

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

Report No.: PIDA34471

<b>Project Name</b>	Ethiopia: Transport Systems Improvement Project (TRANSIP) (P151819)
<b>Region</b>	AFRICA
<b>Country</b>	Ethiopia
<b>Sector(s)</b>	Urban Transport (60%), Wastewater Collection and Transportation (10%), Public administration- Transportation (30%)
<b>Theme(s)</b>	City-wide Infrastructure and Service Delivery (50%), Urban planning and housing policy (35%), Urban Economic Development (15%)
<b>Lending Instrument</b>	Investment Project Financing
<b>Project ID</b>	P151819
<b>Borrower(s)</b>	Ministry of Finance and Economic Development (MOFED)
<b>Implementing Agency</b>	Addis Ababa Road and Transport Bureau
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared/Updated</b>	09-Mar-2016
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<b>Estimated Date of Appraisal Completion</b>	04-Mar-2016
<b>Estimated Date of Board Approval</b>	26-May-2016
<b>Appraisal Review Decision (from Decision Note)</b>	

**I. Project Context**

**Country Context**

1. Ethiopia has experienced strong economic growth over the past decade. Economic growth averaged 10.7 percent per year in 2003/04 to 2011/12, compared to the regional average of 5.0 percent. Growth reflected a mix of factors, including agricultural modernization, the development of new export sectors, strong global commodity demand, and government-led development investments. Private consumption and public investment have driven demand-side growth, with the latter assuming an increasingly important role in recent years. On the supply side, growth was driven by an expansion of the services and agricultural sectors, while the role of the industrial sector was relatively modest.

2. Recently, annual growth rates have declined slightly, but still remain at high single-digit levels. Growth in the export of goods has also moderated in recent years and a decline was observed in 2012/13 for the first time since 2008/09. There have been bouts of high inflation in recent years

and, while inflation is currently much lower, keeping it down remains a major objective of monetary policy. In addition, Ethiopia's economy is vulnerable to terms of trade shocks from international food and fuel prices, and to large domestic weather-related shocks as demonstrated by the 2011/12 East Africa drought.

3. The Government of Ethiopia (GoE) has just completed implementing the first Growth and Transformation Plan (GTP-I) covering the period 2010/11-2014/15. The second Growth and Transformation Plan (GTP-II), will run from 2015 to 2020 and targets infrastructural development including transport and urban housing, power projects as well as poverty reduction. The goal of GTP-II is for Ethiopia to achieve middle income status by 2025.

4. Urbanization in Ethiopia is taking place rapidly, and is expected to increase in the foreseeable future. For instance, the urban share of the national population has more than doubled in 35 years, from 8.5 percent of the national population in 1967 to 17.4 percent in 2012. The urban share of the population may double again, to 38 percent, by 2050. At the same time, Ethiopia is one of the fastest growing economies in Sub-Saharan Africa with most of its economic output attributed to productive activities in urban areas. Thus, the 17 percent of the country's population that lives in urban areas produces over 58 percent of Ethiopia's Gross Domestic Product (GDP), with the main contribution credited to Addis Ababa.

5. In terms of overall urban development, although the Ethiopian government is making attempts at planning and catering for rapid urban growth, urbanization still takes place largely in an unplanned/informal way. The master plan for Addis Ababa and surrounding Oromia region is currently being revised to improve the linkages between land use and transportation patterns. In addition, Local Development Plans also guide urban planning and development. However, a large gap exists between the plans and actual developments, with the main challenges being: (i) a general inadequate capacity in most urban planning and development agencies from planning to implementation and enforcement; (ii) gaps in related regulations, planning standards and execution; and (iii) lack of coordination between agencies within the same sector and across sectors (e.g. with transport and other infrastructure agencies). The resulting disorganized urban growth pattern prevents the Ethiopian economy from maximizing the opportunities provided by urbanization, infrastructure investment and growing cities.

### **Sectoral and institutional Context**

#### **Urban Transport Systems in the City of Addis Ababa**

6. Addis Ababa is the principal commercial center of Ethiopia and is experiencing rapid urban growth. The population of Addis Ababa more than doubled every decade since the 1980s. According to the 2007 National Census, the city of Addis Ababa had a population of 2.7 million and the population is expected to grow about 7 million by year 2020, at which time, the city is projected to handle an urban travel demand of over 7 million trips per day. Even though it currently manifests low motorization rates by global standards, with a total vehicle fleet estimated at 500,000 in 2015, the rapid economic growth currently being experienced is expected to lead to a strong increase in vehicle ownership. Pedestrians remain the most poorly-served of travelers, with more than 65 percent of the road network lacking pedestrian walkways. There is a general emphasis on planning for cars rather than people. Streets are not planned or designed for pedestrians or cyclists, while accessibility for the disabled is difficult or impossible. The urban transport network of Addis

Ababa is therefore poised to experience significant new stresses.

7. While the city has a fairly expansive road transport infrastructure, it experiences frequent congestion, raising questions of how traffic is managed. In addition to congestion and delays, the city is facing problems of road traffic accidents and air pollution. The growing usage of motorized private vehicles coupled with the increasing congestion levels, also leads to increased fuel consumption and traffic costs. These growing externalities make the transport system economically unsustainable and expensive to society.

8. Studies indicate that the main challenges the transport system in Addis Ababa face are, among others (with details in Annexes 2 and 6):

- (a) very limited traffic management, exemplified by the severely inadequate number of traffic control signals, and the lack of a central traffic control system;
- (b) pedestrian safety concerns and high accident rates;
- (c) ineffective planning, management and oversight of the city's public transport network (notwithstanding some important recent initiatives to develop a mass transport network); and
- (d) inadequate institutional capacity underlying the above concerns and lack of coordination among different agencies shaping the city's transport system and the land use patterns.

9. Public transport modes and services are not integrated in terms of network coverage/routes, fares, schedules and facilities. In addition, the two bus transport modes, Anbessa bus and the independently operated mini-bus-taxis are somewhat weak in planning and coordination, organization, operation, productivity and quality. There is a need for a public transport development strategy to rationalize the existing systems of operation and meet the growing demand for public transport in the city. Pedestrians are poorly-served with more than 65 percent of the road network lacking pedestrian walkways, and design of streets give a general emphasis on planning for cars rather than people, yet study in 2011 estimated that most residents in Addis Ababa walk to their places contributing to about 54 percent of all trips compared to 15 percent by private cars. Incidentally, private cars contribute 60 percent of vehicle traffic, while uncontrolled street-side parking of vehicles limits road capacity.

10. Mass transport systems are being developed: two LRT lines totaling 32 km, with 32 stations, 10 of which being hub stations, have been constructed and one bus rapid transit (BRT) line of around 12 km is in the planning stage with a further six possible lines identified. Meanwhile, the oversight responsibility for the LRT operations and maintenance is currently under the jurisdiction of the Federal government through the Ethiopia Railway Corporation, though this arrangements creates substantial challenges in terms of coordination of services, fares, and subsidies, and may require further discussion. BRT services will be developed and overseen by the Addis Ababa City Government.

11. Given the limitations of the current transport network and systems, substantial improvement in management systems, physical infrastructure and capacity will be required to accommodate projected growth in public and private motorized transport demand associated with rising incomes.

Federal Transport Systems

12. Available information in a study on developing an Integrated Transport and Traffic management Information Systems (2014) for the Federal Government on establishing Driving License, Penalty Management and Vehicle Registration systems in Ethiopia indicates that about 64 people die per 10,000 vehicles annually on Ethiopian roads, which is comparatively high by international standards. Furthermore, about 85 percent of fatal accidents are attributed to driver error, six (6) percent due to vehicle defects, five (5) percent due to pedestrian error, two (2) percent as a result of poor road conditions and the remainder attributed various other reasons. There are a large number of fakedriving licenses due to inadequate and inappropriate control mechanisms, and the lack of an effective information sharing platform for transparent law enforcement, raising integrity concerns. In addition, the absence of an effective coordination mechanism between the regulatory institution, the road users, vehicle owners, driving school and police is conducive to fraudulent practices and offenders as well as vehicles breaking the law go unabated repeatedly.

13. One of the main real world consequences arising from the prevailing environment illustrated above in Addis Ababa which manifests inadequate means of transparent law enforcement and an effective data exchange platform, is the large number of accidents that results in loss of life and property. Meanwhile, experience elsewhere has shown that the presence of an organized and well managed information platform offers the necessary mechanism to monitor and address such issues.

14. Currently there are significant deficiencies in the driver licensing and vehicle registration systems, limiting the effectiveness of enhanced transport systems management. The high accident rates witnessed in the country also raises concerns on the quality of training and testing systems. Some of the challenges include (with details in Annexes 2 and 6):

- (a) lack of adequate driver registry, record management and information exchange platform leading to lack of appropriate control mechanism to ensure quality driving training; and also an effective information system for transparent law enforcement thereby creating an environment for fraud and corruption;
- (b) inappropriate vehicle registry and record management and information exchange platform resulting in inability to share information with the regulatory body and other relevant institutions such as the traffic police - hence weakening enforcement and contributing to cases where vehicles are registered using false credentials;
- (c) weak means of enforcing traffic laws/rules in the absence of effective information sharing system for monitoring driver behavior; and
- (d) sub-standard quality of service accessibility and efficiency of public freight transport resulting from poor management and lack of good governance; and due to large information and communication gap which has opened windows for illegal trade.

15. Thus, currently there are significant deficiencies in the driver licensing and vehicle registration systems, limiting the effectiveness of enhanced transport systems management. To enable the implementation of an advanced and integrated public transport system, the project will also support the modernization of the federal transport system, in particular the entry of drivers and vehicles into the system and registration of the same, so that there is an improved and transparent mechanism to monitor the issuance of licenses and registrations.

16. Hence, the proposed project will assist in addressing some of the challenges discussed and will consist of two parts, namely activities to enhance systems and performance of:

(a) the City of Addis Ababa to improve urban transport systems and service delivery by among others (i) enhancing the institutional capacity for effective traffic management through building capacity of the recently established Traffic Management Agency (TMA); (ii) providing pedestrian facilities such as walkways, and street light to improve on safety and reduce the high accident rates; (iii) installing traffic control at major intersections, and improving poor geometry and channelization of traffic; (iv) installing traffic signs and improving pavement markings, and signaling selected junctions; (v) installing systematic traffic signaling, central traffic control and operations centers; (vi) developing a systematic, strategic approach to parking, leading to improve the management of on-street and off-street parking facilities; (vii) supporting the integration of provision of public transport services (fares, services and facilities); (viii) enhancing the capacity of Anbessa city public bus company and the newly established Public and Freight Transport Authority (PFTA) to better manage and control public transport including vehicles operating on the road network, and to better manage mini-bus and taxi stands, and ensure better discipline in loading and unloading public transport passengers; and (ix) assisting in streamlining the complex coordination in time and space the land-development process with the mass transport development process; and

(b) the Federal Transport Authority (FTA) to: (i) modernize drivers' licensing, vehicle registration and inspection and penalty management systems for all motor vehicle types through the establishment of a modern database system with guaranteed accessibility, integrity and security of the data as well as a robust Information Technology (IT) infrastructure that would provide various web applications and services for driver's license registry and management, vehicle registration and inspection, and penalty management for traffic rules offenders at Federal, regional and zonal levels; (ii) improve on the quality of driver training and testing throughout the country; and (iii) Federal Ministry of Transport in development of a long-term program to improve skills for urban transport management through engaging with local universities in developing the corresponding curriculum, and supporting students in these programs on a pilot basis; developing an urban transport policy and investment plan; and support in the implementation of institutional and policy reform in the provision of public transport.

17. However, the availability and performance of these planned systems including traffic signaling systems in Addis Ababa and databases for FTA are highly dependent on the quality of services provided by Ethio Telecom, and WoredaNet and also state of Information and Communications Technology (ICT) system in the country. Currently, the WoredaNet uses VSATs (Satellite connectivity) in the Woredas. The terrestrial link supports 1 (Megabits per second) Mbps upstream data rate, while the VSAT link supports 512 Kilobite per second (Kbps) in order to carry outgoing video, voice and application data simultaneously. The Downstream traffic for VSAT supports a total of 32 Mbps that is shared by all the VSATs connections. A robust connectivity and bandwidth between National Data Center (NDC) and the Regional Data Center (RDC)s is crucial for the proposed FTA databases to work in a Hub-spoke configuration connecting 74 zonal offices. For this, a fully operational Wide Area Network (WAN) implemented by WoredaNet (the Federal Government Network) is a pre-requisite. The non-availability of sufficient bandwidth would be a potential risk factor.

## II. Proposed Development Objectives

The proposed Project Development Objective (PDO) is to improve mobility and safety along

selected corridors in Addis Ababa and effectiveness and efficiency of vehicle and drivers' license system throughout Ethiopia.

### III. Project Description

#### Component Name

Component A: Improve the Traffic Signal and Safety Management in the City of Addis Ababa

#### Comments (optional)

Sub-component 1: Improve the Traffic Signal System, Road and Pedestrian Safety, Parking Management, Traffic Enforcement and Institutional Strengthening of the New Traffic Management Agency (TMA) and Addis Ababa Traffic Police. This component will involve support to TMA and Addis Ababa Traffic Police to improvement management of traffic and road safety (cost estimates US\$82.50 million of which US\$62.50 million toward TMA and US\$20.0 million for Addis Ababa Traffic Police) and will involve:

(a) Preparing an Intelligent Transport System (ITS) for the city of Addis Ababa, expansion of the existing traffic signal system, central control of this system including a Traffic Operations Center, red light enforcement and associated penalty management system, and associated civil works improvements

#### Component Name

Component B: Improve Integrated Urban Planning and Transport and Institutional Strengthening

#### Comments (optional)

(a) Carrying out studies on Transit-Oriented Developments (TOD) and preparing detailed plans for selected strategic TOD(s) as well as formulating the operation and management strategies and implementation plan for these TOD(s);

(b) Provision of advisory and technical assistance in enhancing the capacity in Metro area master planning including preparing selected Local Development Plans for strategic TOD areas consistent with the new Structural Plan; and

(c) Building the capacity of AALDMB in carrying out its functions including enhancing actual implementation and enforcement through provision advisory services, goods and training.

#### Component Name

Component C: Develop an Integrated Driver Licensing and Vehicle Registration Systems and Institutional Strengthening of FTA

#### Comments (optional)

(a) Setting up a system for re-registration of current drivers with ten fingerprints and replacement of existing driver's licenses with modern security enhanced driver's license documents;

(b) Setting up a system for re-registration of vehicles with vehicle chassis numbers and replacement of the existing vehicle registry documents by secure unified vehicle registration documents;

(c) Improving the quality driver training and testing;

(d) Design and installation of a driving school management solution;

(e) Development and installation of vehicle inspection management solution;

(f) Development and installation of driver's penalty management system;

### IV. Financing (in USD Million)

Total Project Cost:	300.00	Total Bank Financing:	300.00
Financing Gap:	0.00		

<b>For Loans/Credits/Others</b>	<b>Amount</b>
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	300.00
Total	300.00

## V. Implementation

### A. Institutional and Implementation Arrangements

18. Project execution will be carried out by two implementing agencies (Annex 3, figure 3.1 for a schematic illustration), namely, AARTB and FTA. There will be several beneficiary entities including AACRA, TMA, Anbessa City Bus, Addis Ababa Traffic Police, MoT, and AALMB. Both implementing agencies have no working experience on Bank-funded operations. The MoT will be responsible for overall project coordination and each implementing agency will be responsible for the implementation of its respective components or subcomponents of the project.

19. The project will be implemented as follows:

- (a) Component A-B: AARTB; and
- (b) Component C: FTA

20. Project Implementation Units (PIUs). There will be two PIUs. First, the Addis Ababa city administration has established a PIU under the Transport Program Management Office (TPMO) and appointed a Project Implementation Teams (PIT) for the preparation and implementation of the city activities under the project. The PIU will be headed by a Team Leader who reports directly to the General Manager, TPMO. Similarly, FTA has established a PIU and appointed a PIT and a Team Leader who reports directly to the Director General. The PIUs are empowered to manage the day-to-day activities of its components of the project. The PIUs will comprise regular staff supported by specialists recruited in the market in adequate members with the appropriate skills, experience and qualifications. . The members of all PITs from the permanent staff have already been appointed, while consultants will be engaged to enhance the project management capacity. The World Bank will be consulted prior to any changes in PIU membership. PIU duties and responsibilities are elaborated in Project Implementation Manual (PIM).

21. These implementation arrangements take into account the experience learnt from other World Bank financed projects in Ethiopia. Adequate capacity building and training including on World Bank financed projects, as well as management and operating transport related information systems and databases will be provided to AARTB; AACRA; TMA; and FTA complemented with technical assistance from internationally-recruited consultants and training.

### B. Results Monitoring and Evaluation

22. Monitoring of project performance will be carried out by a consultant (an accredited university consulting unit) and some of the risks identified in the Systematic Operations Risk Rating (SORT) Framework have been assessed and will be taken into account. This will be complemented with the results framework and monitoring arrangements provided in Annex 1. Results will be monitored by a team of experts from one of the accredited universities in Ethiopia. The selected

university will sign a contract with MoT and will work in close collaboration with implementing agencies and beneficiary entities. The baseline information will be collected where unavailable and monitored during implementation. The consultants will provide both semi and annual reports.

23. The works and supply and install contracts will be supervised by independent consultants selected competitively. The consultants will oversee the day-to-day progress of works on the site and to certify each payment invoice, including compliance by the contractor with all technical specifications, environmental and social mitigation plans, and contractual provisions.

24. The Coordinator for the project will regularly monitor progress on the implementation and effectiveness of the strategy, and work with the inter-agency oversight committee in addressing critical issues identified in the course of the project implementation. The committee will regularly brief all the agencies involved in the project.

### C. Sustainability

25. The activities of the project will be mainstreamed in the operations of the implementing agencies and beneficiary entities. These actions will reinforce the Government's ownership of the project - hence ensuring sustainability. Furthermore, the benefits of the project are likely to be sustained in light of the proposed institutional and policy reforms in the urban transport sector in the city of Addis Ababa, which has clarified ownership and responsibilities as well as the institutional arrangements. In addition, establishing databases for driver licenses and vehicle registration registries will improve the management of information and better enforcement of traffic laws and streamline the road safety matters thereby creating sustainable capacity to address these challenges

## VI. Safeguard Policies (including public consultation)

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

**Comments (optional)**

## VII. Contact point

### World Bank

Contact: Josphat O. Sasia

Title: Lead Transport Specialist

Tel: 5327+6452



Email: [jsasia@worldbank.org](mailto:jsasia@worldbank.org)  
Contact: Haileyesus Adamtei  
Title: Senior Highway Specialist  
Tel: 5358+6071 /  
Email: [hadamtei@worldbank.org](mailto:hadamtei@worldbank.org)

**Borrower/Client/Recipient**

Name: Ministry of Finance and Economic Development (MOFED)  
Contact: Fisseha Aberra  
Title: Director, Multilateral Cooperation Directorate  
Tel: 00251111113247  
Email: [ifdid@ethionet.et](mailto:ifdid@ethionet.et)

**Implementing Agencies**

Name: Addis Ababa Road and Transport Bureau  
Contact: Yabebal Addis  
Title: Bureau Head, Addis Ababa Road and Transport Bureau  
Tel: +251 (0)11 5513320  
Email: [ydsr66@gmail.com](mailto:ydsr66@gmail.com)

**VIII. For more information contact:**

The InfoShop  
The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 458-4500  
Fax: (202) 522-1500  
Web: <http://www.worldbank.org/infoshop>