Tanzania Toll Road for TANROADS

Project Location

Chalinze to Dar es Salaam

Owners & Project Sponsors

Government of Tanzania

Implementing Agency



Tanzania National Roads Agency

Corridor Partner



Central Corridor Transit Transport Facilitation Agency



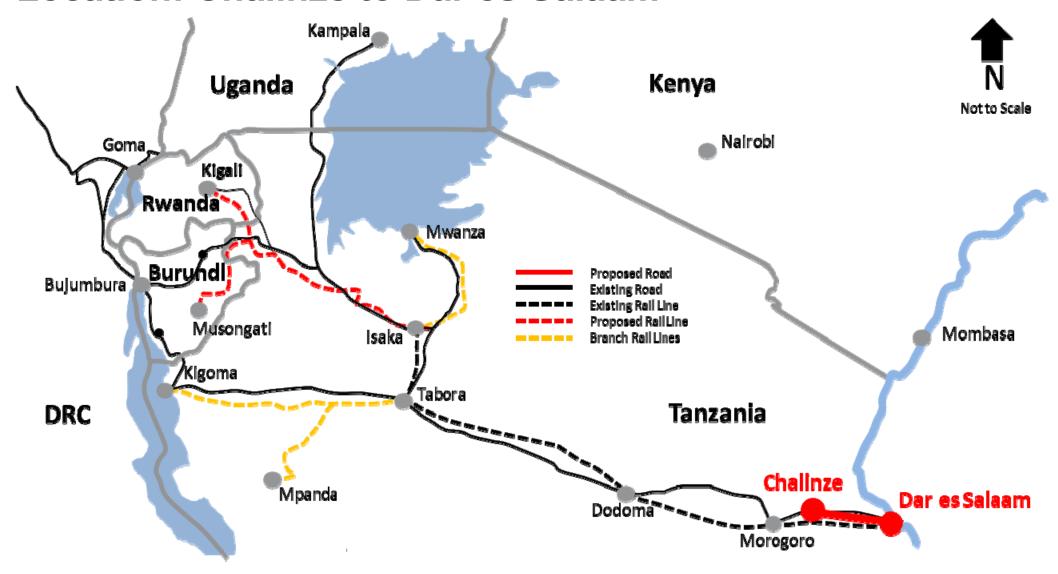


East African Community, EAC

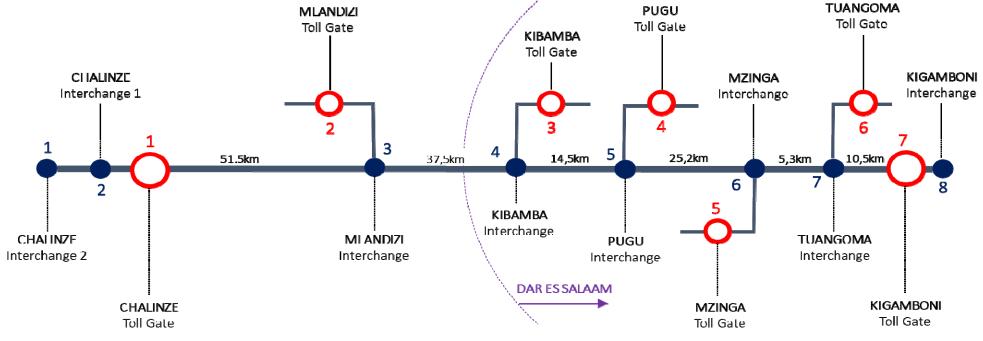
Description & Impact

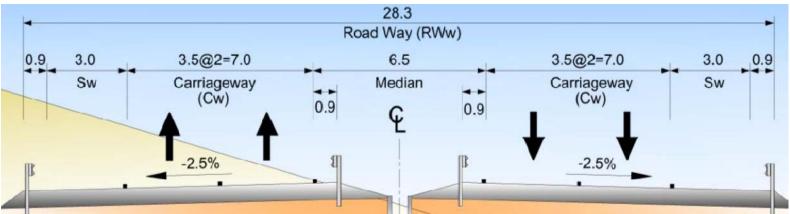
- The implementation of a 144km dual and triple carriageway toll road between Chalinze and Dar es Salaam.
- The Project provides an important gateway within Tanzania (to central, northern and southern Tanzania).
- It connects landlocked Uganda, Rwanda, Burundi, DRC, Zambia and Malawi to a port.
- The Project is expected to significantly reduce travel time on the longer Dar es Salaam Morogoro Road.
- The Project is in line with Tanzania's Investment Plan and 5-year Development Programme.

Location: Chalinze to Dar es Salaam



Technical Features

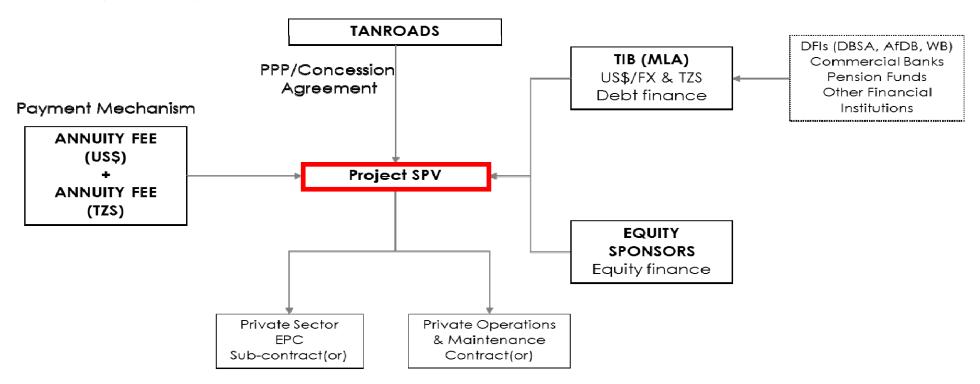




- A 144km of Expressway
- 52km of road (4 Lanes)
- 92km of road (6 Lanes)
- 8 x Interchanges
- 7 x Toll Plazas
- 7 x Weighbridges

Business Model & Project Costs

- The Project will be executed as a PPP in the form of Build, Own, Operate and Transfer (BOOT) concession agreement, requiring the establishment of an SPV.
- The Project's capex is estimated at US\$1,044 million.



Financial Analysis & Revenue Model

- The Feasibility Study forecasts a US\$ Project IRR of 23.3% and a net present value (NPV) of USD 1,081 million, using a discount rate of 9.0%.
- Revenues will be generated in the form of toll fees collected by the concessionaire once the Project is commissioned.
- In the event that toll revenues collected are less than the unitary payment for the period, the GOT will be required to meet the shortfall.



Funding Opportunities

Toll Road: Chalinze to Dar es Salaam

 An opportunity exists for institutional investors to provide post construction funding, either via loans to the SPV or by investing in a project bond.

	USD 000	%
CAPITAL EXPENDITURE	1,044,467	
DEBT RAISING FEES	25,567	
CONCESSIONAIRE'S COSTS TO FC	45,312	
PRE-FUNDING OF DSRA	66,749	
CAPITALISED INTEREST	118,895	
TOTAL FUNDING REQUIREMENT	1,300,990	
DEBT	1,040,792	80%
EQUITY	208,158	20%
TOTAL SOURCES OF FUNDS	1,248,950	100%

- Project bonds could allow the SPV to refinance both local and US\$ debt and for DFI funders to recycle their funding to unlock new projects.
- The PPP structure could facilitate the issue of a project bond (the SPV's cashflows will be fairly predictable since GOT bears traffic demand risk).
- If further credit enhancement is required to issue an investment grade bond, the SPV may require guarantees from either GOT or a DFI.

Environmental & Social Assessments

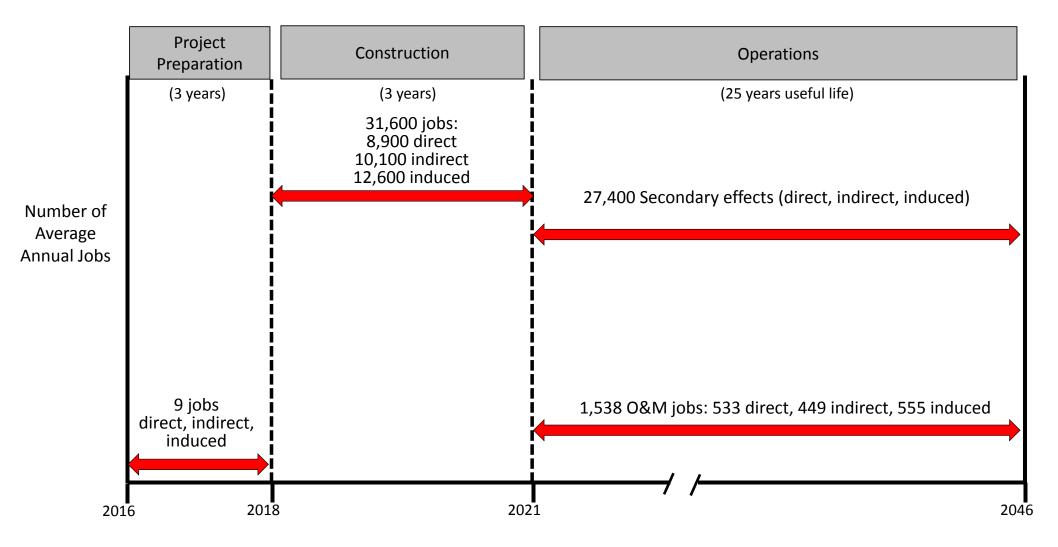
- The following studies have been completed:
 - Environmental and Social Impact Assessment
 - Environmental and Social Management Plan
 - Environmental and Social Monitoring Plan
 - Resettlement Action Plan.
- The total cost of implementing the Environmental and Social Management Plan is estimated to be 9.13% of the Project's total cost and will be borne by the GOT.

The Chalinze to Dar es Salaam Toll Road will Create an Estimated 818,000 Jobs over 25 Years Useful Life*

	Over Six Year Project Development Time		Annual Operations		Total Over Project Useful Life of 25 Years	
	Project preparation	Construction	O&M	Secondary effects	O&M	Secondary effects
Tanzania	26	94,931	1,538	17,273	38,425	431,825
Other countries				10,105		252,625
Total	26	94,931	1,538	27,378	38,425	684,450

^{*}Based on assumptions

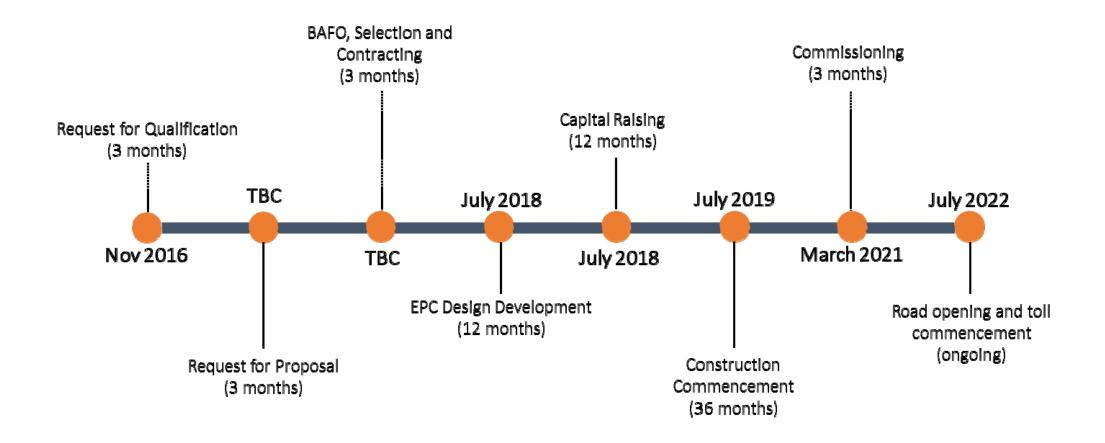
The Chalinze to Dar es Salaam Toll Road Will Create an Estimated 59,500 Average Annual Jobs (based on preliminary assumptions)



Required Job Skills & Potential Interventions to Maximize African Jobs

PROJECT PHASE	EXAMPLES OF OCCUPATIONS	EXAMPLES OF POTENTIAL INTERVENTIONS
Project Preparation	 Project developers Financial advisors Engineers Procurement experts 	 Require contractors to employ and train local engineers Provide supplementary training programs with local business associations & schools
Construction	 Construction supervisors Engineers (design) Procurement experts Site safety directors 	 Require contractors to use local materials, labour, and partners that meet quality/price thresholds and conduct training Provide support to local contractors (bidding, finance)
Operations and Maintenance	 Unskilled labor Mechanical operators Maintenance and control engineers Site safety specialists 	 Provide peer-peer training Provide support to local contractors (bidding, finance) Track training and employment performance by key targets (youth, gender, etc)

Implementation Timeline & Way Forward



Opportunities to unlock projects

Toll Road: Chalinze to Dar es Salaam



DFIs / ICPs

- Extend concessionary loans during construction (or duration of project if project bonds are not issued)
- Fund TA costs associated with bond issue
- Provide credit enhancement (via guarantees)



Institutional Investors
Commercial Banks
& Developers

- Provide post-construction debt funding via loans.
- Invest in project bonds (if applicable)
- Provide equity for PPP



Governments

Fund procurement process



NEPAD/RECs

- Coordinate technical teams between countries
- Market projects to funders
- Provide political support

JOB CREATION ANNEX

METHODOLOGY FOR ESTIMATING JOB CREATION IN TRANSPORT INFRASTRUCTURE (Toll Roads, Bridges, etc.)

PRIMARY EFFECT (jobs created as a result of infrastructure deployment)

DIRECT JOBS (actual jobs required for project development, construction, operation phases over project's useful life)

INDIRECT JOBS (employment generated by businesses providing inputs for project preparation (studies, etc.), construction, operation (e.g., raw materials, equipment, etc.)

INDUCED JOBS (Employment generated by household spending based on the income earned by direct and indirect workers engaged in project)

SECONDARY EFFECT (jobs created as a result of the economic spillover of infrastructure once it is deployed)

DIRECT, INDIRECT AND INDUCED JOBS

(employment resulting from new businesss creation and existing enteprises expanding as the result of enhanced trade facilitated by new infrastructure)

BEST PRACTICE: INPUT-OUTPUT ANALYSIS

(used worldwide based on subsectorial economic national data)

- Estimate cost of inputs by country source
- Project preparation (studies, project staff & experts)
- Construction (labour, supervision, equipment, raw materials, etc.)
- Operations & Maintenance
- Enter inputs in Input-Output Tables (developed from GTAP data base for all African countries)
- Tables estimate jobs

INPUT-OUTPUT ANALYSIS

- Create an inter-country regional trade traffic matrix by country and sector based on GTAP national data
- Input trade improvement as result of new infrastructure (based on DBSA corridor approach)
- Enter incremental sector inputs in National Input-Output Tables
- Tables estimate jobs by country and sector



To Generate The Data Required For Estimating Jobs, Major Assumptions Were Made

Phase	Assumptions	Impact
Project preparation	It was assumed that all costs for tender administration and facilitation of financial close would be assigned to out of Africa firm	If not, these costs would create additional financial jobs
	It was assumed that an additional 30% of tender administration and financial close would be supported by local staff in Tanzania national Roads Agency	Some local job creation impact
Construction	Labor in highway construction is roughly 50% of construction costs (source:Ccost estimating guide for road construction-US Dep. of Agriculture)	Wage differential could result in a different split
	Feasibility Study mentions 50/50 split of raw materials between local and foreign sources (gravel, cement sourced locally), while re-bar, pavement material imported from either S. Africa or Middle East (pp. 10-53)	Due to lack of data on South Africa sourcing, 50 foreign inputs were assumed to be all from out-of-Africa
O&M	 Supervision (7.1% of operations) Labor (50% of maintenance+38% of operations) Materials (assumed to be 50% of maintenance) 	