

**PROJECT INFORMATION DOCUMENT (PID)  
CONCEPT STAGE**

Report No.: PIDC189

<b>Project Name</b>	KENYA: NATIONAL URBAN TRANSPORT IMPROVEMENT PROJECT (P126321)
<b>Region</b>	AFRICA
<b>Country</b>	Kenya
<b>Sector(s)</b>	Rural and Inter-Urban Roads and Highways (60%), Railways (30%), General transportation sector (10%)
<b>Lending Instrument</b>	Specific Investment Loan
<b>Project ID</b>	P126321
<b>Borrower(s)</b>	Ministry of Transport
<b>Implementing Agency</b>	Ministry of Transport, Ministry of Transport, Ministry of Transport, Kenya Railways Corporation, Ministry of Roads
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared</b>	12-Jan-2012
<b>Estimated Date of Appraisal Completion</b>	21-Feb-2012
<b>Estimated Date of Board Approval</b>	24-May-2012
<b>Concept Review Decision</b>	
<b>Other Decision</b>	The project will be processed under Track 2 and will require ROC approval and a full board presentation.

**I. Introduction and Context**

**Country Context**

1. Kenya has recorded a comparatively higher economic growth after two decades of low growth. In 2010, the Kenyan economy grew by 5.7 percent arising mainly from a recovery in agriculture and industrial output and a relatively balanced growth across all the sectors. Growth prospects have improved. Inflation declined to below five percent in 2010 and investor confidence grew rapidly contributing to the doubling of the level of activity at the Nairobi Stock Exchange. However, recent rise in inflation and the impact of the drought may slow this growth in the near term.

2. The total population of Kenya has increased rapidly over the last 30 years and is continuing to urbanize. The population was 15 million in 1979 and increased to 38 million in 2009, with an average annual growth rate of 2.5 percent in the recent past. The population is now 32 percent urban up from 15 percent in 1979, and it is projected to reach 19.1 million or 37 percent in 2020 and 29.8 million or 47 percent in 2030. Similarly, the population of the city of Nairobi was 828,000 in 1979 and now stands at over 3 million or 25 percent of the urban population and is projected to reach 5.2 million in 2020. The high population growth experienced in urban centers is due to several economic and social factors. The number of urban dwellers increased in search of employment and schooling opportunities as market forces attracted labor to the urban areas from rural areas where the returns to labor are considered relatively lower. The higher standard of living and better access to basic public services in urban areas compared to rural areas works as a catalyst for urban migration. This places a tremendous strain on urban services, including transport, ultimately affecting both economic productivity and citizens' quality of life. In parallel, the transport sector is rife with externalities such as traffic accidents, noise and pollution associated with fuel emissions.

3. Significant growth in Gross Domestic Product (GDP) is attributed to economic activities in Kenya's urban areas. About 75 percent of GDP can be attributed to the economic activities in the urban areas, mainly the growth of manufacturing and service sectors. Poverty in urban areas has, on the other hand, increased with mushrooming of informal settlements in major towns. Hence, establishing a medium- to long-term vision on the role of urban areas in supporting Kenya's effort to develop to a middle income country will inevitably become a policy priority. Much of the Government of Kenya's efforts for economic development is focused on "growth poles" such as Nairobi, Kisumu, Mombasa, Eldoret and Nakuru - the largest urban centers with the highest industrial activity. They are all located along the Northern Corridor, Kenya's most important transport route, and a crucial artery for its land-locked neighbors. Most of the Northern Corridor road has either been recently improved or improvement is underway. This corridor forms part of the main arteries in major towns. The main challenge is that the sections of this corridor adjoining major towns and often passing through them are heavily congested and require capacity expansion.

4. Vision 2030, the long term development strategy, aims at transforming Kenya into a middle income country. Under its economic pillar, GDP is expected to grow at 10 percent and also calls for the removal of bottlenecks for growth through reforms necessary to unlocking existing potential and productivity, promotion of competitiveness, and improved access to infrastructure services, necessary to transform Kenya from a low to a middle-income country by 2030. The urban areas, as the engines of economic growth, will therefore play a critical role in the realization of this vision.

5. The public sector owns, maintains and manages Kenya's transport infrastructure and provides some transport services (the port

and some railways), while the private sector provides most of the transport services (road passenger and freight transport, urban transport, air transport services, and some bulk cargo port services). Private sector participation has risen over time, due to the public sector's decision to withdraw from active participation in some areas or due to its failure to perform.

### Sectoral and Institutional Context

6. The transport sector has undergone a major transformation over the recent past including clarification of the institutional and ownership arrangements and development of policy for road sub sector and overall transport sector. However, there has been inadequate attention paid to urban transport issues including investments in urban transport infrastructure and services. The government's Road Sector Investment Plan (RSIP) 2010 – 2024 recognizes this and significant resources have been allocated toward improvement of urban infrastructure. The Government places high priority on infrastructure that is needed to support the envisaged economic growth. For instance, transport sector budgetary allocation as a share of total Government expenditure increased from 9.5 percent in FY2004 to 14 percent in FY2010.

7. Under conditions of rapid growth, urban transport infrastructure and public transport in towns in Kenya has not been able to keep pace, and as a result public space is inefficiently utilized and highly congested especially in Nairobi. Motorization is increasing with about 1.2 million vehicles in 2009 compared to 591,000 in 2000 on Kenyan roads, of which over 40 percent are private cars, most of them used in urban areas. The growth rate of motor cars in Kenya is about 7 percent in the recent past, which is significantly higher than that of population. Public transport vehicles such as buses and mini buses registered a growth rate of about 5 percent. The country is undergoing a natural process of motorization and the majority of the population – particularly those belonging to the middle and lower income groups – use public transportation which is grossly underdeveloped to access jobs, education, and healthcare. There is need to have a transport system which is able to provide efficient, low-cost and safe mobility and accessibility for all inhabitants. Such a transport system is an effective mechanism to promote growth, alleviate poverty, and achieve social cohesion, while at the same time improving environmental conditions and prompting public space improvements.

8. Vehicle ownership rates, congestion, and emissions are expected to significantly increase through the next 20 years, with average travel speeds and accessibility continuing to decline. Without immediate investment in urban transport infrastructure and services, the average trip speed (all modes) and also the average roundtrip journey time to work will decline. Accordingly, the economic cost of a "do nothing" scenario is likely to run into billion of shillings per annum in terms of opportunity cost and lost productivity due to time wasted in traffic jams.

9. Despite its importance, there has not been any major improvement in transport infrastructure in Kenya's major towns for over two decades and the basic urban network is still the one designed in the 1970s. The railway network is skeletal and offers negligible public transport services. The urban road network is about 12,549 km or 8 percent of the total road network which supports 32 percent of the total population and the generation of 75 percent of GDP in the country. The result is massive congestion, soon expected to cause complete gridlock given the anticipated traffic growth. For instance, in Nairobi, the road network which was designed for less than one million inhabitants is now unable to handle three times more inhabitants per the current population. As a result, decongestion of the main artery (Northern Corridor) that passes through the middle of town and the development of new infrastructure surrounding the city is critically paramount.

10. Urban areas face institutional weaknesses, insufficient staff capacity, and an inadequate framework for transport policy and planning, lack of transport corridor management, and inadequate operations and maintenance budgets. Urban transport is regarded as a catalyst for higher productivity, greater access to economic opportunities, and social inclusion. Across urban transport modes, public transport plays a pivotal role in city efficiency and hence the provision of public transport infrastructure becomes critical. The road transport industry includes large companies and individual owner-operators; it is competitive and rates are determined by the market forces. The industry responds quickly to changes in demand, road conditions and regulations. Nevertheless, ineffective institutional structures and weak legal and regulatory framework has impacted negatively on the quality and reliability of services and on safety to the users. The proposed National Urban Transport Improvement Project (NUTIP) seeks to address some of these issues.

11. A draft integrated national transport sector policy has been approved by Cabinet and sent to Parliament for discussion and endorsement. The policy's support to urban transport includes, among others, (i) setting up of the National Transport and Safety Authority and support for the National Road Safety Program; (ii) setting up of Nairobi Metropolitan Transport Authority; and (iii) establishing the legal and regulatory framework for Railways, all of which the preparatory work is supported under the IDA financed Kenya Transport Sector Support Project (KTSSP).

12. A number of agencies are involved in the provision of urban transport. The Ministry of Local Government is responsible for overseeing the operations of all urban areas, including formulating the national policy on urban development. The Ministry of Transport is responsible for the formulation of the national transport policy. KeNHA is in charge of national roads while KURA is in charge of urban roads.

13. Several studies have been carried out particularly on Nairobi including the Study on Mass Rapid Transit System for Nairobi Metropolitan region (2011) financed by African Development Bank (AfDB) and a study on the Masterplan for Urban Transport in the Nairobi Metropolitan Area (2006) financed by Japan International Cooperation Agency (JICA). These studies, among others, have identified the following as the most critical challenges associated with sustaining urban transport sector growth, which apply to most urban areas in Kenya - urban transport, traffic management and environment issues.

14. The main findings from these studies are:

- **Worsening traffic congestion:** The studies have identified traffic congestion as the main issue facing urban transport in the major towns and cities. Priority interventions have been recommended which are required to address the high traffic congestion which is having serious economic consequences on reducing labor productivity, leading to losses in GDP, and contributing to an already deteriorating air pollution condition. The priority investments include improving existing road corridors; constructing critical complementary missing road links; and developing and expanding the commuter rail and Bus Rapid Transit systems.
- **Institutional segregation and inadequate financial resources:** Underlying the above problems are the serious institutional fragmentations, as well as duplication and inadequate financial arrangements leading to underinvestment in transport facilities. Several institutions are involved in urban transport matters including Ministry of Local Government; municipal or city councils; Ministry of Transport (MoT); Ministry of Roads (MoR); Ministry of Nairobi Metropolitan Development; Kenya Railways Corporation (KRC); Rift Valley Railways; KeNHA; and KURA.
- **Poor public transport system:** Urban areas currently rely on under developed, overcrowded and unreliable passenger transport services. In addition inter-modal linkages and connectivity are minimal, if any at all. The highly unregulated matatu (mini-buses) service is the backbone of the public mass transport system. Studies indicate that matatus carry about 33 percent of urban commuter traffic. In Nairobi Metropolitan, it is estimated that public buses carry about 350,000 - 400,000 passengers per day.
- **High accident rate:** The road transport related death rate is high. For instance, Nairobi recorded over 2,000 accidents annually over the last 4 years. Nearly 3,500 people die annually from road crashes on Kenyan roads.
- **Air and noise pollution:** Air pollution emanating from fuel emissions from vehicles in the major towns is serious. Noise levels are high and aggravated by a very large proportion of old minibuses, minibuses, taxi fleet and motorcycles. Mass transit systems could help address part of this challenge.

#### **Relationship to CAS**

15. The Country Partnership Strategy (CPS) for Kenya was approved in April 2010. It supports the Government's efforts to transform Kenya into a middle income country as envisioned in Vision 2030. The main production centers in urban areas will play a major role in supporting the realization of this vision for which efficient and effective urban transport system is mandatory.

## **II. Proposed Development Objective(s)**

### **Proposed Development Objective(s)**

The Project Development Objectives are to: (a) improve the efficiency of road transport along the Northern Corridor through Nairobi; (b) improve public transport in Nairobi; and (c) strengthen the institutional capacity in the urban transport sub sector. This will be achieved by supporting the expansion of road infrastructure, improving missing road links, improving major junctions and traffic management interventions (as provided for in the RSIP), thus reduce traffic congestion, reduce transport costs, travel time, air pollution and improve service delivery to citizens.

### **Key Results**

The key results are: (a) a reduction in travel time on selected road sections; (b) a reduction in vehicle operating costs; (c) enhanced institutional capacity in the urban transport sub sector; (d) a reduction in road crashes and fatalities in Nairobi; and (e) increase in the number of direct beneficiaries.

## **III. Preliminary Description**

### **Concept Description**

16. The Government offered a section of the Northern Corridor road adjoining Nairobi for tolling. The Bank financed the advisory services under the Northern Corridor Transport Improvement Project (NCTIP). The process began in 2003 and it was not until 2007 when the bids were invited, under the proposed Nairobi Urban Toll Road Project (NUTRP). This followed the outcome and recommendations of feasibility studies conducted by internationally recruited consultants. The scope of works consisted of improving 6 road sections including the Uhuru Highway (total of 77 km) and constructing a bypass (29 km) as an alternative to a tolled urban stretch of 25 km. The scope of works comprised the rehabilitation of the existing two-lane single carriageways, construction of an elevated four lane highway over the Uhuru Highway, and construction of a new two-lane bypass which would be upgraded to a four-lane dual carriageway. While three firms were pre-qualified, only one consortium submitted a bid. The sponsors had requested the World Bank Group, among others, for partial financing of the capital investment and provision of guarantees against political risks. However, the World Bank Group could not support the consortium after it emerged that there were significant weaknesses in the internal integrity compliance systems of the sponsors (more so relating to one of the sponsors) following the outcome of stringent due diligence carried out on them. As a result, the Government decided to terminate the process of concessioning.

17. Given the serious congestion in Nairobi and the need to address it urgently, the Government has requested the World Bank for assistance to finance some of these critical road infrastructure investments that were envisaged under the concession.

18. Meanwhile the circumstances have changed significantly given the long period (9 years) the whole process took before its ultimate termination. For instance, the traffic level has continued to increase; some sections of the roads under NUTRP have been constructed with alternative sources of finance including from China; new road corridors and missing links have either been constructed or are nearing completion with support of the European Union, JICA and China such as the Eastern and Northern Bypass; and new commercial and industrial development areas have come up which require new configurations of access.

19. Accordingly, it is prudent to re-assess the impact of all these changes including updating the economic analysis to establish whether there are better alternatives to constructing an elevated highway along the section of the Northern Corridor over the Uhuru Highway from the Nyayo Stadium roundabout to the Westlands roundabout (approximately 7 km) including expansion and rehabilitation of the existing road sections and construction of overpass (or underpass) at the critical roundabouts is still the most appropriate option along with investing in the balance of interventions identified earlier to address the congestion problem along the main road artery through Nairobi. This will be verified by undertaking a quick traffic study of Nairobi and its environs taking account of all the other investments currently on-going or planned on the Nairobi urban road network.

20. Commuter Rail Transport in Nairobi. Through various studies, the Government has identified a network of commuter rail system to improve public transport in Nairobi. Part of this network is being supported by InfraCo through concessioning to the private sector under a Public Private Partnership arrangement with the Kenya Railways Corporation. However, there are certain sections of the rail network that are critical to providing a comprehensive geographic coverage but are not viable without injection of public sector financing. The project will support the financing of such selected rail sections.

#### Proposed Project Components

21. The proposed project will support Kenya's economic development strategy, and to address the mounting pressures on the major urban centers, mainly Nairobi, road and related transport infrastructure. This will help to: (a) increase capacity of the urban road network and hence address the traffic congestion and reduce traffic accidents along the key road artery partly caused by heavy vehicles travelling to and from the port of Mombasa; (b) promote the development of Nairobi's economy focusing on satisfying the transportation demands going in and out of the city of Nairobi; (c) connect efficiently with the other urban traffic infrastructure systems under construction currently (Thika road to the north, Eastern and Southern bypasses); (d) provide a model pilot to improve the public transport services in urban areas, especially the Central Business District and the developed high density corridor; and (e) build the operational capacity and efficiency of urban transport agencies and for transportation and urbanization.

22. Accordingly, the preliminary components of the project are:

Component A: Upgrading Urban Road Transport infrastructure in Nairobi (Total US\$218.85 million of which IDA US\$195.76 million) – to be implemented by Kenya National Highways Authority (KeNHA)

This component will entail the carrying out of the following activities: (a) Expansion and improvement of the Northern Corridor road section through Nairobi, including the associated service roads and access roads to Jomo Kenyatta International Airport (JKIA); (b) Improvement of major junctions; (c) Construction and rehabilitation of sidewalks, pedestrian ways, pedestrian bridges and acquisition of control centers including traffic lights and traffic signaling; and (d) Feasibility and design studies, preparation, construction, supervision of works.

Component B: Support to the development of Pilot Mass Transit Corridors (Total US\$215.19 million of which IDA US\$192.06 million)

Sub component B1: Support to the development of Pilot Mass Transit Road Corridors in Nairobi (Total US\$102.9 million, of which IDA US\$91.80 million) - to be implemented by Kenya Urban Roads Authority (KURA). This component will entail the following activities: (a) Improvement, reconstruction and rehabilitation of selected complementary missing road links; (b) Development of

detailed engineering designs and supervision of identified road corridors to facilitate the distribution of traffic; (c) Provision of financing for the development of pilot Integrated Mass Transit road Corridors (Bus Rapid Transit) in Nairobi, including (i) feasibility and design studies, construction, supervision, maintenance and rehabilitation of selected road corridors and feeder roads; (ii) provision of terminals, yards, transfer and access stations, and mixed traffic lanes and Non-motorized facilities; (iii) support to reforms to the provision of public transit and demand management; (d) Advisory services related to selection of private sector operators and associated services; (e) Improvement of traffic management system; and (f) Capacity building, technical assistance and training of staff.

Sub component B2: Support to the Implementation of Commuter Rail System in Nairobi (Total US\$112.29 of which IDA US\$100.26 million) – to be implemented by Kenya Railways Corporation (KRC). This component will entail the following activities: (a) Construction of selected commuter rail line routes; (b) Feasibility, design studies and supervision of construction; and (c) Capacity building and training of staff.

Component C: Institutional Strengthening and Capacity Building in the Urban Transport sub sector (Total US\$8 million of which IDA US\$7.20 million) – to be implemented by Ministry of Transport. This will involve: (a) Setting up, including strengthening, the capacity of the proposed National Transport and Safety Authority and support for the National Road Safety Program; (b) Setting up, including strengthening, the capacity of the proposed Nairobi Metropolitan Transport Authority; (c) Urban transport sub sector studies and feasibility studies; and (d) Capacity building, technical assistance and training of staff.

#### IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	X		
Natural Habitats OP/BP 4.04		X	
Forests OP/BP 4.36		X	
Pest Management OP 4.09		X	
Physical Cultural Resources OP/BP 4.11	X		
Indigenous Peoples OP/BP 4.10		X	
Involuntary Resettlement OP/BP 4.12	X		
Safety of Dams OP/BP 4.37		X	
Projects on International Waterways OP/BP 7.50		X	
Projects in Disputed Areas OP/BP 7.60		X	

#### V. Tentative financing

Financing Source	Amount
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	377.00
Total	377.00

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