



# Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 19-Oct-2018 | Report No: PIDISDSC24943



**BASIC INFORMATION**

**A. Basic Project Data**

Country Cote d'Ivoire	Project ID P167401	Parent Project ID (if any)	Project Name Abidjan Urban Mobility Project (P167401)
Region AFRICA	Estimated Appraisal Date Jun 03, 2019	Estimated Board Date Jun 28, 2019	Practice Area (Lead) Transport & Digital Development
Financing Instrument Investment Project Financing	Borrower(s) THE REPUBLIC OF COTE D'IVOIRE	Implementing Agency Ministry of Transport	

**Proposed Development Objective(s)**

The Project Development Objective is to improve accessibility to opportunities and to increase efficiency of the public transport system along the Yopougon-Bingerville corridor and its feeder lines in Abidjan.

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	350.00
<b>Total Financing</b>	300.00
<b>of which IBRD/IDA</b>	300.00
<b>Financing Gap</b>	50.00

**DETAILS**

**World Bank Group Financing**

International Development Association (IDA)	300.00
IDA Credit	300.00

Environmental Assessment Category

A - Full Assessment

Concept Review Decision

Track II-The review did authorize the preparation to continue



Other Decision (as needed)

## B. Introduction and Context

### Country Context

Côte d'Ivoire is in the midst of a healthy recovery from a decade-long civil war. The country is the largest economy in francophone Sub-Saharan Africa, and the third-largest in West Africa, with a population of 24.3 million and a gross domestic product (GDP) of US\$39.91 billion in 2017. Since resumption of political stability at the end of 2011, the country has grown at an average rate of 8.9 percent per year and achieved macroeconomic stability, with inflation held below 3 percent. Growth is expected to continue at a rate above 7 percent per year through 2019, reflecting buoyant domestic demand, steady foreign direct investment (FDI), and continued public spending, particularly on transport, information and communication technology (ICT), and energy infrastructure. The economy however remains vulnerable to external shocks, especially the volatility in the prices of the country's main export commodities (that is, cocoa, cashew nuts, palm oil, and cotton) and climatic changes, as well as, to political uncertainty, especially in the preparation of the next Presidential elections scheduled in 2020.

The country is one of the most urbanized countries in Sub-Saharan Africa. More than a half—56 percent—of the Côte d'Ivoire's population lives in urban centers, with urbanization increasing at a high rate of 5 percent yearly, albeit with high spatial disparity between the Greater Abidjan Agglomeration (GAA) and other cities. The GAA is home to approximately 5.4 million people, representing 42 percent of the country's urban population. The GAA, covers 19 municipal jurisdictions, of which 13 are under the Autonomous District of Abidjan (DAA) and the remaining six are surrounding municipalities<sup>1</sup>. It is the country's main economic hub, contributing approximately 60% of its GDP (implying an average GDP per capita 40% higher than the rest of the country), 80 % of formal employment, and 90 % of formal enterprises. The GAA is expected to play a crucial role in the future economic growth of Cote d'Ivoire and in the achievement of national objective of becoming a middle-income country by 2035.

Urbanization process does matter for Côte d'Ivoire economic development. However, GAA needs a structural transformation to increase the role of urbanization in the country economic performance. Although the agglomeration contributes to country economic development, its contribution has not yet been optimal because of several inefficiencies: low economic density, weak human capital, poor space organization and high transport costs<sup>2</sup>. These inefficiencies are visible through negative externalities such as pollution, congestion, poor housing, traffic-related accidents and poverty. These challenges will not disappear, at the contrary, as urban concentration is closely linked to economic development and GAA is expected to grow further, reaching over 10 million habitants by 2040. Economic theory suggests that the link between urbanization and economic performance is through the interaction between three factors: scale economies, factor mobility, and reduction in transport costs. Urban mobility became hence very important

<sup>1</sup> The GAA covers the metropolitan area of Abidjan and consists of 19 municipal jurisdictions, of which 13 are under the DAA (Abobo, Adjamé, Anyama, Attécoubé, Bingerville, Cocody, Koumassi, Marcory, Plateau, Port-Bouët, Songon, Treichville, and Yopougon) and 6 are surrounding municipalities (Grand-Bassam, Bonoua, Alépé, Azaguié, Dabou, and Jacqueline).

<sup>2</sup> World Bank. (2015). *Cote d'Ivoire Urbanization Review*. Washington, D.C., June 12



in that context, as the emergence and development of agglomeration effects is closely linked to the city's capacity to reduce distances and encourage linkages.

### Sectoral and Institutional Context

Despite significant public investments in road infrastructure in recent years, Abidjan continues to suffer from slow, expensive and unreliable urban transport. Urban mobility became a major challenge in the city that faces unprecedented problems of congestion and its consequences (economic losses, pollution, etc.). The population growth of Abidjan and its economic development have a significant influence on the demand for transport and this trend is reinforced by the lack of urban planning and governance capacities which have resulted in the development of dense neighborhoods that are not sufficiently connected to the main centers of economic activity. The current public transport supply is marked by informality, lack of coordination, obsolescence, inadequacy and shortage of personnel who can operate and manage a more effective system. Those weaknesses are major obstacle to growth. For the city to continue to grow sustainably, it will need to provide reliable access to jobs and services for its population.

Work and business activities are concentrated in the center of the city (Plateau, Adjamé, Cocody)<sup>3</sup>, with far fewer jobs in the periphery. The inhabitants of the densest and poorest neighborhoods (Yopougon and Abobo) can access only a small share of the labor market within a reasonable commuting time<sup>4</sup>, they have to travel significant distances to reach these opportunities and at peak times. As a consequence, Abidjan is losing out on the potential agglomeration benefits that come from a unified labor market.<sup>5</sup> In addition, the ageing of the artisanal urban transport fleet (taxis and mini-buses) and its lack of maintenance represent major environmental, public health, and road safety problems. With an average age of 16 years, the fleet of vehicles of the small-scale, informal public transport is indeed old and particularly polluting<sup>6</sup>.

Today, a large share of Abidjan's population walks or uses the informal public transport system. 41% (or 5.7 million) of the 13.6 million daily trips in Abidjan take place on foot. In poorer areas such as Yopougon and Abobo, the modal share of walking can increase up to 60%, because of the poor transport infrastructure and the unaffordability of the public transport system for low-income households, reflecting the inefficient mobility towards the municipalities with higher job opportunities. For the motorized trips, the largest share of trips is dependent on public transport<sup>7</sup>, which accounts for 81% of all motorized trips. The latter is provided by two different types of operators: service providers operating and organized within a formal framework of contractual agreements and service providers that operate more flexible routes, subject to compliance with certain conditions (such as registration and payment of a fee). The first type of service is provided primarily by the SOTRA (Société des Transports Abidjanais), with approximately 600 buses operating on 68 lines. In addition, lagoon ferries are operated by contractually formalized services provided by SOTRA and two private operators (STL and Citrans) – with a total of 30 to 40 boats. The rest of transport services in Abidjan are provided by the informal sector comprising minibuses (gbakas) – about 5,500 vehicles; municipal taxis (woro-woro) – about 12,000 vehicles; and other taxis – about 11,300 vehicles. Private vehicles account for just 1.5M (or 11%) of the daily trips. According to the latest household survey (2013) the percentage of households owning a car stands only at 8.9% in Abidjan.

<sup>3</sup> About half of all jobs and schools are located in the districts of Yopougon, Adjamé, Abobo and Cocody

<sup>4</sup> Commutes to work and school account for around 90 percent of passenger's trips in Abidjan

<sup>5</sup> World Bank. (2015). *Cote d'Ivoire Urbanization Review*. Washington, D.C., June 12.

<sup>6</sup> Schéma Directeur d'Urbanisme du Grand Abidjan (SDUGA), March 2015

<sup>7</sup> Public transportation includes regular, continuing shared-ride surface transportation services that are open to the general public

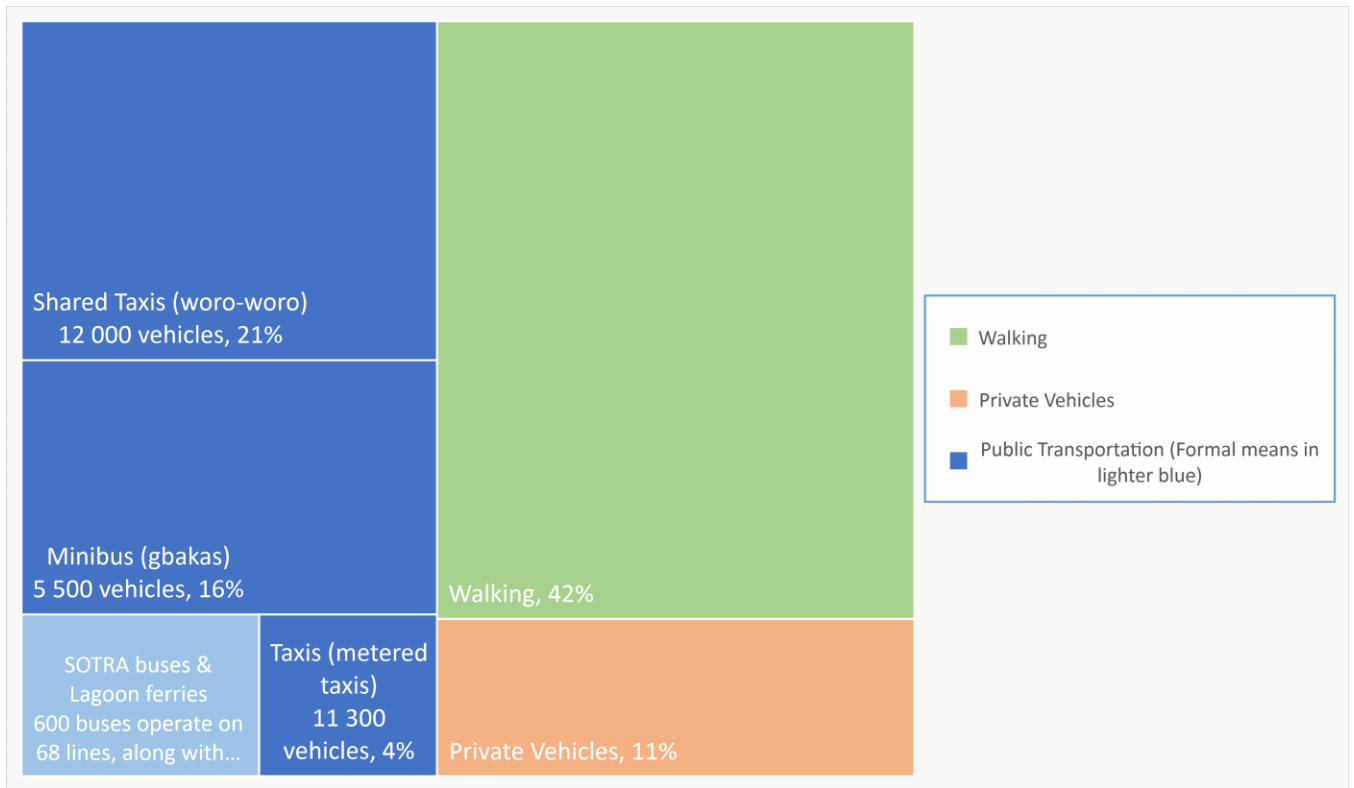


Figure 1: Modal Split of Abidjan's 13.6 million trips per day

As part of the search for efficient and sustainable solutions to solve Abidjan's mobility problems, the public authorities, through the Greater Abidjan Urban Master Plan (SDUGA), have chosen to promote mass transit systems to link the densest areas with business neighborhoods. Two major structuring axes have been identified in the SDUGA for the construction of priority lines of exclusive right-of-way public transport by 2025. These are the North-South and East-West axes of the Abidjan urban area, serving large population basins in dense areas of Abobo and Yopougon linking them to the main employment centers of the Plateau, Adjamé, and the port and industrial zone. The two axes identified in the SDUGA are presented in the figure below.

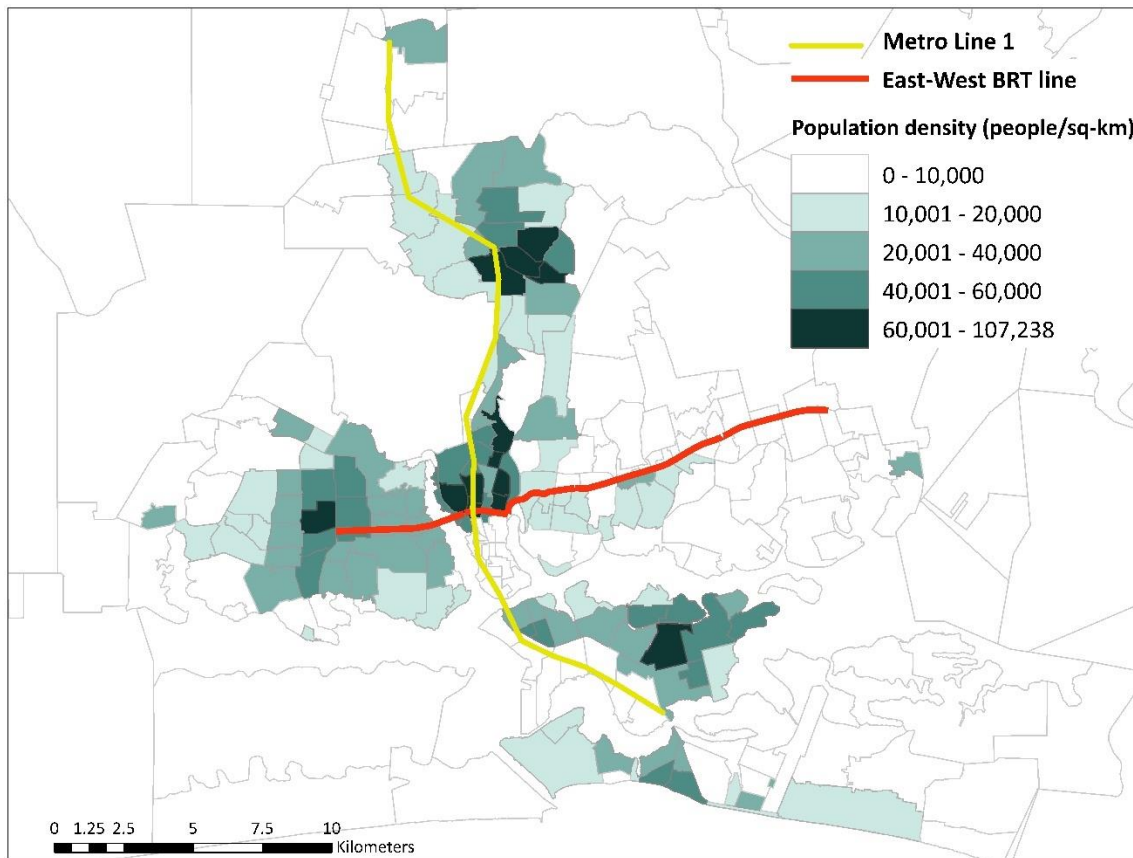


Figure 2: Population density and planned mass transit lines; Source: SDUGA

The SDUGA has received great support from private and public stakeholders within the country and from donors, who have committed funding to several mobility projects in Abidjan: The Metro Line 1 North-South project is financed by the French Treasury for EUR1.5 billion (studies that will enable the operator to make a binding offer are under preparation; a first phase is expected to be launched in 2022 and the second and last in 2023); while various transport infrastructure in the city are receiving the support from MCC (\$300 million), JICA and AfDB (\$700 million). The WBG has also been involved with the Greater Abidjan Port City Integration Project (\$400 million), approved in June 2018. All these interventions underline not only the priority given to urban mobility in Côte d'Ivoire but also the need to coordinate and harmonize them for the success of the proposed operation that will support the development of the East-West Axis through the BRT project.

Finally, the Government's plans for transforming urban transport cannot be complete without ensuring that the skill set of operators are brought up standards and reinforced. The absence of appropriate training and support service, including for the informal sector, the returns to all other inputs and strategies will be much lower than what can be expected.



### Relationship to CPF

The Abidjan Mobility Project is aligned with the World Bank Group (WBG) FY16–FY19 Country Partnership Framework (CPF)<sup>8</sup> for Côte d'Ivoire and the recently approved Performance and Learning Review (PLR)<sup>9</sup>. To achieve its 10 objectives, the CPF comprises three focus areas of intervention: (a) accelerating sustainable private sector-led growth; (b) building human capital for economic development and social cohesion; and (c) strengthening public financial management (FM) and accountability; as well as two cross-cutting themes: (a) governance and (b) spatial inequality. The proposed project is linked to the first focus area by directly contributing to one of its four objectives, namely Objective 2: strengthen economic infrastructure especially in transport, as well as by addressing the spatial inequality cross-cutting theme within the GAA. In addition, the project responds to the CPF through leveraging synergies between activities focused on urban transport infrastructure development, urban planning and services delivery, and capacity building activities on urban mobility for both the public and private sectors. The following specific aspects of the project are in direct alignment with the CPF: the proposed PPP structure of BRT line (Focus Area 1 – Objective 2), the provisions toward women and vulnerable population groups (Cross-Cutting theme 1), the support for the modernization and professionalization of the small-scale transport sector (Focus Area 2 – Objective 5), gender, climate change and road safety provisions (Cross-Cutting theme 1) as well as the main components A and B (Focus Area 1 – Objective 2).

To strengthen the WBG's efforts towards poverty reduction and shared prosperity, and in response to recent developments in the country, the PLR of May 2018 proposes further emphasis on addressing inclusion and limited economic opportunities, particularly gender, productive jobs and governance. It stresses the urgent needs to addressing the lingering structural drivers of fragility in the country including land management, and jobs creation for disenfranchised youth through the use of the MFD approach to crowd in private investment and make the most of limited public resources.

The proposed project is also aligned with the 2016–2020 National Development Plan (PND) and city-level priorities. The PND has set as a priority the strengthening of the competitiveness of urban economies to drive national growth, promote private sector-led development, and improve competitiveness. It highlights the overarching objectives: (a) reinforcing the quality of institutions and governance; (b) accelerating the development of human capital and social welfare; and (c) accelerating the structural change of the economy. The proposed project will directly contribute to achieving these objectives through (a) leveraging private development and financing of infrastructure through the proposed PPP for the BRT line and (b) facilitating efficient and sustainable mobility of people in GAA and job accessibility. Through its various activities, the project aims to facilitate long-term, efficient urban mobility and is expected to contribute to its increased competitiveness.

The proposed project will contribute to the WBG's twin goals of ending extreme poverty and promoting shared prosperity. The national household survey indicates that Abidjan and its surrounding area has a poverty rate of 22.7 percent. The proposed project investments will focus on one of the poorest area of Abidjan (Yopougon) and hence will benefit the urban mobility of the poorest.

The proposed project will leverage existing WBG engagements in the country. To achieve maximum impact in implementing the Government's strategy, the project will complement ongoing activities focused on (a) urban planning, infrastructure rehabilitation and access to basic services in Abidjan through the Greater Abidjan Port-City Integration Project (P159697) and the Côte d'Ivoire Infrastructure Renewal Project (Projet de Renaissance des Infrastructures de Côte d'Ivoire; PRICI; P124715) and (b) the Transport Sector Modernization and Corridor Trade

<sup>8</sup> World Bank Group (WBG) FY16–FY19 Country Partnership Framework (CPF)<sup>13</sup> for Côte d'Ivoire Report No. 96515-CI

<sup>9</sup> <https://hubs.worldbank.org/docs/ImageBank/Pages/DocProfile.aspx?nodeid=29834408>



Facilitation Project (PAMOSET; P156900). The present project is explicitly anticipated in the Greater Abidjan Port-City Integration Project, where in *Sub-Component A2. Promotion of inclusive and sustainable urban mobility* there has been an allocation of US\$5 million for the feasibility study and detailed preliminary design of a pilot BRT corridor on the Yopougon-Bingerville axis as well as provisions for supporting the capacity of an Urban Transport Authority in Greater Abidjan (currently under creation) and for the development of a multi-modal transport plan for Abidjan.

### Maximizing Finance for Development

The proposed operation will enhance the Maximizing Finance for Development (MFD) approach, by exploring options for private sector participation, especially for revenue-generating activities such as the BRT line and the fleet renewal.<sup>10</sup> There is a long tradition of PPPs in Côte d'Ivoire, including for urban infrastructure, that indicates that such an approach can be implemented without too much difficulties.

#### *Côte d'Ivoire: A long tradition of private involvement in urban infrastructure*

The total recorded private sector participation in infrastructure in the last 24 years (1990–2014) in Côte d'Ivoire saw 19 projects for a total investment amount of US\$4 billion. Private participation was largest in the telecom sector, followed by transport and energy. The country has a long history of PPPs, precedents include management contracts, leaseings, concessions, and Build Own Operate (BOO) and Build Operate Transfer (BOT) arrangements. The Water Distribution Company (SODECI) has been a privately-operated PPP for over 30 years (first PPP) and is now an affiliate of Saur, the French water company. In 1990, the national power company was given over to a privately-operated management contractor. Additionally, there are two privately owned power plants. Ivorian Company for Electricity Production (CIPREL) (360 MW) is majority owned by Bouygues, the large French construction group. Azito (280 MW) is majority owned by Globeleq, the power subsidiary of Deposits and Consignments Fund (CDC)/Actis of the United Kingdom which was a beneficiary of IDA's first-ever Partial Risk Guarantee in Sub-Saharan Africa. Both these plants have been in operation since 2000 and require capacity extension. Azito was originally funded by IFC, which is considering offering further support to it. Bouygues constructed the third Abidjan toll bridge, which was procured as a PPP with support from the AfDB and Multilateral Investment Guarantee Agency (MIGA). Bouygues is presently expanding the Foxtrot offshore gas field to provide additional gas for electricity and is supported by an IDA PRG.

Private sector involvement will be complemented by public intervention that is justified due to the public good nature of transport. The use of IDA resources will however be limited to bridging the funding gap, so long as it is demonstrated that (i) the activity is economically viable and fiscally and commercially sustainable; (ii) it provides value for money; (iii) its allocation of risks is transparent; and (iv) it is designed to ensure environmental and social sustainability.

In addition to IDA public loans WBG could deploy other financing instruments to Maximize Finance for Development and to de-risk private investment such as IFC debt and commercial debt mobilization, MIGA guarantees and IDA PSW mechanisms, including blended finance and credit enhancement. Such an approach will help minimize the use of scarce IDA resources and leverage other sources of funding.

### Climate change and resilience building

<sup>10</sup> For the BRT project, a feasibility study is under way and support from the Global Infrastructure Fund (GIF) was requested to structure an optimal PPP deal that maximizes value for money by leveraging the private sector's operational and commercial know-how and technical and innovation capabilities.





*The impacts of climate change in Cote d'Ivoire*

The consequences of climate change are a key concern for the country<sup>11</sup>. Côte d'Ivoire's urban populations are increasingly exposed to flood-related material and social losses. Côte d'Ivoire is also highly vulnerable to climate risks, ranking the 147<sup>th</sup> least resilient nation of 169 countries. Based on the Intergovernmental Panel on Climate Change (IPCC) estimates, climate change could reduce GDP by 2% to 4% across Africa by 2040 and by 10% to 25% by 2100. For Côte d'Ivoire, this would correspond to a loss of some CFAF 380 to 770 billion. These losses would be borne by the agricultural sector, human capital, and infrastructures and could plunge 2% to 6% more households into extreme poverty by 2030. In Côte d'Ivoire, that would amount to nearly one million more people in a situation of extreme poverty (living on less than \$1.90 per day), in addition to the six million poor in the country today.

The proposed project will support the development of a modern cost-effective infrastructure that will reduce GHG emissions, in line with the country's commitment to the Paris agreement. Reductions in GHG emissions and local pollutant emissions are expected from (i) modal shift and clean bus technologies for the BRT line and (ii) the fleet renewal of taxis and Gbakas. Initial estimates indicate the high potential of direct GHG savings from both components. A thorough assessment of GHG and local pollutants emissions reduction will be conducted during Project preparation.

The project will also contribute indirectly to GHG saving. By promoting the use of public transport, and reducing commuting time, it will limit the use of private motorized vehicles, which are a main source of pollution. This benefit will even be magnified through the expected decline in congestion. In African cities where motorization rate is still low, successful implementation of mass transit corridors as part of a comprehensive urban mobility strategy could help maintain a low level of motorization as it will offer an early stage alternative to car driving. It will also limit urban sprawl and therefore the need for additional road infrastructures and public space, reducing the burden on public finances.

**Gender**

The project will put a strong focus on gender inclusion and participation. Women suffer disproportionately more for long commute time because they have less access to motorized vehicles. The promotion of public transportation (including the BRT) will increase their mobility. It is also proposed that the project will favor women in accessing the qualified jobs created by BRT operations, in line with a long-term target of equal opportunities in the public transport sector. A broad-based social assessment and a gender sensitive stakeholder engagement plan will further ensure that women's transport needs are heard and considered. Results in closing the gender gap will be monitored at the PDO level. A first stakeholder meeting was held during identification mission, indicating strong expectations of women for the Project and its impact.

***Gender based violence and sexual harassment in public transport***

Women are most likely to be exposed to higher risks in the streets. By upgrading walking infrastructure paired with well-lit and camera-surveilled stations, the Project will provide for safer access to and from public transport for women. Best practices tools for citizen engagement, reporting and preventing gender-based violence in public transport, will also be incorporated in the project.

<sup>11</sup> Côte d'Ivoire Seventh Economic Update: So Tomorrow Never Dies, July 12, 2018



### C. Proposed Development Objective(s)

The Project Development Objective is to improve accessibility to opportunities and to increase efficiency of the public transport system along the Yopougon-Bingerville corridor and its feeder lines in Abidjan.

#### Key Results (From PCN)

The preliminary indicators that have been identified for measuring the key results of the project and the achievement of the PDO (to be finalized during project preparation) are as follows:

- (i) Average daily passenger ridership (disaggregated by gender) in the BRT buses per week or day
- (ii) Average rush hour in-vehicle travel time by public transport along the BRT corridor
- (iii) Annual net reduction of GHG emissions associated to the project
- (iv) Percentage of the population within GAA able to access the Plateau within 60 minutes during rush hour using the BRT. Sub-indicator: same criteria for the poor<sup>12</sup>
- (v) Percentage of women employed by transport operators, supported by the project

Other intermediate indicators are as follows:

- (i) Satisfaction rating by the supported transport system users and, specifically by women and other vulnerable groups

Reduction in the number of fatalities and serious injuries on the corridor before and after the implementation of the BRT, including accidents involving a BRT vehicle

### D. Concept Description

#### 1. Description

The proposed project is part of global initiative of improving urban mobility on the Est-West corridor. While the first component will support the establishment through a PPP of the East-West mass transit line between Yopougon and Bingerville, the other 3 components will address the inefficiencies of the urban mobility sector by (i) supporting the strengthening of SOTRA and restructuring of the formal bus transport network around the mass transport lines (North-South metro and East-West BRT line); (ii) supporting the organization of the artisanal transport sector; and (iii) supporting human capital development in the urban transport system. Project operational cost will be included in the fourth component.

The preliminary assessment indicates a total estimated project cost of around US\$350 million. This cost does not consider compensation linked to involuntary settlement or compensation of populations.

The allocation of resources between IDA and the private sector are only indicative as it will be determined during project preparation depending on the PPP structure.

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<sup>12</sup> Population living at or below the official poverty line.



### Bus Rapid Transit – A Solution for African Cities

**There is an urgent need to tackle urban mobility challenges in African cities.** African cities are indeed crowded, disconnected and costly. They lack reliable transportation limiting workers' job opportunities while preventing firms from reaping scale and agglomeration benefits.<sup>13</sup> And this issue might worsen as urban areas in Africa will increase by more than 450 million people over the next 25 years. This trend will put deeper strain on existing public transport systems, exacerbating congestion, pollution and economic externalities.

**Among mass transit solutions, BRT represent reliable, cost-effective high capacity solutions.** While Rail train and subway transit systems can provide reliable, comfortable and safe transport services they are expensive and generally beyond the fiscal means of central or local governments in Africa. BRTs, on the other hand, can provide a high performance, high capacity (up to 40,000 max riders per direction per hour), high quality and cost-effective solution to urban dwellers. They offer a flexible and affordable solution to populations' transport needs (using existing roadways). Their limited environmental and social negative externalities and relatively short construction timeline make them ideal for high risk environments.

#### Examples of successful BRTs around the world and their impact

##### Reduction in travel time

- ✓ In Guangzhou (China), the introduction of the BRT in 2010 reduced travel times by 29 percent for bus riders and 20 percent for private car commuters;
- ✓ In Bogota, the first BRT line reduced travel time by 15 minutes per passenger day;
- ✓ BRT users in Istanbul can save 28 days' worth of commuting a year;
- ✓ In Johannesburg, the BRT reduced travel times by 13 minutes each way;
- ✓ In Lagos, commuting time fell by an average of 25 minutes along a 22-kilometer corridor and wait time was reduced from 45 minutes to 10.

##### Environmental benefits – Reduction in pollution and improved road safety

- ✓ Bogota's BRT (TransMilenio) and new regulations on fuel quality reduce CO2 emissions by an estimated 1 million tons a year. After implementation of the BRT, SO2 emissions declined 43 percent, NOx 18 percent, and particulate matter 12 percent;
- ✓ In Bogota, car crashes and injuries fell in two of the system's main corridors;
- ✓ In Lagos, the BRT project reduced CO2 emissions by 13 percent and greenhouse gas emissions by 20 percent.

**BRTs are well suited to African cities thanks to their cost-effectiveness, high capacity and potential impact. There are successful BRTs in Lagos and Dar es Salam and cities such as Dakar, Abidjan and Douala are in the process of implementing their first BRT systems.**

<sup>13</sup> "Lall, Somik Vinay; Henderson, J. Vernon; Venables, Anthony J.. 2017. *Africa's Cities : Opening Doors to the World*. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/25896> License: CC BY 3.0 IGO."



**Component A: Establishment of the East-West Bus Rapid Transit (BRT) line between Yopougon and Bingerville (Estimated cost: USD260M, of which USD210M financed by IDA and a minimum<sup>14</sup> of USD50M expected private entity under a PPP)**

A technical study funded by the Swedish fund and completed in January 2018, assessed the feasibility of high-quality bus services along an East-West corridor and other routes. Results showed at that time that a BRT system could meet the demand along this axis at least in the short and medium term. A demand study (funded by the WB) is currently underway to audit the previous traffic studies and update the traffic model to confirm ridership and hence adequacy of mode (BRT versus Metro). Results are expected in November 2018.

An approximately 20 km long priority BRT corridor, made up of two sections that can be realized by phase, was identified: (1) the section Adjamé - Yopougon section with the new 4th bridge; and (2) the section Adjamé - Cocody by boulevard François-Mitterrand.

In the proposed design, the BRT route is fully segregated in the median of the roadway to guarantee the commercial speed. Stations will be closed with off-board fare collection system and will be at-level with bus platforms to enable faster boarding and aligning. The layout and design of the stations will be further defined in the detailed engineering studies to accommodate the available right of way (RoW) and expected demand.

Right-of-way reserves for BRT are already included in the PTUA (Projet de Transport Urbain d'Abidjan- funded by the AfDB), except for the expressway at the Plateau. The Ministry of Economic Infrastructure (MIE) has however agreed to amend the design at this location under the AfDB-financed project to accommodate the BRT infrastructure. The design of the three Bingerville road interchanges planned as part of the JICA-funded project already include the necessary arrangement for BRT insertion.

The proposed component will finance the following activities:

*Depending on the assessment of the PPP options, the share of IDA and private resources will be defined: for example, in addition to the rolling stock, the PPP scope might include the infrastructure and IDA as investment subsidies to finance the PPP sponsor or IDA resources could be used to directly fund a public contract for the infrastructure (EPC only)*

- i. Goods, works, and consultants' services for the construction of the BRT infrastructure including road infrastructure, crossroads, terminals, stations and depot(s), interchanges and park and ride facilities, walking infrastructure and crosswalks, corridor traffic management system, etc.;
- ii. Provision of a fleet of buses. Expected to be financed by the operator in charge of BRT operations;
- iii. Assistance to the work of mastery; technical, financial, and legal assistance to design, structure and implement the PPP for the BRT project;
- iv. Provision of ITS and fare collection systems (hardware and software) which will enable a centralized control of bus operations and fare management;
- v. Technical, economic, environmental and social studies;

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<sup>14</sup> Estimated amount: the specific scope and investment amount of a PPP are yet to be defined and are being studied with GIF support



- vi. Institutional communication campaign and public communication;
- vii. Activities for the gender aspect in its 2 dimensions (security / fight against harassment and promotion of employment for women): communication / awareness campaigns, securing home-bus stops; activities for the promotion of women's employment in transport.
- viii. Activities for road safety aspects: Road Safety audits and assessments, education awareness campaigns, training, acquisition of specialized safety equipment
- ix. Climate Change Activities: studies on the GHG impacts; acquisition of specialized equipment (Air Quality Monitoring Station) and capacity training

**Component B. Support for the strengthening of SOTRA and restructuring of the formal bus transport network around mass transit lines (North-South metro line and East-West BRT line) (Estimated cost: USD40M financed by IDA).**

Between 1998 and 2013, there was a significant change in the modal split in Abidjan. In absolute terms, users' interest in buses has decreased by almost 50% in 15 years, mainly because of the poor performance of the SOTRA reflected in their low commercial speed (less than 15 km/h), their insufficient coverage and obsolete equipment. The average waiting time for a SOTRA bus in 2013 has been around 30 minutes, far more than the average time for both the woro-woro and the gbaka. This is mostly due to the fact that the size of the SOTRA bus fleet has dropped dramatically due to the failure of the purchase of new buses over the past 26 years. While it owned 1,200 buses in 1987, less than half of its fleet is currently available. In addition, government compensations for the subsidization of the monthly passes of the students and civil servants are often delayed, causing financial problem for SOTRA. All of the above do not allow SOTRA to improve its operating performance in order to increase its market share.

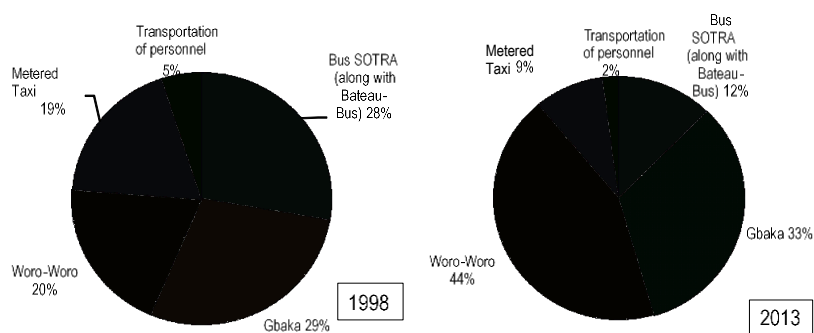


Figure 3: Evolution in the modal split of Abidjan between 1998 and 2013

This component will finance the following activities:

- i. Technical assistances to restructure the bus network and improve feeder connections to the mass public transport network;
- ii. Goods, works and Consultant's services for road works along feeder routes, road works along vicinal roads to support the diverted traffic and provision of necessary elements (dedicated lanes, crossroads priority, stopping points, urban furniture etc.) to improve the quality of service and the commercial speeds of the bus network;



- iii. Technical assistance to increase SOTRA operating performance (via performance contracts), if deemed necessary support to a possible opening of the company capital to the BRT operator or other private capital in order to strengthen its equipment and know how;
- iv. Capacity building to SOTRA;
- v. Various other technical assistance activities to improve the quality of SOTRA services including but not limited to fare, physical and operational integration, parking management plans, traffic management plans, studies for improved integration of BRT in its urban environment (TOD), etc.

**Component C. Support for the organization of the small-scale (artisanal) transport sector (Estimated cost: USD40M financed by IDA).**

The informal sector consisting of Gbaka, meter taxis, woro-woro, and inter-communal taxis accounts for 85 percent of public transport trips (alone the woro-woro and the gbaka account for the 77% of Abidjan's daily trips). It is thus an essential component of public transport in Abidjan. At the same time, the artisanal sector suffers from lack of coordination and regulation, wild competition and poor state of vehicles that pose safety, reliability, and pollution problems. The average age of the woro-woro and the gbakas is 22 and 17 years respectively, and due to lack of proper maintenance, the condition of the vehicles is often very poor.

The proposed project aims to integrate these service providers into an upgraded overall urban transport system and ensure that they efficiently complement larger-scale mass transit services (Metro, BRT, SOTRA), especially in the provision of the "last-mile services" in areas.

This component will hence aim at (i) organizing and professionalizing these operators, complementing and expanding actions that have already been initiated by the Government and/or the World Bank, to support the training of drivers and actions from the Ministry of Transport to improve state control over driving schools and strengthen capacity among drivers; and (ii) upgrading and renewing vehicle fleet based on existing mechanisms.

More specifically, the proposed component will finance:

- i. Activities for the organization of artisanal transport operators: assistance with the identification of the operators, their training and education (including support to an Alphabetization program), setting up a consultation and coordination platform, social security system, etc.;
- ii. Goods, works and consultancy services for taxis and Gbaka stations, loading / unloading areas and needed infrastructures to improve the efficiency of these services;
- iii. Incentive measures such as supporting the renewal of the urban transport fleet based on/ scaling up a leasing mechanism similar to the one set up under the PAMOSSET project that is funding the development of a self-sustained truck renewal scheme (including the development of scrapping facilities, scaping premium, leasing from commercial banks supported by an IFC Risk Sharing Facility and potential IDA first loss guarantee).

**Component D. Human capital development and operational support (Estimated cost: USD10M financed by IDA).**

An essential element for the modernization of public transport is the availability of skilled workers to manage and operate the new system. The government's urban mobility program could be an opportunity to create a substantial number of



new jobs. There were over 13 million public transport employees worldwide (7.3 million working directly for public transport operators; 300,000 as managers and 5 million working in the public-sector supply chain) that number is expected to double by 2025, and most will occur in regions -- such as sub-Saharan Africa – that have fast urban growth<sup>15</sup>. Whereas new technologies have the potential to increase the efficiency, safety and flexibility of public transport, the impact will be muted because jobseekers may not possess needed skills.

**The labor market for a modern public transport sector:**

New and newly defined occupations	Skills
Signal and Communications	Data analytics
Bus fleet engineering	Predictive maintenance
Bus Service Route Operations	Bus asset management
Bus Depot Management	Cyber security
Bus Interchange Management	Bus Operations Security
Bus Operations Control Management	Fleet Management
Automatic Fare Collection	Traffic Control systems

*Adapted from “Skills Frame Work for Public Transport”, Singapore Government*

Similar skills and competencies will be needed in the informal public transport system as well, even if not at the same level of qualification. The professionalization of the Gbaka and Woro-woro systems will not only require better trained drivers, but also new skills in fleet management, maintenance, fee collection, etc. There is every reason to believe that the informal urban transport system will also create new jobs.

Skills and qualifications frameworks have been established for urban transport workers in many countries, spanning both sophisticated and more modest operators, but such instruments do not yet exist in Côte d’Ivoire. In any case, from experience in many countries, opportunities for productive employment in urban transport requires a minimal level of basic education. Although the average education level of urban youth is much higher than found amongst elders and amongst rural populations, it remains low compared to countries with similar levels of economic development – mostly due to the impact of the crisis on the education system. However, this does not preclude training programs from being adapted to both the education levels of jobseekers and the skills needed in the sector.

Women tend to be under-represented in the transport sector worldwide and Côte d’Ivoire is no exception. Very few women (less than 20) are woro-woro, taxi or Gbaka drivers in Abidjan and the women represent only 8% percent of the SOTRA workforce (total of about 4000 employees) and are mostly employed in clerical jobs (only 10 women are drivers or in the bus maintenance). The project will put a strong focus on gender inclusion and participation. It is also proposed that the project will favor women in accessing the qualified jobs created by BRT operations, in line with a long-term target of equal opportunities in the public transport sector.

The proposed component will aim to develop a vocational training system that meets existing and potential skills requirements of the formal and informal urban transport sector.

The proposed component will finance:

- (i) Production and availability of evidence and data on skill profiles, requirements and gaps of the burgeoning urban transport sector; developing an urban transport sector skills and qualification framework)

<sup>15</sup> From 2001 to 2012, employment in the transport sector grew by 12.7% in South Africa, whereas total employment increased by 6.9%





- (ii) Developing technical and vocational education programs that provide new skill sets for jobseekers and current workers of the modern urban transport/BRT (see list of skill sets above).
- (iii) Developing vocational education programs associated to the plans to modernize the informal sector (also refer to skill set above; link to caravan program).
- (iv) Project operational costs and capacity building in project preparation and implementation

## 2. Overall Risk and Explanation

The project's overall risk rating is considered High.

Substantial macroeconomic risk since Cote d'Ivoire's macroeconomic performance remains vulnerable to external shocks, such as fluctuations in the price of key export commodities, and domestic uncertainty notably on the political front.

**Substantial technical design of the project and with the institutional capacity** of the implementing agencies as the proposed project would be the first BRT system in Côte d'Ivoire. Moreover, given that this would be the first BRT project in Abidjan based on a PPP structure, the lack of clear institutional arrangements defining the roles of transport operators in this new model may present challenges. There are also some fiscal risks associated to PPPs.

**High environmental and social risk.** The new BRT line is within the existing right of way of roads already financed by the PTUA project (AfDB). The safeguards documents (RAP and ESIA) were prepared and approved by the AfDB and will be revised by the World Bank team before they are published again. The legacy risk will be assessed, and mitigation proposed including audits of the RAP implementation. However, based on the complexity of the project and the number of affected people by the PTUA (26 082 people), possible delays may be expected at the implementation of the RAP. **The high social risk rating** is also justified by the counterpart funds to pay for resettlements based on past difficulties in mobilizing counterpart funds in Cote d'Ivoire.

The Gender Based Violence (GBV) risk was assessed **low** (9.7) using the Bank GBV Risk Assessment Tool. This low risk is a result of the country low prevalence of all forms of violence against women (low in comparison of the regional average) and the project situation in urban environment.

High stakeholders risk as the project will affect some vested interests: the SOTRA and informal sector could resist and see the BRT as competition.

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## SAFEGUARDS

### A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project will be implemented in Abidjan District that hosts some sensitive ecosystems. There are Ebrié lagoon and





forested areas that play a role of green lungs for the inhabitants .However, the expected civil works will take place on existing roads.

**B. Borrower’s Institutional Capacity for Safeguard Policies**

In Cote d’Ivoire, the Ministry of Environment, and Sustainable Development (MINEDD) is responsible for setting policy guidelines on environmental issues and ensuring compliance with national environmental standards. It has different departments among which the National Agency of Environment (ANDE, Agence Nationale de l’Environnement) in charge of safeguards compliance of all projects in the country. The unit is qualified to review and approve environmental impact assessments and to ensure the monitoring of required mitigation measures. However, it faces some challenges in terms of the number of qualified staff, a lack of vehicles for field visits, a shortage of funds to finance the oversight of the implementation of the Environmental and Social Management Plans(ESMP). To reverse that situation, the Bank is currently providing capacity building in terms of trainings and logistic supports to the ANDE.

In addition to that, the recipient has several years of experience in applying and implementing World Bank funded projects. That means, it is well familiar with bank’s environmental and social safeguard policies requirements.

Lastly, the project will have its dedicated environmental safeguard specialist and social safeguard specialist. That means building efforts to support project implementation will be done by implementing recommendations to be determine in the safeguards instruments to be prepare for the project. It will also receive guidance from the Bank’s environmental and social specialists during implementation support missions as well as through specific training sessions.

**C. Environmental and Social Safeguards Specialists on the Team**

Abdoul Wahabi Seini, Social Specialist

Abdoulaye Gadiere, Environmental Specialist

**D. Policies that might apply**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	This new operation will support the construction of 20 km long priority BRT corridor, made up of two sections namely the section Adjamé - Yopougon with the new 4th bridge; and the section Adjamé - Cocody by boulevard François-Mitterrand. Two Environmental and Social Impact Assessment (ESIA) will be prepared, meaning One for each section. The ESIA of the new 4th brigde being available (financed by the AfDB), the bank’s specialist will review it to make sure it is consistent with safeguards policies triggered by the project. For the rest of the activities, since their locations are not determined with certainty to date, an Environmental and Social Management Framework(ESMF) will be developed. Once prepared, the ESMF and the two ESIA will be reviewed by the bank’s safeguards specialists, consulted upon and disclosed in Cote d’Ivoire, more specifically within the



		District of Abidjan and at the World bank’s website at least 120 days prior to the board date.
Performance Standards for Private Sector Activities OP/BP 4.03	No	The policy is not triggered under this operation
Natural Habitats OP/BP 4.04	No	The project activities will not be implemented in areas hosting natural habitats. All the activities will take place on existing road-sections even the expressway.
Forests OP/BP 4.36	No	The project does not involve or affect forests.
Pest Management OP 4.09	No	The project does not involve pest management
Physical Cultural Resources OP/BP 4.11	Yes	The construction of infrastructures such as interchanges and park and ride facilities, walking infrastructure and crosswalks, corridor traffic management system as well as other urban infrastructures will induce excavations with potential discoveries of physical cultural resources. That is why the policy on physical cultural resources is triggered. As due diligence regarding heritage properties, the ESMF and ESIA’s will include a chapter outlining how to handle any chance finds or cultural assets within the project area during excavation works.
Indigenous Peoples OP/BP 4.10	No	The Project location does not cover Indigenous Peoples as defined by the World bank.
Involuntary Resettlement OP/BP 4.12	Yes	The new BRT line is aligned to a great extent with the AfDB’s PTU-A, since it will use the new 4th bridge and its accesses in order to connect Yopougon with the rest of the city as well as a presentation of Most infrastructure and facilities to be constructed under this project are located within the existing right of way of roads already financed by AfDB. However, based on the relative complexity of this project which will build on the AfDB already financed corridor, for which with all the potential affected people, at this stage, there no clear evidence on how the Resettlement was handled with the AfDB financed activities, the OP 4.12 Involuntary Resettlement will be triggered. In addition, the construction of the 4th Abidjan Bridge ( key investment that will facilitated the BRT system to run between the Plateau and Yopougon districts!) is estimated to affect 11 508 households, including 26 082 people that dwell in the area. The potential estimated populations which will be affected by the bridge’s construction is described as bellow. □ 6,682 residential households, including 4869 tenants. □ 760 activity households managing identified in the three municipalities as follows: • Yopougon commune: 437



households; • Attécoubé: 222 households; • Adjamé: 1101 households. Potentially affected buildings: In total, 6,967 buildings are potentially affected by the project and identified as follows: 1. 4119 built in the municipality of Yopougon; 2. 947 built in the Commune of Adjamé 3. 1901 built in the municipality of Attécoubé; Therefore, as recommended actions, the existing RAP will be reviewed by the bank's social safeguard specialist with the aim of verifying if its quality is in line with Bank standards. Additionally, when the RAP of the expressway at the Plateau will be ready that RAP will also be review by the bank's specialist to ensure that all the bank's requirements regarding resettlement are met. Particularly the components C and D, may have social implications (for ex. organization of operators; social security system; incentive measures; provisions for vulnerable groups; establishment of qualification frameworks), that may overall result in job creation, but will necessarily also adversely impact some people (for ex. those who cannot meet qualifications requirements, or afford to take part in opportunities). To take into account such impacts, a social assessment will be done to help inform further design and implementation of these components. Lastly, a Resettlement Policy Framework(RPF) will also be developed as due-diligence for the other activities whose locations are not determined yet. Once prepared, the RPF will be reviewed by the bank's safeguards specialist, consulted upon and disclosed in Cote d'Ivoire, and at the World bank's website at least 120 days prior to the board date.

Safety of Dams OP/BP 4.37	No	The project will neither finance dams, nor rely on dams.
Projects on International Waterways OP/BP 7.50	No	The project is not expected to affect international waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project will not be located in a disputed area.

**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Mar 01, 2019



Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The following safeguard instruments are expected to be prepared during the preparation phase: i) an Environmental and Social Management Framework (ESMF), (ii) Two Environmental and Social Impact Assessments (ESIA) and, (iii) a Resettlement Policy Framework (RPF). All these safeguard documents will be reviewed, consulted upon and disclosed by the Government of the Republic of Cote d'Ivoire, and at the World Bank's Website prior to the Decision Meeting. In the meantime, Bank's safeguards specialists will review the existing ESIA and RAP to evaluate its compliance with Bank's policies. If need be, complementary studies will be recommended by the Bank prior to the commencement of civil works.

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**APPROVAL**

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