully complying with the UNFCCC.

Approximately **84%** of the targeted emissions reduction depends on international support and funding. Key measures include projects outlined in the NDC Action Plan, particularly in the transport sector, which has four main actions, such as the BRT project and smart transport initiatives.

Challenges

Since 2014, the transport sector's share of GHG emissions in Jordan has increased rather than decreased, reaching **10.975 million tons of CO2 equivalent** in 2021, or over **34%** of total emissions (see Figure 16). This is higher than the global average of **25%**. Despite this high share, the transport sector has not significantly contributed to Jordan's national climate change policy goals for 2013-2020 but remains a key player in achieving Jordan's updated climate commitments. The transport sector is now one of six sectors focused on implementing Jordan's National Green Growth Plan.

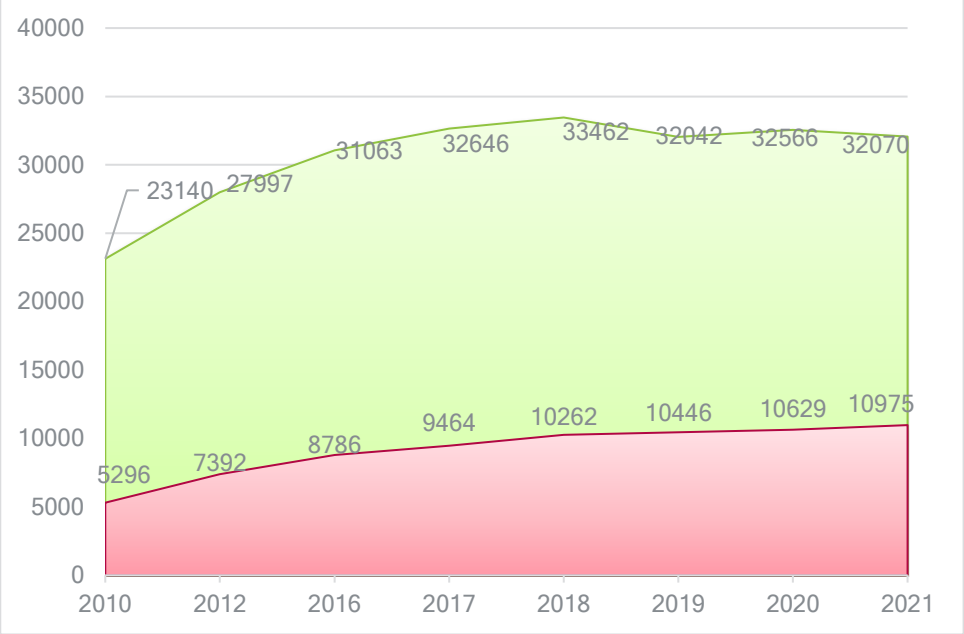


Figure (13): Greenhouse gases emitted from the transport sector compared to total emissions in the Kingdom for the period (2010-2021), Source: Third and Fourth Jordanian National Communications Reports _ Ministry of Environment

According to the National Greenhouse Gas Inventory, **96%** of transport emissions come from road transport due to the absence of operational railways. Passenger cars account for **55%**, buses for **23%**, and freight vehicles for **18%** of transport emissions. Globally, passenger cars contribute **45%**, road freight **29%**, aviation **12%**, shipping **11%**, and railways **3%** of transport emissions.

In 2020, the transport sector consumed **47%** of Jordan's total final energy demand (see Figure 17). Energy intensity in the transport sector is high, at **0.06 kg/km per capita** and **0.03 kg/ton/km**. The low passenger load of private vehicles (**1.3 passengers per vehicle**) is due to the lack of an efficient public transport system. Introducing modern systems like BRT, which began operations in 2021, and increasing demand for hybrid and electric vehicles will improve these indicators, reduce energy consumption, and lower carbon emissions.

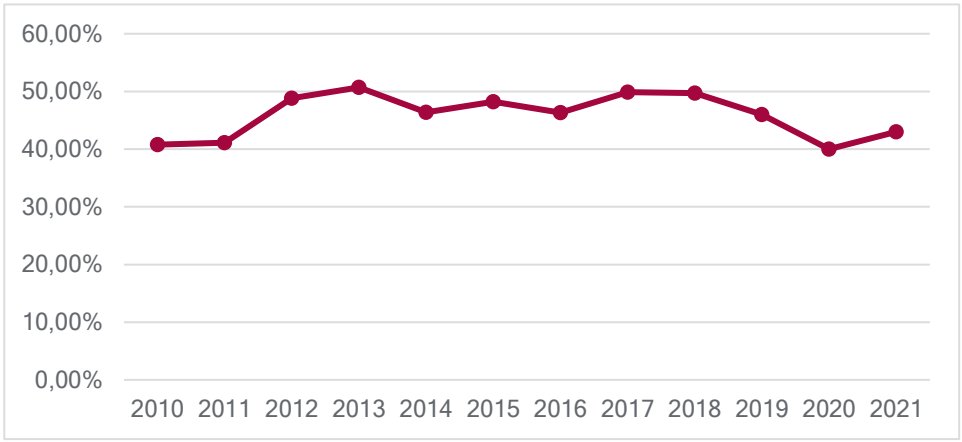


Figure (14): Transport sector final energy consumption for the period 2010-2021, Source: Ministry of Energy and Mineral Resources Annual Report

Recommendations and Proposed Solutions

The Economic Modernization Vision, launched in July 2022, aims to transform Jordan into a low-carbon economy by transitioning to green growth and stimulating investments in sustainable projects. The transport sector is a priority economic sector for achieving Jordan's sustainable future. Aligned with this goal and national climate action and green economy policies, the updated strategy includes several measures to reduce road transport emissions, similar to those in the long-term transport sector strategy but updated to reflect changing conditions:

1. **Enhancing the appeal of public transport** to reduce reliance on private vehicles.
2. **Providing better facilities** for walking, cycling, and shared mobility.
3. **Offering incentives** to replace gasoline and diesel vehicles with electric vehicles.
4. **Providing incentives** to replace old trucks with newer, more efficient, and less polluting vehicles.
5. **Advancing the development of new railway links** to encourage shifting freight from roads to rail.

Stricter vehicle emission standards will be essential for the success of policies (3) and (4), requiring coordination and integration with the strategies of partner ministries, such as the Ministry of Energy and Mineral Resources and the Ministry of Finance, to establish the necessary arrangements for implementing priority actions.

Additional measures include:

- **Providing sufficient electric charging stations**.
- **Encouraging citizens to use electric cars and buses**.
- **Adopting more electric vehicles in the government sector**.
- **Promoting electric buses** by incentivizing the replacement of old buses with electric ones.

Key Policies

1. **Enhancing Public Transport Appeal**: Developing BRT systems in urban areas is the primary strategy.
2. **Improving Facilities for Walking, Cycling, and Shared Mobility**: Municipalities are responsible for pedestrian and cycling infrastructure, while the Land Transport Regulatory Commission regulates shared mobility services.
3. **Expanding Incentives for Replacing Gasoline and Diesel Vehicles**: Current incentives for electric vehicles are limited to relatively high fuel prices. Coordination between the Ministry of Transport and the Ministry of Finance is needed to design financial incentives, such as reduced import fees and tax rates, to increase electric vehicle adoption.
4. **Incentivizing the Replacement of Old Trucks**: Jordan's aging truck fleet, with an average age of 19 years (many over 25 years), is fuel-inefficient, highly polluting, and unreliable. Replacing old vehicles will reduce fuel consumption and emissions.

5. **Advancing New Railway Links**: Rail freight generates about **10%** of the CO2 emissions of road freight for the same cargo, offering significant fuel and emission savings. Developing Jordan's railway network is a strategic priority, especially after the suspension of services to Aqaba.

The climate action and green economy transition plan heavily relies on the proposed measures already included in the action plans for road/public passenger transport, road freight transport, and rail transport sectors, alongside measures by the Ministry of Energy and Mineral Resources and the Ministry of Finance. These include:

- **Providing sufficient electric charging stations**.
- **Encouraging citizens to use electric cars and buses**.
- **Adopting more electric vehicles in the government sector**.
- **Promoting electric buses** by incentivizing the replacement of old buses with electric ones.

4.4. Electric Transport

Current Situation

Electric transport relies on the principle of using electric propulsion or electric motors for a wide range of transport modes. This includes cars, buses, trucks of various types, as well as ferries and other maritime vessels. Electric transport eliminates the need for fossil fuels, which contribute to greenhouse gas emissions such as carbon dioxide, a major driver of global warming. Instead, it utilizes energy supplied from electrical sources, charged via the power grid. By eliminating carbon emissions from the transport sector, electric transport can create a cleaner, healthier, and more sustainable future that is affordable for all members of society. Additionally, electric transport can provide green job opportunities and economic benefits.

However, several factors hinder the transition to electric vehicles (EVs). Consumer demand for EVs remains a challenge due to affordability issues and insufficient charging infrastructure coverage. Given the increasing burdens on the state budget, it is important to note that the requirements for electric transport are not limited to building and expanding infrastructure but also include optimal operational management and regular maintenance of existing infrastructure to ensure continuity, efficiency, and sustainability at the lowest cost. The shift to electric transport requires non-traditional management approaches and presents an opportunity to reduce government expenditures through partnerships with the private sector in areas such as management, operation, and maintenance.

In 2015, the Jordanian government reduced import duties and eliminated taxes on electric vehicles, highlighting the transition to electric mobility in various national strategies. This growing interest was largely driven by the country's environmental agenda. However, since 2014, the transport sector's share of greenhouse gas emissions in Jordan has increased rather than decreased, reaching **10.975 million tons of CO2 equivalent** in 2021, or over **34%** of total emissions—higher than the global average of **25%**. Despite this high share, the transport sector has not significantly contributed to Jordan's national climate change policy goals for 2013-2020 but remains a key player in achieving Jordan's updated climate commitments. The transport sector is now one of six sectors focused on implementing Jordan's National Green Growth Plan.

In 2016, the Energy and Minerals Regulatory Commission (EMRC) issued regulations governing electric vehicle charging activities and approved the installation of meters with tariffs for electric vehicle charging to encourage the adoption of electric transport and enhance public charging infrastructure. Following these decisions, the number of registered electric vehicles rose to over **48,700** by the end of 2022, according to data from the Customs Department, representing **2.64%** of total vehicles. The table below shows the number of electric vehicles in Jordan over the past five years:

Table 29: Cumulative Annual Total and Percentage of Electric Vehicles in the Kingdom (as of August 2022):

Year	Total Vehicles	Total Electric Vehicles	Percentage of Electric Vehicles
2018	1,720,331	28,191	1.64%
2019	1,749,029	30,041	1.72%
2020	1,771,541	31,098	1.76%
2021	1,788,442	31,803	1.78%
2022	1,849,490	48,777	2.64%

In 2019, the Jordanian government changed taxes on electric vehicles by increasing customs duties from 0% to 25%. Later, weight taxes and clearance fees were added. These decisions led to higher electric vehicle prices, contributing to a **70% decline in sales**. In 2020, the government reduced taxes from 25% to 10% for batteries under 250 kW and to 15% for batteries over 250 kW. The weight tax was abolished and replaced with a 4% tax on the vehicle's original value. After these changes, electric vehicle prices decreased by approximately **1,500 to 2,000 dinars per vehicle**.

As of now, there are **53 electric charging stations** distributed across Jordan, divided into **40 public stations** and **13 private stations**. The EMRC has issued **2,169 approvals** for installing home charging meters, with **892** completing the installation process. The commission has also increased the tariffs for public charging stations as follows:

- **Fast charging stations**: Increased to **50 fils/kWh**.
- **Slow charging stations**: Increased to **35 fils/kWh**.

Transport is also one of the largest consumers of energy, accounting for **43%** of total energy consumption in 2021. Therefore, shifting from private cars to public transport is crucial not only to reduce carbon emissions and greenhouse gases but also to lower energy consumption. The transition to electric vehicles is among the most promising emerging technologies, but it is still in its early stages in Jordan's public transport sector and remains an underutilized opportunity for the country. The priorities of the Economic Modernization Vision for the energy sector include preparing a strategy for transitioning to electric transport in Jordan and updating relevant regulations.

The Jordanian government is keen to keep pace with scientific advancements in all its activities to align with developments in the electric and hybrid vehicle industry, which contribute to reducing the oil bill and preserving energy resources. The Ministry of Energy and Mineral Resources is following the executive plan for the energy sector strategy (2020-2030), particularly the project to encourage the expansion of electric transport, focusing on four main priorities:

1. **Providing an adequate number of electric charging stations**.
2. **Establishing mechanisms to encourage citizens to use electric cars and buses**.
3. **Adopting more electric vehicles in the government sector**.
4. **Encouraging the use of electric buses by incentivizing the replacement of old buses with new electric ones**.

The Ministry of Energy and Mineral Resources is also preparing a strategy for transitioning to electric transport in Jordan, which includes the following objectives:

- **Developing and evaluating options to encourage individuals to use electric mobility**.
- **Developing and evaluating investment options for electric charging infrastructure**.
- **Developing and evaluating electricity tariff pricing options**.
- **Developing a strategy and action plan based on the study's outputs, with clear performance indicators and a responsibility matrix involving all stakeholders**.

Challenges

The following points outline the challenges facing electric transport in Jordan:

- **Lack of consensus among relevant government entities on approving financial incentives to increase demand for electric vehicles**.
- **Insufficient electric vehicle charging infrastructure**, affecting the availability and coverage of public charging stations.
- **Limited technical expertise in servicing electric vehicles**.
- **Low public interest in purchasing electric vehicles**.
- **Low retail electricity tariffs for charging**, which are insufficient to cover charging costs and hinder the sector's growth.
- **Reluctance of investors to invest in building electric charging stations**.
- **Absence of a clear vision and national direction for adopting electric transport**.
- **Lack of unified bus and taxi operators**, creating obstacles to converting public transport vehicles to electric ones.

Recommendations and Proposed Solutions

Introducing and adopting electric transport involves implementing new technologies and creating an ecosystem that includes government roles, responsibilities, and standards tailored for the transition to electric transport. This will require significant support to ensure competitiveness with existing technologies. Government support typically comes in the form of promotional mechanisms.

Developing Jordan's electric transport system is a top priority for modernizing the transport sector, reducing emissions, and optimizing energy consumption. Therefore, working on developing electric vehicle infrastructure, related systems, and regulations, and encouraging the use of low-emission vehicles is crucial for the future of Jordan's transport sector.

To build a successful and effective electric transport strategy in Jordan, coordination and collaboration among all relevant stakeholders are essential. These stakeholders include the Ministry of Transport, Ministry of Finance, Ministry of Energy, and Ministry of Environment, as well as investors, banks, development partners, private sectors, and civil society. Additionally, providing incentives for individuals to transition to electric transport and developing electric transport infrastructure using the country's renewable energy resources are key. The following recommendations can help achieve this:

- **Establishing a clear national policy** for developing the electric transport sector.
- **Providing incentives and facilities** to encourage vehicle owners to purchase electric vehicles.
- **Increasing taxes on non-environmentally friendly vehicles**.
- **Building electric transport infrastructure**, including charging and maintenance stations.
- **Restricting the use of high-emission vehicles** and imposing congestion charges while exempting electric vehicles.

4.5. Transport Safety

Current Situation

Responsibility for road safety lies with multiple entities, including the Ministry of Interior, the Ministry of Public Works and Housing, the Ministry of Transport, the Ministry of Education, and the Land Transport Regulatory Commission. The fragmented responsibility for various aspects of road safety has been the primary reason for the lack of concrete action so far.

In 2019, the total number of road accidents in the Kingdom reached **10,857**, involving **16,734 vehicles**. These accidents resulted in **643 fatalities**, **17,013 injuries** (including **792 serious injuries**), and **3,661 pedestrian collisions**. The financial costs of traffic accidents in 2019 amounted to **294-324 million Jordanian dinars**. Notably, the total financial costs of traffic accidents in the Kingdom over the past five years reached approximately **1.54 billion Jordanian dinars**. Drivers and passengers of vehicles account for about **71%** of road transport fatalities, while pedestrians represent **29%** of total fatalities.

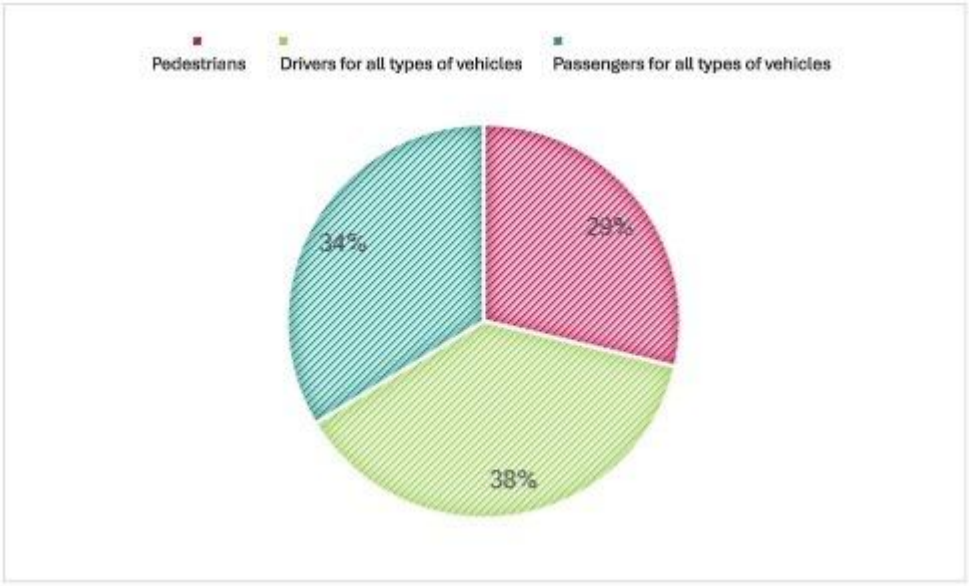


Figure (15): Road Transport Fatality Rate

Truck-related fatalities and accidents have risen significantly since 2015, with truck accidents accounting for nearly **25%** of total fatalities in 2018, decreasing to about **20%** in 2019. The main contributing factors include the technical condition of trucks, lack of safety features, and weak regulations regarding drivers' working hours.

Regarding road safety for trucks, the total number of accidents in the Kingdom increased notably in 2018 and 2019, with trucks involved in severe accidents and fatalities exceeding **25%** of total fatalities in 2018. These percentages were much lower in previous years, sometimes even reaching **0%**. The primary reasons for this increase include the poor technical condition of trucks, lack of safety features, long driving hours without a second driver, and the operational age of these trucks, which reduces their safety and increases the likelihood of sudden breakdowns. Accidents involving these vehicles are often fatal due to their weight and load capacity.

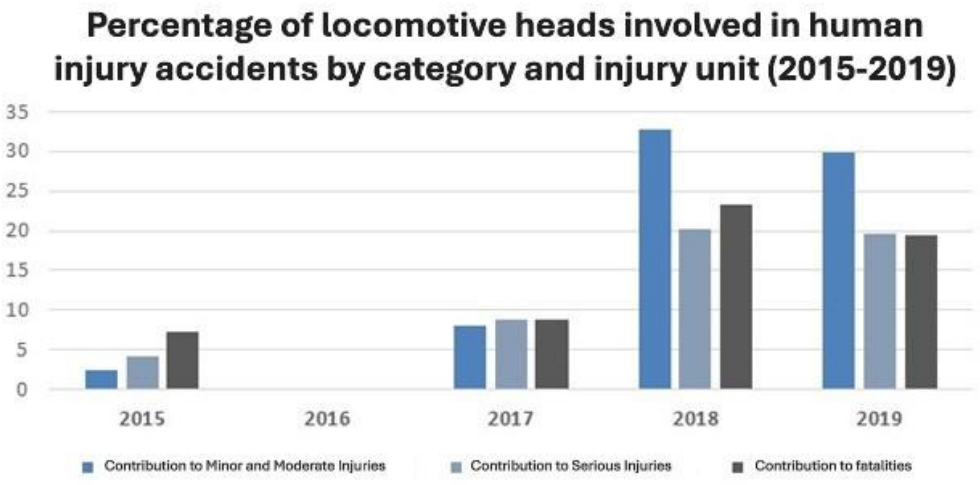


Figure (16): Percentage of Trucks Involved in Human Injury Accidents by Category and Injury (2015-2019)

There have been several previous attempts to establish a dedicated entity for transport safety in Jordan, but none have succeeded. The preferred approach is to establish an independent entity with a coordination committee representing stakeholders, directly linked to the Prime Minister's Office. The following figures and tables present road safety statistics.

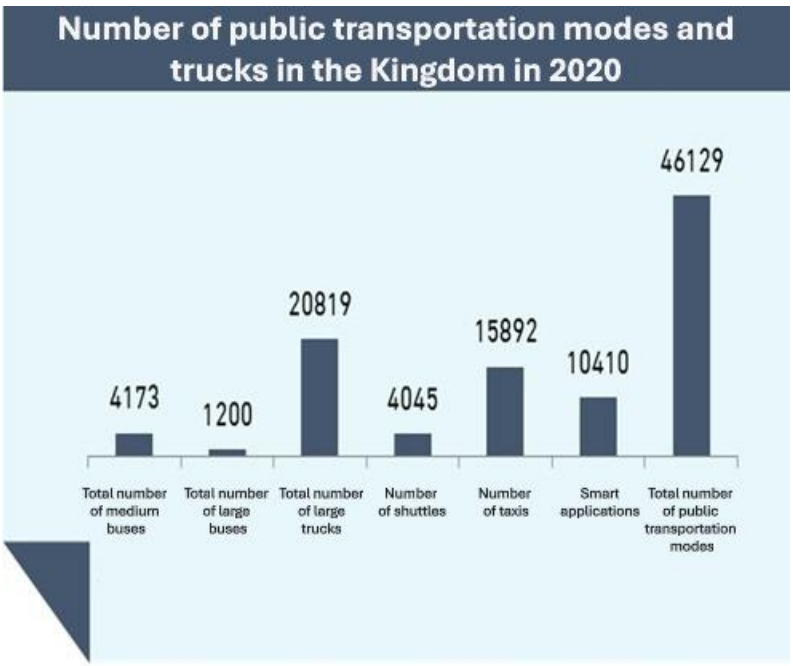


Figure (17): Facts About Road Safety, Traffic Accidents, and Public Transport Accidents in the Kingdom for 2019

Table 30: Road Safety and Traffic Accident Statistics, Including Public Transport Incidents (2019)

Number	Pattern
161511	Total number of incidents
10857	Number of human injury incidents
17013	Number of Total Injuries
792	Number of Serious Injuries
643	Number of deaths per year
1.8 deaths per day	Number of deaths per day
324 million dinars	Financial cost of accidents for 2019 alone
1.54 billion dinars	Financial cost of accidents from 2015-2019 only (5years)
46,129, accounting for 2.8% of total registered vehicles	Number of public vehicles (buses, trucks and private public vehicles) as a percentage of total vehicles
% 13	Percentage of public vehicles (buses, trucks and public vehicles) involved in traffic accidents out of total public vehicles and trucks (%)
32 million dinars	Cost of traffic accidents for public transportation and trucks

Challenges

- **Lack of attention to road fatalities**, which are not considered a strategic issue.
- **Absence of a single entity responsible for comprehensive road safety**.
- **Driver behavior and ethics** that do not adhere to road safety principles.
- **Lack of modern and appropriate safety standards** for vehicle registration.
- **No mandatory safety training** for truck and public transport drivers as a condition for obtaining a driver's license.
- **Exclusion of youth from decision-making** related to road safety.

Recommendations and Proposed Solutions

- **Establish an independent leading entity** to direct national road safety efforts, directly accountable to the Prime Minister's Office, with sufficient staff and budget, and responsible for implementing a Safe System Approach to road safety. This entity's responsibilities would include:
    - **Developing and enforcing national road safety legislation and regulations**.
    - **Designing and implementing awareness campaigns and educational programs**.
    - **Conducting training courses and issuing certificates for drivers**, making them a prerequisite for obtaining a driver's license.
    - **Incorporating vehicle safety standards** into vehicle type approvals and individual vehicle registrations.
    - **Requiring safety designs in road infrastructure** and conducting detailed audits before approving road designs.

- **Focus on building administrative capacity**, creating multi-sector partnerships, and enhancing youth and women's participation in decision-making.

- **Develop national road safety strategies, plans, and goals**, supported by data collection and research to enable comprehensive evaluation of various road safety aspects.

- **Conduct training workshops** for all road transport drivers to improve their skills, enhance the quality of transport services, and promote road safety, with a focus on driver behavior.

- **Activate legal provisions** in the driver licensing system under the Traffic Law, requiring all public transport drivers to obtain an annual driving permit and attend specialized training courses, including road safety and driver behavior training, as a prerequisite for obtaining a driving permit.

- **Review safety and emissions regulations** to reduce the size of the truck fleet while improving safety and reducing emissions.

- **Include provisions to enhance safety** in maritime and air transport, and propose measures to improve railway safety once it becomes operational again.

- **Fully comply with international standards** (such as those of the European Union) where available and applicable.

4.6. Transport and Trade Facilitation

Current Situation

In 2014, members of the World Trade Organization (WTO) adopted a revised protocol stipulating that the Trade Facilitation Agreement (TFA) would enter into force once two-thirds of WTO members completed their domestic ratification procedures and submitted valid acceptance documents. In February 2017, Jordan approved the revised protocol, completed a gap analysis, and is currently making significant progress in implementing the agreement.

The WTO's Trade Facilitation Agreement (TFA) includes provisions to expedite the clearance of goods, including transit goods, and outlines measures for effective cooperation between customs and other border management agencies on trade facilitation issues. It also emphasizes the importance of trade facilitation and includes provisions for technical assistance related to transport, such as the submission and processing of transit documents and pre-arrival data, the appointment of a national transit coordinator, and the negotiation of regional transit agreements.

Regulatory convergence on transport issues is a key link for trade facilitation. Many international transport agreements aim to harmonize national rules and standards related to transport infrastructure and operations, with the goal of reducing trade barriers associated with transport and improving safety and environmental performance.

Jordan's international transit system facilitates the flow of goods and reduces the need for inspections at border crossings. However, the systems of some regional trading competitors remain more flexible and user-friendly.

Article 11 of the TFA, which deals with transit, is particularly important for Jordan. It is more detailed than Article V of the General Agreement on Tariffs and Trade (GATT). Additionally, the TFA contains other legal provisions related to all national border management agencies, particularly transport authorities. Under Article 11, the role of transit-related agencies includes:

- **Setting transit fees and related administrative charges**.
- **Providing separate infrastructure** (e.g., lanes, docks, etc.).
- **Ensuring the application of legal procedures and requirements** in a manner consistent with WTO principles.

The Jordan Customs Department has been an early developer of the electronic Single Window system, which has facilitated cross-border trade and enhanced transparency. Clearance times for imports have been reduced from an average of four weeks in 2008 to two or three days in 2019. Recently, greater reliability in clearance times has been achieved, enabling better scheduling of container movements from Aqaba to Amman, reducing the need for storage and improving truck clearance schedules.

The Jordan Customs Department has also been active in establishing the Authorized Economic Operator (AEO) program. Although AEOs currently represent only **18%** of trade value, there is significant potential for growth without compromising standards. Many medium-sized trading companies are now aware of the program's benefits for their operations. Despite improvements such as the introduction of the (Green/Yellow/Red) Lane system, X-ray inspections, risk management systems, intelligence sharing with other countries, and the AEO program, the rate of physical inspections in Jordan remains high. Delays caused by inspections and waiting for clearance approvals continue to hinder trade facilitation. Recently, a steering committee comprising ministers representing six Other Government Agencies (OGAs) was formed to address these challenges.

Updating customs procedures and the practices of trade regulation participants will help advance the logistics sector. These updates include the use of supply chain traceability to classify products, providing an additional level of confidence regarding product origins, processing, and characteristics. Encouraging the growth of e-commerce will also create new opportunities to expedite cargo clearance, collect duties and taxes, and detect discrepancies in trade documents. Additionally, for consolidated container shipments, granting the freight forwarder authorization to act as the designated consignee responsible for paying all duties and taxes (except sales tax) will accelerate customs procedures.

The Jordan Customs Department plans to update the Automated System for Customs Data (ASYCUDA) to provide additional functionalities and aims to develop its own system in the future, leveraging significant advancements in information technology, particularly in database applications and artificial intelligence. However, potential disruptions during system development must be considered.

Challenges

- **Limited coordination among border agencies**.
- **Few companies qualified to become AEOs**.
- **Limited expertise in blockchain technology** in Jordan.
- **High inspection rates for incoming containers**.
- **High risks in implementing Jordan Customs software**—quality and compatibility issues.
- **Lack of reliable data on container dwell times**.
- **Container shipping companies acquiring national logistics firms** to offer door-to-door services, reducing the competitive advantage of remaining national logistics companies.
- **No registry for certified logistics operators**, forcing traders to rely on informal sources for advice on operator quality.

Recommendations and Proposed Solutions

- **Designate a border management agency** to coordinate with related institutions.
- **Develop an AI-powered electronic customs clearance system** to replace the current system.
- **Increase incentives for joining the AEO program** and/or impose barriers on non-participating operators.
- **Incorporate blockchain concepts** into training programs for logistics operators and traders.
- **Seek advice from the World Customs Organization (WCO)** on national customs programs.
- **Establish a system for estimating dwell times** using standardized methods.
- **Encourage logistics operators to train and coordinate**.
- **Create a registry of qualified and certified logistics operators**.
- **Update the customs risk analysis system** to facilitate lower container inspection rates.
- **Review and evaluate alternatives to the ASYCUDA system**.
- **Establish logistics certification courses in Jordan** in collaboration with the United Nations Conference on Trade and Development (UNCTAD).
- **Host UNCTAD and organize logistics certification courses**.
- **Provide or update the Automated System for Customs Data (ASYCUDA)**.
- **Train customs staff, traders, and agents** on the process of updating/replacing the ASYCUDA system.

4.7. Transport and Tourism

Current Situation

Tourism is of particular importance to the Jordanian economy, serving as a flexible contributor to GDP and job creation. In 2018, tourism contributed approximately **16%** to GDP, a significantly larger share than in other countries in the region. The COVID-19 pandemic had a notable impact on the tourism sector. After the decline in tourist arrivals stopped in 2016, numbers began to increase slowly until the pandemic hit.

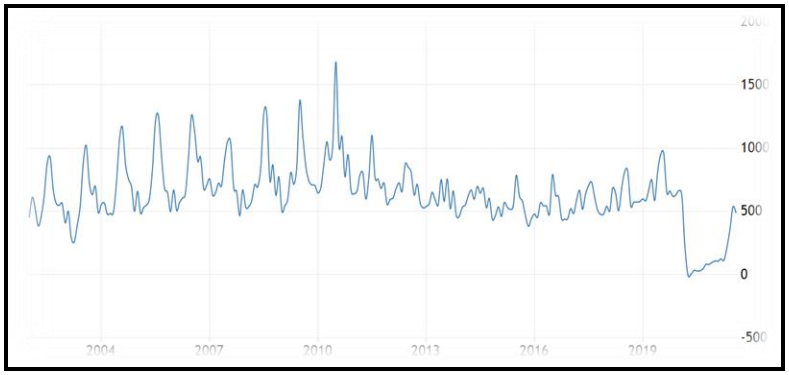


Figure (18): Number of Tourists in Jordan from 2004 to 2019 (Source: Central Bank of Jordan)

The abundance of tourist sites in Jordan is a major driver of tourism. However, there are constraints, including difficulties in providing high-quality and consistent services. Some tourist areas are not well-prepared for visitors, while others, such as Petra and the Dead Sea, are overcrowded. Additionally, many tourist sites are difficult to access without a rented car, a tour guide, or comprehensive tour packages, which often use private buses.

Jordan is considered a difficult and expensive destination to reach by air, with limited direct flights and few connections with air transport service providers. Royal Jordanian dominates flights to Jordan, but with limited schedules and relatively expensive tickets, making it less attractive to tourists who can find cheaper and more direct flights to competing destinations. Nevertheless, most tourists arrive in Jordan by air or land.

For ferry passengers, the main issues hindering maritime tourism are the unreliability of ferry services and the difficulty of obtaining tickets and visas. These challenges have less impact on group tourists compared to independent travelers. Approximately **880,000 tourists** arrive in Jordan by sea.

The Ministry of Tourism and Antiquities (MoTA) holds full responsibility for the sector, collaborating with associations that regulate the operations of key service providers, such as tour operators and specialized land transport companies. These associations impose various regulatory measures and restrictive licensing rules, which limit competition rather than encourage it, such as setting minimum prices instead of negotiating them and imposing minimum fleet size requirements.

Challenges

- **Weak links with air transport service providers** for tourism.
- **Difficulty accessing Jordan by air** due to high ticket prices.
- **Political instability in neighboring countries**, making land access to Jordan difficult.
- **High costs of comprehensive tour packages** compared to competing countries.
- **Difficulty accessing many tourist sites** without renting a car.
- **Restrictions on tourism transport service providers**.

Recommendations and Proposed Solutions

- **Reduce fragmentation of tourism services**, including transport, and facilitate integration among stakeholders to enhance coordination of tourism services.
- **Review restrictions** preventing tourism transport companies from offering other transport services. Extend tax and customs exemptions for renewing tourism vehicles.
- **Review provisions for air and ferry services for tourists**, focusing on travel options, ticket purchasing, and visa procedures. The goal is to make these services efficient, simple, and affordable.
- **Review arrangements for ferry services** and provide better service information for tourists.
- **Simplify procedures for ferry passengers**.
- **Design measures to facilitate "bundled" tourism services**, including transport to, from, and within Jordan.
- **Negotiate tourism contracts** with air transport service providers at competitive ticket prices.
- **Facilitate access to tourist sites** and integrate them into comprehensive tour packages.
- **Enhance cooperation with the private sector** to promote both domestic and international tourism.

5. Financing

5.1. The total cost of implementing the strategy and the financial resources available through the budget of the Ministry of Transport and the budgets of the entities and bodies associated with the implementation of the strategy.

Table 31: Summary of project cost analysis for the implementation of the Transport Sector Strategy for the years (2024-2028) and the amounts allocated for the years (2024, 2025 and 2026)

Transport Sector Distribution by Mode	Total Project Costs (Million JOD)	Allocated Budget (Million JOD)*
Passenger Transport	**441.5**	**100.745**
Freight Transport	**1.9**	**0.2**
Rail Transport (Studies & Land Acquisitions Only)	**48.6**	**3.9**
Maritime Transport	**22.5**	**0.738**
Air Transport	**53.9**	**21.9**
Meteorology Sector	**2.52**	**0**
Total **	**570.92**	**127.483**

*The budget for the year (2024) and indicative values for the years (2025 and 2026)
**Excluding the cost of implementing investment opportunity projects

Figure (19): Project costs for the implementation of the transport sector strategy by mode

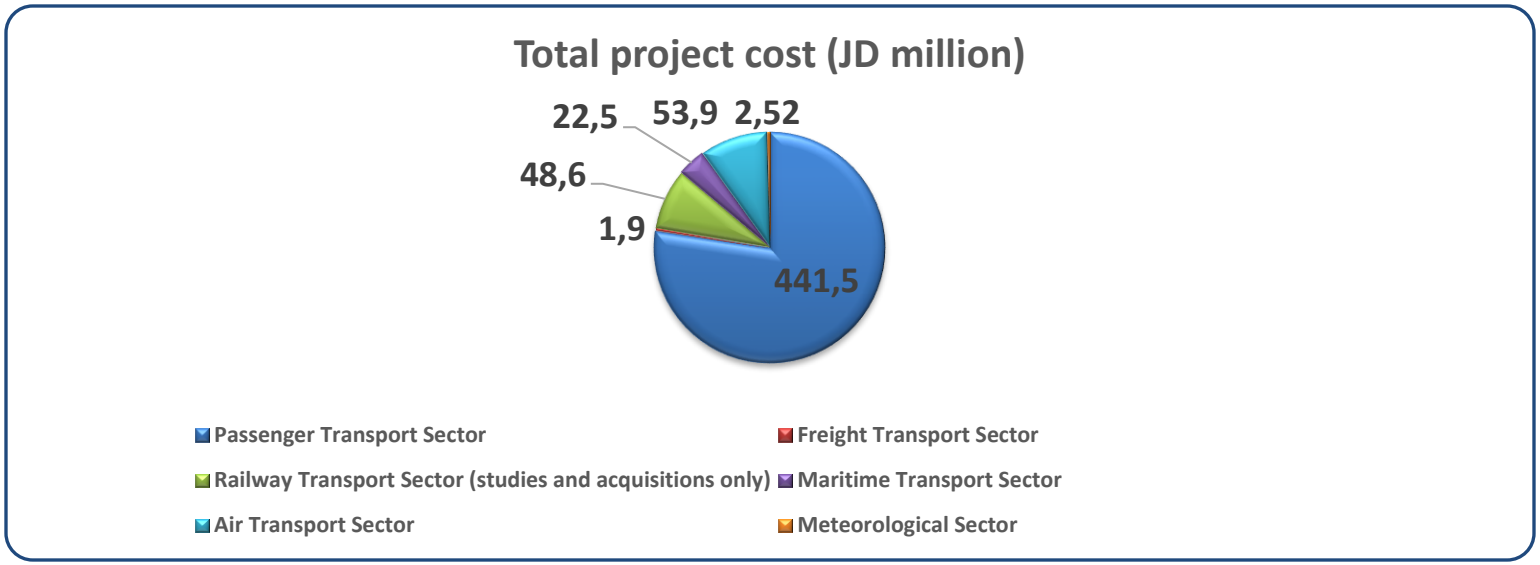
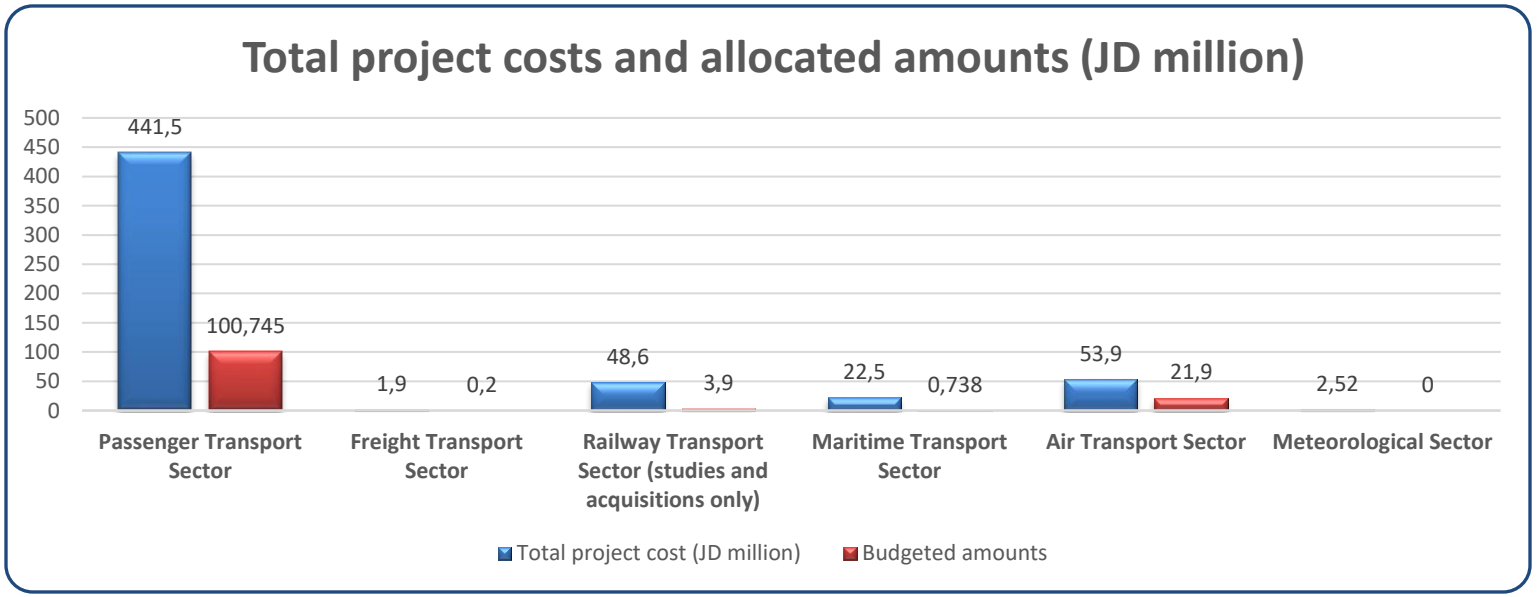


Figure (20): Project costs and allocations for the implementation of the transport sector strategy by mode



5.2. Sources of Funding

1. **General Budget**
2. **Activation of the Passenger Transport Sector Support Fund**
3. **Revenues from Entities Affiliated with the Ministry of Transport**
4. **Public-Private Partnerships (PPP)**
5. **Grants in Cooperation with the Ministry of Environment and the Ministry of Planning and International Cooperation**: These grants fund technical assistance, studies, projects related to sustainability and environmental considerations, as well as training and capacity-building initiatives.

Table 32: Sources of Funding

Entity	2019 (JOD)	2020 (JOD)	2021 (JOD)
Jordan Maritime Authority	4,105,448	3,668,932	3,421,946
Civil Aviation Regulatory Commission	12,842,556	7,531,943	11,493,454
Land Transport Regulatory Commission	12,534,927	9,389,475	9,941,167
Hejaz Railway Corporation	1,976,676	1,809,662	2,047,563
Total	**31,459,607**	**22,400,012**	**26,904,130**

Average Annual Revenue of Entities Affiliated with the Ministry of Transport: JOD 25.5 million

Key Initiatives and Projects Benefiting from These Grants

One of the most significant projects that can leverage these grants is the **transition to electric freight transport by trucks**, aligning with the outcomes of the **Truck Fleet Modernization Study**, announced at the **COP26** conference in **Glasgow, United Kingdom**. This initiative aims to ensure that **all new vehicle and truck sales are zero-emission by 2040**.

Funding opportunities are available for the **truck fleet modernization project**, which involves the **gradual replacement of aging truck heads with environmentally friendly vehicles**. This transition to electric freight transport will be implemented in phases, in collaboration with the **Ministries of Environment and Planning and International Cooperation**, as well as donor organizations. This approach seeks to balance **environmental sustainability** while preserving revenues generated from **traditional fuel sources (gasoline and diesel)**.

5.1. Public-Private Partnerships

Current Situation

Transport sector investments in Jordan are projected to reach nearly **USD 1 billion** between 2023 and 2028, primarily allocated to road networks, passenger transport, and freight transport. However, the total investment cost for planned projects during this period is estimated at approximately **USD 20 billion**. The public sector alone will not be able to undertake these investments without partnering with the private sector.

Jordan's new development model emphasizes reliance on the private sector and foreign investment as key sources of funding for large-scale infrastructure projects. This approach aims to drive economic growth and create job opportunities. Significant investments are required to expand and improve infrastructure, establishing a robust foundation to enhance competitiveness, access to markets and essential services, and accelerate supply chain operations. Public-Private Partnerships (PPPs) are an effective mechanism to address the scarcity of public resources.

The revised infrastructure development approach prioritizes project selection based on key criteria, including asset management and financing feasibility. In May 2018, the development of an effective mechanism for selecting and prioritizing infrastructure investments was integrated into the Public Investment Management (PIM) framework, specifically for PPPs. Meeting Jordan's infrastructure needs will require implementing this framework to ensure efficient use of public financing and mobilize private sector funding to complement public budgets.

Investing in new infrastructure alone will not be sufficient to achieve development goals. Maintaining existing infrastructure is equally critical, as funding for maintenance can reduce the total lifecycle cost of transport infrastructure by more than **50%** and lower operational transport costs by up to **20%**, based on international best practices.

Public-private partnerships will help meet infrastructure investment needs and attract additional funding sources to support development. Jordan has a significant pipeline of planned investments in transport infrastructure for both freight and passenger services. However, private sector investment in transport infrastructure remains limited, with the exception of Aqaba Port and Queen Alia International Airport.

Given the importance of road networks to Jordan's trade, investments in road infrastructure have emerged as potential priorities for the new financing approach. This approach ensures value for money and requires any demand risk-sharing with the government to develop a clear financing model for the road sector. It also necessitates the establishment of a transparent road user charging policy that aligns with sector financing needs and user capabilities, while gaining public acceptance. Additionally, appointing legal advisors with expertise in traffic studies is essential to ensure that technical, financial, and legal standards are met, enhancing project viability and attractiveness.

Establishing public-private partnerships is relatively easier in other transport sectors, as they typically involve revenue-generating activities. For example, airports generate income from passenger fees, concession fees, and ground services; ports earn revenue from shipping fees, container fees, and storage charges; and railways generate income from freight and passenger fees.

Challenges

- Lack of financial feasibility for many transport infrastructure projects.
- Absence of acceptable feasibility studies for implementing public-private partnerships.
- Limited managerial, operational, and technical expertise of the private sector in the transport sector.
- Insufficient experience of transport authorities in preparing bankable PPP projects.

Recommendations and Proposed Solutions

- Structure projects in a way that ensures financial profitability for private sector investors.
- Prepare credible feasibility studies for public-private partnership projects.
- Design projects to be acceptable to private sector participants.
- Mandate the appointment of trusted legal advisors and transport experts for projects.
- Prioritize projects based on funding availability, strategic importance, and sustainability.
- Encourage public-private partnerships in infrastructure maintenance projects.
- Develop a clear timeline for implementing public-private partnership projects.

6. Legislative and Institutional Aspects

There is a multiplicity of legislation governing the work of the Ministry of Transport and its associated bodies (Civil Aviation Regulatory Authority, Land Transport Regulatory Commission, Jordan Maritime Authority, Jordan Pilgrim Railway Corporation), so the Ministry is seeking to review these legislations to produce a unified transport law to unify legislation and remove distortion by conducting a study by technical and legal specialists from donor agencies through the Ministry of Planning and International Cooperation, and in cooperation with the Bureau of Opinion and Legislation.

Table 33: Legislative Frameworks Requiring Updates or New Issuance

Public Passenger Transport
Enacting the Passenger Transport Law No. 19 of 2017 for the following articles: Article (11) paragraph (c) of the law, which relates to the Passenger Transport Sector Support Fund through: • Issuing the management system of the Passenger Transport Support Fund. • Preparing instructions for the distribution of the fund's revenues. Article (13) of the law relating to the merger of individual operators into companies to minimise individual ownership by issuing instructions for the management and merger of individual operators. (Draft instructions on the principles and conditions for granting incentives to companies formed from the merger of individual operators operating on a single line or a group of lines serving a single area to provide regular passenger transport services have been prepared and referred to the Policy Committee for appropriate decision-making).
Consider amending Article (3) paragraph (a) of the Passenger Transport Law No. 19 of 2017, which states: "On-demand passenger transport services: Transporting passengers according to their request without adhering to specific routes and timings and at specified or agreed-upon fares" in order to implement the smart app car/taxi/service regulation project.
Consider amending Article (12) Paragraph (2) of the 2018 Regulations for the Regulation of Passenger Transport through the Use of Smart Applications, which stipulates that "it is prohibited for the licensee and the service provider under any circumstances to load passengers by sharing" for the application of the smart application cars/taxis/services regulation project.
Issuing a system of fees for licences and permits. Currently preparing a draft system of licence and permit fees in coordination with the Amman Municipality
Ticketing Instructions
Ownership and transfer of passenger transport (consolidation)
Research and study of legislation related to ride-sharing transport
Legislation to establish, manage and operate transport facilities and build an operations management system
Studying the amendment of legislation necessary for the rights of workers in the transport sector, such as social security coverage
Amending the Specialised Tourist Transport Law of 2012 and issuing the necessary instructions to regulate work in this field, taking into account the repercussions of the Corona pandemic and its direct impact on tourist transport.
Providing customs and tax exemptions for environmentally friendly buses and trucks. (Cabinet Decision No. 12788 was issued on 6/8/2023 to exempt locomotive heads from the general sales tax (16%). Exempting electric-powered locomotive heads from the special tax imposed on them under this decision).

<table>
<tr><th>Rail transport</th><th>Cargo transport</th></tr>
<tr><td rowspan="10">The issuance of regulations and instructions for the Railway Law of 2012 and the development of legislation governing railway transport through the Land Transport Regulatory Commission. The priority of preparing and approving railway legislation (regulations and instructions) was adopted through the initiative to harmonise and simplify legislation and procedures related to transport and trade facilitation adopted in the Economic Modernisation Vision and the Executive Programme of the Modernisation Vision for the years (2023-2025). During the period (2023-2024), the following will be done:
• Forming a committee to review and study the Railway Law of 2012 and prepare the necessary report.
• Prepare a report on the necessary amendments, regulations and instructions to be issued.
• Present the report with the necessary amendments, regulations and instructions to be issued to the legal department at the Authority.
• Presenting the report with the necessary amendments, regulations and instructions to be issued in the final version to the Board of Directors of the Authority.
• Approval of the amendments by the Board of Directors.
• Publish the amendments in the Official Gazette.
• Enforcement of instructions.</td><td>Amending the individual licensing regulations.</td></tr>
<tr><td>Regulation adopting the instructions for collecting the licence fee for carriers and freight brokers.</td></tr>
<tr><td>Amending the legal basis for charging fees for entry and exit permits</td></tr>
<tr><td>Strict market entry procedures in place</td></tr>
<tr><td>No new entrants to the market until the licensing provisions for existing individual truck owners are enforced</td></tr>
<tr><td>Determining the operational life of trucks</td></tr>
<tr><td>Restricting the import of old trucks</td></tr>
<tr><td>Linking new market entry to proven need for additional capacity</td></tr>
<tr><td>Transfer surplus in the sector to other modes by granting exemptions to purchase (buses, smart apps, taxis).</td></tr>
<tr><td>Developing regulations and instructions related to international transport to increase the competitiveness of the sector and the use of a modern truck fleet</td></tr>
<tr><td colspan="2">The modernisation of legislation for the road freight transport sector is a priority of the initiative to harmonise and simplify legislation and procedures related to transport and trade facilitation adopted in the Economic Modernisation Vision and the Executive Programme of the Modernisation Vision for the years (2023-2025), whereby during the period (2023-2024) the following will be done:
Studying current legislation and developing proposals to amend it through:
• Form a committee to prepare the study and collect all the legislation to be studied and distribute it to the members of the committee
• Start conceptualising and outlining what is required and developing proposed amendments or recommending the introduction of new legislation
• Presenting the proposed amendments to the Legal Affairs Unit for a decision and to the senior management and making comments on them.
• Submitting the proposed amendments to the Authority's Board of Directors for approval
• Submit amendments approved by the Authority's Board of Directors to the Council of Ministers for approval, take the approval of the Opinion and Legislation Bureau (if necessary), publish the instructions in the Official Gazette and start implementing them through the Presidency of the Prime Minister.</td></tr>
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7. Epilogue

Expected Outcomes of the Transport Strategy (2024-2028)

1. **Increase the transport sector's contribution to GDP by approximately 1%.**
2. **Promote active mobility and environmentally friendly transport modes**, increase their usage rates, and develop the necessary supporting infrastructure.
3. **Increase the share of public transport users in all mobility movements (Mode Share) by 5%**, reduce travel time, costs, and traffic congestion, and fund major projects in mass transit, such as Bus Rapid Transit (BRT) and sustainable urban transport systems.
4. **Increase the share of public transport users among people with disabilities, the elderly, and women**, and enhance women's participation in the labor market.
5. **Rehabilitate aviation infrastructure** to meet the licensing requirements of Amman Civil Airport / Marka, invest in its development and modernization, and explore the possibility of establishing a new auxiliary airport to Queen Alia International Airport. The new airport is expected to handle **1 million passengers annually in its first phase**, increasing to **5 million passengers after 10 years**, and **8,000 tons of cargo annually in the first phase**, rising to **35,000 tons after 10 years**. The project will also create numerous job opportunities during its operation.
6. **Develop a comprehensive national intelligent transport system** to enhance public transport services by introducing electronic payment systems, tracking public bus schedules, and reducing operational costs for the transport fleet. This project will directly improve public transport services, reduce waiting times at stations through fixed-time frequency operations, decrease road congestion, increase public transport ridership, reduce private vehicle usage, minimize cash transactions for fare collection, and contribute to environmental benefits and energy savings.
7. **Establish a national railway network** as a strategic priority project for the country. This project will have a direct impact on national economic growth and the development of geographic areas along the railway route, with a financial return rate of **12.07%** and an economic return rate of **13.27%**. It will also achieve savings in fuel consumption, road maintenance, and road usage by shifting freight transport from roads to railways. Additionally, it will create new job opportunities in rail freight and logistics, reduce emissions from trucks, lower road accidents, enhance traffic safety, and strengthen Jordan's regional connectivity and strategic importance.
8. **Reduce direct injury accidents and traffic-related fatalities by 20%.**
9. **Lower the cost of losses from total traffic accidents by 35%**, and reduce losses from public transport and truck accidents by **65%.**
10. **Reduce transport costs as a percentage of average household income by approximately 5%**, while enhancing the skills and capacities of human resources working in the sector.
11. **Decrease the transport sector's energy consumption by 7%.**
12. **Reduce carbon emissions from the transport sector by 7%.**
13. **Reduce the operational lifespan of locomotives to approximately 10.6 years (a 40% reduction)** and decrease the number of locomotives to **15,000 (a 22% reduction)**, creating a competitive fleet. Surplus workers in the sector will be redistributed to other sectors (e.g., buses, smart applications, taxis, etc.).
14. **Develop an actionable implementation plan for the strategy**, including monitoring and evaluation mechanisms for all stages of the strategy's execution at various intervals.

Table 34: Indicators expected to be achieved through the implementation of the strategy

Indicator	Baseline Value	Baseline Year	2023	2024	2025	2026	2027	2028
Transport Sector Contribution to GDP (%)	6.20%	2019	6.4%	6.5%	6.7%	6.8%	6.9%	7%
Public Transport Mode Share (%)	~12%	2019	13%	13.50%	14%	15%	16%	17%
Number of Employees in the Transport Sector	95,000	2019	93,500	92,800	94,500	99,600	105,500	112,500
- Public Passenger Transport	-	-	63,500	64,000	65,500	65,500	70,000	75,000
- Road Freight Transport	-	-	20,000	18,000	16,000	16,500	16,700	17,000
- Air Transport	-	-	6,500	6,500	6,600	7,000	7,100	7,500
- Maritime Transport	-	-	5,000	5,000	5,200	5,500	5,800	6,000
Transport Sector CO_2 Emissions (%) Compared to Total Emissions	37.50%	2019	34%	32%	30%	28%	26%	26%

Road Safety Indicators

Indicator	2023	2024	2025	2026	2027	2028
Public Transport Contribution to Total Accidents (%)	2%	1.85%	1.70%	1.50%	1.30%	1.2%
Heavy Freight Vehicles Contribution to Road Accidents (%)	11%	10.70%	10%	9.50%	9%	8.5%
Total Economic Losses from Traffic Accidents (Million JOD)	324	290	260	220	210	205
Losses from Truck & Public Transport Accidents (Million JOD)	32	24	20	15	12	11

Socioeconomic Impact of Transport

Indicator	Baseline Value	Baseline Year	2023	2024	2025	2026	2027	2028
Transport Costs as a Percentage of Average Household Income (%)	23.21%	2017	22%	21%	20%	19%	18.5%	18%
Transport Sector's Share of Final Energy Consumption (%)	43%	2021	42%	41%	40%	39%	38.5%	38%

A. (Appendix) The funding gap: Projects included in the strategy that require full or partial funding

First: List of projects included in the strategy that need to be fully funded

Transport Sector (Mode)	Total Cost (Million JOD)	Allocated Budget (2024-2026) (Million JOD)	Funding Gap (Million JOD)	Implementing Authority
Passenger Transport Projects (Total)	238.58	0	238.58	-
- Implementation of Urban Transport Network Rehabilitation Study in Irbid & Zarqa	17.9	0	17.9	Land Transport Regulatory Commission / Irbid Municipality / Zarqa Municipality / Ministry of Local Administration
- Implementation of Phase 2 Studies for Bus Rapid Transit (BRT2) in Amman	5.0	0	5.0	Greater Amman Municipality
- Infrastructure Implementation for Phase 2 of Bus Rapid Transit (BRT) in Amman	210	0	210	Greater Amman Municipality
- Feasibility Study for Bus Rapid Transit (BRT) between Salt & Amman	1.0	0	1.0	Ministry of Transport
- Transport Development (Shared Transport Services)	2.5	0	2.5	Greater Amman Municipality
- Development of the Comprehensive Transport and Mobility Master Plan	2.0	0	2.0	Greater Amman Municipality
- Management System for Operations & Activities at Transport Hubs	0.1	0	0.1	Land Transport Regulatory Commission
- Feasibility Study for Transition to Solar-Powered Electric Public Buses in Karak, Ma'an, and Tafileh	0.08	0	0.08	Land Transport Regulatory Commission
Freight Transport Sector (Total)	1.7	0	1.7	-
- Establishment of a Truck Parking & Rest Area in Amman	1.5	0	1.5	Land Transport Regulatory Commission
- Development of the Electronic Freight Transport System (GPS Tracking for Trucks)	0.2	0	0.2	Land Transport Regulatory Commission
Maritime Transport Sector (Total)	21.285	0	21.285	-
- Security System for the Port Area	4.035	0	4.035	Aqaba Development Corporation
- Hazardous Materials Storage & Handling Facility	1.98	0	1.98	Aqaba Development Corporation
- Smart Port System	10.5	0	10.5	Aqaba Development Corporation

Transport Sector (Mode)	Total Cost (Million JOD)	Allocated Budget (2024-2026) (Million JOD)	Funding Gap (Million JOD)	Implementing Authority
- Slipway Rehabilitation at Aqaba New Port (Main Slipway Rail Repair)	3.5	0	3.5	Aqaba Development Corporation
- Additional Berth at Prince Hashem Bin Abdullah II Naval Base	0.75	0	0.75	Aqaba Development Corporation
- Navigational Aids for the Southern Shore	0.45	0	0.45	Aqaba Development Corporation
- Encouraging Ship Registration Under the Jordanian Flag	0.05	0	0.05	Jordan Maritime Authority
- Activation of the Facilitation of International Maritime Traffic Convention (FAL 1965)	0.02	0	0.02	Jordan Maritime Authority
Air Transport Sector (Total)	10	0	10	-
- Replacement of X-ray Screening Equipment at the Cargo Clearance Facility	10	0	10	Jordan Airports Company
Meteorology Sector (Total)	2.52	0	2.52	-
- Installation of a Weather Radar in Southern Jordan	2	0	2	Ministry of Transport
- Establishment of a Radiosonde Station in the Southern Region	0.4	0	0.4	Ministry of Transport
- Development of a High-Resolution Numerical Weather Prediction Model	0.12	0	0.12	Ministry of Transport

A summary of the cost of the projects included in the strategy that need to be fully funded, broken down by mode:

Total project cost (JD million)	Transport sector by mode
238.58	**Passenger Transport Sector**
1.7	**Freight Transport Sector**
21.285	**Maritime Transport Sector**
10	**Air Transport Sector**
2.52	**Meteorological Sector**
274.09	**Grand total***

* Excluding the cost of implementing investment opportunity projects

Second: List of projects included in the strategy that require partial funding

Transport Sector (Mode)	Total Cost (Million JOD)	Allocated Budget (2024-2026) (Million JOD)	Funding Gap (Million JOD)	Implementing Authority
Passenger Transport Projects (Total)	144.39	51.205	93.185	-
- Public Transport Services Restructuring: Implementation of the Comprehensive Master Plan in Jerash (Annual Operational Support for 3 Years)	7.2	5.3	1.9	Land Transport Regulatory Commission
- Infrastructure Rehabilitation for Bus Terminals in Governorates & Districts	13.85	6.2	7.65	Land Transport Regulatory Commission
- University Students' Fare Subsidy Program (Annual Operational Support for 3 Years)	42	29.5	12.5	Land Transport Regulatory Commission
- National Intelligent Transport System (ITS)	60	3	57	Land Transport Regulatory Commission
- Development of the Geospatial Database for the Land Transport Regulatory Commission (Phases 2 & 3)	0.24	0.185	0.055	Land Transport Regulatory Commission
- Amman Bus Project (Operational Support)	21.0	7.0	14.0	Greater Amman Municipality
- Installation of Electronic Monitoring Systems for Public Transport at Bus Terminals (CCTV) – Phase 2	0.1	0.02	0.08	Land Transport Regulatory Commission
Rail Transport Sector (Total)	48.0	3.3	44.7	-
- Land Acquisitions	48.0	3.3	44.7	Ministry of Transport
Air Transport Sector (Total)	31.99	9.99	22.0	-
- Compliance with Security Licensing Requirements for Amman Civil Airport (Marka) & Airport Infrastructure Development, including: 1. Final Phase of Valley Filling & Expansion of Side Runway 2. Runway Maintenance & Rehabilitation 3. Runway Lighting System Upgrade				

Summary of the cost of projects included in the strategy that need to be partially funded, broken down by mode:

Transport Sector (Mode)	Total Project Cost	Allocated Budget (2024-2026)	Funding Gap
Passenger Transport	144.39	51.205	93.185
Rail Transport	48.0	3.3	44.7
Air Transport	31.99	9.99	22.0
Total	224.38	64.495	159.885

Third: List of projects included in the strategy that need funding as an investment opportunity

#	Project	Expected Investment (Million JOD)
1	Unified Operation of the Bus Rapid Transit (BRT) Project between Amman and Zarqa & Within Greater Amman Municipality	325
2	National Railway Network Project (Phase 1 Infrastructure – Aqaba - Ma'an - Madouneh)	1,900
3	Development of King Hussein International Airport in Aqaba (Phase 1)	50
4	Implementation of an Inland Port and Logistics Center in Amman (Madouneh)	60

Fourth: Details of the projects that require funding

Passenger Transport Sector

Project	Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Relevant Authority	Partners	Notes	Alignment with Sustainable Development Goals (SDGs)
Restructuring Public Transport Services (Urban Areas) Based on the Comprehensive National Transport Plan: **Project: Rehabilitation of Urban Transport Routes in Irbid and Zarqa** (Phase II - Implementation of Study Outcomes)	2025-2027	Capital investment: 17.9 million (loan and grant) Operational support: 1.8 million annually (Urban Transport Report Draft)	75% loan from the European Bank for Reconstruction and Development (EBRD), 25% grant (if a donor is available)	Project completion percentage	Irbid Municipality, Zarqa Municipality, Land Transport Regulatory Commission, Ministry of Local Administration, Ministry of Transport	EBRD	The project aims to: 1. Establish new transport companies based on a bus management model. 2. Provide modern-designed buses with high-quality service. 3. Introduce an electronic fare payment system. In the final study phase; project execution is contingent on approval from the Prime Ministry and sovereign loan approval.	SDG 10 SDG 11 SDG 13
Studies and Designs for Bus Rapid Transit (BRT) Phase II within Amman	2021-2027	5 million	Greater Amman Municipality	Project completion percentage	Greater Amman Municipality	Ministry of Transport, Ministry of Public Works and Housing	Conducting studies and preparing engineering designs for five key intersections along the BRT Phase II corridor. Coordination with the Ministry of Public Works, Ministry of Transport, Royal Court, and Prime Ministry for alignment on conceptual design principles as a strategic national project.	SDG 10 SDG 11 SDG 13
Infrastructure Development for Bus Rapid	2025-2028	210 million	Greater Amman Municipality	Project completion percentage	Greater Amman Municipality	Ministry of Transport, Ministry of		SDG 10 SDG 11 SDG 13

Transit (BRT) Phase II in Amman						Public Works and Housing		
Feasibility Study for a Regular Transport Service between Salt and Amman	2023-2025	1 million		Study completion percentage	Ministry of Transport	Greater Amman Municipality, Land Transport Regulatory Commission	The study aims to assess the feasibility of introducing a regular transport service between Salt, Amman, Sweileh, and Queen Alia International Airport, evaluating its impact on existing public transport and demand.	SDG 10 SDG 11 SDG 13
Development of Public Transport Services (Shared Mobility Services)	2022-2025	2.5 million	Greater Amman Municipality	Project completion percentage	Greater Amman Municipality	Land Transport Regulatory Commission, Taxi Owners, Taxi Offices	Expanding smart transport services by enabling citizens to request transport via a dedicated application. Greater Amman Municipality will develop a taxi application, enhancing collaboration with transport service providers and integrating taxi services with BRT and other transport modes to promote multimodal transport and reduce reliance on private cars.	SDG 10 SDG 11 SDG 13
Development of the Comprehensive Transport and Mobility Master Plan	2025-2026	2 million	Greater Amman Municipality	Master plan project completion percentage	Greater Amman Municipality	Ministry of Transport, Land Transport Regulatory Commission	Updating the 2010 transport master plan, which serves as a roadmap for investment by defining road networks, residential zones, and commercial/service attraction areas. The project will analyze land use changes, vehicle movements, and evaluate the road network's capacity while assessing cost-benefit strategies for parking, pedestrian movement, and freight	SDG 10 SDG 11 SDG 13

							transport. The outcome will recommend a business model for public transport in Amman, prioritizing implementation based on budget and funding strategies.	
Operations and Activities Management within Transport Hubs	2022-2027	100,000	Public Budget	Issuance of regulations for transport facility establishment and management. Implementation of an operational management system.	Land Transport Regulatory Commission	Private Sector, Operators	Regulating transport operations, including passenger boarding and alighting, with digital management for efficiency. Providing accurate data on trip times, seat occupancy, and passenger numbers.	SDG 11
Feasibility Study on Transition to Sustainable Electric Buses Powered by Solar Energy in Karak, Ma'an, and Tafila	2025-2027	80,000	Public Budget	Study completion percentage	Land Transport Regulatory Commission, Consulting Firm	Ministry of Transport, Ministry of Energy, Ministry of Environment	The project aims to introduce energy-efficient, low-emission transport technologies, enhance public transport safety, reduce congestion, and lower carbon emissions. A concept note has been prepared.	SDG 8 SDG 11 SDG 13
Investment Opportunity: Unified Operation of Bus Rapid Transit (BRT)	2025-2037	325 million	Public-Private Partnership (PPP)	Activation of the official operating contract for buses and fare collection	Greater Amman Municipality	Greater Amman Municipality, Ministry of Public Works and Housing, Ministry of Finance, Ministry of Transport, Land Transport Regulatory Commission	Leveraging BRT infrastructure through PPP contracts to provide a high-quality transport service with scheduled and frequent trips. The operation includes three contracts: bus operator, fare collection, and financial management.	SDG 10 SDG 11 SDG 13

Freight Transport Sector

Project	Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Relevant Authority	Partners	Notes	Alignment with Sustainable Development Goals (SDGs)
Implementation of a Truck Parking and Rest Area in Amman	2023-2024	1.5 million	Public Budget	Study completion percentage	Land Transport Regulatory Commission	Jordan Customs, Ministry of Public Works and Housing, Department of Lands and Survey (State Property), Truck Owners Syndicate, Private Sector, Ministry of Transport	Studying the establishment of truck parking and service centers at main city entrances, especially Amman, along truck routes (Desert Highway, Azraq-Karama Border Road), and border crossings.	SDG 9 SDG 11
Development of the Electronic Freight Transport System / GPS Tracking for Trucks	Ongoing	200,000	Public Budget	Study completion percentage	Land Transport Regulatory Commission	Public Security Directorate, Civil Defense, Drivers and Vehicles Licensing Department, Energy and Minerals Regulatory Commission, Ministry of Transport	Mandating GPS installation on trucks at owners' expense, linked to vehicle registration, with the Land Transport Regulatory Commission providing monitoring systems.	SDG 8 SDG 11
Investment Opportunity: Dry Port and Logistics Center in Amman/Madouna	2025-2027	60 million	Investment Opportunity	Project completion percentage	Ministry of Transport, Investor	Ministry of Public Works and Housing, Land Transport Regulatory Commission	Part of developing dry ports and logistics centers, including container handling, customs clearance, storage, inspection, packaging, bonded warehousing, and value-added services.	SDG 8 SDG 9 SDG 11 SDG 13

Railway Transport Sector

Project	Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Relevant Authorities	Partners	Notes	SDG Alignment
Investment Opportunity: National Railway Network Project (Phase 1 Infrastructure Implementation: Aqaba - Ma'an - Al-Madounah)	Currently under negotiation with an investor (Saudi-Jordanian Investment Fund). Clarity will be gained upon completion of negotiations	1.9 billion	Investment opportunity through an investor	Infrastructure completion rate	Ministry of Transport / Jordan Investment Fund / Ministry of Transport / Aqaba Special Economic Zone Authority / Aqaba Development Corporation	Jordan Investment Fund / Aqaba Special Economic Zone Authority / Aqaba Development Corporation / Grain Silos / Phosphate Company / Ports	This is a single-track freight railway project designed with a standard gauge (1435 mm) and a maximum speed of 120 km/h, following international specifications with an axle load not exceeding 30 tons. This phase of the project connects the seaports in Aqaba to the proposed dry port in Al-Madounah, south of Amman (logistics center and new Amman Customs Center).	SDG 8 SDG 9 SDG 11 SDG 13

Maritime Transport Sector

Project	Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Responsible Authority	Partners	Notes	SDG Linkage
Port Security System	2019-2025	5 million	Budget	Operational Indicators:1. Security incident rate2. Access control efficiency3. System availability4. False alarm rate5. Compliance with security protocols6. Incident response time7. System maintenance and upgrades8. System integration9. User satisfaction10. Cost-effectiveness	Aqaba Development Corporation	Security agencies, Al-Sakhra Security Services (main operator), Arab Potash Company, Port operators	Provides essential security for oil and gas ports and other strategic facilities. Includes:- 3 security gates- 2 towers (208m² and 325m²)- 12 km security fence- Security management building	SDG 9
Hazardous Materials Yard Operation	2024-2026	1.98 million	Budget	Completion rate	Aqaba Development Corporation	-	-	SDG 9
Smart Port System (Electronic Port System Project No. 16)	Ongoing	10.5 million	PPP: Aqaba Development Corporation & Abu Dhabi Ports	Integration of smart electronic network and launch of digital services	Aqaba Development Corporation	Port operators, Customs Department, Regulatory clearance agencies	Develops an intelligent information system to integrate port operations with customs and international shipping	SDG 9
Slipway Rehabilitation at New Aqaba Port	2024-2026	3.5 million	-	Completion rate	Aqaba Development Corporation	-	-	SDG 9
Additional Berth at Prince Hashem Naval Base	2025	750,000	Budget	Project completion rate	Aqaba Development Corporation	Royal Navy	Project currently on hold due to funding; engineering studies completed	SDG 9
Navigational Aids for the Southern Shore	10 years	450,000	Budget	Key indicators: • Maintenance efficiency • Technician skill assessment • Cost analysis • System reliability • Safety compliance • Diagnostic technology use • Lifespan optimization	Aqaba Development Corporation	Royal Navy, Aqaba Port Marine Services, Maritime Authority	Includes installation and maintenance of navigational aids such as:- Specialized marine lighting columns- Buoy-mounted lighting- Civil works	SDG 9 SDG 11

Encouraging Ship Registration Under Jordanian Flag	2024-2026	50,000	Budget / Grants	Number of ships registered under Jordanian flag	Jordan Maritime Authority	Shipowners and investors	Aim: Increase ships registered under Jordanian flag, maintaining Jordan's position on the White List in global maritime industry	SDG 10
Implementation of FAL 1965 Agreement to Facilitate International Maritime Traffic	2024-2025	21,000	Budget / Grants	Number of procedures developed to implement the agreement	Jordan Maritime Authority	Aqaba Development Corporation, Port terminal operators	Aim: Simplify and reduce formalities, data requirements, and procedures for ships in international voyages	SDG 8 SDG 10 SDG 11

Aviation Sector

Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Relevant Authority	Partners	Notes	Alignment with Sustainable Development Goals (SDGs)
Replacement of X-ray Machines at the Cargo Facilities Center	2024-2028	10 million	Grants	Number of replaced machines	Jordan Airports Company	Civil Aviation Regulatory Commission, Airport International Group	Negotiations underway to secure grant funding for implementation
Investment Opportunity: Development of King Hussein International Airport in Aqaba (Phase I)	2025-2028	50 million	Investment Opportunity	Project Completion Rate	Aqaba Development Corporation	—	Updating the master plan, conducting studies on air route development, feasibility studies on transit movement through Aqaba Airport, and constructing a new passenger terminal with a capacity of 3 million passengers

Meteorology Sector

Project	Implementation Period	Cost (JOD)	Funding Source	Project Performance Indicator	Relevant Authority	Partners	Notes	Alignment with Sustainable Development Goals (SDGs)
Establishment of a Weather Radar in the Southern Regions	12 months from contract award	2 million	Budget + Grants	Accuracy of real-time alerts for flash floods and severe weather events. Accuracy of weather reports for civil and military aviation.	Ministry of Transport / Meteorological Department	Royal Jordanian Air Force, Civil Aviation Regulatory Commission, Civil Defense, Ministry of Local Administration, World Meteorological Organization (WMO), International Civil Aviation Organization (ICAO)	—	SDG 9 SDG 11
Establishment of a Radiosonde Station in the Southern Regions	9 months from contract award	400,000	Budget + Grants	Number of atmospheric observations from the radiosonde station. Accuracy of upper-air meteorological observations.	Ministry of Transport / Meteorological Department	Royal Jordanian Air Force, Jordanian Armed Forces, Civil Aviation Regulatory Commission, World Meteorological Organization (WMO), International Civil Aviation Organization (ICAO)	—	SDG 9 SDG 11
Development of a High-Resolution Numerical Weather Prediction Model	6 months from contract award	120,000	Budget	Accuracy of real-time alerts for flash floods and severe weather events. Accuracy of weather reports for civil and military aviation.	Ministry of Transport / Meteorological Department	All ministries, institutions, and government agencies, Jordanian Armed Forces (Army, Royal Jordanian Air Force, etc.), Private Sector, General Public	—	SDG 9 SDG 11