

# NS-167 - Ethiopia Railway's Addis Ababa Light Rail Transit (LRT) Transit Oriented Development (TOD) NAMA

## Ethiopia

### NAMA Seeking Support for Preparation

#### A Overview

A.1 Party

Ethiopia

A.2 Title of Mitigation Action

Ethiopia Railway's Addis Ababa Light Rail Transit (LRT) Transit Oriented Development (TOD) NAMA

A.3 Description of mitigation action

A main pillar of Ethiopia's Climate Resilient Green Growth (CRGE) strategy is to avoid emissions in the transport sector through a shift of freight and passenger transport from road to rail. The Ethiopian Railways Corporation (ERC) was set up in 2007 with the mandate to construct railway infrastructure and provide passenger and freight rail transport services in Ethiopia. The envisaged infrastructure consists of two railway project components: the Addis Ababa Light Rail Transit (LRT) and the National Railway Network (NRN).

ERC intends to implement measures to increase ridership and revenue for its LRT. In collaboration with the City of Addis Ababa ERC plans to pilot Transit Oriented Development (TOD). TOD is an urban development concept, which promotes mixed-use public, residential and commercial areas, favouring non-motorized modes of transport. High-density urban development along the LRT will increase revenues through ticketing (enhanced ridership) and increase the value of land/leases, which will contribute to the sustainable operation of the LRT. Simultaneously TOD will directly (through avoidance of transport need as commercial and social activities are grouped within the TOD) and indirectly (increased LRT ridership as TOD residents will use LRT when transport is required) reduce GHG emissions in Addis Ababa.

TOD will increase transport safety, reduce pollution, lower costs of transport and provide easy access to work and business. ERC has identified 10 stations along the LRT lines which are suitable for

## TOD.

Knowledge, access to finance and gaps in the regulatory framework are the typical barriers to low carbon economic development in developing countries. These are also the most important barriers for the implementation of TOD in Addis Ababa.

Knowledge barrier: this will be the first TOD in Ethiopia. The project proponents are aware of the advantages of TOD, but lack practical knowledge and experience. This includes technical design issues in addition to issues related to organisation, finance and coordination. The NAMA will address amongst others the design of the pilots through the preparation of a bankable feasibility study, the regulatory frameworks and an operational cooperation structure.

Barrier due to finance and access to finance: investment in TOD requires investments by governmental actors and investments by private sector investors. Public sector investments include roads and other public infrastructure. Any of these must come from the public budget, which is limited. Investments in social housing estates and commercial property development for SMEs will be incentivised under the pilot TOD. The NAMA assists in the preparation of a structured debt fund to take away the risk for private sector investment for social housing and SMEs in particular and will prepare the conditions for public-private partnerships.

Structured funds are loan funds that pool money from different investors with varying expectations of risk and return for a dedicated purpose. The pooled funds are organised into a capital stack with layers that represent different levels of risk and return expectations. Grants and low return contributions from the Government of Ethiopia will be positioned in the higher layers of the fund while commercial banks will take the lower risk positions in the fund. This will protect the banks' investment and allows the fund to offer loans at low interest rates and high loan-to-value ratios compared to comparable commercial finance.

The Development Bank of Ethiopia in collaboration with the Ministry of Finance and Economic Development will take the lead in establishing the structured debt fund.

Regulatory barrier: Establishing the TOD may also take place through public-private partnership (PPP). Such co-development structures are without precedent in Ethiopia. The NAMA addresses this barrier by preparing the needed regulatory frameworks.

The implementation of the NAMA aims to take away these barriers, by increasing capacity, preparing a regulatory framework, developing knowledge and by lowering hurdles to private investment. International support is solicited to expedite this process, which will be implemented through the following activities:

*A: Institutional framework established and operational for TOD implementation*

- *A.1 Stakeholder consultation process to concretize roles, responsibilities and mandates of implementing partners.*
- *A.2 Formulation and execution of Memoranda of Understanding between TOD implementing partners.*
- *A.3 Capacity building for TOD implementation. (TOD, MRV, structured fund related)*
- *A.4 Establishment of a Project Implementation Unit*

*B: TOD regulatory framework established*

- *B.1 Consultations with implementing partners*
- *B.2 Assessment of existing policies and gap analysis.*
- *B.3 Incorporation of TOD in National Transport Policy, AA Urban Transport Policy and AA Urban Master Plan*
- *B.4 Formulation and update of TOD related policies and regulations, including land and tax regulations,*
- *B.5 Development of TOD zoning*
- *B.6 Formulation of legal framework for Public Private Partnerships*

*C: Detailed TOD implementation plan for 10 station of the Addis Ababa Light Rail Transit in line with the ERC bankable feasibility study ToR attached.*

- *C.1: Preparation of urban design plan*
- *C.2: Preparation of technical design studies*
- *C.3: Preparation of detailed market studies and development prospectus*
- *C.4: Preparation of Environmental Impact Assessment studies*

*D: Structured debt fund is designed*

- *D.1 Preparing detailed concept of structured fund*

E: MRV system developed

- E.1 Surveys and baseline studies
- E.2 Preparation of MRV system

A.4 Sector

<input type="checkbox"/> Energy supply	<input checked="" type="checkbox"/> Transport and its Infrastructure
<input checked="" type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry
<input type="checkbox"/> Waste management	

Other

A.5 Technology

<input type="checkbox"/> Bioenergy	<input type="checkbox"/> Cleaner fuels
<input type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal Energy
<input type="checkbox"/> Hydropower	<input type="checkbox"/> Solar Energy
<input type="checkbox"/> Wind Energy	<input type="checkbox"/> Ocean Energy
<input type="checkbox"/> Carbon Capture and Storage	<input type="checkbox"/> Low till / No till
<input type="checkbox"/> Land fill gas collection	

Other  Rail way / Pedestrian frie

A.6 Type of action

<input type="checkbox"/> National/ Sectoral goal	<input type="checkbox"/> Project: Investment in machinery
<input type="checkbox"/> Strategy	<input checked="" type="checkbox"/> Project: Investment in infrastructure
<input type="checkbox"/> National/Sectoral policy or program	<input type="checkbox"/> Project : other

Other

A.7 Greenhouse gases covered by the action

<input checked="" type="checkbox"/> CO2	<input type="checkbox"/> CH4
<input type="checkbox"/> N2O	<input type="checkbox"/> HFCs
<input type="checkbox"/> PFCs	<input type="checkbox"/> SF6

Other

### B National Implementing Entity

B.1.0	Name	Ethiopian Railway Corporation (ERC)
B.1.1	Contact Person 1	Mr. Shewangizaw Kifle
B.1.2	Address	P.O.Box 27558/1000 Addis Ababa, Ethiopia
B.1.3	Phone	00251 911 226 816 or 00251 114 70-21-90
B.1.4	Email	kidusshk@gmail.com
B.1.5	Contact Person 2	
B.1.6	Address	
B.1.7	Phone	
B.1.8	Email	
B.1.9	Contact Person 3	
B.1.10	Address	
B.1.11	Phone	
B.1.12	Email	
B.1.13	Comments	-

**C Expected timeframe for the preparation of the mitigation action**

C.1	Number of months for completion	18
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**D Currency**

D.1	Used Currency	AED Conversion to USD: 1
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**E Cost**

E.1.1	Estimated full cost of preparation	8900000
E.1.2	Comments on full cost of preparation	It is expected that the activities C1 – C3 will cost ~ USD 5,000,000. This is based on initial quotes being provided to ERC by shortlisted consultants.  The other activities requested to be supported are expected to cost USD 3,900,000, based on expected professional fees.

**F Support required to prepare the mitigation action**

F.1.1	Amount of Financial support	7700000
F.1.2	Type of required Financial support	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan (sovereign) <input type="checkbox"/> Loan (Private) <input type="checkbox"/> Concessional loan <input type="checkbox"/> Other <input type="text"/> <input type="checkbox"/> Guarantee <input type="checkbox"/> Equity <input type="checkbox"/> Carbon finance
F.1.3	Comments on Financial support	The Government of Ethiopia through ERC will provide co-funding of USD 1,200,000 for the purpose of the preparation of the bankable feasibility study.
F.2.1	Amount of Technical support	
F.2.2	Comments on Technical support	Included in financial support requested.
F.3.1	Amount of capacity building support	
F.3.2	Type of required capacity building support	<input type="checkbox"/> Individual level <input type="checkbox"/> Institutional level <input type="checkbox"/> Systemic level <input type="checkbox"/> Other <input type="text"/>
F.3.3	Comments on Capacity Building support	Included in financial support requested.
F.4	Financial support required	<input type="checkbox"/>
F.5	Technological support required	<input type="checkbox"/>
F.6	Capacity support required	<input type="checkbox"/>

**G Relevant National Policies strategies, plans and programmes and/or other mitigation action**

G.1	Relevant National Policies	Ethiopia has taken on the ambition to capitalise on its rapid economic growth by investing in an economy that is more resilient to the impacts of climate change and pursue low carbon development. The Government of Ethiopia has adopted the Growth and Transformation Plan (GTP), which outlines the country's strategy to reach middle-income status before 2025. At the same time, the Government has issued the Climate-Resilient Green Economy (CRGE) strategy in 2011, which lays down the country's plan to develop a carbon neutral, green economy by 2025. Provision of an affordable
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and efficient transport system will make a crucial contribution to economic growth, employment creation, social welfare and the expansion of the industrial sector. Estimated GDP growth of 8.5% in 2012 made Ethiopia one of Africa's best performing economies and the country is expected to continue to represent one of the world's fastest growing economies in the years to come. TOD provisions are furthermore being incorporated in the Addis Ababa City Master Plan.

G.2 Link to other NAMAs

Ethiopia's National Railway Network and Addis Ababa Light Rail Transit (LRT) NAMA

#### H Attachments

H Attachments

**Title Description**

H.1 Attachment description

H.2 File

#### I Support received

I.1 Outside the Registry

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I.2 Within the Registry

**Support provided SupportType Amount Comment Date**