# Bus Rapid Transit (BRT) Plus System for the Nairobi Metropolitan Region

## Purpose

The NAMA aims to support the development of a Bus Rapid Transit Plus (BRT+) System for Greater Nairobi by incorporating a single route for an electric bus rapid transit system (eBRT). The NAMA will improve access to clean, efficient, and safe public transport along the service area for the Ndovu (elephant) BRT line.

## Description

The NAMA will use the existing and approved Government of Kenya-World Bank program to upgrade Highway A104 infrastructure as the "window of opportunity" to incorporate a single route for an eBRT. The NAMA will support the development of the first line, the Ndovu (elephant) line, of the BRT system for the Nairobi Metropolitan Region. The NAMA will support the overall implementation of the BRT system, beginning with construction of dedicated bus lanes through to the commissioning of the eBRT stock in 2018.

The main NAMA intervention is the introduction of a "green" electric bus fleet under a private sector framework. The main actions to be supported through the NAMA are:

- Start operation of a private sector-based BRT fleet of electric battery powered buses;
- Establish and operate a NAMA Finance Facility to financially support the eBRT system;
- Integrate affected stakeholders, youth and women into the eBRT value chain;
- Establish policy-driven mechanisms to encourage a safe and secure line and interconnectivity of the "last-mile" for commuters; and
- Support establishment of a NAMA coordinating and implementing entity.

The Nairobi BRT system is expected to have five interconnected lines; and NAMA activities will be replicated for the four other lines - Simba (lion), Chui (leopard), Kifaru (rhino) and Nyati (buffalo) between 2020 and 2030.

## Transformational Impact

The NAMA will support a modal shift from private to public transport, transforming the way people move about in Nairobi. The actions will establish new social, economic and environmental actions and measures which can be duplicated within the future full-scale implementation of the Nairobi BRT system.

Kenya’s transport sector currently is dominated by road transport. Private cars provide the bulk (about 60 per cent) of the transport services within the Nairobi metropolitan region. Public transport is relatively under-developed and is dominated by some 16,000 minibuses (matatus), transporting an estimated 3 million (30 per cent of urban commuters) daily, with buses transporting another 0.4 million people. The total vehicle population (excluding motorcycles) is estimated to have doubled from 600,000 vehicles in 2000 to 1,200,000 vehicles in 2010. The Nairobi metropolitan region experiences severe traffic congestion during the extended peak hours, which contributes to local air pollution and leads to significant economic losses in time and fuel.

The NAMA is transformational because it is a “prime the pump” action that will establish a first electric bus route, and demonstrate the processes needed to transform current transport practices into a more sustainable system. The demonstration is expected to encourage to further private sector investments in electric buses. A BRT system for Nairobi is a priority action in the National Climate Change Action Plan because it would lead to significant greenhouse gas emission reductions, as well as generate significant sustainable development benefits.
| Estimated Greenhouse Gas Emission Reductions | This NAMA will contribute to the overall annual emission reduction potential of the entire BRT system, which is an annual reduction potential of up to 2 million tonnes of carbon dioxide equivalent by 2030. |
| Sustainable Development Impacts | The NAMA contributes to job creation (including targeted programmes for youth and women) and improved air quality through the reduction of particulate, nitrous oxide and other emissions. The NAMA creates several indirect social and economic development benefits including reductions in traffic congestion resulting in fewer time delays and increased productivity for commuters. Additionally, improvements in public transit are expected to reduce annual traffic deaths. |
| Required Support | The NAMA requires capital and capacity development investments of up to US$ 45 million. International support is expected to cover up to 20 per cent of the costs in the form of grants and 60 per cent in the form of loan instruments which are paid back by the private sector. The private sector is expected to contribute the remaining 20 per cent in the form of equity. The main infrastructure is to be funded by the World Bank, the European Union, the African Development Bank and the Japan International Cooperation Agency. |
| Partners | - Ministry of Environment, Natural Resources and Regional Development Authorities – oversight of NAMA implementation.  
- Ministry of Transport and Infrastructure – policy and regulatory framework, oversight of technical aspects.  
- Nairobi Metropolitan Region County Governments – policy and regulatory framework, oversight of technical aspects.  
- World Bank / African Development Bank – funders of the Nairobi Nduvu line / A104 Highway project.  
- Nairobi Metropolitan Area Transport Authority – coordination of 15 independent governing bodies in the Nairobi Metropolitan Region for this eBRT; and housing of the coordinating and implementing entity for the NAMA.  
- Private sector – national transport companies to provide eBRT bus fleet in public-private partnerships. |
| International Support | ClimateCare provided the technical support for the development of the NAMA with funding from the UNDP Low Emission Capacity Building Programme that is funded by the European Commission, the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, and the Government of Australia. |
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