Brazzaville – Kinshasa Toll Bridge

Project Location

Brazzaville to Kinshasa

Owners & Project Sponsors

Implementing Partners

Regional Economic Community



Government of the Republic of Congo



Government of the Democratic Republic of Congo



Délégation Générale des Grand Travaux



Ministère du Plan et Suivi de la Révolution de la Modernité

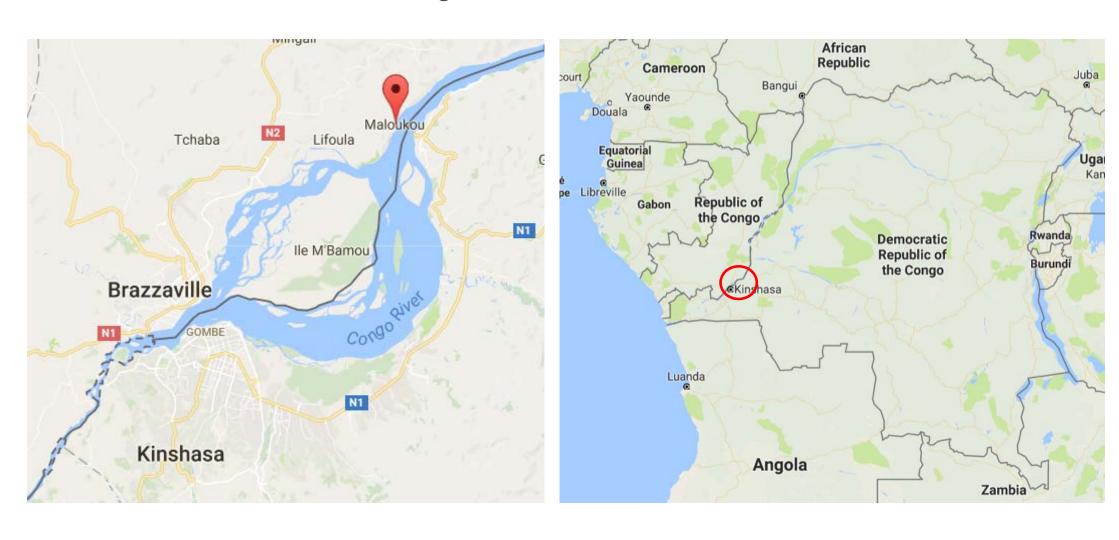


Economic Community of Central African States (ECCAS)

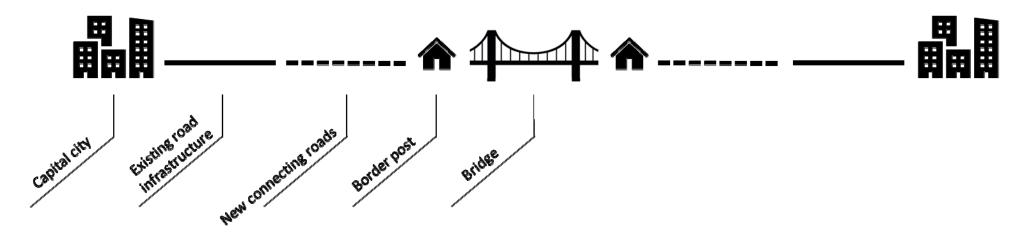
Description & Impact

- A tolled road-rail bridge across the Congo River linking Kinshasa and Brazzaville.
- The bridge is part of a larger project, the Kinshasa-Ilebo Railway project, that aims to improve the railway network in Africa.
- Whilst the bridge will improve and secure the connections between the two capitals of the DRC and RC, the larger project will connect into the Trans-African Highway and the Pointe Noire – South Eastern Africa Railway Network.
- The Project will stimulate trade between Brazzaville and Kinshasa, the DRC and RC, and the region.
- It will also encourage movement of people and goods along the Tripoli-Windhoek corridor.

Location



Technical Features



- The bridge will be 1,575m in length, and will include a single railway track, two road lanes (one in each direction) as well as two sidewalks.
- To connect the bridge to existing road infrastructure, there will be a road extension of 6.8km in the DRC, and 3.2km in the RC.
- The road could be extended to four lanes if future demand justifies such an extension.

Business Model & Project Costs

- Project will be developed through a Build—Operate—Transfer (BOT) PPP financed with 70% debt and 30% equity.
- The special purpose vehicle (SPV) will require more than USD321 million of debt funding to fund project costs and other project finance requirements.

ITEM	AMOUNT	AMOUNT	% OF TOTAL
	EUR MILLION	USD MILLION	COSTS
BRIDGE	300.3	333.3	72.6%
CONNECTING ROADWAY	62.7	69.6	15.2%
CONTROL POSTS	37.7	41.8	9.1%
CONTROL AND SUPERVISION	12	13.3	2.91%
ENVIRONMENTAL	0.8	0.9	0.19%
MEASURES	0.8	0.9	0.1970
EXPROPRIATIONS	0.2	0.2	0.05%
TOTAL	413.7	459.2	100%

Financial Analysis & Revenue Model

- Toll revenues paid by passengers and goods crossing the bridge will be collected by the concessionaire.
- The feasibility study forecasts a project IRR of 16.9% and an equity IRR of 24% in Euro terms.
- A discount rate of 12% was used to arrive at an economic internal rate of return (EIRR) of 22%, and a net present value of EUR 303.5 million (USD 336.9 million).
- A payment mechanism which will allow the two countries to share in higher than expected demand may need to be developed to ensure value for money for the public sector.
- Similarly, the private sector may require downside protection in the form of a patronage guarantee as part of the payment mechanism to protect it against lower than expected demand.

Development and Funding Opportunities

- To unlock funding, a detailed demand study, underpinned by surveys, will need to be developed as part of the planned "Initial Business Case".
- The surveys should also seek to identify affordability levels which will allow investors or funders to conclude on how affordable the proposed toll rates will be to potential users.
- The demand analysis will need to substantiate the significant growth in demand forecast in the Feasibility Study.
- Given how sensitive the Project appears to be to demand, the private sector will most likely require patronage guarantees to be issued by the two governments to undertake the project.
- These patronage guarantees could benefit from credit enhancement by a DFI, to attract private sector equity and concessionary debt.

Environmental & Social Assessments

Brazzaville – Kinshasa Toll Bridge

• The Feasibility Study includes a comprehensive environmental, socio-economic impact study, as well as a sustainability study.



- The Project's positive socio-economic impacts are expected to be significant. The bridge is expected to stimulate the local, provincial and regional economy, by creating jobs in the region.
- The project is also likely to trigger further regional development of infrastructure.



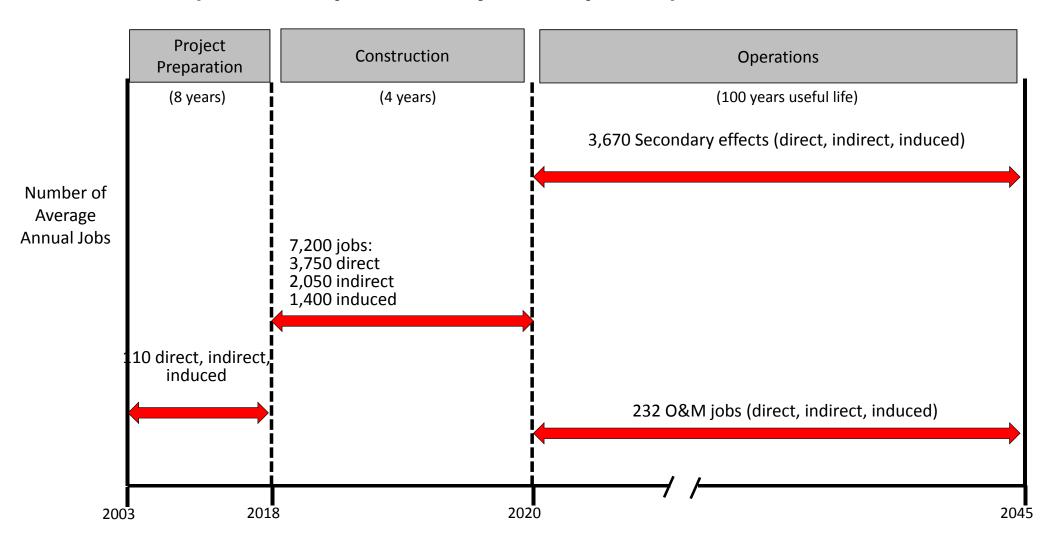
- The Project's negative impacts are expected to include the resettlement of populations living, possessing property or exercising business activities on the construction site.
- Impact on the environment include construction related risks e.g. pollution risks and the impact of the carbon footprint to connect to the bridge.

Brazzaville-Kinshasa Bridge Will Create an Estimated 420,000 Job Years Over 100 Years Useful Life*

	Over Twelve Year Project Development Time		Annual Operations		Total Over Project Useful Life of 100 Years	
	Project preparation	Construction	O&M	Secondary effects	O&M	Secondary effects
Congo	326	15,407	220	103	22,008	10,300
DRC	441	13,276	12	1,781	1,194	178,500
Other				1,678		178,100
Total	767	28,683	232	3,670	23,202	366,900

^{*} Based on assumptions

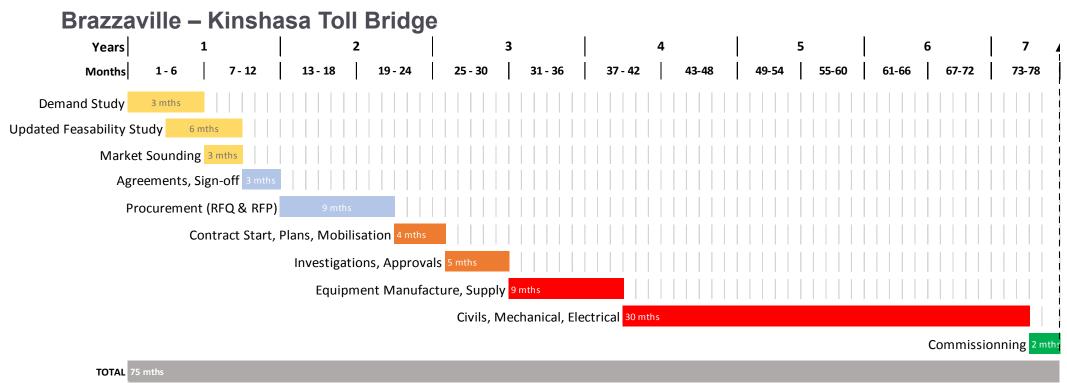
Brazzaville-Kinshasa Bridge Will Create An Estimated 11,200 Average Annual Jobs (based on preliminary assumptions)



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



- Preparation of an Initial Business Case (including demand study)
- Market sounding with DFI lenders, EPC contractors and potential equity investors
- Refinement of PPP structure
- Release of tender documents

Opportunities to unlock projects

Brazzaville – Kinshasa Toll Bridge



DFIs / ICPs

- Fund TA costs to advance project (including demand study)
- Extend concessionary loans
- Guarantee debt



Institutional Investors

Commercial Banks

& Developers

• Provide equity for PPP



Governments

- Provide patronage guarantees
- Ensure legal frameworks in place



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	Absent any project preparation data, it was assumed following benchmarks that project preparation would amount to 4.5% of construction costs	Project preparation costs: US\$ 22 million
	Considering international location of firm conducting feasibilty study, Cost of Feasibility study was assumed to be US\$ 5 million (TOR from Communaute Economique Des Etats De L'Afrique Centrale mentions 5 million Universal Currency, value not determined)	Subtract US\$5 million from overall project preparation costs
Construction	Time of construction was estimated in feasibility study at 4 years (vol. 10, p. 74) (similar to Transgambia Bridge, a smaller infrastructure project)	
	Construction costs as provided in Feasibility Study exclude all financial contingencies (reserve accounts, revolving fund requirements, etc.)	