

# The Nairobi you want

## AIM

Each sector and individual shall contribute to the concerted efforts to realize efficient and reliable urban transport services commensurate with the rapid urbanization. The vision is to restore Nairobi as "The Green City in the Sun" for its residents as well as visitors.

## Government Effort

- Uphold mission to provide an integrated, efficient, reliable, and sustainable urban transport system
- Implement effectively and efficiently the NUTRANS Master Plan.
- Be totally accountable to the residents of Nairobi

- Ensure transparency through stakeholders participation and consultation at all stages of development
- Pursue effective and timely intervention measures to minimize the funding gap

## Private Sector Participation

- Consciously promote new concepts of project financing such as the Public Private Partnership (PPP)
- Example:
  - On-going Southern Bypass
- Other Expected Projects:
  - Providing additional Parking Space in the CBD
  - Investment in Shuttle Bus System
  - Construction of Other Bypasses

## Your Contribution



Actively participate to gain awareness by attending traffic education forums.



Respect traffic police and contribute to the enforcement of traffic rules and regulations.



Develop and maintain high individual discipline.



Strictly observe and follow the traffic rules.

## JICA's Assistance

Founded in 1974, the Japan International Cooperation Agency (JICA) is an implementation agency for technical assistance, focusing on institution building, organization strengthening, and human resources development that will enable developing countries to pursue their own sustainable socioeconomic development.

Development studies support the formulation of plans for public projects that are beneficial to social and economic development in developing countries. They also serve as media for the transfer of planning methods, and survey and analytical skills to counterparts in the recipient countries.

These reports, prepared on the basis of study results, provide recipient governments with data for assessing their social and economic development policies. In many cases, plans proposed in these reports have been realized with financial assistance, such as loan and grant aid. Skills transferred through the studies are also utilized when recipient countries work on projects with their own funds and carry out other studies.

## JICA's Efforts

JICA assists transportation-related government agencies in developing countries by formulating plans that offer strategies and methods for the efficient development of facilities and services based on conditions in the transportation sector of each country.

Planning and policy decision making begin with the compilation of necessary data. JICA's wide-ranging technical cooperation also includes human resources development to maintain and manage facilities and the establishment of frameworks to ensure that transportation services are provided efficiently to the public.

JICA recognizes the need for ongoing improvements in its approach and is working to improve its methods. This improvement process is essential to the effective and efficient development of transportation infrastructure that reflects changes in the transportation environment in recent years and truly meets the needs of people in developing countries. It is also important to revitalize the economy and improve living standards.

(<http://www.jica.go.jp>)

- Ministry of Roads and Public Works
- Ministry of Local Government
- City Council of Nairobi



Japan International Cooperation Agency

# Master Plan for Urban Transport in the Nairobi Metropolitan Area



The Green City in the Sun

# NUTRANS

## Nairobi Urban Transport Study

### Summary Brochure

- How is NMA Urban Transport and how it will be without NUTRANS Projects?
- What will be achieved with NUTRANS Projects?
- Visions and Prospects
- NUTRANS Urgent Projects
- NUTRANS Master Plan 2025
- The Nairobi YOU want

Katahira & Engineers International (KEI)  
in association with RECS International Inc. (RECS)

# Without NUTRANS Projects?

## Present (2004)

NUTRANS identified a number of transport issues involving urban structure, road network, public transport, traffic management, etc.

- Urbanization in Kenya, particularly in the Nairobi Metropolitan Area (NMA), has been growing rapidly since independence but without commensurate development of urban infrastructures and services.
- The transport system of NMA is far from satisfactory with low speeds, delays, accidents, high costs and traffic nuisance due to the poor condition of the roads and public transport infrastructures, inappropriate traffic management and enforcement.
- Lack of respect for traffic rules and regulations is one of the causes of traffic congestion and accidents. There is a fragmented and uncoordinated legal and institutional framework for regulation, education and enforcement, notwithstanding the high operating costs, low investor incentives and unclearly defined initiatives of transforming the current status.

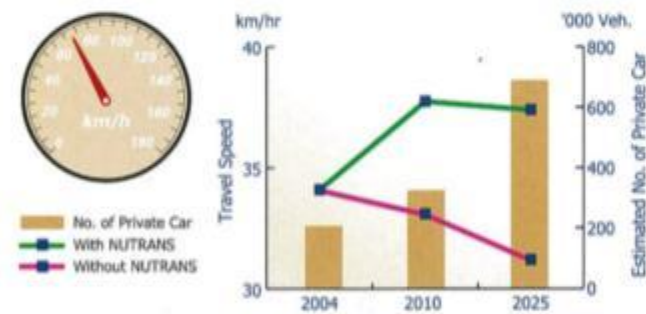
## Future (2025) without NUTRANS

NUTRANS Transport Model simulated with present traffic patterns, natural population growth plus predicted and unacceptable level of traffic conditions in 2025.

- Currently, urban transport is facing challenges prompted by a dynamic rate of population growth, spatial growth and economic development.
- The traffic condition in NMA, particularly the Nairobi City in 2025 will be beyond tolerable levels and may not be able to function as the center of business, commercial and industry without a drastic changes in land use.
- This situation will certainly hamper the national development and the quality life of the people will deteriorate. This will also result in pollution, environmental degradation, and devastation of urban amenity. Urban transport could be said to be the key means of socioeconomic activities, health, and education development if properly planned.

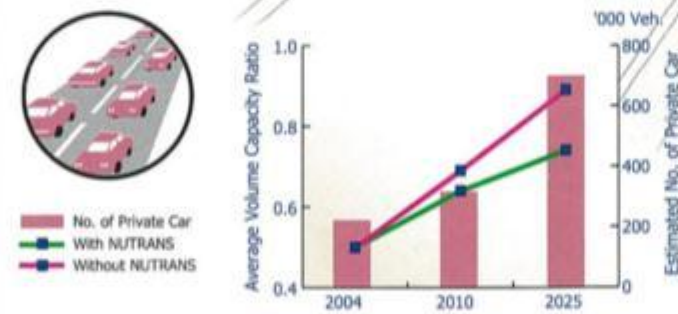
## Present and Future Status in Nairobi Metropolitan Area

### Travel Speed in NMA



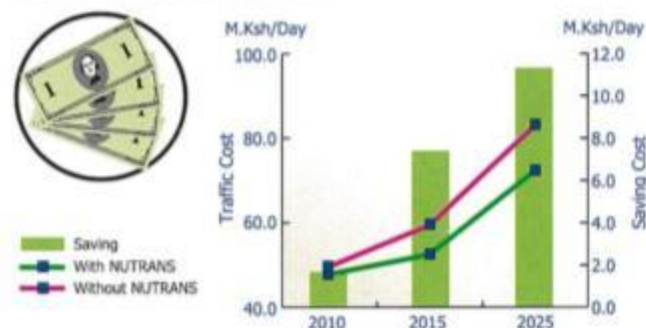
Average travel speed in NMA will reduce by 10% without M/P, on the other hand, it will increase by 10% with NUTRANS Projects in 2025.

### Traffic Congestion in NMA



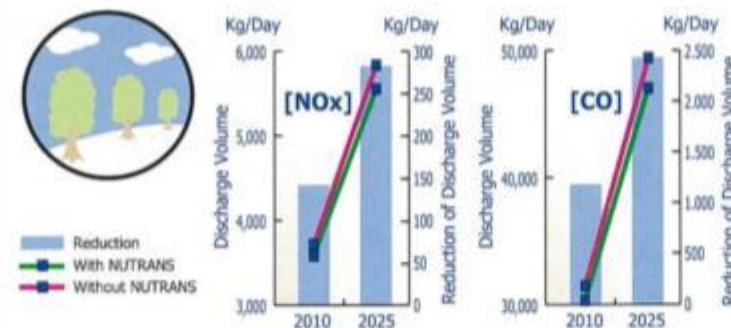
Average congestion degree in NMA will reach a level of 0.90 without M/P, on the other hand, it will remain at a level of 0.75 with NUTRANS Projects in 2025.

### Traffic Cost in NMA



Daily traffic cost savings in NMA will be 1.9 million in 2010, 7.4 million in 2015, and 11.3 million shillings in 2025 with NUTRANS Projects.

### Air Pollutants [NOx & CO] in NMA



Daily air pollutants [NOx & CO] reductions in NMA will be 0.14 & 1.1 ton in 2010, and 0.28 & 2.4 ton in 2025 with NUTRANS Projects.

# With NUTRANS Projects?

## Future (2025) with NUTRANS

NUTRANS focuses on the realization of a transport network characterized by functionality and accessibility as prime aspects for movement of the people.

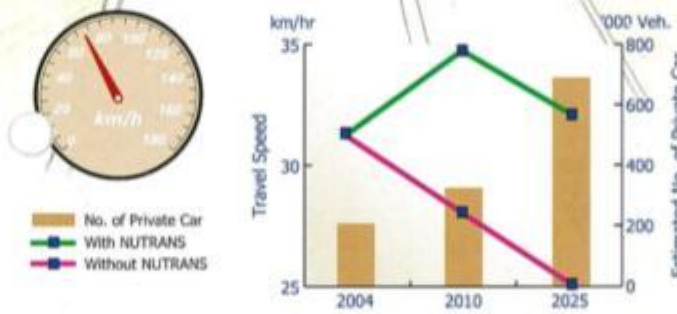
- An efficient transport system is a prerequisite for the rapid economic development of the country and for improving the living standards of the people. Availability and efficiency of urban transport are major factors in developing social and economic activities.
- The provision of non-motorized transport (NMT) facilities can effectively play a complementary role and also promote gender balance. Increasing health problems associated with traffic pollution in the urban area due to lack of mitigating means are to be urgently solved as crucial matters.
- In order to alleviate transport problems, and achieve the target, NUTRANS was formulated with a time horizon of 2025.

NUTRANS identified a number of imperative measures and projects, encompassing, among others, the followings:

- Road Network Development**
  - Bypasses and Missing Link Roads
  - Radial and Circumferential Road System
  - Non-Motorized Transport Facilities
- Signalization of Intersection**
  - Traffic Flow Improvement in CBD
  - Revitalization of Moi Avenue
- Public Transport**
  - Bus Incentive and Priority Policy
  - Restructuring of Bus and Mbatia Corridors
  - Introduction of Shuttle Bus System
  - Parking Improvement Inside CBD
- Traffic Management**
  - Traffic Education and Enforcement
  - Human Resource Development
- Fund Arrangement**
  - Public and Private Partnership

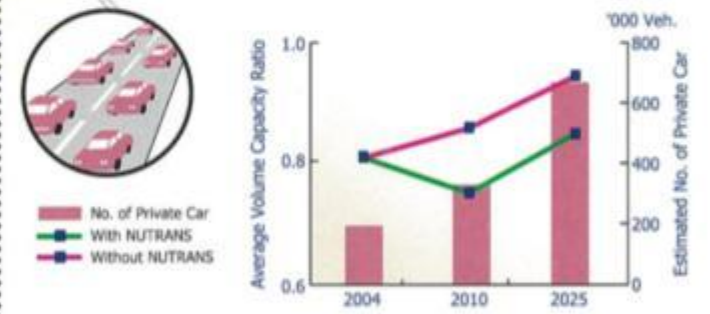
## Present and Future Status in City Centre

### Travel Speed in City Centre



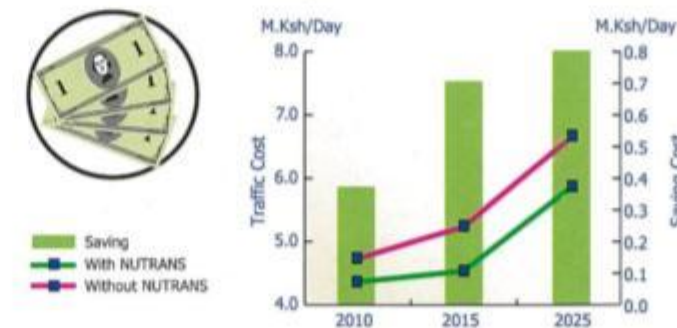
Average travel speed in City Centre will be reduced by 20% without M/P, on the other hand, it will remain at the present level with NUTRANS Projects in 2025.

### Traffic Congestion in City Centre



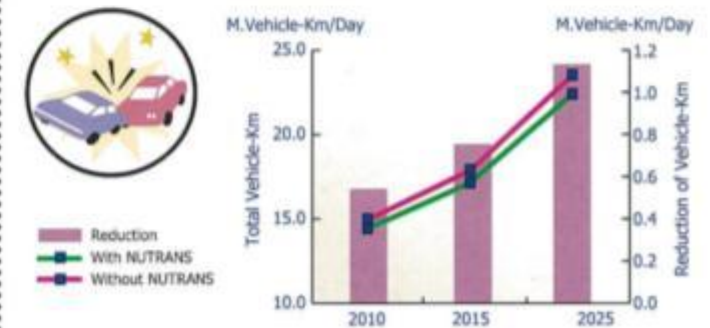
Average congestion degree in City Centre will reach a level of 0.95 without M/P, on the other hand, it will remain at a level of 0.85 with M/P in 2025.

### Traffic Cost in City Centre



Daily traffic cost saving in City Centre will be 0.4 million in 2010, 0.7 million in 2015, and 0.8 million shillings in 2025 with NUTRANS Projects.

### Traffic Accidents in NMA



Traffic accidents in NMA will decrease by 5% in 2025 with NUTRANS Projects as a result of reduced vehicle-km. Further reduction can be expected through strict enforcement and appropriate education of traffic rules and regulations.

# Vision and Prospects

## Vision Statement

- V-1 Facilitator of Rapid Economic Growth and Poverty Eradication
- V-2 World-Class Transport System
- V-3 Promotion of Non-Motorised Transport

## Mission Statement

- M-1 Efficient, Cost Effective, Reliable, Safe, Secure and Integrated Transport System
- M-2 National and Regional Development Aspiration in a Socially, Economically and Environmentally Sustainable Manner

## Master Plan Policy

- P-1 International Level of Improvement
- P-2 Development of Hierarchical Transport Network
- P-3 Promotion of Bus Transport
- P-4 Upgrading of Railway System
- P-5 Widespread Use of Non-Motorised Transport
- P-6 Enhancing of Transport Safety and Security
- P-7 Study on Traffic Demand Management
- P-8 Emphasis of Environmental and Social Considerations

# NUTRANS Priority Projects

## NUTRANS Overall Implementation Programme

NUTRANS proposed a total of 31 projects consisting of road development (22 projects), public transport (4 projects), traffic management (3 projects), and traffic institute development (2) up to the year 2025. These projects are highly cost-effective measures to turn the vision into reality, which were discussed in the Stakeholder Meetings.

The staging plan was prepared classifying into Short Term (2006 to 2010), Medium Term (2011 to 2015), and Long Term (2016 to 2025) to effectively utilize limited funds. The priority was made based on technical urgency, economical viability and environmental and social considerations, with an average annual requirement of 2.2 B.KShs and total estimate of 43.4 B.KShs.

## Urgent Measures in CBD and Its Vicinities

The following urgent measures were selected to be implemented immediately in CBD and its vicinities.

### Traffic Improvement in City Centre

- Improvement of Road Connecting to CBD
- Traffic Flow Improvement in CBD
- Revitalization of Moi Avenue
- Traffic Flow Improvement in Westlands
- Parking Improvement inside CBD

### Improvement of Bus/Matatu System

- Shuttle Bus Operation
- Corridor Improvement
- Mode Interchange Area Improvement

The purposes are:

- Improvement of Traffic Flow and Circulation in the City Centre, particularly inside CBD
- Improvement of Parking System inside CBD
- Restructuring of Public Transport System by Rerouting Bus/Matatu Routes.
- Improvement of Small Scale Facilities for Effective Public Transport Operation

Funds required will be prepared by GoK budget and expected from Private Sector for Parking and Mode Interchange Area Improvement and Shuttle Bus Operation.

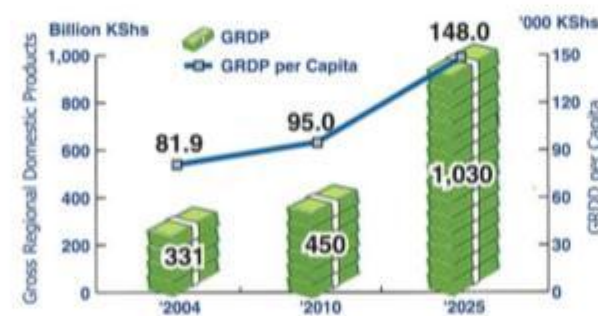
## Socio-Economic Framework

### Population in NMA



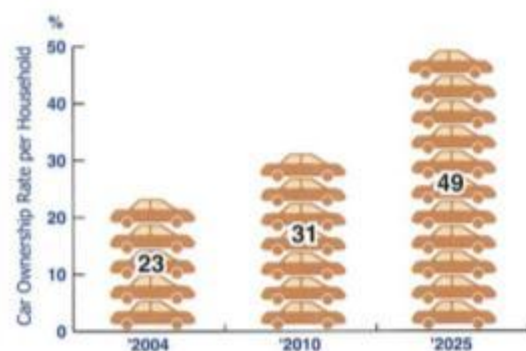
Population in NMA will increase from 4.0 million in 2004 to 4.7 million in 2010, and 7.0 million in 2025 with an Average Annual Growth Rate of 2.6%.

### GRDP & GRDP per Capital of NMA



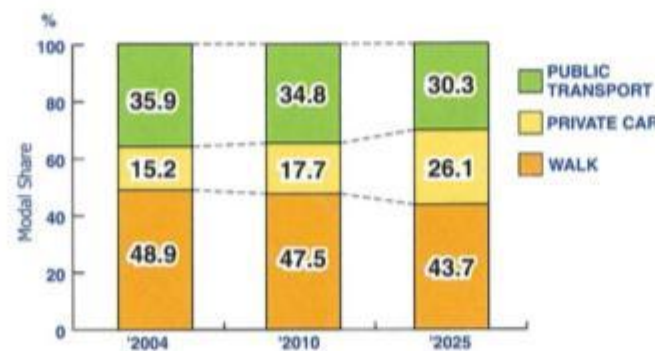
GRDP of NMA will expand from KShs 331 billion in 2004 to KShs 1,030 billion in 2025 with an Average Annual Growth Rate of 5.6%.

### Motorization in NMA



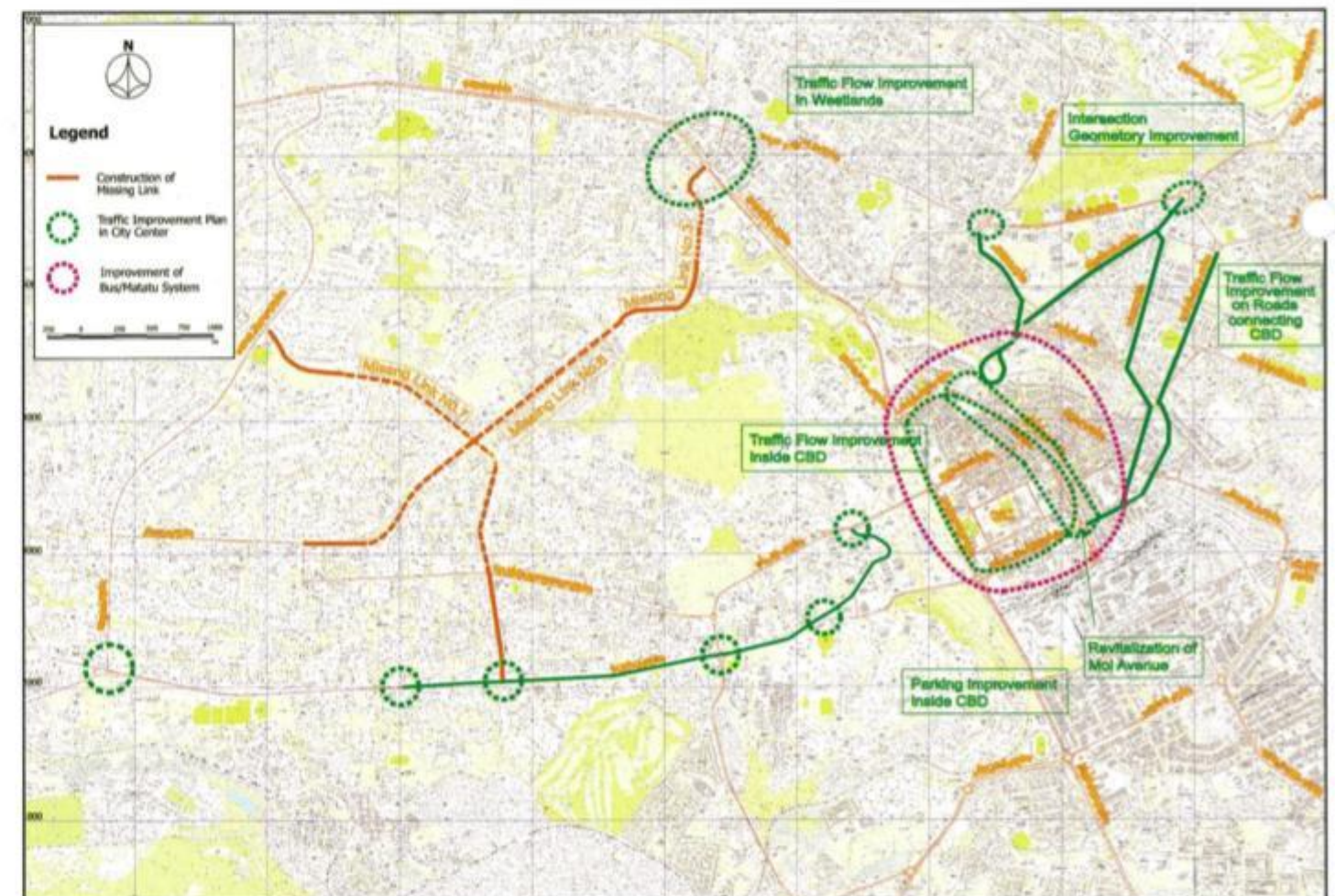
Car ownership rate per household in NMA will increase from 23% in 2004 to 31% in 2010, and 49% in 2025 with an Average Annual Growth Rate of 3.6%.

### Modal Share in NMA



Person trips per day in NMA will increase from 4.8 million in 2004 to 8.3 million in 2025, meanwhile modal share of private car will increase from 15% in 2004 to 26% in 2025.

## Present Problems and Urgent Improvement Measures



# NUTRANS Master Plan 2025

## Projects and Programmes

Sector	Major Project	Length (Unit)	Short Term	Mid. Term	Long Term	Beyond Plan
Road Development	<b>1 Bypass and Link Roads</b>	<b>118.8</b>				
	1.1 Bypass Roads	85.0				
	1.2 Link Roads	24.4				
	1.3 Link Road Extension	9.4				
	<b>2 Missing Links</b>	<b>32.8</b>				
	2.1 Missing Links (Arterials)	19.6				
	2.2 Missing Links (Collectors)	8.1				
	2.3 Missing Links (Local Roads)	5.1				
	<b>3 Radial Roads</b>	<b>138.1</b>				
	3.1 Radial Roads inside C-3	21.9				
	3.2 Radial outside C-3 (South-West)	51.1				
	3.3 Radial outside C-3 (North-East)	54.2				
	3.4 Proposed New Radial Roads	10.9				
	<b>4 Circumferential Road</b>	<b>16.0</b>				
	4.1 Circumferential Road C1 & C2	10.0				
	4.2 Circumferential Road C3	6.0				
	<b>5 Secondary Arterial Roads</b>	<b>65.3</b>				
	5.1 Secondary (South-West)	40.9				
	5.2 Secondary (North-East)	24.4				
	<b>6 Signalisation</b>	<b>(58)</b>				
	6.1 Signalisation (Stage 1)	(18)				
	6.2 Signalisation (Stage 2)	(14)				
6.3 Signalisation (Stage 3)	(16)					
<b>7 Non Motorised Transport (NMT)</b>	<b>59.8</b>					
7.1 NMT (South & West)	36.0					
7.2 NMT (North & East)	23.8					
<b>8 Uhuru Highway Improvement</b>	<b>3.7</b>					
8.1 Widening	3.7					
8.2 Grade Separation	(2)					
<b>9 Traffic Circulation in City Centre</b>	<b>LS</b>					
9.1 Traffic Circulation in City Centre	LS					
	<b>Sub Total</b>	<b>434.5</b>				
Public Transport	<b>1 Bus Incentive Policy</b>	-				
	<b>2 Bus Priority Policy</b>	-				
	2.1 Bus Lane	-				
	2.2 Bus Way	-				
<b>3 Upgrading of Existing Rail</b>	-					
<b>4 Light Rail Transit</b>	-					
Traffic Management	<b>1 On Street Parking</b>					
	<b>2 Off-street Parking</b>					
	<b>3 Public Education / Enforcement</b>					
Traffic Institution	<b>1 Human Resource Capacity Building</b>					
	<b>2 Institutional Development</b>					
Expressway	<b>1 Expressway (Step 1)</b>					
	<b>2 Expressway (Step 2)</b>					
	<b>3 Expressway (Step 3)</b>					

## NUTRANS Proposed Transport Networks in 2025

