

# ADDIS ABABA NON-MOTORISED TRANSPORT STRATEGY

## IMPLEMENTATION PLAN 2019-2021





**NOVEMBER 2018**



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# FOREWORD

As the Mayor of Addis Ababa, it is my great pleasure to launch the Addis Ababa Non-Motorised Transport (NMT) Strategy. The city of Addis Ababa is growing rapidly and requires well-coordinated planning and management to create an urban environment that is safe, comfortable, and inclusive. For too long, transport planning has focused on the needs of private car users, without considering the majority of Addis Ababa residents who walk, cycle, or use public transport. This approach has exacerbated problems of congestion and road safety, both of which affect economic growth, productivity, and public health.

Moving forward, the Addis Ababa City Government commits to investing in sustainable transport systems that help tackle climate change, facilitate trade, and improve access to education, health, and jobs. Drawing from the Transport Policy of Addis Ababa and Ethiopia's Climate Resilient Transport Sector Strategy, the NMT Strategy outlines a holistic set of measures to expand the use of non-motorised modes. Over the next ten years, we will develop a citywide walking and cycling network that makes sustainable modes safe, convenient, and easy to use. Better street designs will be complemented by innovative mobility services such as bicycle sharing to give more residents access to clean, healthy mobility. Greater investment in non-motorised transport will bring a number of benefits, particularly for low-income residents.

Transformation of our city will only be possible through close collaboration among government departments, civil society, the private sector, and city residents. I call on all stakeholders to redouble their efforts to develop an efficient, green mobility system that serves all residents of Addis Ababa.

Takele Uma Chere  
Deputy Mayor of Addis Ababa

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# 1. INTRODUCTION

Addis Ababa, home to 17 percent of Ethiopia's urban population, is at a pivotal moment in its modern history.<sup>1</sup> The city is undergoing a wave of rapid population and economic growth. The number of private vehicles in the city is rapidly increasing, contributing to the worsening congestion, loss of the public realm, air pollution, and traffic fatalities. As the city continues to modernise and motorise major investments and strategic decisions will be required to keep the economy humming and avoid the negative impacts generated by private motorised mobility and traffic congestion.

At present, most residents depend on walking and public transport, and there are relatively few personal motor vehicles in the city. Nevertheless, pedestrians face many challenges, including inadequately sized foot-paths, dangerous crossings, inadequate illumination and poorly maintained infrastructure. Going forward, the city seeks to prioritise non-motorised transport (NMT), including walking, cycling, and other forms of non-motorised mobility. Greater use of NMT is likely to bring several benefits, including better access to jobs and educational opportunities; improved public health due to active lifestyles; reduced emissions of

1 UN-Habitat. (2017). The State of Addis Ababa 2017: The Addis Ababa We Want. Retrieved from <https://unhabitat.org/books/the-state-of-addis-ababa-2017-the-addis-ababa-we-want/>



Figure 1. The Addis Ababa NMT Strategy aims to develop a comprehensive network of high-quality walking and cycling facilities to address the burgeoning demand for better access in the city.

dangerous pollutants; and a reduced burden of injuries and fatalities from traffic crashes.

Better walking and cycling facilities also will complement the city's mass transit network, including two existing light rail transit (LRT) corridors and seven planned bus rapid transit (BRT) corridors. To guide efforts to improve the walking and cycling environment, the Addis Ababa Road and Transport Bureau (AARTB) developed a comprehensive NMT Strategy. The Strategy sets out a number of key goals along with quantitative indicators that can be used to track success (see Table 1).

As a complement to the NMT Strategy, this Implementation Plan describes a set of immediate actions that can be taken to improve the walking and cycling environment in Addis Ababa over the next three years, from fiscal year 2019-20 to 2021-22. Through timely implementation of the activities described here, the city will stay on track to achieve the 10-year implementation targets defined in the NMT Strategy (see Table 2). Successful implementation will depend on close collaboration among various implementing agencies (see Table 3).

**Table 1. Ten-year goals for an improved NMT environment**

Goal	Contributing actions	Targets for 2028
Improved road safety	<ul style="list-style-type: none"> <li>• Safe crossings, redesigned intersections, and dedicated facilities for NMT</li> </ul>	<ul style="list-style-type: none"> <li>• Fatalities of pedestrians and cyclists are reduced 80 percent below 2018 levels</li> </ul>
Increased mode share of walking, cycling, and public transport	<ul style="list-style-type: none"> <li>• Investments in high-quality walking and cycling facilities</li> <li>• Improved last-mile connectivity to public transport</li> </ul>	<ul style="list-style-type: none"> <li>• Mode share of NMT remains at or above 60% of trips</li> <li>• Public transport constitutes 80% of motorised trips</li> <li>• Women constitute 50% of cyclists</li> </ul>
Reduction in the use of personal motor vehicles (PMV)	<ul style="list-style-type: none"> <li>• Measures to manage vehicle use</li> <li>• Improved attractiveness of sustainable modes</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle kilometres travelled (VKT) by PMVs are no more than 2018 levels</li> </ul>
Improved air quality	<ul style="list-style-type: none"> <li>• Investments in high-quality walking and cycling facilities</li> <li>• Measures to manage vehicle use</li> </ul>	<ul style="list-style-type: none"> <li>• WHO ambient air quality norms are met 350 days a year</li> <li>• Greenhouse gas emissions follow the targets set in Ethiopia's NDC</li> </ul>

Table 2. Ten-year implementation targets, as defined in the NMT Strategy

Initiative	Targets
Pedestrian network	<ul style="list-style-type: none"> <li>• 600 km of new and existing streets incorporate a continuous pedestrian realm with high-quality footpaths, safe at-grade crossings, and adequate street lighting.</li> <li>• All schools have safe pedestrian access.</li> </ul>
Pedestrian priority precincts	<ul style="list-style-type: none"> <li>• Pedestrian zones, public spaces, and comprehensive street improvements implemented in Piazza, Megenagna, Merkato, and Churchill South</li> </ul>
Cycle network	<ul style="list-style-type: none"> <li>• 200 km of cycle tracks constructed</li> </ul>
Greenway network	<ul style="list-style-type: none"> <li>• 20 km greenway network implemented.</li> </ul>
Public transport access	<ul style="list-style-type: none"> <li>• Safe, at-grade pedestrian crossings with traffic calming or signalisation implemented at all BRT and LRT stations.</li> <li>• High-quality bus shelters installed at all bus stops and integrated the design of footpaths and cycle tracks.</li> <li>• Bicycle parking provided at BRT and LRT stations.</li> </ul>
Bicycle sharing	<ul style="list-style-type: none"> <li>• 10,000 cycles serve short trips and provide last-mile connectivity to public transport</li> </ul>
Parking management	<ul style="list-style-type: none"> <li>• 30,000 on-street spaces are managed through an IT-based parking system, generating revenue for sustainable transport.</li> <li>• Bollards installed on all footpaths at high risk of parking encroachment.</li> </ul>
Vendor management	<ul style="list-style-type: none"> <li>• A comprehensive street vending management system ensures that organised vending complements other road uses</li> </ul>
Street design standards	<ul style="list-style-type: none"> <li>• Revised Urban Geometric Design, Street Lighting Design, and Bridge Design Manuals incorporate best practice standards for walking and cycling design</li> </ul>
Review of building control & planning regulations	<ul style="list-style-type: none"> <li>• Condominium projects incorporate compact layouts and improve NMT access to planned public transport corridors.</li> <li>• Building control regulations encourage active frontage; reduced setback requirements; ensure that setbacks are publicly accessible; mandate arcades along commercial streets; and mandate a maximum block size of 100 m for all redevelopment projects.</li> <li>• Land use policies to encourage transit-oriented development (TOD) within 500 m of existing and planned mass rapid transit corridors.</li> </ul>
Outreach & communications	<ul style="list-style-type: none"> <li>• Regular open streets events offer safe space for walking, cycling, and other forms of recreation.</li> <li>• Active marketing campaigns transform the image of NMT and drive growing usage of the bicycle sharing system.</li> <li>• City residents have open access to information regarding ongoing transport projects and participate actively in the planning process.</li> </ul>

**Table 3. Roles in implementation of the NMT Strategy**

Agency	Role
Addis Ababa Road and Transport Bureau (AARTB)	<ul style="list-style-type: none"> <li>• Provide political leadership and general oversight toward implementation of the NMT Strategy.</li> </ul>
Transport Programs Management Office (TPMO)	<ul style="list-style-type: none"> <li>• Prepare and review plans and designs for transport projects.</li> <li>• Develop and disseminate transport policies and standards.</li> <li>• Host the NMT Cell.</li> <li>• Monitor progress over time and update the NMT Strategy Implementation Plan periodically.</li> </ul>
Addis Ababa City Roads Authority (AACRA)	<ul style="list-style-type: none"> <li>• Design and implement high-quality walking and cycling facilities.</li> </ul>
Beautification Agency	<ul style="list-style-type: none"> <li>• Develop and maintain street landscaping.</li> <li>• Maintain storm water facilities.</li> </ul>
Addis Ababa Traffic Management Agency (TMA)	<ul style="list-style-type: none"> <li>• Regulate traffic operations.</li> <li>• Oversee operations of the on-street parking management system.</li> <li>• Implement traffic calming facilities, including safe intersections, speed bumps, and pedestrian crossings.</li> </ul>
Transport Authority	<ul style="list-style-type: none"> <li>• Station installation, user fee determination, and service level monitoring for the bicycle sharing system.</li> </ul>
Rivers and Riversides Development Project Office	<ul style="list-style-type: none"> <li>• Develop greenway corridors with continuous walking and cycling facilities</li> </ul>
Traffic Police	<ul style="list-style-type: none"> <li>• Control and manage traffic operations.</li> </ul>
Construction Bureau	<ul style="list-style-type: none"> <li>• Develop pedestrian friendly building control rules.</li> </ul>
Plan Commission	<ul style="list-style-type: none"> <li>• Develop pedestrian friendly planning regulations.</li> </ul>
Code Enforcement Office	<ul style="list-style-type: none"> <li>• Manage street vending.</li> <li>• Prevent encroachments on NMT facilities.</li> </ul>
Construction and Housing Development Bureau	<ul style="list-style-type: none"> <li>• Develop pedestrian friendly layouts for social housing projects.</li> </ul>
Road Safety Council	<ul style="list-style-type: none"> <li>• Coordinate with stakeholders on road safety initiatives related to the walking and cycling environment.</li> </ul>



## 2. NMT INITIATIVES

### 2.1. PEDESTRIAN NETWORK

All major streets in Addis Ababa require high-quality footpaths. Well-planned footpaths provide continuous space for walking. They also support other activities such as street vending and waiting at bus stops without compromising pedestrian mobility. For persons with visual impairments, tactile paving can be installed to indicate locations where vehicles and pedestrians interact.

Under this initiative, AARTB will develop a continuous and complete pedestrian environment on all streets with high speed differentials and safety risks—typically those with a right-of-way (ROW) of 20 m and above. Some narrower streets with high traffic and pedestrian volumes also require dedicated footpaths. Implementation phasing will prioritise streets with large volumes of pedestrians and streets in school zones with large numbers of children present. Wide footpaths and safe crossings will be developed on all planned BRT corridors, and existing footpaths on LRT corridors will be improved.



Figure 2. The Addis Ababa NMT Strategy aims to develop a comprehensive network of high-quality footpaths and pedestrian crossings.

Table 4. Pedestrian network implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Upgrade existing footpaths to create a continuous pedestrian realm	AACRA	50 KM	50 KM	50 KM
Incorporate high quality pedestrian facilities in new streets	AACRA	80 KM	120 KM	150 KM
Install bollards to protect footpaths from parking encroachments	TMA	2,500 BOLLARDS	3,000 BOLLARDS	3,500 BOLLARDS
Replace lights and fix power connections	AACRA	100 KM	100 KM	100 KM

## 2.2. PEDESTRIAN PRIORITY PRECINCTS

In areas where the demand for pedestrian activity is the greatest, AARTB can develop pedestrian priority precincts with improved footpaths, pedestrian crossings, and public space. Pedestrian priority precincts must ensure compliance with disability access guidelines and provide adequate cycle parking. High-priority locations for pedestrian precincts include the following Piazza, Megenagna, Merkato, and Churchill South.

Table 5. Pedestrian priority precinct implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Create a network of high-quality public spaces at Piazza	AACRA	SEMI-PERMANENT	PERMANENT	
Formalise and expand pedestrian spaces at Megenagna	AACRA	SEMI-PERMANENT		
Redesign Churchill South with improved NMT facilities	AACRA	PERMANENT		

## 2.3. BICYCLE NETWORK

Key to making cycling safer and attractive is the development of a safe, efficient, and convenient network of cycle tracks. The network should cover key urban corridors, including arterial roads and expressways. Implementation phasing will prioritise streets near rapid transit corridors as well as streets within the coverage area of the bicycle sharing system. Cycle tracks should have a width of 2 m for one-way movement and 2.5-3 m for two-way movement.

Table 6. Bicycle network implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Develop high-quality cycle tracks	AACRA	10 KM	20 KM	30 KM
Develop a bicycle network plan	TPMO	PLAN PREPARATION		

## 2.4. GREENWAY NETWORK

The term “greenway” is used to describe walkways and cycle paths that utilise an independent right-of-way (ROW), such as in a park or water body. The presence of several rivers across Addis Ababa presents the opportunity to build a network of high-quality greenways that improve mobility for all NMT users while creating vibrant public spaces. An initial greenway corridor is planned for the Bantyaketu River.

Table 7. Greenway network implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Develop a greenway along the Bantyaketu River	RRPDO	DESIGN	IMPLEMENTATION	

## 2.5. PUBLIC TRANSPORT ACCESS

This initiative seeks to develop safe at-grade crossings to improve access to LRT and BRT stations. In general, such crossings will be developed as raised crosswalks, elevated to the level of the adjacent footpath with a speed table for motor vehicles. Another important element of public transport access is the placement of bus shelters in the streetscape. Well-designed bus stops offer a weather-protected, universally accessible waiting area while leaving ample clear space for pedestrian and bicycle movement behind the shelter.

Table 8. Public transport access implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Incorporate safe crossings in designs for the B2 BRT	TPMO	DESIGN REVIEW		
Improve station access at LRT stations	TMA	3-STATION PILOT	16 STATIONS	17 STATIONS
Develop guidelines for bus shelter placement	TMA	GUIDELINE PREP		



Figure 3. Pedestrian crossings to LRT stations will be improved through traffic calming, universal access, and signalisation.

## 2.6. INTERSECTION IMPROVEMENTS

In 2017, Addis Ababa launched the Safe Intersections Program (SIP), an initiative to improve safety at intersections by slowing vehicle speeds and making pedestrians more visible as they cross streets. In its first phase, the initiative proposes to upgrade fifteen roundabouts and intersections:

- Amestegna
- Berbere Tera
- Bob Marley
- British
- Bulgaria
- Diaspora
- Fitber
- Gurd-Shola
- Kokeb
- Mekenisa
- Saris Abo
- Shola
- Supermarket
- Tenbaho-Monopol
- Wossen

Intersection design changes already have been tested through pop-up interventions. At each intersection, successful interventions will be made permanent through new kerb lines and pedestrian spaces.

Another project that can showcase the city's new approach to prioritising the needs of NMT users is the removal of the footbridges at Adwa Square. These bridges are hardly used and can be replaced with safe at-grade crossings on all arms of the intersection. In addition, fences surrounding the intersection can be removed and walkways expanded to create a more accessible, pedestrian friendly public space.

Table 9. Intersection improvement implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Test intersection retrofits with pop-ups and prepare designs	AACRA & TMA	10 INTERSECTIONS	15 INTERSECTIONS	
Implement permanent intersection improvements	AACRA & TMA	7 INTERSECTIONS	10 INTERSECTIONS	15 INTERSECTIONS
Remove footbridges at Adwa Square and introduce at-grade crossings	AACRA & TMA	DESIGN	IMPLEMENTATION	



## 2.7. BICYCLE SHARING SYSTEM

Bicycle sharing will improve last-mile connectivity to public transport and serve short trips through a safe, healthy, and environmentally friendly means of transport. In its first phase, the system will serve central areas such as Mexico, Meskel Square, Bole, and Urael/Atlas, as well as a condominium area. The system will begin with 500 cycles and will be expanded in future phases, reaching 3,000 cycles over the next three years. The launch of the system will be accompanied by communications activities aimed at encouraging use of the system as well as an initial network of dedicated bicycle facilities within the coverage area.

Table 10. Bicycle sharing implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Implement an IT-based bicycle sharing system	TPMO	500 BICYCLES		
				2,500 BICYCLES

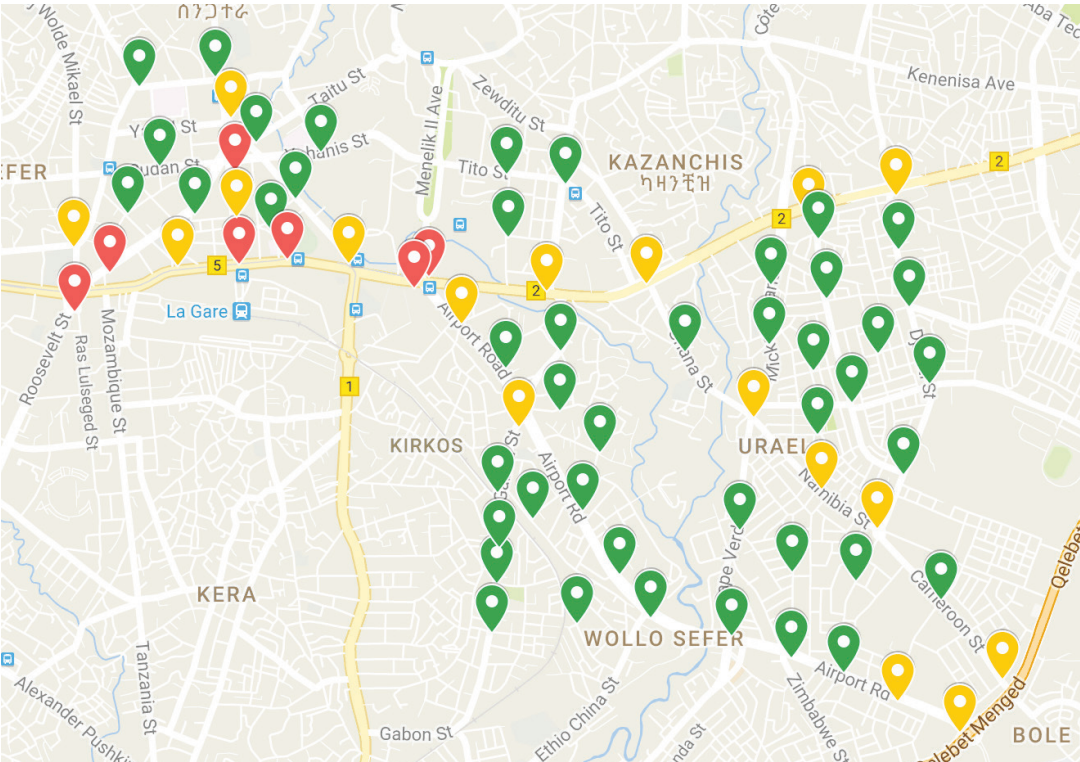


Figure 4. The bicycle sharing system will be launched with 500 cycles in central Addis Ababa and a condominium area and will be expanded in subsequent phases (red = large stations, yellow = medium stations, green = small stations).

## 2.8. PARKING MANAGEMENT

Where on-street parking is provided, market-based parking fees can help manage demand. In addition, robust parking enforcement mechanisms are needed to ensure that walking and cycling facilities, once built, remain well maintained and free of encroachments. The Traffic Management Agency (TMA) is currently developing a parking management strategy for the city. An IT-based parking management system will be implemented to improve revenue collection and enforcement. Parking fees will be set according to demand, with higher fees in areas with higher parking demand. Bollards and other physical measures will prevent cars from parking on footpaths and cycle tracks.

Table 11. Parking management implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Develop parking management strategy	TMA			
Implement an IT-based parking management system	TMA		FIRST PHASE	SECOND PHASE

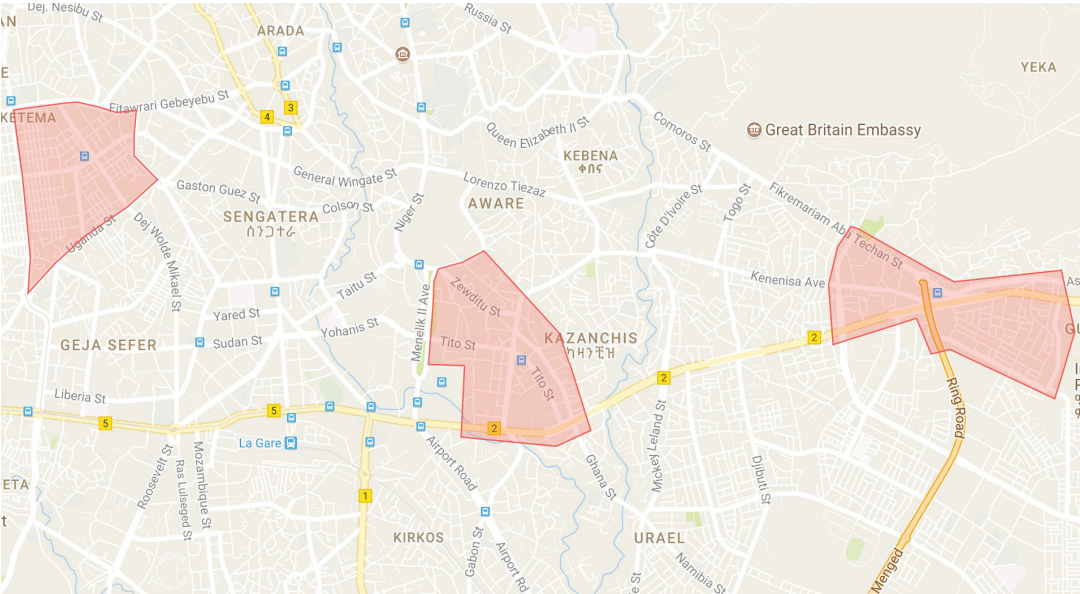


Figure 5. Locations under study for a first-phase IT-based parking management system include Merkato, Kazanchi's, and Megenagna. The system will be expanded in later phases.

## 2.9. VENDOR MANAGEMENT

If arranged properly, vending can be accommodated in the streetscape without interfering with other uses. A vending management system will issue licenses to vendors, set standards for vending stands, and monitor the upkeep of vending areas. Formalising the relationship between the government and vendors will improve compliance with vending norms and ensure that vending does not interfere with NMT movement.

Table 12. Vendor management implementation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Implement vending management system	Trade Bureau	FIRST PHASE		
				SECOND PHASE



Figure 6. A vending management system can ensure that vending activities are compatible with pedestrian and cycle movement.

## 2.10. STREET DESIGN STANDARDS

The Addis Ababa City Roads Authority (AACRA) Design Manuals comprise several volumes that provide guidance on geometry, drainage, road rehabilitation, and other elements of the NMT environment. A planned review of the manuals under the World Bank Transportation Improvement Project (TRANSIP) is an opportunity to ensure that the manuals reflect best practices in design for pedestrians and cyclists.

Table 13. Street design standard activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Street design manuals updated	AACRA	MANUAL REVISIONS		

## 2.11. REVIEW OF BUILDING CONTROL & PLANNING REGULATIONS

The built environment surrounding pedestrian routes must be conducive to walking. Walking is safer and more enjoyable when sidewalks are populated, animated, and lined with useful ground-floor activities such as store fronts and restaurants. Moving forward, the redevelopment process should maintain fine-grained street networks, ensuring that parcels are no larger than 100 m on a side after amalgamation. Land use policies should encourage transit-oriented development (TOD) within walking distance (i.e., 500 m) of mass rapid transit lines. The Local Development Plan (LDP) manual will be updated to provide guidance on TOD elements.

Table 14. Building control & planning regulation activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Review of condominium designs to improve NMT access	Construction and Housing Development Bureau	DESIGN REVIEW		
Review of building control regulations	Land Development and Management Bureau	REGULATION REVISIONS		
Review of land use policies and LDP manual to incorporate TOD principles	Plan Commission	POLICY REVISIONS		



## 2.12. COMMUNICATIONS AND ENGAGEMENT

Communications and engagement activities will play a key role in building public support for the NMT Strategy and fostering a changed culture that accepts walking and cycling as integral modes of transport. In addition, participation of local residents, businesses, and other stakeholders in the planning and design of streets can help improve transparency and foster the community's active use and sense of ownership of public spaces.

Table 15. Communications and engagement activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Release and disseminate the NMT Strategy and Action Plan	TPMO			
Involve community in bicycle sharing planning process	TPMO			
Market the bicycle sharing system	Bicycle sharing operator			
Offer cycle trainings for women	TPMO			
Launch regular sustainable commuting day for AARTB staff	TPMO			
Hold open streets event (monthly from 18 Nov 2018)	TMA			
Emphasise NMT in ongoing road safety campaigns	TPMO			
Launch campaign against unauthorised parking	TMA			
Provide bicycles for community patrols	Addis Ababa Police			
Develop a comprehensive communications plan	TPMO			



### 3. INSTITUTIONAL FRAMEWORK

To support the initiatives described above, several institutional activities will be taken up:

- **Formation of an NMT Unit within TPMO.** The NMT Unit will facilitate inter-agency coordination; review of policies and standards for NMT facilities; and monitor progress.
- **Capacity building.** AACRA will initiate a formal training programme for engineers and planners involved in the design and planning of NMT facilities. At least 100 engineers, both from government and private sector consulting firms, will receive training each year.
- **NMT cells in AACRA and TMA.** In the medium term, AACRA and TMA are encouraged to create NMT cells to strengthen their in-house capacity to design, plan, and manage NMT facilities.

Table 16. Institutional development activities

Activity	Implementing agency	2019-20	2020-21	2021-22
Form an NMT unit	TPMO			
Launch a street design certification course to train engineers in NMT design	AACRA	100 TRAINED	100 TRAINED	100 TRAINED
Form an NMT Unit within AACRA	AACRA			
Form an NMT Unit within TMA	TMA			
Collect data to track progress toward the NMT Strategy goals and targets	TPMO & other agencies			

