# Railway Development in Ethiopia

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## 1. Situational Analysis

### 1.1 Background

For over a century, the history of Ethiopia's railway sector has been closely tied to the Ethio-Djibouti Railway Company. This railway is one of the oldest in black Africa and played a significant role in Ethiopia's development. Spanning 781 km from Addis Ababa to the Port of Djibouti, the 1000mm gauge railway has 681 km in Ethiopia and 100 km in Djibouti. Ownership is shared by the governments of the Federal Democratic Republic of Ethiopia and the Republic of Djibouti. While partially operational at the moment, the Ethio-Djibouti Railway used to be an important part of Ethiopia's transportation infrastructure.

In Ethiopia, the dominant mode of transport both for passenger and freight has been the road transport. Road transportation is associated with low transport capacity, high transport cost, high energy consumption, and exhaust emissions that pollute the environment. In contrast, electrified railway transport is a green transportation option that offers high transport capacity, reliability, space and energy savings, environmental friendliness, and faster speeds. The land required for railway projects is only about half of that needed for roads, and with electric traction, energy consumption is only a fraction of that used by highways.

Ethiopia is a rapidly developing country in Africa, with a growing economy and a need for sustainable international trade. As a landlocked country, Ethiopia relies on ports in other countries, with Djibouti Harbor serving as the main port for import-export activities. The construction of a railway line to the sea port will play a crucial role in maintaining sustainable economic development. The railway transport sector will connect different development corridors of the

country, enhancing social and political cohesion, improving natural resource utilization, and integrating the manufacturing and agriculture sectors.

To address the country's transport problems, the Ethiopian government established a Technical Advisory Group (TAG) to study the available land transport mode options and identify if the railway sector can be a better alternative for both freight and passenger haulage. The TAG found it prudent to develop an indicative framework for a railway network in the country, given the inadequacy and inefficiency of the current transport sector and the projected growth of the economy and associated increase in production, trade, and traffic.

## 1.2 National Railway Network of Ethiopia

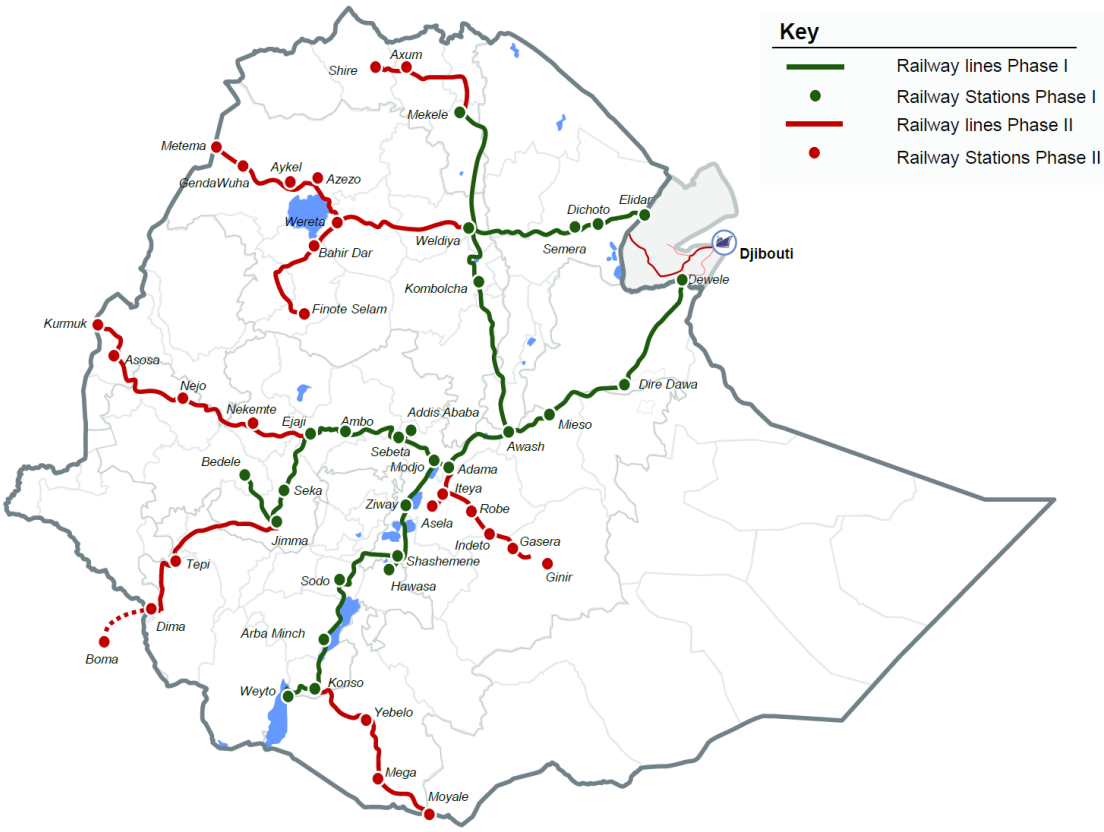
The Ethiopian Railways Corporation (ERC) is a public enterprise (government owned enterprise) which was established by regulation number 141/2007 of the Council of Ministers of the Federal Democratic Republic of Ethiopia (FDRE). The regulation mandates ERC to develop railway infrastructure and provide passenger and freight rail transportation services in Ethiopia. Since its formation in November 2007, Ethiopian Railways Corporation (ERC) has developed railway alignments on eight corridors in Ethiopia which have been identified as necessary to enhance both the social and economic needs of the country. The total length of which is around 5000km. ERC has been expanding its project management organizational structure which will permit it to fully manage the development of the planned National Rail Network from concept to implementation. The eight railway corridors are;

***Table 1:*** *The National Railway Network of Ethiopia in eight corridors*

| NO | RAILWAY NETWORK ROUTES SELECTED | LENGTH (KM) |
|---|---|---|
| Route 1 | Addis Ababa – Modjo – Awash – Dire Dawa - Djibouti | 656 |
| Route 2 | Mojo–Shashemene-Awasa-Konso-Woyito-Including Konso-Moyale | 903 |
| Route 3 | Addis Ababa-Ejaji-Jimma-Guraferda-Dima-Directed to Boma | 637 |

| No | Railway network routes selected | Length (Km) |
|---|---|---|
| Route 4 | Ejaji-Nekemet-Asossa-Kummruk | 460 |
| Route 5 | Awash-Kombolcha-Mekele-Shire | 730 |
| Route 6 | Fenoteselam-Bahirdar-Wereta-Weldia-Mile- Djibouti | 740 |
| Route 7 | Wereta-Azezo-Metema | 248 |
| Route 8 | Addis Ababa-Adama-Indeto-Gasera-Ginir | 248 |

***Figure 1:*** *Planned National Railway Network of Ethiopia*




## 1.3 Status of the National Railway Network of Ethiopia (NRNE)

The Government of the Federal Republic of Ethiopia through the Ethiopian Railways Corporation (ERC) is undertaking the construction work of some of the projects and preparations for the other projects. In order to make the implementation process manageable the NRNE projects have been phased into two parts (i.e. in the figure 1 above, the green colored routes are phase one while the red colored routes are phase 2).

ERC's current priority is to construct the first phase of the national railway network, which spans over 2000 km. To streamline the process, the corridor site has been divided into sub-sections based on resource availability and volume and location assessments. The projects are at varying stages of development, with some already completed and commenced commercial operation, some are in advanced stages of physical construction, and others still in the feasibility study stage.

| Sr.No | Name of the Project | Status |
|---|---|---|
| **1** | Addis Ababa – Djibouti Railway Project | Completed and in commercial operation |
| **2** | Mekelle – Weldya Railway Project | 58% physical progress |
| **3** | Awash Weldya Railway Project | 92% physical progress |
| **4** | Asayita – Tadjoura Railway Project | Feasibility study stage |
| **5** | Sebeta – Jimma – Bedele | Feasibility study stage |
| **6** | Modjo – Moyale Railway Project | Feasibility study stage |

## 1.4 Description of the Addis Ababa – Djibouti Railway line

The railway line with a total length of 756 km is standard gauge electrified railway line which connects the capital Addis Ababa to the sea port in Djibouti. The railway line have 19 major stations, passing through economically active cities such as Bishoftu, Adama, and Dire Dawa. The 115 km from Addis Ababa to Adama is double track, whereas the rest of the line is single track rail. The route starts from a city called Sebeta in southwest Addis Ababa and runs towards east ending at Nagad (front-port station of Djibouti) via Indode (Akaki), Bishoftu, Modjo, Adama, Metehara, Awash, Mieso, Bike, Dire Dawa, Arawa, Adigala, Aysha, Dewanle, Queleleh, Ali Sabieh, Holhol and Nagad.

The Addis Ababa – Djibouti line is the main import-export transport corridor of the country. This railway line has great significance for promoting the foreign trade business and economic development of the country. It also plays an active demonstrative and guiding role in building east-west trunk line of African

railway network. Furthermore, as a backbone line, it will facilitate the construction of planed Ethiopian national railway network.

Approximately 30-35 % of the Ethiopian population and 70 % of the Djibouti population are situated along the railway line, this is considered a very important transport route for both Ethiopia and Djibouti.

Amongst a number of lines considered for construction by the Ethiopian Railways Corporation, the Addis Ababa- Djibouti route was given priority considering that it is key for the increase of the country's competitiveness in the international market, through the reduction of logistics costs.

This railway line will enable Ethiopia to get easy access to the ports of Djibouti providing both passenger and freight services. It is expected to reduce the travel time from Addis Ababa to Djibouti by one third, to less than ten hours with a design speed of 80km/hour for freight and 120km/hour for passenger. The Project will replace the existing meter-gauge railway that is obsolete and will become the railway corridor to the sea from Addis Ababa. The Addis Ababa – Djibouti Railway line commenced commercial operation in 2018.

## 1.5 Operation of the Addis Ababa – Djibouti Railway line

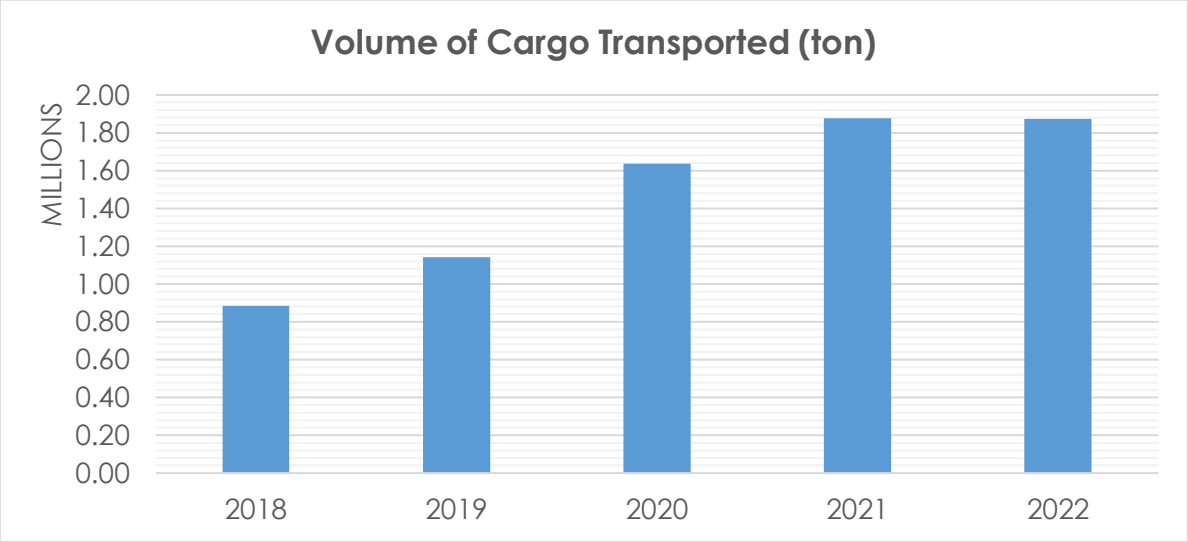
The railway line is operated by the Ethio-Djibouti Standard Gauge Railway Share Company (EDR), a public joint venture owned by Ethiopia and Djibouti Governments. EDR has signed an operations and management contract for six years with CREC-CCECC JV, who is thus currently in charge of actual operations and maintenance tasks.

In April 2017, the Ethio-Djibouti Standard Gauge Railway Share Company (EDR) was established as a result of a Bilateral Agreement signed on December 16, 2016 between the Federal Democratic Republic of Ethiopia and the Republic of Djibouti. The Shareholders Agreement was signed on January 11, 2017 among Public Bodies and State Enterprises of the two countries, and the company is to be administered pursuant to the commercial laws of Ethiopia.

The Shareholders have agreed to establish a share company with an initial share capital of USD 500,000,000.00 consisting of 10,000 shares of USD 50,000.00 each. The purpose of the company is to operate and maintain the Addis Ababa-Djibouti Standard Gauge Railway Line, including the maintenance and renewal of all of the Line infrastructure and equipment, and to operate freight and passenger transport services on the Line.

Since the opening of the railway line, the transport volumes fall behind expectations. The freight and passenger volume transported by rail in the last five years is displayed in the figures below.

***Graph 1:*** *Volume of Cargo Transported (ton)*




***Graph 2:*** *Number of Passenger Transported*

## 1.6 Current Context and summary of Previous Studies

There are several developments currently in progress for the rail sector in Ethiopia that will be both exciting but challenging, with effects on governance, finance, investment, and market structure.

A team of senior railway experts, who possess extensive knowledge of the Ethiopian rail industry, have come together to develop a comprehensive analysis for the railway sector in Ethiopia. This analysis includes a detailed assessment of the current state of the industry, as well as projections for future growth and development. The SWOT analysis for the current state of the railway sector in Ethiopia is depicted below.

| **STRENGTHS** | **WEAKNESSES** |
|---|---|
| - *Time savings relative to road (for Djibouti)*<br>- *Powered by renewable energy*<br>- *New infrastructure & rolling stock in good repair*<br>- *Large cohort of young and trained staff (engineers and operations)*<br>- *Support and facilitate exports…Ability to attract rail friendly traffic (example export of coffee)*<br>- *AU agenda 2063 friendly rail masterplan and investment*<br>- *Large-scale project Programme Management competency*<br>- *Scalable rail route / headroom*<br>- *Strong links from the national development plan to rail masterplan*<br>- *Product safety & security* | - *Limited rail operational skills*<br>- *Limited commercial & marketing skills*<br>- *Unprofitable operations*<br>- *Lack of clear roles of RC and EDR*<br>- *Financial support to sector undefined*<br>- *Lack of Foreign currency required for spare parts*<br>- Underutilisation of existing capacity<br>- No incentive for Govt. Operator to maximise capacity utilisation<br>- Lack of Private Sector involvement<br>- Lack of demand capture<br>- Missing link infrastructure / Lack of interconnectivity<br>- Lack of Railway Policy<br>- Lack of last mile logistics<br>- Lack of the shareholder compact with operator management |

| | |
|---|---|
| | - Lack of integration with customs and other relevant authorities |
| **OPPORTUNITIES**<br>- *Substantial and growing freight traffic in Addis-Djibouti corridor*<br>- *Attract liquid bulk / fuel from road to rail*<br>- Regional connectivity<br>- Large subsidised energy cost advantage<br>- Promote new rail-friendly supply chains (eg fertilizer)<br>- Incentivised liberalisation of the logistics sector | **THREATS**<br>- *Financially unsustainable lines*<br>- *Low maintenance will lead to deteriorating service*<br>- *Security threats to Main lines,*<br>- *Theft & Vandalism*<br>- Forex shortage<br>- Liquidity problem because of delay in Djibouti's paid up capital equity portion<br>- Multiple Customs inspection and documentation requirement |

Moreover, in the past five years handful of studies have been carried out by different institutions to address the challenges of the sector, to optimize existing investments, and to guide future investment decisions in the rail sector. This can involve determining whether to enhance revenue on existing lines or to build new lines. By carefully considering these options, the government can ensure that its investments are aligned with its long-term goals and objectives. The major and recent studies on the rail sector in Ethiopia are summarized below.

### 1.6.1 Ethiopian Railway Sector Roadmap Study by ERC

To alleviate the challenges in the sector, the Ethiopian Railway Sector Roadmap developed by ERC is the first and by far the comprehensive one. The process of creating the final version of the document went through several revisions before it was completed in June 2019. During this time, an in-depth situational analysis was conducted to identify the key challenges and opportunities facing the sector. Based on this analysis, transformational strategies were developed to address these challenges and capitalize on the opportunities. Additionally, a recommended governance structure was

proposed to ensure effective management and oversight of the sector. Overall, the final version of the document represents a comprehensive and strategic approach to addressing the needs of the sector and driving positive change.

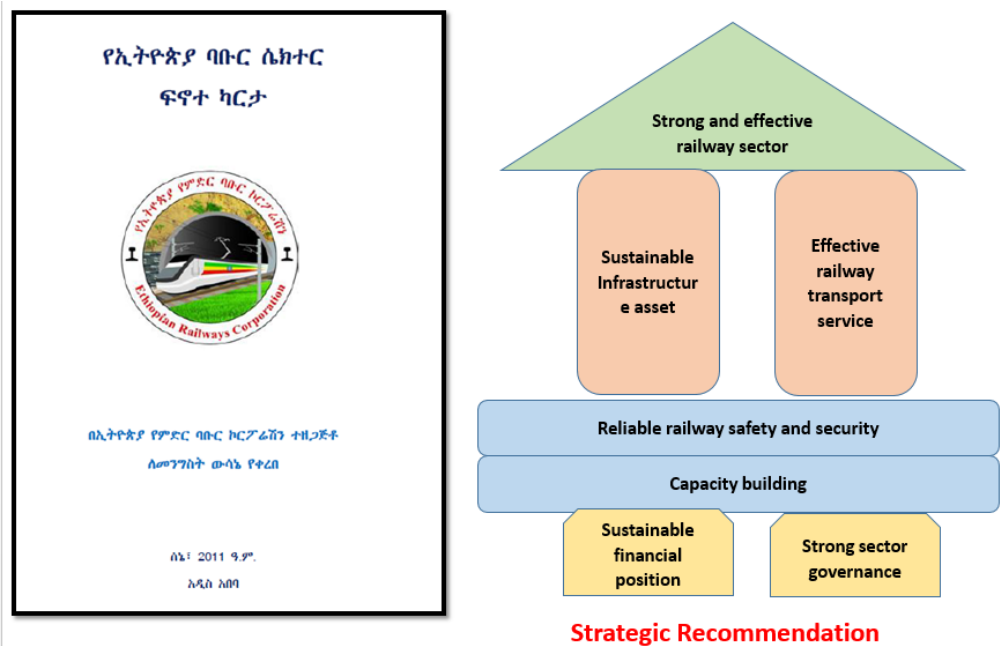
The study shows that to optimize government expenditure and realize maximum value from the investments made in rail lines, there are various innovative means that can be employed. These include debt relief, operational efficiency, and maintenance, among others. By implementing these measures, the government can ensure that its investments in the rail sector are being utilized to their fullest potential.

Moreover, to ensure efficiency, accountability, and good governance in the rail sector, it is also important to establish a market structure that supports these values. This can involve creating regulations and policies that promote transparency and fairness, as well as ensuring that all stakeholders are held accountable for their actions.

Finally, it is beneficial to create a roadmap for the potential participation of the private sector in the rail sector, as well as identifying privatization opportunities. By doing so, the government can leverage the expertise and resources of private companies to further enhance the efficiency and effectiveness of the rail sector.

Figure 2 below shows the summary of strategic recommendations of the ERC study.

*Figure 2: Summary of strategic recommendations of the ERC study*

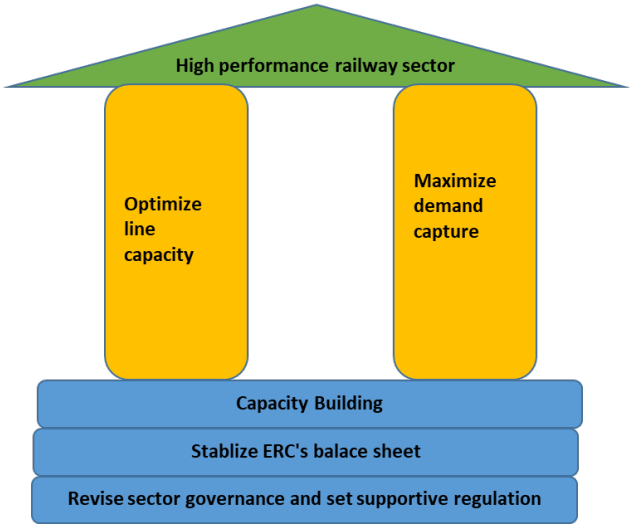



### 1.6.2 Ethiopian Railway Sector Transformation Study by Mckinsey

The Railway Sector Transformation Study by McKinsey had a clear set of objectives. These included identifying areas for improvement, setting targets, developing initiatives, and establishing a delivery system that could drive sustainable change through implementation. Additionally, the study aimed to provide capability building support to enhance the capabilities of railway institutions and serve as a test case to further improve the approach within the Ethiopian context. Given the overall importance of railway institutions for the management of public investments, as well as the ambition to transform these institutions into internationally competitive companies and earn revenues, the study was a crucial step towards achieving these goals.

The study conducted by McKinsey highlights several key areas that need to be addressed in order to fully realize the potential of the rail sector in Ethiopia. These include capacity optimization through strategic capex investment and effective operations, as well as maximal demand capture through strategic sales and marketing activities and capex investment in additional fleet and rail links to customers.

Additionally, systematic capability building across the whole sector is necessary to establish key professions or capabilities that are currently missing and improve existing capacities. A healthy balance sheet that allows ERC to pursue profitable investments is also crucial, such as additional fleet, sidings, and link rail to major customers. Finally, regulations and sector governance are important factors that the Ethiopian government should actively support. This includes revising the sector governance structure to facilitate seamless cooperation between different stakeholders, setting up regulations to support adoption of rail for suitable freight flows, and authorizing competitive pricing for rail to optimize the country level transport sector.




As a final recommendation, McKinsey proposed 16 initiatives that should be implemented by ERC, EDR, and the Ethiopian Government in three years to fully realize the potential of the rail sector in Ethiopia.

### 1.6.3 World Bank Study

The World Bank study can be referred as a policy options paper which aims to provide guidance to the Government's Macro-Economic Committee in achieving an efficient and financially sustainable rail sector in Ethiopia. The paper takes into account the complex challenges that the rail lines currently face and sets out the opportunities, strengths, and prospects for the rail sector. It also provides policy statements and recommendations based on an expert review of the sector situation and prospects, financial analysis and modelling.

The note focuses on key policy considerations for the use of rail for freight and passengers on the main trade corridors in Ethiopia and for people in the metropolitan area of Addis Ababa. It provides high-level guidance on actions that are needed for operational lines, lines that are currently under construction, and those lines which are planned. The policy actions need to be complemented by measures in the short term at EDR, and ERC, to optimize costs and revenue, in contract management, and to understand better the attractiveness of the sector to private operators. The four point policy recommendation by the World Bank is mentioned below:

i. ***Role of Railways in the Transport System:*** *Rail investments will be considered if they are economically justified. If a line is economically justified but not financially viable, government would fully fund any gaps in financing & operating costs.*

ii. ***Securing Financial Sustainability & Continuity of Public Funding:*** *New investments will only be made when financial sustainability can be assured.*

*Government will allocate resources to meet current loan financing costs.*

*Measures to improve revenues & reduce operating costs will be given a high priority.*

iii. ***Market Structure & Private Sector Participation:*** *A limited restructuring of Ethiopia's rail sector agencies will be carried out to clarify responsibilities. The transport market for international freight will be restructured to enable commercially-based competition between rail & road.*

*Private sector participation in the rail sector will be sought wherever possible.*

iv. ***Rail Sector Regulation & Governance:*** *Accountability of rail sector entities will be ensured through performance-based agreements and contracts. Safety & licensing will be independently regulated.*

To maximize the benefits of the proposed policy actions, sector governance and regulatory structure was proposed by the World Bank.

The proposed regulations and sector governance mechanisms include ensuring the interests of all stakeholders are balanced through appropriate governance mechanisms, accountability through performance-based agreements and contracts, independent regulation of safety and licensing, and the establishment of a Rail Safety & Regulation Entity and an Economic Regulator with recommendations on their establishment, structure, and purpose to be proposed.

## 2. Problems to Address

The railway sector plays a crucial role in the transportation infrastructure of many countries, including Ethiopia. However, the sector in Ethiopia faces several challenges that hinder its growth and development. These challenges range from policy direction to operational and maintenance skills, inter-agency coordination, and financial sustainability. In this problem analysis, the emphasis is to explore the weaknesses of the railway sector in Ethiopia, with a focus on the major challenges that need to be addressed to improve the sector's performance. Below are the key problems affecting the railway sector in Ethiopia:-

i. ***Lack of Railway Policy Direction:*** The lack of clear policy direction for the railway lines planned under the masterplan, for operational lines, and for lines that are currently under construction is a major flaw in the railway sector. This lack of direction can lead to confusion and inefficiencies in the planning and execution of railway projects. Without clear policy direction, it is difficult to ensure that the railway sector is meeting the needs of the population and contributing to the overall development of the country.

ii. ***Underutilisation of Existing Capacity:*** The underutilisation of existing capacity of operational lines is another weakness in the railway sector. This underutilisation can lead to inefficiencies and increased costs, as resources are not being used to their full potential. It can also lead to a lack of revenue, as the railway sector is not generating as much income as it could be.

iii. ***Lack of Demand Capture and Last Mile Logistics:*** The lack of demand capture for the operational line and lack of last mile logistics is a weakness in the railway sector. Without effective demand capture and last mile logistics, it is difficult to ensure that the railway sector is meeting the needs of the population and to achieve company objectives. Lack of revenue and decreased efficiency in the sector are attributes from this problem.

iv. ***Limited Local Railway Operational and Maintenance Skills:*** The limited local railway operational and maintenance skills, including commercial and marketing skills, is one of the problem to be addressed in the railway sector. Without these skills, it is difficult to ensure that the railway sector is operating efficiently and effectively. Moreover, it is not possible to ensure sustainability of the railway sector in Ethiopia and it can lead to increased costs and decreased revenue.

v. ***Lack of Suitable Governance Structure:*** The lack of suitable governance structure for the railway sector is a major shortcoming. The blurred role definition among the existing railway institutions, especially between ERC and EDR, absence of independent regulatory body, and lack of private sector involvement can lead to inefficiencies and increased costs. Without a suitable governance structure, it is difficult to ensure that the railway sector is operating efficiently and effectively.

vi. ***Lack of Foreign Currency for Spare Parts:*** The lack of foreign currency required for the procurement of spare parts is a major problem in the railway sector. This leads to poor maintenance of the infrastructure and

rolling stock, which affects the availability of the infrastructure and rolling stock for operation. Consequently, negatively sway the overall performance of the railway operation.

vii. ***Poor Inter-Agency Coordination:*** The poor inter-agency coordination, mainly with customs and security apparatus, which is negatively affecting the railway operation is a major weakness in the railway sector. Without effective inter-agency coordination, it is difficult to ensure that the railway sector is operating efficiently and effectively. This can lead to increased costs and decreased revenue.

viii. ***Missing Infrastructure Link and Insufficient Number of Rolling Stock:*** The missing links and insufficient number of rolling stock is a weakness in the railway sector. Without adequate infrastructure and rolling stock, it is difficult to ensure that the railway sector is meeting the needs of the population. This is one of the major challenge affecting the demand capture for the railway sector.

ix. ***Security Threats, Theft, and Vandalism:*** The security threats, theft, and vandalism to the main lines (both operational line and those under construction) are the major problems in the railway sector. These threats lead to increased costs as the railway companies diverted resources to address these concerns. Moreover, it is the main cause for operational inefficiency of the Addis – Djibouti railway line and the foremost reason for disputes between ERC and its contractors.

## 3. Possible Solution

Based on the current context and identified problems a comprehensive ten-year scenario analysis, with main focus on Addis Ababa – Djibouti railway line, and overall possible solution to the problems in the sector was developed. The analysis includes a detailed assessment of the current state of the industry, as well as projections for future growth and development. In addition, several major initiatives were identified that will help EDR achieve its goals and objectives. These initiatives include the implementation of advanced

technology and infrastructure, the development of strategic partnerships with key stakeholders, and the establishment of effective performance management systems at all levels of the organization. With these initiatives in place, EDR will be well-positioned to capitalize on the many opportunities that exist within the Ethiopian rail industry, become a lead logistics company, and to achieve sustainable growth and success over the long term. The identified possible solutions to the existing problems are:-

A. **Industry focused governance restructuring**: The proposed industry-focused governance restructuring for the Ethiopian rail sector includes several key points. Firstly, the establishment of autonomous management would allow for more efficient decision-making and implementation of policies. Secondly, a merit-based assignment of the EDR board of directors would ensure that the most qualified individuals are appointed to these positions. Thirdly, there needs to be clarity in the role definition of existing railway institutions to avoid overlap and confusion. Fourthly, major cargo owners and the private sector should be encouraged to become shareholders of EDR to increase investment and promote growth. Finally, allowing EDR to diversify its business activities which will enable it to generate foreign currency, would provide additional revenue streams and contribute to the overall financial sustainability of the rail sector. These proposed changes would help to streamline the governance structure of the rail sector and promote its long-term success.

B. **Develop comprehensive railway policy**: Developing a comprehensive railway policy is crucial for achieving an efficient and financially sustainable rail sector in Ethiopia. The policy should provide guidance on the necessary actions for operational lines, lines that are currently under construction, and those lines which are planned. This policy should take into account best practices and lessons from rail systems elsewhere in the world, as well as financial analysis and modelling. By having a clear

and comprehensive railway policy, the Ethiopian government can ensure that the rail sector is optimized to contribute to the country's growth. Additionally, the policy can help to attract private operators to the sector, which can further enhance its efficiency and sustainability. Overall, a comprehensive railway policy is a critical step towards unlocking the full potential of the rail sector in Ethiopia.

C. **Connect the railway line with ports, and cargo centres**: Connecting the railway line with ports and cargo centres is a crucial step in improving the revenue of the railway sector in Ethiopia. By completing the missing links, the railway line will be able to capture demand and increase cargo density, which will ultimately lead to an increase in revenue. This will also help to improve the efficiency of the transportation of goods and services, as the railway line will be able to transport goods directly from the ports and cargo centres to their final destinations. Additionally, this will help to reduce the cost of transportation, as goods will no longer need to be transported by road, which can be more expensive and time-consuming. Overall, connecting the railway line with ports and cargo centres is a key step in achieving an efficient and financially sustainable rail sector in Ethiopia.

D. **Inter-Agency coordination**: Establishing seamless coordination between the railway operator and various agencies is crucial for the success of the railway system. This includes coordination with Ethiopian and Djibouti customs authorities, Ethiopian shipping lines and logistics enterprise, port authorities and operators in Djibouti, security institutions, and other relevant agencies. By establishing effective communication and collaboration, the railway operator can ensure that cargo is transported smoothly and efficiently, with minimal delays and disruptions. This will not only improve the overall efficiency of the railway system but also enhance customer satisfaction and increase revenue. Additionally, effective coordination can help to identify and address any potential

issues or challenges that may arise, ensuring that the railway system operates smoothly and effectively.

E. **Solving Port interface issues:** The railway interface issue with the Port will be addressed by the Corridor Management Authority.

F. **Develop comprehensive business plan to become a full-fledged logistic company**: Developing a comprehensive business plan is crucial for the railway operation company, EDR, to transform from a bare transport company to a lead logistics company. This plan should outline the steps needed to diversify EDR's business activities, such as generating foreign currency and expanding its services to include warehousing, distribution, and other logistics-related activities. The plan should also identify potential partnerships with major cargo owners and the private sector to increase EDR's shareholder base and improve its revenue streams. By becoming a full-fledged logistics company, EDR can capture more demand and increase its cargo density, thereby improving its financial sustainability and contributing to the growth of Ethiopia's economy.

G. **Develop a strategy for rolling stock and infrastructure maintenance**: Developing a strategy for rolling stock and infrastructure maintenance is crucial for ensuring the smooth operation of the railway line and its sustainability. The strategy should address issues such as sustainable supply and procurement of spare parts, capacity building on maintenance of the infrastructure and rolling stock, financing options, and the development and sustenance of the local railway manufacturing industry. By addressing these issues, the railway operator can ensure that the rolling stock and infrastructure are well-maintained, which will improve the safety and reliability of the railway system. Additionally, developing a sustainable supply chain for spare parts and building local capacity for maintenance will help to reduce costs and increase efficiency. Finally, encouraging the development of a local

railway manufacturing industry will create jobs and support the growth of the railway sector.

H. **Additional investment for capacity utilization and demand capture**: Additional investment for capacity utilization and demand capture is essential for the Ethiopian railway sector to reach its full potential. This investment can be used to improve infrastructure, rolling stock, and technology, which will increase the capacity of the existing railway system and enable it to capture more demand. By investing in the railway sector, the sector can create jobs, improve connectivity, and boost revenue growth. It is important to ensure that this investment is used effectively and efficiently to achieve the desired outcomes.

I. **Advocacy and publicizing the role of rail to the national economy**: Advocacy and publicizing the role of rail to the national economy is an important step in promoting the benefits of railway transportation. By highlighting the positive impact that railways can have on the economy, such as reducing transportation costs and improving efficiency, it is easy to get strong political will and commitment, more people may be encouraged to guard the infrastructure and use this mode of transportation. Additionally, increased awareness of the role of rail in the economy may lead to more investment in the industry, which can help to further improve the quality and efficiency of railway services. Overall, advocacy and publicizing the role of rail can help to promote the growth and development of the railway industry in Ethiopia.

J. **Establish strong railway and logistics excellence centre**: Establishing a strong railway and logistics excellence centre is crucial for the railway sector in Ethiopia. This centre will serve as a hub for research and development, training, and innovation in the railway and logistics industry. It will also provide a platform for collaboration with other industry players, both locally and internationally. By establishing this centre, EDR will be able to stay ahead of the curve in terms of

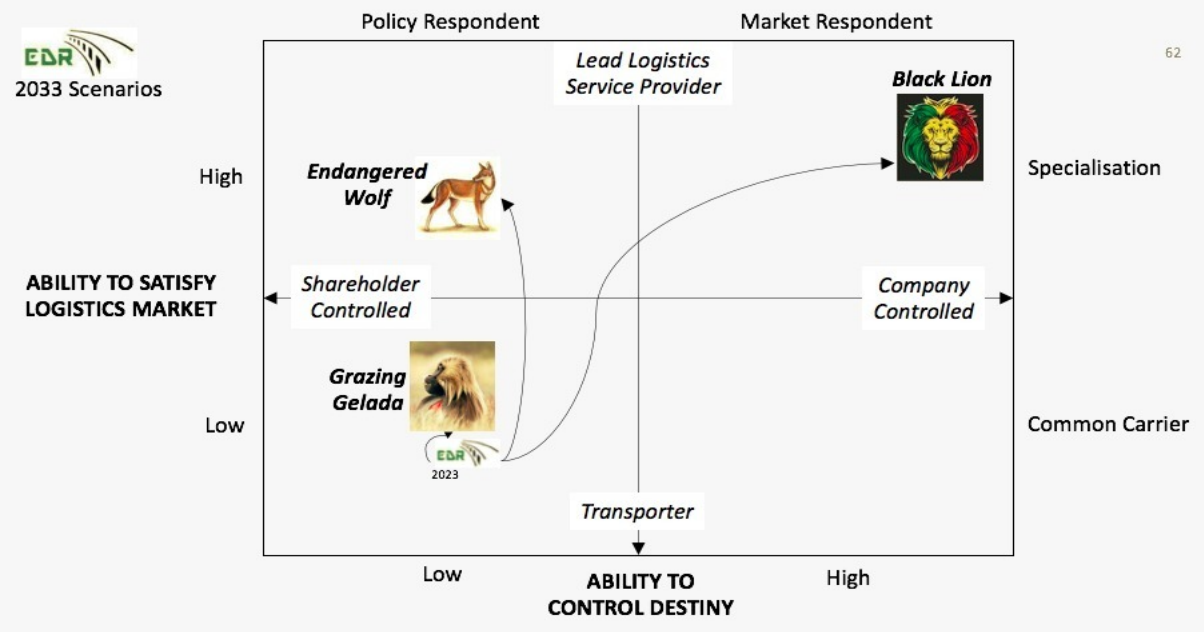
technology and best practices, and will be better equipped to meet the needs of its customers and stakeholders.

K. **Develop appropriate performance management system at all levels**: Developing an appropriate performance management system at all levels, including shareholder compact with EDR management, is essential for the railway operation company to ensure that the management and all employees are working towards the same goals and objectives. This system should include clear performance metrics, regular performance evaluations, and incentives for meeting or exceeding targets. By implementing a performance management system, the company can improve efficiency, productivity, and overall performance, which will ultimately lead to better service for customers and increased profitability.

L. **Device marketing strategy based on comparative advantage of rail**: Developing a marketing strategy based on the comparative advantage of rail is an important step in promoting the use of rail transportation. This strategy should focus on highlighting the benefits of rail transportation over other modes of transportation, such as cost-effectiveness, reliability, and environmental sustainability. By emphasizing these advantages, the marketing strategy can attract more customers to use rail transportation, which can ultimately lead to increased revenue and growth for the railway industry. Additionally, the marketing strategy should be tailored to the specific needs and preferences of the target customers, taking into account factors such as demographics, location, and cultural background.

## Scenario analysis for EDR

In response to the critical problems facing the railway sector in Ethiopia today, especially the railway operation company EDR, a group of experienced railway professionals with in-depth knowledge of the Ethiopian rail industry have collaborated to create a comprehensive ten-year scenario analysis for EDR, the railway operation company. This analysis includes a thorough evaluation of the current state of the industry, as well as predictions for future growth and development. The scenarios suggest two possible futures for EDR. These circumstances are intended to stimulate action-oriented dialogues among the leaders of the railway sector as to their options and choices.




## Scenario Probability Analysis

Grazing Gelada (Status Quo)

- ✓ Survival by policy.
- ✓ No support for change and a limited budget
- ✓ Massive competition from road transport
- ✓ Information asymmetry
- ✓ Unsafe and under maintained railway

## Endangered Wolf (Developmental)

- ✓ Policy dominance will not relax in the next 10 years.
- ✓ A bi-national agreement determines EDR's momentum.
- ✓ Rail infrastructure is strategic for the State.
- ✓ Successful implementation of logistics policy.

## Black Lion (Transformed)

- ✓ 10 years is enough time to transition EDR.
- ✓ Sustainability will come from more freedom.
- ✓ Long-term survival derives from logistics
- ✓ Successful implementation of logistics policy.