Public Disclosure Authorized

Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 24-Jul-2023 | Report No: PIDC35941

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Parent Project ID (if any)	Project Name
Eastern and Southern Africa	P180801		Transport Corridors for Economic Resilience (TRACER) (P180801)
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EASTERN AND SOUTHERN AFRICA	Sep 18, 2023	Nov 15, 2023	Transport
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Ministry of Finance and National Planning	The Ministry of Infrastructure, Housing and Urban Development	

Proposed Development Objective(s)

The PDO of the SOP is to strengthen the economic resilience of select countries in Eastern and Southern Africa by increasing the efficiency of regional transport corridors.

The PDO of SOP1 is to strengthen the economic resilience of Zambia and Tanzania by improving transport and trade connectivity between Zambia and and Dar es Salaam port and expanding economic activity along the North-South / Dar es Salaam Corridor.

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	270.00
Total Financing	270.00
of which IBRD/IDA	270.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	270.00
IDA Credit	270.00

Environmental and Social Risk Classification	Concept Review Decision
High	Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Regional context

1. **The Eastern and Southern Africa region is highly diverse with considerable potential for significant gains from deeper integration that could lead to sustainable economic growth and poverty reduction.** The countries of the region enjoy strong manufacturing and service industry bases, vast untapped agricultural potential and natural resources, and a relatively inexpensive large labor endowment. This positions them well to develop large markets for intra-regional trade as well as compete globally.

2. **Alleviating connectivity problems has the potential to increase trade significantly in the Eastern and Southern African region.** While intra-regional trade has reached 20 percent and 23 percent in the East African Community (EAC) and in the Southern African Development Community (SADC), respectively, improving connectivity to production areas, and regional markets as well as international mature markets beyond Africa, could help realize the region's full potential.

3. **To help achieve Africa's trade and economic growth potential, the African Union (AU) and the Regional Economic Communities (RECs) have increased the focus on regional integration.** The most prominent of these initiatives is the African Continental Free Trade Area (AfCFTA) established in 2019 creating the largest free trade area in the world. Other initiatives under implementation by the RECs to boost trade include a Common Tariff System, the signing of the Tripartite Agreement between EAC, SADC and the Common Market for Eastern and Southern Africa (COMESA) to, among others, reduce trade barriers, and develop regional transport corridors.

4. **The adverse impacts of Covid 19, the Russian invasion of Ukraine, and climate change on food security have amplified the need for economic resilience in addition to climate resilience.** The efficient operation of SADC's extensive network of regional transport corridors connecting the countries in the region and providing access to the ports on the Indian and Atlantic oceans is essential to reduce economic distances to the major international markets as well as establish multiple distribution routes for goods, especially agriculture produce from regions of surplus to those hit by drought.

Country context

5. **Despite a previous high growth trajectory, Zambia succumbed to unsustainable debt accumulation and fiscal deficits and was reclassified as a low-income country in 2022.** Between 2000 and 2010, gross domestic product (GDP) growth averaged 7.4 percent per year, before declining to an average of 3.6 percent over the 2011–2021 period. The recent reclassification can be attributed to the decline of global copper prices, fiscal deficits averaging an unprecedented 9 percent, excessive public borrowing, power shortages, inefficient connectivity to markets and the 2019 drought, all of which led to per capita income declining to US$1,040. In November 2020, Zambia encountered its first recession since 1998 and became the first country in the region to default on its sovereign debt as the COVID-19 pandemic reduced Zambia's growth prospects. The COVID-19 pandemic resulted in a multidimensional crisis - a health, social, and economic crisis which exacerbated the situation placing considerable strain on Zambia's macroeconomic environment. Inflation grew from 7.6 percent in 2019 to 27.6 percent in 2021. In 2020, the Zambian Kwacha depreciated by over 50 percent against the U.S. dollar.

6. **The current macroeconomic conditions make it challenging for Zambia to generate high-quality employment and economic opportunities, especially for vulnerable groups such as women and youth.** Even during the period of rapid growth from 2000–2014, employment grew by only 2.8 percent per year, and unemployment increased from 8 percent in 2012 to 13 percent in 2021. The youth and female unemployment rates are even higher at 26 and 14 percent, respectively. Zambia is one of Africa's youngest countries based on median age. With the population projected to reach 27 million by 2035 from 19.6 million in 2021, Zambia needs to generate an average of at least 375,000 jobs each year by 2030 to maintain its already-low labor force participation rate and employment levels at 747,000 per year between 2030 and 2050.

7. **Income inequality and poverty have both increased alongside widening gaps in productivity and earnings.** Earnings gaps have widened between formal and informal workers, rural and urban workers, and between unskilled and skilled workers. The 2021 poverty rate is estimated at 62 percent, with the incidence of poverty three times higher in rural areas than in urban areas especially for women. Eighty-two percent of the country's poor live in rural areas, stemming largely from low levels of economic growth and agricultural productivity, lack of value addition, poor transport connectivity to jobs, and limited employment opportunities, especially for youth.

8. **While Zambia has made progress in terms of gender equality; gender gaps remain.** Zambia ranks number 62 out of 146 countries and number 10 in access to economic opportunities in the Gender Gap Index.[1] A significant gender divide exists in terms of incomes, with women earning about 20 percent less than men. A constitutional amendment in 2016 provides that no law will be discriminatory to any group to help ensure that workplace policies and practices prohibit discrimination in recruitment, retention and promotion of women in the public and private sectors.[2] Regardless of progress in some areas, equality has not reached specific groups such as rural women.

9. **The over-reliance of the Zambian economy on the mining industry exposed it to the volatility in international copper prices.** It also hindered the efficient development of the natural and human capital of the country**.** This has driven successive governments to aim at diversifying the country's economy including in the current 8th National Development Plan (8NDP) with agriculture and tourism presenting two of the key sectors targeted to achieve the sought diversification away from copper which accounts for about 90 percent of Zambia's exports.

[1] https://www3.weforum.org/docs/WEF_GGGR_2022.pdf

[2] Republic of Zambia. (2019). Progress Report on the Implementation of the Beijing Declaration and Platform for Action (1995) and the Outcomes of the Twenty-Third Special Session of the General Assembly (2000): https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/CSW/64/National-reviews/Zambia.pdf

10. **Increasing Zambia's developmental challenges is its vulnerability to drought, flooding, and extreme temperatures.** Zambia ranked 138th out of 182 countries in the 2020 Notre Dame Global Adaptation Initiative (ND-GAIN) index, with high vulnerability and low readiness for climate change. Zambia's mean annual temperature has increased by 1.3 °C since 1960 and is projected to increase by between 1.2 to 3.4 °C by the 2060s. Although general rainfall events will tend to become less frequent, more intense rainfall events, separated by a large number of dry days, will tend to become more frequent. It is estimated that the impact of climate change could cost approximately 0.4 percent of Zambia's annual economic growth, which equals US$ 4.3 billion over a 10-year period.[3] In particular, climate change is a threat to agricultural productivity and food security in Zambia that may lead to significant increase of the number of people facing high levels of acute food insecurity.

11. **The total greenhouse gas (GHG) emissions and CO2 emissions from production/consumption in Zambia are far below Lower Middle Income (LMI) countries average**. GHG emissions per capita have declined by 1.4 percent during 2008–2017, which is better than LMI average. Nonetheless, in the absence of mitigation/adaptation policies, climate change is expected to reduce Zambian GDP by about 6 percent by 2050.[4] One study showed that the country lost US$5 billion in GDP between 1991 and 2011 due to the negative economic impacts of climate-related disasters such as floods and droughts, estimating that climate variability reduces Zambia's annual GDP growth rate by 0.4 percent, equivalent to US$4.3 billion over a 10-year period.[5]

12. **Zambia's strategic location at the crossroads of several key regional transport corridors provides an excellent opportunity to ramp up trade, boost productivity and economic growth but the impediments to efficient connectivity need to be addressed.** Inefficiencies in connectivity cover trade and transport facilitation systems, missing and weak infrastructure links and inefficient transport and logistics services. These inefficiencies have contributed to the economic problems facing Zambia and continue to negatively impact trade movements and trade costs. Overcoming these obstacles and increasing the climate resilience of transport corridors would increase the economy's competitiveness and resilience and facilitate diversification away from copper and contribute to Zambia's economic resilience and resurgence.

Sectoral and Institutional Context

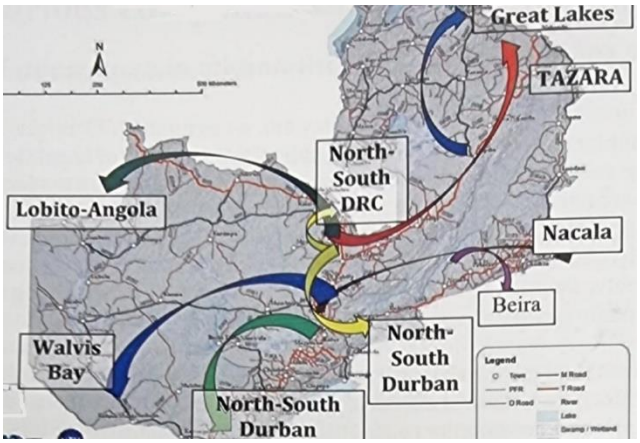
13. **Government ministries and agencies have diverse roles in the management of the transport sector.** The Ministry of Transport and Logistics (MoTL) is mandated to coordinate the development, policy and regulation of the transport and logistics sector, while the Ministry of Infrastructure, Housing and Urban Development (MIHUD) oversees policy implementation in road infrastructure development. The Road Development Agency (RDA) is the custodian of all public roads. It was created in the 1990s following a sector reform that also produced two other entities, namely the National Road Fund Agency (NRFA) and the Road Transport and Safety Agency (RTSA). NRFA administers road funds and RTSA is responsible for the implementation of government policy on road safety and traffic management.

14. **Zambia's railway network is managed by two companies:** Zambia Railways (ZRL), a state-owned company, and the Tanzania-Zambia Railway Authority (TAZARA). TAZARA is jointly owned by the Governments of Tanzania and Zambia and has been in operation for over 40 years serving mainly as a freight railway. It operates the section running from

[3] Irish Aid, Zambia Country Climate Risk Assessment Report (2018)
[4] Zambia GRID report, 2022
[5] *Tembo et al, September 2020, Economic Implications of climate change in Zambia, SA-TIED Working Paper #137*

Lusaka to Dar es Salaam port in Tanzania. The North-South railway network runs from DRC to Zimbabwe through Lusaka and is operated by ZRL.

15. **The key road and rail corridors in Zambia are part of longer SADC regional corridors.** These are five transport corridors carry the bulk of Zambia's trade via the Indian and Atlantic oceans. Zambia's main imports include fuel and food products, while main exports are copper and agricultural produce. The key transport corridors in Zambia include the *North-South / Dar es Salaam corridor,* connecting DRC and Zambia to the port of Dar es Salaam in Tanzania. The southern section of the *North-South Corridor* links to the port of Durban through Zimbabwe and Botswana. The *Nacala corridor* connects Lusaka to Malawi and eventually to the Nacala port in Mozambique; the *Trans-Caprivi/Walvis Bay-Ndola-Lubumbashi corridor* connects the Walvis Bay port in Namibia through Katima Mulilo, and Lusaka to Lubumbashi in DRC; the *Lobito corridor* connects Zambia to the Lobito port in Angola, and the *Beira corridor* connects Zambia to the Beira port in Mozambique.



16. **The North-South / Dar es Salaam rail-road corridor has historically been, and continues to be, the busiest (by traffic) and most important transport corridor (in terms of value of trade and freight carried) for Zambia**. The corridor carries most of DRC's copper production as well as that of Zambia through the rail and road networks towards Dar es Salaam in the northeastern direction and towards Durban in South Africa in the southern direction. The corridor has also been instrumental in carrying the fuel imports and agricultural exports of the country.

17. **The Nacala corridor (particularly from Lusaka to Chanida) is the second busiest corridor in the country.** It leads towards both the Nacala port in Mozambique through Malawi and to the Beira port through either Malawi or Zimbabwe. The corridor is important for transporting agricultural produce in and out of the country as well as supplying the country with its fuel needs. The Nacala corridor (Lusaka-Luangwa) carries fertilizer imported from Mozambique, copper exported from Zambia, and cement exported to Malawi and Burundi. **The Walvis Bay / Trans-Caprivi corridor** offers opportunities of diversifying trade and trade routes in the direction of the Walvis Bay by utilizing the Walvis Bay port.

18. **The Lobito corridor between Zambia and Angola is a potentially important corridor connecting the Lobito port in Angola to Zambia and DRC**. The development of the corridor has recently been awarded special attention by the presidents of the two countries. The corridor was disturbed by the civil unrest that took place in Angola in the seventies and the two Governments now plan to revive it.

19. **These regional corridors are essential for Zambia to achieve its socio-economic development plans.** Considering the country's vast geographical area of about 750 thousand km^2, its status as a landlocked country with 8 neighboring states, its population of 20 million and its distribution of natural resources; transport corridors play a fundamental role in Zambia's economic growth. A significant share of the agricultural productive zones and tourist sites remains disconnected from local and international markets and transport hubs. The expansion of the mining sector will heavily rely on the availability of multiple efficient rail and road connectivity to ports and markets.

20. **These transport corridors are equally important for Zambia's neighbors, particularly the Democratic Republic of Congo (DRC) and the landlocked Zimbabwe, Malawi, and Botswana.** The Copperbelt, with its rich mineral deposits, spans DRC's and Zambia's borders and is key to both countries' economies. The belt in DRC and Zambia produced around 2.4 million and 0.9 million metric tons of copper in 2021/22, representing almost 57 percent and 90 percent of their export values respectively. While DRC produces 60 percent of the combined mining output of both countries, 75 percent of the smelting capacity is in Zambia resulting in large shipments of concentrate to Zambia's smelters within the Copperbelt region and onward to the key ports, mainly Dar Es Salaam. The copper industry is a clear illustration of the interdependency of the region's economies on each other and hence the transport links connecting them.

21. **The efficient operation of these corridors will require a better utilization of the comparative advantage of railways.** Zambia's railway networks carry a small share of Zambia's and DRC's trade. The key destination ports for copper are, in order of importance, Durban, Dar es Salaam, Walvis Bay and Beira**.** Zambia's main export border post is Chirundu, which handles traffic to Durban, and Beira to a lesser extent. Transportation from mine to port or mine to smelter and then port is almost exclusively carried out by road. Rail is only used for long distance transport from distribution centers in Ndola in Zambia and Kasumbalesa in DRC, as most mines do not have rail sidings.

22. **Despite the current small role of rail in freight transport, rail has the potential to play a much larger role in the region given the long distances travelled and the nature of goods carried.** The 1,860 km TAZARA line connects Zambia with the port of Dar es Salaam in Tanzania along the North-South/Dar es Salaam corridor. It provides an important transportation link in the region for the movement of goods and particularly to the copper mines. In 2018, TAZARA reached an open access agreement with a private operator to operate on its tracks to maximize line utilization and increase revenues; and has had another agreement since then. The Government of Zambia (GRZ) has introduced a national target for a model split for transported freight of 30 percent by rail and 70 percent by road. This split is aimed to help preserve the road network and realize the efficiencies associated with comparative advantage of railways. The target has not been achieved yet, with only 15 percent rail modal share due to the inadequacy of the railway infrastructure and rolling stock. These challenges increased the financial burden of rehabilitating and maintaining the system and reduced the socioeconomic benefits generated by the sector. The inefficiencies of the railway system have become one of the bottlenecks in facilitating the anticipated growth in mining outputs. This situation applies to both ZARL and TAZARA companies' networks.

23. **Designed to carry 5 million tonnes, TAZARA transported about 220,000 tonnes only out of a total available market of 5 million tonnes in 2020/21.** The demand has been projected to grow to slightly over 7 million tonnes by 2026, and to reach over 10 million tonnes by 2041. TAZARA's operational and financial performance is the result of underinvestment and due to the emergence of other regional options (e.g. South Africa and Mozambique). The financial losses, however, have decreased significantly over the past 5 years due primarily to a reduction in administrative expenses and sundry income especially from the open access operators. It is estimated that TAZARA could break even with 600,000 tonnes if it addresses financial and operational challenges including a lack of investment in infrastructure and equipment maintenance, overstaffing, and poor management of logistics and fleet operations.

24. **A systematic approach is required to revitalize the railway sector in Zambia.** The Bank conducted a study with financial support from the Foreign Commonwealth and Development Office (FCDO) of the United Kingdom to assesses the status of TAZARA, prepare a menu of options for improving operational performance and financial sustainability of TAZARA, including exploring options for private sector participation to optimize operational efficiencies. Phase 2 will conduct a deep dive in the investment needs, how to overcome institutional obstacles and attract private capital. This is expected to be followed by technical assistance to modernize TAZARA and attract private investors/operators. A similar approach is needed with ZRL.

25. **Road transport efficiency in the region is hampered by the lack of resources allocated for road maintenance and reconstruction, resulting in high logistic costs and safety risks**. In Zambia 25 percent of the core road network is paved. Zambia spends less than US$2,000/km for maintenance of its paved network, or less than a third of the recommended level of resources. Each year, the Road Fund in Zambia collects only 20 percent of the estimated annual needs of the road sector leaving it exposed to national's treasury funding ups and downs.

26. **Deterioration of long road sections along the corridors in Zambia is significantly increasing the cost of transportation and limiting their use.** The current poor state of the section between Kazungula and Sesheke/ Katima Mulilo on the Walvis Bay / Trans Kaprivi corridor inhibits usage of the road as it increases occurrence of accidents, increases transportation costs and time. Similarly, the 238 km section between Mpika and Serenja on the North-South / Dar es Salaam Corridor and the Lusaka - Luangwa section on the Nacala corridor have been identified as poor links along these strategic corridors.

27. **Along the North-South corridor, the Government of Zambia awarded a Public-Private-Partnership (PPP) concession for the development of the Lusaka-Ndola Road.** The 317 km route constitutes the busiest road section in the Zambian road network and carries most of DRC's international trade, particularly the section from Ndola to Kapiri (117 km). The concession is yet to reach financial close. The Bank is currently supporting the Government in identifying the appropriate approach to PPPs in the road sector.

28. A**ddressing the infrastructure deficiencies need to be accompanied by more efficient border crossing processes.** The government is pursuing several policies for harmonization of border processes with neighbouring countries and simplifying the trade procedures. And while progress has been made, there are still significant delays extending days and in some instances weeks at the border. Delays result from both complex clearance requirements, as well as lack of implementation of simplified procedures. In addition, numerous and repetitive checks delays vehicles and create unnecessary delays. Crossing the Zambia-Tanzania borders, for instance, can last anywhere from as low as 2 hours in one direction to as high as five full days in the other direction. The trip from Dar es Salaam to DRC southern regions, and back, can last in some cases be as long as sixty days roundtrip. A Time Release study carried in 2022 indicated that the minimum time taken for Nakonde along the North-South / Dar es Salaam Corridor on the border with Tanzania to clear a truck was 1 hour 26 minutes. On the other hand, the maximum time taken to clear a truck during the period under review was 5 days 7 hours and 20 minutes. These inefficiencies are due to inadequate infrastructure and crossing facilities, inadequate regulations, lengthy documentation processes and an uncompetitive logistics industry.

29. **While improving transport connectivity will help increase the productivity of other sectors in proximity to the corridors, targeting and relieving constraints to business would further increase the benefits of the corridors.** Zambia's arable land of 40 million hectares is far from being utilized to its full potential. The government recognizes that increasing agriculture and agribusiness are critical for improving incomes and food security, reducing poverty, and creating a more diversified and resilient economy. Amongst the key challenges that face the transformation of the sector and that need to be addressed in addition to the quality of infrastructure and logistics systems is the poor enabling environment (notably the investment climate), structural barriers to agricultural productivity, and limited ability to cushion external shocks.

30. **The participation of women in the transport sector is low.** According to data from the International Labor Organization, of the people employed in the transport, warehousing, and communications and construction sectors in Zambia, 6 percent and 2.8 percent are women, respectively. The government is committed to address the issues of informality and unemployment by promoting women's participation in non-traditional sectors such as construction. In

terms of the trade sector, women represent the majority of informal cross border traders and related activities represent their main source of income. However, poor road conditions and limited availability of public transportation (often in the form of unsafe, crowded minibuses) limit traders' mobility and prevent them from reaching more distant and possibly more profitable markets. Given constrained mobility, traders may miss community market days, which makes their products perish. This imposes a heavier burden on women, who rely more on public transport than men and may sometimes be forced to spend several hours at the border because of long travel times and irregular bus schedules, especially when the crossing point is not open on a 24-hour basis. Among other barriers that affect women disproportionally in terms of trade and facilitation are limited infrastructure (eg. storage facilities, separated bathrooms), lack of information and complicated border procedures and sexual harassment by custom officials.

Relationship to CPF

31. **The proposed Program is aligned with the objectives of the World Bank's current Country Partnership Framework (CPF) for Zambia for FY FY19-FY23.** The CPF puts forward an integrated IDA, IFC, and Multilateral Insurance Guarantee Agency strategy to support Zambia's development as set forth in Zambia's seventh National Development Plan (7NDP). The goal of the CPF for the period of FY19-FY23 is "to expand employment opportunities and develop alternative sources of growth that contribute to economic diversification". SOP1 contributes directly to CPF key focus areas: (1) territorial development especially for the rural poor; and (3) stronger institutions for resilience. Specifically, SOP1 will contribute to achieving objective 3.2 (increasing trade and infrastructure for economic integration and shared natural resources management with the broader region), objective 1.1 (Agri-food sector becoming less maize-oriented, and better connected domestic and external markets), objective 1.2 (selected rural communities become more resilient to climate and environment shocks), and 1.3 (increasing access to and quality of resilient infrastructure services with emphasis on electricity and roads).

32. **SOP1 responds to Zambia's Eighth National Development Plan (8NDP), partially covers the Bank's CPF period, together with the 7NDP**. The 8NDP covers the period 2022-2026 and identifies three 'strategic development areas', the first of which is *economic transformation and job creation*. The Plan lists three 'outcomes' under this strategic development area, including the development of *industrialized and diversified economy*, *enhanced citizenry participation in the economy* and a *competitive private sector*. To achieve the planned economic diversification the 8NDP targets, through ten 'strategies', the expansion and diversification of several sectors including agriculture, minerals and tourism. One of the strategies specifically refers to the improvement of transport and logistics, including the development of the roads and rail sectors as well as trade and logistics facilitation.

33. **SOP1 also contributes directly to the regional integration and increased trade driven by the AU and the RECs** (see para 3 above). Tanzania stands to benefit directly from the better connectivity in the Dar es Salaam / North-South Corridor in line with Objective 1.7 (capture Tanzania's potential as a maritime gateway and regional trade hub) under Focus Area 1 to enhance productivity and accelerate equitable and sustainable growth in the World Bank Group's FY18-FY22 CPF (extended to FY23).

34. **SOP1 meets the criteria for IDA Regional Program Funding** as: (i) it covers a minimum of two countries; (ii) it contributes to transport connectivity in the region; (iii) the eventual expected full transport efficiency gains will only be achieved with the direct and integrated involvement of the countries sharing the corridors; (iv) the benefits can only be adequately achieved through the implementation of an integrated set of infrastructure, trade and development facilitation activities in Zambia and neighboring countries; (v) the program enhances competition among transport corridors in the sub-region; and (vi) the target corridors are SADC and EAC regional corridors serving Eastern and

Southern Africa. The funding from the regional integration IDA for SOP1 at US$ 180 million at this stage, with a BPA IDA allocation of US$ 90 million.

C. Proposed Development Objective(s)

The PDO of the SOP is to strengthen the economic resilience of select countries in Eastern and Southern Africa by increasing the efficiency of regional transport corridors.

The PDO of SOP1 is to strengthen the economic resilience of Zambia and Tanzania by improving transport and trade connectivity between Zambia and and Dar es Salaam port and expanding economic activity along the North-South / Dar es Salaam Corridor.

Key Results (From PCN)

35. Progress towards the achievement of SOP1 will be measured by the following outcome indicators:

i. Reduction in travel time between Nakonde and Lusaka
ii. Reduction in border crossing time at the Nakonde/ Tunduma
iii. Private capital mobilized/enabled (to be confirmed)
iv. No. of economic opportunities supported along the corridor particularly for women (to be confirmed)

36. Other indicators (including intermediate indicators) will include: beneficiary feedback indicators, reduction in travel time from Lusaka/Kapiri to Dar es Salaam port, the share of infrastructure assets built to climate resilient standards (km of roads, and number of crossing facilities), kms of fiber optics laid along the corridor section, trees planted along the corridor, development of a smart transport corridor for efficient and safe transport, and number of transport PPP concessions reaching or approaching financial close, completion of preparatory studies for future projects in the SOP.

D. Concept Description

37. SOP1 will support resilient trade and transport connectivity along the North-South/Dar es Salaam Corridor. It will implement a combination of physical, institutional and regulatory measures to improve transport and trade facilitation interventions between Dar es Salaam port and Lusaka in Zambia, and also finance preparatory studies for ensuing SOPs as well as the development of a 'smart' corridor (see details below) between Lusaka and Nakonde and will support economic activities along the corridor. SOP1 components are organized under three key pillars: i. transport and trade facilitation, ii. corridor-oriented development; and iii. institutional and sectoral development. The components are detailed below.

38. **Component 1: Resilient transport and trade facilitation along the North-South / Dar es Salaam Corridor and preparatory studies for other corridors under the SOP (US$ 225 million).**

i. **Development of climate resilient transport systems along North-South / Dar es Salaam corridor.** The specific activities include i. the update of feasibility and design studies for the Serenje-Mpika section of the corridor incorporating climate-resilient road standards; and ii. rehabilitation of the road section.[6]

ii. **Upgrade of the One Stop Border Post (OSBP) at Nakonde.** This includes the design, construction and equipping of the OSBP at Nakonde border crossing on the Zambian side. Once completed this facility will complement the existing one on the Tanzanian side (the Tunduma border crossing facility). The activities include the design and construction of access roads, parking areas, buildings of the facility as well as equipment and systems, including the ICT provisions, truck scanners and other elements to be defined during design stage. The sub-component will also include training of government staff.

iii. **Development and implementation of the smart corridor concept on the Lusaka – Nakonde section of the North-South Dar es Salaam corridor.** This covers intelligent transport systems (ITS) to deliver safe and efficient transport along the corridor, eliminate multiple checks of vehicles and cargo, implement electronic clearance processes to avoid long delays, enable tracking, provide supporting infrastructure/transport systems, which include the upgrade of axle load control facilities, (weighbridge located at Mpika) weigh-in-motion (WIM) systems, and accident control measures, e.g. speed cameras and control stations. This subcomponent will also include the laying of fiber optic cables in trenches along the corridor. To help ensure sustainability of the corridor improvements, this subcomponent includes the revival and strengthening of the Dar es Salaam Corridor Committee with the membership of Tanzania, Zambia and DRC. This aims at providing a structured and scientific approach for monitoring and improving the performance of the Dar es Salaam Corridor, benefitting from the same procedures and practices currently applied by other similar platforms. The specific activities include financing measures related to the establishment of the secretariat, preparation and signing of legal documents, as well as initial baseline surveys of the corridor and introduction of monitoring portals and procedures of the corridor.

iv. **Preparatory studies for key sections along the corridors:** This includes the preparation of feasibility studies, detailed designs with climate resilient road guidelines, and ESIA for identified sections in need of rehabilitation and upgrade along key corridors, namely the Walvis Bay / Trans-Caprivi corridor and the Nacala corridor. The poor condition of these sections is hampering the performance of these corridors. Along the Walvis Bay / Trans-Caprivi corridor, the rehabilitation of the Livingstone – Katima Mulilo road section in Zambia (212 Km) was identified as an urgent need. The road condition ranges from fairly good to very poor, and is impassable along several stretches during rainy season. Along the Nacala Corridor, the Lusaka to Luangwa road section (207 km) was identified as another section in need for upgrade (dualling the Lusaka to Chongwe section of 45 km) and rehabilitation (the Chongwe to Luangwa section of 162 km). The sections are bituminous standard and their current condition ranges from fair to poor with notable congestion along the Lusaka to Chongwe stretch. The studies will examine the possibilities of developing the widening section (Lusaka – Chongwe) using the PPP modality.

39. **Ensuing projects will focus on the development of poor sections on the Tanzanian side of the North-South / Dar es Salaam Corridor and potentially in other neighbouring countries.** The road sections in Tanzania are the Kibaha-Chalinze (75 km) section, and the Morogoro-Iyovi section (155 km). A third section in bad condition is the Igawa-Tunduma section (220 km). The Government of Tanzania is already advancing the development of this section through an Engineering, Procurement and Construction (EPC) approach. Other potential road links to be developed are on the

[6] This includes physical platform for police monitoring, post-crash and emergency facilities.

Malawi side (Nacala corridor) and the DRC side (North-South Corridor). Furthermore, ensuing SOPs could include the roll out of the smart corridor concept to other corridors.

40. **Other OSBPs that are under consideration for ensuing projects of the SOP include the Katima Mulilo OSBP between Zambia and Namibia.** The border crossing is anticipated to witness a notable increase in traffic following the rehabilitation of the Livingstone-Katima Mulilo road section, particularly the impassable Kazangula-Sesheke stretch of the road.

41. **Component 2: Corridor-oriented development (35 million)**

i. **Assessment of socio-economic development opportunities along the corridor:** This activity aims at identifying SME opportunities that will enable the acceleration and maximization of the project's development impact. These include areas that facilitate, and compliment larger public and private investments aimed at increasing production and enhancing regional trade. Possible areas include for example are Agri-business logistics and value chains, tourism and trade activities.

ii. **Development of identified SMEs businesses:** This activity will be guided by the above assessment and will finance the implementation of selected opportunities identified under the assessment. This activity will complement to the extent possible other Bank-financed projects in the agriculture, tourism and SME-based industry and trade.

42. **Component 3: Institutional and sectoral capacity development (US$ 10 million)**

i. **Developing the Zambia Logistics Policy and Strategy.** This activity builds on the previous work conducted with support from the World Bank to develop a logistics strategy. The proposed activity will primarily update the existing strategy documents to reflect the recent mandate to the Ministry of Transport & Logistics[7] to plan and oversee the logistics sector. It will also take into consideration the regional perspective, particularly the regional operation of the logistics sector across Zambia, Tanzania, Malawi DRC, Namibia and Angola.

ii. **Developing a strategy and action plan for enhancing the operational efficiency and financial sustainability of Zambia Railways Company (ZRL).** This activity includes an assessment of ZRL, and the development of a strategy and action plan for improving its operational and financial performance. This would better equip ZRL to handle future freight and to help achieve a greater modal shift towards railways (in line with GRZ's set targets). Support for implementation of this plan could commence under SOP1 and continue under ensuing SOPs. The activity will encompass other initiatives and engagement to support TAZARA.

iii. **Supporting domestic construction industry in Zambia:** This subcomponent builds on previous and ongoing[8] support by the Bank towards the development of the domestic construction industry. The development of a healthy and strong domestic construction industry is key to support maintenance operations in the sector in the long term, as well as rolling-out of road safety programs on an annual basis throughout the road network. The subcomponent includes the development of a multifaceted national action plan and will complement efforts for developing sustainability and road safety in the sector.

[7] The Ministry of Transport and Logistics was created in September 2021 following the realignment of the mandate and functions of the previous Ministry of Transport and Communications. As a result, the mandate of planning the logistics sector now rest with the MoTL.

[8] Support to the domestic construction industry is included as an activity of the ongoing World Bank-financed Improved Rural Connectivity project. This includes the development of labor-based approaches

iv. **Building institutional capacities:** This subcomponent focuses on developing the different government entities' capacities in aspects related to planning, implementation, operation, and sustainability of regional corridors. At the planning level the subcomponent aims to raise capacities in planning corridors more closely to national and regional development agenda (away from the traditional physical infrastructure planning). At the sustainability front, the focus will be targeted towards developing sound road asset management system (Zambia for the first project) and building capacities to undertake corridor vulnerability assessments. The subcomponent will also include support for the formulation of the transport sector elements of the Zambia Green Growth Strategy, including e-mobility and green transport strategies, as well as supporting the completion and piloting of the localized climate resilient standards. Lastly, the subcomponent will support the further development of the PPP enabling environment in Zambia and help identify potential PPP modalities for delivering sustainable and resilient regional road programs.

V. **Project Management, Monitoring and Evaluation:** This will include incremental administrative costs for the program delivery (including staff, audits, trainings and knowledge exchanges, and other goods and materials necessary for project management), operational support (including consulting and advisory services) for project management, project audits; and all activities associated with program monitoring and evaluation and impact evaluation.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

43. **The environmental risk rating is High**. Component 1 will focus on the development of the Serenje – Mpika section of the North – South corridor and will include (i) update of the feasibility and design studies (ii) rehabilitation of the road section to bituminous standards (iii) provision of supporting infrastructure (systems upgrade of axle load control facilities – weighbridge at Mpika (iv) upgrade of an One Stop Border Post (OSBP) at Nakonde that includes design and construction of access roads, parking areas, building of facilities to incorporate Information Communications Technology (ICT). The component will prepare studies for key sections along the corridors such as feasibility studies, detailed designs, ESIA for identified sections in need of rehabilitation and upgrade along key corridors (Trans Caprivi and Ncala) and component 2 will focus on road corridor orientated development and the development of Small Medium Enterprises (SMEs) and Component 3 activities will consist of institutional and sectoral capacity development.

44. **The likely environmental risks and impacts from the proposed SOP1 activities are typically direct, indirect and cumulative environmental impacts.** The direct and indirect environmental impacts may include (i) the loss of critical and natural habitats; (ii) bulk extraction of raw materials resulting in land degradation, etc; (iii) nuisance and occupational noise and vibration; (iv) local soil and water resource contamination; (v) Occupational and Community Health and Safety incidents and accidents; (vi) loss, fragmentation and degradation of habitat and severance of animal migration routes and pathways; (vii) impacts on cultural heritage; (viii) a heightened risk of borrow pit (activities or legacy pits) drownings during the rainy season involving local community members (ix) increased charcoal

manufacturing and other environmental unsustainable activities due to the improvement of routes to market. Cumulative impacts could be intensified by road rehabilitation and operation by the increased emissions of Green House Gases increased sediment and contaminant runoff into local waterways and an exponential increase in road traffic fatalities in Zambia. Component 2 activities the SMEs may generate environmental risks and impacts that consist of solid and hazardous waste generation, poor OHS practices, unsustainable land management practices, generation of water and air pollution etc. and Component 3 activities consisting of institutional and sectoral capacity development.

45. **The E&S risks and impacts of these project sub-components shall be addressed through preparation and implementation** of: (i) the Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) for the Serenje-Mpika section of the North-South Dar es Salaam Corridor were prepared in 2016 but will be updated by an independent and qualified expert(s); (ii) the preparation of feasibility studies, detailed designs of road sections and the preparation of an ESIA and other E&S instruments of targeted sections along the Nacala Corridor and Walvis Bay / Trans-Caprivi Corridor; (iii) rehabilitation of sections of the North-South Dar es Salaam Corridor in Zambia; (iv) E&S screening of the OSPB at Nkonde and weighbridge and development of appropriate E&S instruments to manage E&S risks and impacts; (v) Health Safety Management Plans (HSMPs) and Contractor' ESMPs (CESMPs) during the implementation phase/s and; (vi) Environmental and Social Commitment Plan (ESCP).

46. **The preparation of the listed E&S instruments will undergo public consultations and the documents will be disclosed.** The E&S risk classification will be re-assessed and accordingly revised/updated before project appraisal, after more project design details are known. All three entities (RDA, MIHUD & MoTL) are actively involved in Bank-financed operations and have low E&S capacities and capabilities to oversee the implementation of the different activities under component 1. The E&S management requirements will be reassessed for the purpose of this proposed SOP1 with a view to developing high standards of E&S capacities and capabilities requirements through recruitment of suitably qualified Environmental and Social Specialists, OHS specialists, undergo ESF training, review of all TORs for SE, SC, Third Party Monitoring Consultants, endorsement of selected PIU staff, development and implementation of a training plan for PIU, consultants and contractors, ensure integration of OHS requirements into all procurement and contracting activities, awareness of available contractual remedies etc.

47. **The social risks associated with the project are High**, primarily due to land acquisition and resettlement impacts, risks of SEA/SH due to labor influx, and capacity constraints to manage the social risks. The activities under components 1 and 2 will pose most of the social risks. For example, the rehabilitation of the Serenje-Mpika road and the construction of the Border Post at Nakonde may affect residential and small businesses along the right-of-way (ROW). The potential negative effects on vulnerable populations, including the elderly, disabled individuals, and female-headed households, will be evaluated once the Environmental and Social Impact Assessment (ESIA) report is completed. During the construction phase, there may be an increase in labor influx, which could heighten the risk of SEA/SH for women and girls in the communities along the corridors. This is due to persistent barriers such as gender discrimination and sexual violence, which may prevent women from participating in road construction, transport, and trade-related activities. There is also a social risk associated with marginalization and conflict in the selection of Small and Medium Enterprises (SMEs) for socio-economic development along the corridor under component 2 of the project. This could potentially exclude certain groups from benefiting from the project's development initiatives. Additionally, there may be labor and working condition risks if there is non-compliance with national legislation and ESS2 requirements on working conditions.

48. **The status and required actions for the environmental and social instruments are** (i) the Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) for the Serenje-Mpika section of the North-South Corridor was prepared in 2016 but will be updated by an independent and qualified expert(s), Labor Management procedures and Stakeholder Engagement Plan, and SEA/SH action plan; (ii) the preparation of feasibility studies, detailed designs of road sections and the preparation of an ESIA and other E&S instruments of targeted sections along the Nacala Corridor and Trans-Caprivi Corridor will be prepared; (iii) E&S screening of the OSPB at Nkonde and weighbridge and develop appropriate E&S instruments to manage E&S risks and impacts. To minimize land acquisition and resettlement, alternatives such as routing will be assessed, and the project will work within the existing right-of-way (ROW) wherever possible. During project preparation, gender gaps will be examined in detail, and gender actions to address those gaps and indicators to measure progress will be incorporated into the project design. As part of the project's assessment of social and economic development opportunities along the corridor, the risks and impacts in the selection of SMEs will be assessed.

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