DRAFT

NATIONAL ROAD SAFETY

ACTION PLAN

2015 – 2020
FOREWORD
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NATIONAL ROAD SAFETY STRATEGY AND ACTION PLAN

Background
The Government of Kenya developed Vision 2030 as its new long-term development plan for the country. The aim of the Kenya Vision 2030 is to create “a globally competitive and prosperous country with a high quality of life by 2030” through transforming the country from a third world country into an industrialized, middle income country. Following the launch of the Vision 2030 and the promulgation of the Kenya 2010 Constitution, the Ministry of Transport and Infrastructure developed Sessional Paper Number 2 of 2012 on Integrated National Transport Policy. Some of the recommendations of this sessional paper are the establishment of lead agency in road transport subsector which will, among others, coordinate road safety. It is in this light that National Transport and Safety Authority (NTSA) was established through an Act of Parliament.

The related planning documents and processes that inform this action plan are:

- Vision 2030
- Sessional Paper Number 2 of 2012 on Integrated National Transport Policy
- The Constitution of Kenya
- NTSA Act 2012
- Traffic Act Cap 403
- The Medium Term Plan
- The National Transport and Safety Authority Strategic Plan
- The UN Decade of Action for Road safety 2011-2020

The National Transport and Safety Authority
NTSA is a state corporation formed through National Transport and Safety Act 2012 (NTSA Act 2012)
The National Transport and Safety Authority (NTSA) mandates are to:

a) advise and make recommendations on matters relating to road transport and safety,
b) implement policies relating to road transport and safety,
c) plan, manage and regulate the road transport sector in accordance with the provisions of the Act, and,
d) ensure the provision of safe, reliable and efficient road transport service, and
e) administer the Act of Parliament set out in the First Schedule and any other written Law

In performance of its functions, the Authority is mandated to:-

i. register and license motor vehicles,
ii. conduct motor vehicle inspection and certification, regulate public service vehicles,
iii. advise the Government on national policy with regard to road transport sector,
iv. develop and implement road safety strategies,
v. facilitate the education of members of the public on road safety, conduct research and audits on road safety,
vi. compile inspection reports relating to traffic accidents,
vii. establish systems and procedures for, and oversee the training, testing and licensing of drivers,
viii. formulate and review the curriculum of driving schools, and
ix. Coordinate the activities of persons and organizations dealing in matters relating to road safety.
x. Perform such other functions as may be conferred on it by the Cabinet Secretary or by any other written Law.

In 2011 the United Nations launched the Decade of Action for Road Safety. The aim of the Decade of Action is to raise the political awareness of road safety and to address the unacceptably high levels of death and serious injuries that result as a consequence of road traffic crashes. The target of the Decade of Action is to reduce road fatalities by 50% by the year 2020. Kenya is a signatory to the Decade of Action and has agreed to match the target to reduce fatalities by 50% by 2020.

In order to achieve a reduction of this magnitude requires considerable effort and commitment. The United Nations have made a number of recommendations as to how this reduction can be achieved. Two of the key recommendations are:

1. Establish a lead authority that will take responsibility for the improvement in road safety
2. Develop a Road Safety Strategy to manage the improvements in road safety

Historically in Kenya responsibility for road safety was split between several different Government Agencies and there was limited coordination between them. As a result road safety interventions tended to be reactive rather than planned. Previously Road Safety Strategies have been developed and implementation time tables extended without any substantive action being taken.

In order to address this situation the NTSA has been established. The NTSA will shift the approach to road safety from a reactive to a proactive and integrated approach. The focus will be to make the traffic system, with its large speed differential between vehicles and wide range of vehicle sizes, and with its vulnerable and fallible users, inherently safe. The NTSA will be responsible for overseeing the implementation of this Road safety Strategy and associated Action Plan.

**Road Safety Strategy**

The Road Safety Strategy has been written to set the scene for the development of road safety over the next five years in Kenya.

The Decade of Action developed five pillars of road safety:
Figure 1: The Five Pillars of Road Safety

In order to develop the Strategy these pillars have been further subdivided into thirteen sectors as detailed below.
Figure 2: Road Safety Sectors

Each sector has an objective, gives a brief background summary, key implementation points and then a number of action are identified that have been carried forward into the Road Safety Action Plan.

Road Safety Action Plan
In addition to the Strategy a five year action plan has also been developed. The Action Plan is limited to five years as progress and development in Kenya is moving rapidly. An Action Plan with a longer time frame may not still be relevant in its later years. A five year period will also coincide with the conclusion of the Decade of Action for Road Safety in 2020.

The Action Plan includes a timetable for implementation, identification of budgets and identification of organisations responsible for implementation.

Priority Action Plan
In support of the Road Safety Strategy a Priority Action Plan (PAP) has also been produced. The Priority Action Plan provides details of the actions required over the next 2 year period and will secure funding for the development of road safety in Kenya whilst the Road Safety Strategy and Action Plan are finalised and implementation begins.

The Road safety Strategy should be read in conjunction with the Priority Action Plan.

Vision
The vision of this Road Safety Strategy is:

*To enable Kenya to become a regional leader in the field of road safety*

Target
The target for the Road Safety Action Plan will be to achieve a 50% reduction in fatalities by 2020 in line with the target agreed through the Decade of Action.

It must be recognised that there is a significant level of underreporting of road fatalities and traffic crashes in general. Therefore as reporting procedures improve the number of fatalities recorded will rise.

Role of the Counties
The Constitution of Kenya provides for devolved system of government. Article 6 of the Constitution provides for devolution and access of services. According to Article 186(1) the functions of the national and county governments are set out in the Fourth Schedule. Transport is one of the devolved functions as defined in Fourth Schedule and potentially have a bearing on road safety in respective counties.
The NTSA Act provides for the establishment of County Transport and Safety Committees in each County (CTSC).

The Functions of the County Transport and Safety Committee:

a) Oversee the management and regulation of the road transport system by Authority at the county level;

b) Prepare and submit to the Authority such audit reports as the Authority may require on the safety, reliability and efficiency of the road transport system within the county;

c) Advise the Authority on matters affecting the road transport system within the county; and

d) Perform such other functions as may be assigned to it by the Authority.

The Counties are responsible for the development and delivery of road safety within their County. An a County Transport and Safety Committee will be established in each County and each committee will be develop their own unique Road Safety Strategy and Action Plan which mirrors the National Action Plan.

The County Road Safety Strategies should follow the national strategy and the Action plans will detail how the Strategies will be implemented on a local level.

In order to assist the Counties in this task a model County Road Safety Strategy will be developed.

**Road Safety Committee**

A Road Safety Committee will be established to oversee the finalisation of the Road Safety Action Plan. It will also be the responsibility of this committee to monitor the implementation of the Action Plan and ensure it is delivered to schedule. If any element of the Action Plan cannot be delivered to schedule the Committee will hold the responsible organisation accountable and request appropriate remedial action.
GLOBAL ROAD SAFETY SITUATION

According to the World Health Organization, approximately 1.24 million people die every year on the world’s roads, and another 20 to 50 million sustain non-fatal injuries as a result of road traffic crashes.

Road traffic injuries are estimated to be the eighth leading cause of death globally, with an impact similar to that caused by many communicable diseases, such as malaria. They are the leading cause of death for young people aged 15–29 years, and as a result take a heavy toll on those entering their most productive years. Current trends suggest that road traffic injuries will become the fifth leading cause of death by 2030.

Economically disadvantaged families are hardest hit by both direct medical costs and indirect costs such as lost wages that result from these injuries. At the country level, road traffic injuries result in considerable financial costs, particularly to developing economies. Indeed, road traffic injuries are estimated to cost low- and middle-income countries between 1–2 % of their gross national product, estimated at over US$ 100 billion a year.

Evidence from many countries shows that great successes in preventing road traffic injuries can be achieved through concerted efforts at the country level. A number of countries, such as Australia, Canada, France, the Netherlands, Sweden and the United Kingdom have achieved steady declines in road traffic death rates through coordinated, multi-sectoral responses to the problem. Such responses involve implementation of a number of proven measures that address not only the safety of the road user, but also vehicle safety, the road environment and post-crash care.

Data in Table 1 shows that low-income countries have only one percent of registered vehicles yet they contribute to 12 percent of all traffic fatalities globally.

Table 1: Global Data on Road Safety

<table>
<thead>
<tr>
<th>Countries</th>
<th>Population (%) of World Total</th>
<th>Road Traffic Deaths (% of World Total)</th>
<th>Registered Vehicles (% of World Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Income</td>
<td>16</td>
<td>8</td>
<td>47</td>
</tr>
<tr>
<td>Medium Income</td>
<td>72</td>
<td>80</td>
<td>52</td>
</tr>
<tr>
<td>Low Income</td>
<td>12</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Global Status Report on Road Safety 2013: Supporting a Decade of Action, World Health Organization
The risk of dying as a result of a road traffic injury is highest in the African region at 24.1 per 100,000 population, and lowest in the European region at 10.3 per 100,000. Figures 3, 4 and 5 show fatality rates for Kenya and some selected countries.

Figure 3: Fatality Rates – Kenya vs EAC Countries

Source: Global Status Report on Road Safety 2013: Supporting a Decade of Action, World Health Organization
Figure 4: Fatalities Rate – Kenya vs Selected African Countries

Source: Global Status Report on Road Safety 2013: Supporting a Decade of Action, World Health Organization

Figure 5: Fatalities Rate – Kenya vs Selected Countries in Other Continents
Source: Global Status Report on Road Safety 2013: Supporting a Decade of Action, World Health Organization
ROAD SAFETY SITUATION IN KENYA

Figure 6 shows the overall trend of road safety problem in Kenya between 2003 and 2012.

Figure 6: Road Accidents in Kenya (2003 – 2012)

Source: Kenya Police Service data

Figure 6 shows that the number of fatalities have remained fairly constant at about 3,000 annually, while persons sustaining serious injuries were on the increase up to 2010, and have been on a decline since then. Further analysis of the data showed the annual number of accidents has been falling, mainly due to reduced number of slight accidents. This trend raises concerns about the accuracy and completeness of the crash data recorded by the Police. On average, drivers and motor cycle riders are the main persons responsible for most of the accidents; followed by pedestrians, pedal cyclists, and so on (Figure 7).

Figure 7: Persons Responsible for Accidents
Figure 6 shows that since 2007/2008, slight injuries for all categories of road users have been reducing, which may be due to: (i) under-reporting of slight injuries as Police resources became constrained; (ii) persons involved do not inform the Police of the accidents. Serious injuries and fatalities among motor cycle riders have continued to rise, which may be due to: (i) increase in the number of riders and motor cycles; (ii) lack of training and experience in using the roads.

The consequences of underreporting are that the sample of crashes on which to base the analysis and thus to formulate remedial treatments and measures is effectively less good.

Figure 8 shows that the main persons killed were pedestrians, passengers, drivers/motor cycle riders, and pedal cycle riders.

*Figure 8: Persons Killed in Accidents*
Figure 9 shows the composition of fatalities for the period 2008 to 2012. Figure 10 shows that passengers were the main casualties in serious and fatal accidents followed by pedestrians, motor cyclists, drivers, and pedal cyclists.
Figure 9: Composition of Fatalities 2015/16

<table>
<thead>
<tr>
<th>2014/15 FY</th>
<th>2015/2016 FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDESTRIANS 45%</td>
<td>PEDESTRIANS 41%</td>
</tr>
<tr>
<td>PASSENGERS 22%</td>
<td>PASSENGERS 22%</td>
</tr>
<tr>
<td>MOTOR CYCLE DEATHS 20%</td>
<td>MOTOR CYCLE DEATHS 23%</td>
</tr>
<tr>
<td>DRIVERS 10%</td>
<td>DRIVERS 12%</td>
</tr>
<tr>
<td>PEDAL CYCLIST 3%</td>
<td>PEDESTRIANS 41%</td>
</tr>
</tbody>
</table>

Figure 10: Serious Injuries and Fatalities
From the analyses above, the following three main conclusions can be made:

1. The main casualties are pedestrians (48.8% fatalities), passengers (25.4%), and motor cycle riders;
2. Drivers and motor cycle riders are responsible for most accidents, followed by pedestrians, and pedal cyclists; and,
3. There are indications of under-reporting of accidents, as the 30-day rule* on fatalities is not being applied, and slight injuries are being ignored.

*The international standard is for a victim of a road crash to be classed as a fatality of they die within 30 days of the crash.
1. ROAD SAFETY COORDINATION AND MANAGEMENT

Objective: To enhance and strengthen road safety co-ordination and management to reduce death, injury, disability and economic losses due to road crashes through effective multi-sectoral partnerships with involvement of public, private and civil society organisations to develop and lead the delivery of national road safety strategies.

Current Situation
Historically Kenya has suffered from a lack of coordination and management of road safety issues. Several different Government agencies had responsibility for various aspects of road safety. As a result there was often duplication of effort and significant areas were not addressed at all. In the absence of formal organisation several agencies, both Government and non-government undertook steps to improve road safety. In order to address this situation the National Transport Safety Authority (NTSA) was established.

The lead agency in road safety in Kenya is the National Transport and Safety Authority. The National Transport and Safety Authority was established through an Act of Parliament; Act Number 33 on 26th October 2012. The objective of forming the Authority was to harmonize the operations of the key road transport departments and help in effectively managing the road transport sub-sector and minimizing injuries and loss of lives through road crashes.

The core functions of NTSA include:

I. To advise and make recommendations on matters relating to road transport and safety.
II. To implement policies relating to road transport and safety.
III. To plan, manage and regulate the road transport sector in accordance with the provisions of the Act and;
IV. To ensure the provision of safe, reliable and efficient road transport service.

The NTSA Act empowers the Authority to establish County Transport and Safety Committees in consultation with the county government in each of the 47 counties which will be tasked on matters dealing with road transport and safety.

There is a dedicated directorate in charge of safety matters in the authority.

NTSA Act Section 4 subsection 2 (k) states that one of the functions of NTSA is co-ordinate the activities of persons and organisations dealing in matters relating to road safety;
Therefore NTSA, through the directorate of road safety is tasked to regulate and coordinate all actors concerned with road safety in the republic of Kenya. NTSA is responsible for mapping and registering all the actors (State Actors, NGOs, CSOs, Private Companies engaged in Road Safety activities in Kenya. The process of coordinating include registration, accreditation and retention of the roads safety actors. The actors to be regulated and coordinated by the Authority include:

1. State actors who are currently who are engaged in road safety in road safety as part of their core mandate
2. State actors who are involved RS and whose mandate is not there primary mandates
3. Civil Society Organizations
4. Private Sector
5. NGO’s—both local and international
6. UN Organizations
7. Development partners/Development banks
8. Funding agencies
9. Private Citizens and Philanthropies
10. Research Institutions

The participation of private sector civil, International organization a society organizations in road safety activities has been on the rise in the recent past, but there is need to streamline their activities to achieve maximum impact.

**Key Improvement Points**

The NTSA needs to be proactive in establishing its role as the Government Agency responsible for road safety in Kenya. The following key actions should be undertaken:

1. Establishment of a Committee to oversee the introduction and implementation of this road safety strategy
2. Development of NTSA Road Safety Strategic Plan
3. Establishment of County Transport and Safety Committees
4. Development of County Transport and Road Safety Strategies
5. Development of NTSA Communications and Advocacy Strategy
6. Establish database of road safety actors
7. Develop an engagement framework of road safety actors
1.1 Establishment of a Committee to oversee the introduction and implementation of this road safety strategy

The development of a Road Safety Strategy and Action Plan is the easy part of the process. The far harder part is the management if the Strategy and ensuring that it is implemented to cost and to time.

In order to help in this process a Road Safety Committee will be established to oversee the finalisation of the Road Safety Strategy and Road Safety Action Plan. It will also be the responsibility of this committee to monitor the implementation of the Action Plan and ensure it is delivered to schedule. If any element of the Action Plan cannot be delivered to schedule the Committee will hold the responsible organisation accountable and request appropriate remedial action.

The Committee will plan each activity to be undertaken during the following year and meet on a quarterly basis to ensure implementation is proceeding to plan. If implementation is not proceeding to plan the committee will require the responsible agency to identify the reasons why and to produce a mitigation plan.

**In order to enable the committee to be effective it would require to have strong political support.** This committee be chaired by the Principal Secretary Transport or higher (as a minimum) but preferably at ministerial & cabinet level and have senior representatives from all of the implementing agencies. Below and reporting to the Committee should be a series of working groups. Each working group will be responsible for one of the Thematic Areas and will comprise of senior Government officers as well as representatives of industry and NGOs. The working groups will be responsible for organising and overseeing their Sector and will report progress to the Committee.

The Committee and working groups will also be responsible for the continued development of the Road Safety Strategy and Action Plan. The progress towards completion of the Action Plan should be monitored on an annual basis and in 2020 another Action Plan should be developed for the next 5 year period.

A proposed structure for and membership of the Committee and working groups is included in Appendix A.

1.2 Establishment of County Transport and Safety Committees

NTSA Act provides for the establishment of County Transport and Safety Committees in each County (CTSC).

The Functions of the county transport and safety committee are:

a) Oversee the management and regulation of the road transport system by Authority at the county level;
b) Prepare and submit to the Authority such audit reports as the Authority may require on the safety, reliability and efficiency of the road transport system within the county;

c) Advise the Authority on matters affecting the road transport system within the county; and

d) Perform such other functions as may be assigned to it by the Authority

Each committee is required to:

‘prepare and submit to the Authority such audit reports as the Authority may require on the safety, reliability and efficiency of the road transport system within the county’

There will be a need to provide support and direction to the Counties as they establish the committees.

1.3 Development of County Road Safety Strategies

As noted above the County Road safety committees will require support and guidance whilst they become established. In order to help in this process a model County road safety strategy will be developed and made available. The Counties will then be able to work to this model.

It will be essential to ensure that the County Road Safety Strategies are in line with and support the National Road Safety Strategy.

The draft NTSA Strategic Plan 2016-2021 places a lot of emphasis on the county government as a major stakeholder in the implementation of the NTSA mandates. The stakeholder collaboration pillar of the NTSA’s draft Strategic Plan defines implementing partners as the organisations/arms of the government that ensure that transport & safety regulations and standards are upheld. County Government is one of the biggest implementers with high levels of influence and impact in stakeholder analysis.

![Stakeholder Groups Level of Influence and Impact](image)
PROPOSED CONCEPTUAL FRAMEWORK FOR THE IMPLEMENTATION OF THE CTSCs FUNCTIONS AT COUNTY LEVEL

1.4 Development of NTSA Strategic Plan
The NTSA has a far wider remit than just road safety. However, safety is the central key theme that must run through all activities.

As a new organisation the NTSA is in the process of developing its governance procedures. One of the key governance procedures will be the development of a strategic plan that will guide the
The development of the organisation over the coming years. The NTSA Strategic Plan will be an integral element of the Road Safety Strategy as it will influence how the NTSA operates and develops.

1.5 Development of NTSA Communications and Advocacy Strategy
Communication is a key element in the management and coordination of road safety and the Communications and Advocacy Strategy will be another key governance document for the NTSA.

The Communications and Advocacy Strategy will need to consider how the NTSA will communicate its corporate message and image and road safety messages to its stakeholders and the public. It will also need to address how the NTSA will act as coordinator between the stakeholders. By acting as coordinator the NTSA can ensure maximum benefit is gained from all road safety activities and avoid any duplication of effort.

Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Year</th>
<th>Responsible Agency</th>
<th>Priority</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of Road Safety Strategy Committee</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NTSA</td>
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<tr>
<td>Establishment of County Road Safety Committees</td>
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<td>*</td>
<td>*</td>
<td>NTSA</td>
</tr>
<tr>
<td>Development of County Road Safety Strategies</td>
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<td>*</td>
<td>NTSA</td>
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<tr>
<td>Development of NTSA Strategic Plan</td>
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<td>NTSA</td>
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<tr>
<td>Development of NTSA Communications and Advocacy Strategy</td>
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<td>NTSA</td>
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<tr>
<td>Establish database of road safety actors</td>
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<td></td>
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<tr>
<td>Develop and implement engagement framework of road safety actors</td>
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</tbody>
</table>


2. Road Safety Mainstreaming

Objective: To ensure that road safety is integrated into all policies, programs, projects, Plans, research, advocacy, implementation and monitoring & evaluation in ministries, departments and agencies of government at National and County levels

Current Situation

Road safety is a shared responsibility and requires a well-orchestrated and sustained contribution from many sectors. A coherent holistic and integrated approach is therefore needed, taking into account synergies with other policy goals. Road safety policies both at county and national level should be integrated into relevant objectives of other public policies and vice versa.

Road safety mainstreaming is the process of assessing and integrating road safety in any planned action, including legislation, policies or programmes, in any area and at all levels in government including ministries, State department and agencies. It is a strategy for making road safety an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that the multi-sectorial nature of road safety interventions is sustainably promoted at all levels within and outside government.

A useful tool towards reaching this goal is the experience of integrating HIV/ADS into all policy areas within Government in Kenya. Useful synergies can be created and achieved and certain objectives can be met through integrating safety into other areas, in line with the generally accepted and recommended principle of safe system approach which has used successfully at global level to address road safety challenges.

Other areas which have been mainstreamed to a larger extend within the government sector are gender mainstreaming, Disability, Environmental protection, Sexual violence and lately security and workplace safety.

Mainstreaming requires that attention is given to road safety perspectives as an integral part of all activities across all programmes. This involves making road safety a consideration in all policy development, research, advocacy, development, implementation and monitoring of norms and standards, and planning, implementation and monitoring of projects and programmes in both National and County governments.

The development and implementation of the road safety mainstreaming framework is subject to approval of the subject matter the by the cabinet. A cabinet Memorandum is to appraise the Cabinet to justify and propose mechanism for mainstreaming of road safety in Ministries, State Departments and Agencies has been drafted by NTSA and shared with the MoTI.
Proposed Framework/Structure

It is proposed that all Road safety is systematically integrated in all government arms - The Judiciary, The Legislature and Executive through a frame work as described below.

Key Improvement Points

The following key actions should be undertaken:

1. Cabinet Approval for the establishment and implementation of the road safety mainstreaming framework.
2. Development of Road Safety Mainstreaming Guidelines and Work Plans upon Cabinet approval of the Cabinet Memo recommendations;
3. National sensitization programmes on road safety mainstreaming targeted on Ministries, Departments and Agencies (MDAs)
4. Engage Performance Contracting Division to include Road Safety as a target for all Ministries, Departments and Agencies
5. Establishment of the appropriate and recommended committees (as per the above structure) to oversee and implement the workplan on the mainstreaming of road safety
6. NTSA to establish the mechanism for Capacity building in Road Safety within government MDAs
7. Establishment of Road Safety Units (RSU) in each ministry, state department or agency (akin to Alcohol and Drug Prevention Committee and HIV/AIDS as currently constituted in Government Ministries, departments and agencies).

8. The accounting Officer/head in a government Ministry, Agency to have undergo the necessary capacity building process.

9. Creation of Road Safety awareness to all employees in every government ministry, agency or department.

10. Establishment of road Safety Policy and Plan (similar to the HIV Prevention plan, alcohol and drug abuse control and prevention plans) in every government ministry, agency or department. This policy is preferably signed by the person with the highest authority within the entity.

11. Establishment of annual key performance indicators government ministries, agencies or departments including;
   a. Reduction of number of road traffic casualties and serious injury crashes;
   b. Reduction of number of road traffic crashes;
   c. Percentage of employees who are Road Safety Aware (RSA);
   d. Number of employees who are Road Safety Knowledgeable (RSK);
   e. Percentage of road safety plan implemented;
   f. Number of resolved actions from Root cause analysis (RCA) reports from incident investigations.
   g. Maintenance of records of road crashes and near misses.

12. Monitoring and evaluation of the mainstreaming process and progress in MDAs and appropriate periodic report for action.

### Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Year</th>
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<td>Cabinet Approval for the establishment and implementation of the road safety mainstreaming framework.</td>
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<td>Development of Road Safety Mainstreaming Guidelines and Work Plans</td>
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<td>National sensitization programmes on road safety mainstreaming targeted on MDAs</td>
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<td>Engage Performance Contracting Division to include Road Safety as a target for all Ministries, Departments and Agencies</td>
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<td>Establishment of the appropriate and recommended committees to oversee and implement the workplan on the mainstreaming of road safety</td>
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<td>NTSA to establish the mechanism for Capacity building in Road Safety within government MDAs</td>
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<td>The accounting Officer/head in a government Ministry, Agency to have undergo the necessary capacity building process.</td>
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<td>Creation of Road Safety awareness to all employees in every government ministry, agency or department,</td>
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<td>Establishment of Road Safety Policy and Plan</td>
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<td>Establishment of annual key performance indicators government ministries, agencies or departments</td>
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<td>Establishment of Road Safety Units (RSU) in each ministry, state department or agency</td>
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<td>Monitoring and evaluation of the mainstreaming process and progress</td>
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3. Funding for Road Safety

Objective: To establish, source and sustain adequate resources for road safety in order to implement effective programmes within the Road Safety Action Plan.

Current Situation
With the establishment of NTSA, the funding to undertake some of the activities is from the exchequer. The amount allocated to the authority is also used for other core functions of the authority not directly related to road safety. These funds, therefore, may not be adequate to undertake comprehensive road safety programmes.

The support from the development partners on road safety matters is promising, but there is need to have a structured system in order to get maximum benefit in terms of road safety funding for road safety activities.

The participation of private sector and civil society organizations has been limited and it therefore calls for a need of elaborate system and structures of engagement with them including demonstration of accountability and transparency for the funds.

There is also need to have some of the funds to fund road safety be generated from internal sources as envisaged in NTSA Act among other innovative ways. County government should also support RS activities.

The NTSA Act makes provisions for the funding of activities by the NTSA. The Act makes the following provisions:

The funds of the Authority shall comprise of-

a) such moneys’ as may accrue to, or vest in the Authority in the course of the exercise of its powers or the performance of its functions under this Act;
b) such moneys as may be payable to the Authority pursuant to this Act or any other written law
c) such gifts as may be donated to the authority
d) such moneys as may be appropriated by Parliament for the purposes of the Authority
e) money from any other sources granted, donated or lent to the Authority

The Cabinet Secretary may upon the recommendation of the Authority and by order published in the Gazette impose a levy to be known as the National Transport and Safety Levy on-

a) any services rendered by the Authority
b) premiums received by any insurance company in respect of every policy of insurance taken in accordance with the provisions of the Insurance (Motor Vehicles Third Party Risks) Act, which
shall be paid by the insurance company
b) ten percent of the revenue collected from motor vehicle registration, motor vehicle inspection and issuance of driver licences

There is established a Fund to be known as the National Road Transport and Safety Fund which shall vest in the Authority. There shall be paid into the Fund:

a) moneys appropriated by Parliament
b) the levy
c) grants and donations made to the Authority
d) moneys from a source approved by the Authority

Despite the above, there is a lack of clarity over immediate funding options for the NTSA and extensive support is still needed from international funding agencies to allow the NTSA to develop and undertake its assigned duties. Over time the National Transport and Safety Levy will become established and form a funding mechanism for the NTSA and the development of road safety.

Key Improvement Points
The NTSA needs to be proactive in developing funding streams to allow it to undertake its duties. The following key actions should be undertaken:

13. Establish the funding mechanisms of the National Transport and Safety Levy
14. Estimate the cost of crashes to the economy
15. Ensure 10% of the funding for road schemes is dedicated to safety
16. Establish funding mechanisms for the County Transport and Safety Committees
17. Strive to actualize Section 45 of the NTSA Act to National Transport and Safety Fund to maximize revenue sources for road safety programmes
18. Approach development partners and private sector to support components of the National Road Safety Action Plan.
19. Streamline the activities of NGO’s, Civil Society, and international Organization dealing with Road safety matters to create synergy for their RS activities
20. Build capacity of NTSA staff in donor communication and resource mobilization
21. Build capacity of road safety stakeholders in donor communication and resource mobilization
22. Administrative and legal amendments to ensure monies from traffic fines, penalties and other monies due to traffic infringements support RS.
23. Raise public awareness that expenditure on road safety is an investment not a cost

2.1 Establishment of the funding mechanisms of the National Transport and Safety Levy
The NTSA allows for the establishment of the Transport and Safety Levy. Action should now be taken to bring this levy into operation to provide a sustainable funding stream into the NTSA.
The Transport and Safety Levy allows for a premium to be charged on top of third party insurance. In addition to insurance it is also proposed that consideration be given to imposing a levy on road fuel as well. Imposing a levy on insurance can act as a deterrent to drivers taking out insurance as costs are increased. Imposing a levy on road fuel will be more directly attributable to the use of the road network and will not allow drivers to opt out of payment.

2.2 Estimate the cost of crashes to the economy
In order to help support the economic case for investments in road safety it is important to be able to evaluate the costs of crashes, both on a crash by crash basis and as an overall cost to society. It is estimated that road crashes can cost an economy towards 2-3% of GDP on an annual basis. For road safety to be fully supported it must be demonstrated that money spent on road safety is an investment, not a cost.

There are standard international recognised methods for estimating the cost of crashes to a country. With assistance and guidance the Nairobi University would be able to undertake the analysis on the first occasion and then be able to undertake the analysis on their own in future years.

A request for funding to cover the first analysis has been included in the Priority Action Plan.

2.3 Ensure 10% of the funding for road schemes is dedicated to safety
It will be the responsibility of the Roads Authorities and the Counties to ensure that each new road and road improvement scheme contains a proportion funding dedicated for road safety. On an international basis, funding from International Institutions is intended to allocate 10% to road safety. This is what the funding that should go into road safety both at national and county level.

2.4 Establish funding mechanisms for the County Transport and Safety Committees
In addition to establishing a funding mechanism for the NTSA and National Road Safety Strategy it will also be necessary to establish a funding stream of the County Transport and Safety Committees.

A potential option for this would be to allocate a proportion of the Transport and Safety Levy to the Counties.
### Actions

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4. Road Crash Data System

Objective: To establish, support and implement road safety data systems that supports generation of evidence based policy formulation and implementation and for robust monitoring and evaluation of the action plan

Current Situation
The crash data collection processes currently used in Kenya are very limited and lack data that is necessary for meaningful analysis. There is also an issue of likely underreporting. Official statistics state that there are approximately 3,000 fatalities per year due to road crashes in Kenya. The WHO estimate this figure could be as high as 13,000.

Reliable and accurate data are needed to raise awareness about the magnitude of road traffic injuries, and to inform policy formulation and implementation. Reliable and accurate data are also needed to correctly identify problems, risk factors and priority areas, and to formulate strategy, set targets and monitor performance. Ongoing, data-led diagnosis and management of the leading road traffic injury problems enables appropriate action and resource allocation. Without this, there will be no significant, sustainable reductions in exposure to crash risk or in the severity of crashes.

The current national crash data system is largely based on the data provided by the Police through the P41 form. The Information provided in the P24 form in use currently by the police is quite inadequate and does not have the minimum data elements as recommended. As well, the data is not disaggregated accordingly. This data is sent then send to NTSA. Currently the data collected is for crashes where injuries & injuries and fatalities are recorded and not for vehicle damage/property damage only crashes. Some minor crashes are not reported to the Police. The Police do not currently use a pro-forma to record crash information and daily records are based on telephone calls between stations. This approach automatically limits the amount and accuracy of information that can be recorded. Importantly the current process does not include any method of updating the crash records. So fatalities tend to only record those people who died at the scene. The historic crash data is stored in an excel database at Traffic Police Headquarters and there is no formal basis of backing up the data in case of corruption of the database.

There is a clear lack of capacity to analyze the data by the Police. NTSA and Police should be capacitated to better carry out analysis, research or monitoring & evaluation based on the RS data. The analysed data need to have a feedback mechanism to ensure that it informs policy, strategy and road safety interventions both at national level and county level.

Data analysis on the economic effects of road crashes is not efficiently done despite its obvious high social and economic costs to the country.
GIS system mapping of the hazardous areas need to be done.

Co-ordination and a centralized source of road safety statistics is not adequate. There is clear need to link other data sources (Road Authorities, health institutions, insurance, transport fleet operators, researchers, Death Registration Depth) with the NTSA. Linkage is also required with the Kenya National Bureau of Statistics.

The WHO recently undertook a small scale trial of a new crash data recording system based on smart phone technology. The trial did indicate that such an approach would be practical in Kenya. This trial was undertaken in Thika as part of the Bloomberg Philanthropies Road Safety 10 initiative.

**Key Improvement Points**

Action should be taken to address the following key issues:

1. Development of a national crash database
2. Road Crash Data should be improved to include:
   a. Costs: Medical costs, material and intervention costs, productivity losses, traffic jams (lost time), loss of life/quality of life
   b. Outcome indicators: Crashes, injuries, deaths (combined with exposure data)
   c. Safety performance indicators: Speed, alcohol, restraints, helmets, road infrastructure, vehicle safety, trauma management
   d. Process/implementation indicators: Road safety policies, plans, programmes, implementation of interventions
3. There improvement and strengthening includes:
   a. Identification of all the sources of road crash data
   b. Develop a framework of how the data sources are network
   c. Revision of P41 accident form to include minimum data elements and disaggregated accordingly
   d. Improvement of collecting tools for the various data sources to be relevant and detailed to improve road crash data systems
   e. Develop a clear mechanism of data collection, verification/validation, transfer, storage, analysis, Dissemination and reporting including feed backing to the various users.
   f. Build capacity of data handling centers including NTSA, police, Health Insurance. The capacity is both on knowledge, Human capital and equipment
   g. Consideration of ICT Solutions to improve data. This includes linking with the TIMS project
   h. Administrative and legal amendments/improvements to enhance road crash data improvement and strengthening within various government departments both national and county levels & other data sources. This includes, data sharing, data ownership security, dissemination etc
3.1 Development of a national crash database

The development of a robust and accurate crash database is vital to enable the identification and monitoring of locations and road user groups that are at risk. As previously noted the WHO recently undertook a trial data collection project in Thika.

It is proposed that a crash database system based on smart phone technology should be developed. The development of the database should take into account the findings of the WHO project. The crash database will initially be introduced as a pilot project over a limited area and then as experience and further funding allows expanded to a national basis.

The current data collection processes used by the Police are very limited and are based on voice telephone communications. There is very limited data collection and no accurate locational data collected at all. The WHO project looked to address these issues by providing the Police with smartphones that automatically collected the GPS location data and contained a data collection form to ensure the Police recorded all of the relevant details.

The PAP includes a request for funding for the crash database over a limited area. Further funding would be required through this Strategy to roll out the database to a national level.

3.2 Annual analysis of crash data

Once the crash database has been established it will be possible to undertake an annual review of the data. The annual review will enable monitoring of crash trends and help to identify crash locations and at risk road user groups.

There are several international examples that could be followed to develop the structure of the report. The annual publication of crash data in the UK provides a good example of a simple breakdown of the crash data that can be used for more detailed analysis as required. The New Zealand Road Safety Action Plan annual reports provide a good example of the analysis of the data to identify trends and safety themes.

Actions

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<td>Annual/Regular analysis of crash data</td>
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<td>NTSA</td>
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5. Road Safety Research

Objective: To regularly conduct research on road safety issues, analyse data and input into decision making processes to make effective and appropriate road safety interventions

Current Situation

Road safety research and related output is important for making informed decisions and taking action on road safety issues. With the improvement of road safety data during the implementation of this action plan, this data on road safety need to be analyzed to high academic levels to be at par with international standards. This can be done at research institution in and outside universities. Such data hasn’t been analyzed or has been analyzed to a limited scope in the past because of lack of a clear framework of collaboration between the sources of the data and the researchers/research institution. The few research outcomes have not been utilized well by the policy makers and implementers.

The various institutions carrying out road safety research are not coordinated and there is no framework for identifying road safety research needs, undertaking research, synthesis and dissemination. This has resulted in commissioned research by the central government or local authorities having prominence as opposed to non-commissioned research which remain in libraries of various institutions. Some topics have been covered whilst other important ones have not.

A number of key areas relating to road safety research remain untouched and there is need for research to be more comprehensive e.g. pollution from motor vehicles remains a major threat to health but hardly any research has focused on this area. Likewise, with the need to change people’s attitudes and behaviour on the road there is very little research on what messages and mechanisms will most effectively change attitudes to road safety and encourage safe practices. Road safety research and related outputs are important for making informed decisions and taking action on road safety issues.

Universities in Kenya should be able to improve on this further. They should be able to provide courses related to road safety either as short courses or at degree level and beyond. This is done in collaboration with NTSA.

There is a growing body of international research and support on road safety and examples of best practice that needs to be better utilized eg WHO/WB Best Practice manuals Series. There is need to link up with some of the international road safety research institutions eg SWOT in The Netherlands, TRL, IRTAD, JHU,
Key Improvement Points
Action should be taken to address the following key issues:

1. Improve links between collection and analysis of crash data
2. Establish a body to coordinate road safety research
3. Identify Institutions are undertaking or interested RS research.
4. Identify road safety research priorities and needs as well as research capacity;
5. Establish a coordinating unit in NTSA or otherwise with the responsibility of identifying and co-ordinating road safety research as well as its dissemination and storage
6. Develop a framework of linkages of road safety data sources and research institutions.
7. Improve the linkages between the institutions collecting data on road safety and those able to analyse and feedback the results to strengthen road safety interventions.
8. Avail information on road safety statistics & research more readily available to policy makers and road safety stakeholders to inform road safety and related programmes;
9. Improve linkages to international organizations providing and sharing research on road safety
10. Enhance the capacity of Kenyan researchers and institutes to carry out high quality road safety research to contribute to the regional and international body of road safety research and better inform road safety policy and strategies.
11. Strengthen research to support public education programmes

4.1 Improve links between collection and analysis of data
The true potential of the new crash database will only be realised if coordinated and targeted research is undertaken. There should a strengthening of the links between the institutions collecting the crash data and the institutions analysing the data. These links will help ensure the correct data is collected and analysed.

The data that should be collected is not restricted to crash data alone. It should also include vehicle flow and composition data, vehicle speed data, hospital admissions data and public attitude data towards road safety.

There will be a number of separate bodies that will be responsible for collecting this data. In some cases the data will not currently be collected and consideration will need to be given as to who will be responsible for the data collection and how will it take place.

4.2 Establish a body to coordinate road safety research
A body should be established to oversee the coordination of road safety research. This body would be responsible for:

1. Identifying research already underway
2. Identifying current research capacity  
3. Identifying and prioritising future research needs  
4. Identifying and prioritising data collection requirements  
5. Storage and dissemination of research  
6. Developing links with international organisations providing and sharing research on road safety  
7. Encouraging the development of road safety research in Universities

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6. Development and Maintenance of Safer Roads

**Objective:** Better planning, design, construction and maintenance of roads to reduce road traffic crashes, injuries and fatalities for all road users through improved design standards, road safety assessments, road safety audits and blackspot/high risk sites improvements.

**Current Situation**

Road Transport is one the functions which has both national and county government involvement as per Forth Schedule of the Constitution of Kenya. Therefore Road design and planning, construction and maintenance is the responsibility of both governments.

The government agencies involved in design, planning, construction and maintenance of roads in Kenya are KeNHA, KURA and KIERRA.

- Put the Road network in KM and class currently managed by National Government while the County govt.GET DETAILS).

There are Poor facilities for pedestrians, non-motorized & intermediate means of transport. There are many crashes occur on high speed rehabilitated roads but no traffic calming guidelines. There is equally the need to identify black spots and have engineering treatments accordingly.

Therefore, there is need to improve the safety of road networks for the benefit of all road users, especially the most vulnerable: pedestrians, bicyclists and motorcyclists. Activities include improving the safety-conscious planning, design, construction and operation of roads; making sure that roads are regularly assessed for safety.

The current road design manuals in Kenya are outdated. In the absence of manuals to modern standards, schemes funded by International Agencies tend to use a variety of international design standards. As a consequence there is a lack of consistency across the road network.

Current road designs do not pay sufficient attention to road safety or the needs of vulnerable road users. As a consequence roads can be designed with inherent safety problems. Road designs are also dominated by the needs of motorised vehicles and very little if any consideration is given to the needs of vulnerable road users including; motorcyclists, cyclists, pedestrians and other non-motorised road users.
Independent road safety audit (RSA) of road development and maintenance projects is still not a requirement in Kenya, while it has been shown that such audits can substantially eliminate latent road safety problems. There is lack of road engineers trained and experienced in road safety, both in the public and private sectors. There is need to build capacity of engineers in road safety practices.

A draft Road Safety Audit Manual was prepared in 2009, but it has never been formally adopted. The Manual was recently reviewed and revised by the ICBTRS project in consultation with the Road Authorities. The Manual is now in the process of being formally adopted by the Ministry of Transport and Infrastructure. Similarly there are a number of other design manuals that are in draft status and need to be reviewed, finalised and adopted for use.

One of the underlying themes of the Decade of Action is the safe system approach to road design. This approach starts from the premise that humans are vulnerable and will make mistakes. As a consequence, crashes will occur. It is the responsibility of road designers to ensure that roads are designed to accommodate human errors and that when a crash does occur it will not result in a fatality. The draft manuals should be reviewed to ensure this approach is being followed.

These key points is to raise the inherent safety and protective quality of road networks for the benefit of all road users, especially the most vulnerable (e.g. pedestrians, bicyclists and motorcyclists). This will be achieved through the implementation of road infrastructure assessment and improved safety-conscious planning, design, construction and operation of roads.

**Key Improvement Points**

In order to improve road design standards and to build local capacity in road safety the following key points should be addressed:

1. Develop a new suite of design manuals for Kenya that comply with the safe systems approach taking particular account of incorporating Vulnerable users and NMT needs
2. Enhance staff awareness of road safety issues
3. Long Term training of staff in road safety
4. Implement Road Safety Audit procedures
5. Train Road Authority and NTSA staff to become road safety auditors
6. Address the needs of vulnerable road users
7. Undertake a programme of Road Safety Assessments of existing road infrastructure and implement proven engineering treatments to improve safety performance.
8. Undertake a programme of blackspot identification and improvements
9. Improve road signs and markings
10. Improve safety at construction sites
11. Introduce inspection programmes for maintenance
12. Promote the development of safe new infrastructure that meets the mobility and access needs of all users
13. Identify the number and location of deaths and injuries by road user type, and the key infrastructure factors that influence risk for each user group;

5.1 Develop a new suite of design manuals for Kenya that comply with the safe systems approach

A new suite of design manuals was originally developed in 2009. The manuals were developed to a draft stage, but due to contractual reasons they were never finalised and adopted. The manuals should now be finished and formally adopted. Once they have been adopted they should be the only design standards used for the construction of roads in Kenya.

As these manuals were originally developed over 5 years ago they should be reviewed to ensure they comply with the safe system approach, take the needs of all road users into account and are compatible with other regional design standards.

5.2 Enhance staff awareness of road safety issues

The NTSA is due to start recruiting staff to establish a Road Safety Department. It is recognised that the staff recruited to this Department will lack the necessary skills and experience required to meet the responsibilities the Department will assume. An intensive one year training programme will be developed to enable the staff to start to develop the knowledge they will need.

There is also a need to develop road safety awareness amongst the Road Authorities. Staff from the Road Authorities should also be in attendance at the training provided for the NTSA.

A request for this intensive training has been included in the PAP.

5.3 Long Term training of staff in road safety

In the longer term it is intended that the NTSA will develop, in collaboration with the Engineers Board of Kenya, Institution of Engineers of Kenya, and national public Universities/Colleges, a series of structured road safety training modules. The modules will cover Engineer awareness of road safety; Accident Investigation and Prevention (AIP); Road Safety Audit; Provision for Vulnerable Road Users and application of adapted Kenyan road safety analysis software. The courses will be delivered by Universities and colleges across the country.

Tuition fees will be covered by the road authorities, consultancy firms and contractors. The training will target a minimum of 50 engineers/road managers per year. The modules are expected to become part of regular engineering training curricula in colleges and universities in Kenya. Initial training of a representative group of engineers will be provided through the ICBTRS project.

A request for this initial training has been included in the PAP.
5.4 Implement Road Safety Audit procedures
A Road Safety Audit manual was amongst the documents prepared in 2009. The 2009 version was revised in 2014 and a draft has been agreed with the Roads Authorities. The draft now needs to be finalised and published.

It is intended that once the Road Safety Audit Manual has been published it will be introduced into legislation and all new road schemes and road improvement schemes will need to be subjected to the Road Safety Audit process.

The Road Safety Audit Manual will help to ensure the safety of all road schemes and that the needs of all road users are taken into account until the new suite of Kenyan Design Manuals have been completed.

5.5 Train Road Authority and NTSA staff to become Road Safety Auditors
There is very limited road safety capability amongst Kenyan Government staff and initially external support will be required to comply with the new Road Safety Audit Manual.

In order to become a Road Safety Auditor a member of staff must have:

- 5 day road safety engineering or crash investigation training
- 4 day road safety audit training on a recognised course
- Minimum of 2 years road safety or crash investigation experience
- 2 days CPD in road safety in the last 12 months
- Completed 3 Audits in the last 24 months
- University Degree in an engineering, PH, Safety or related discipline or 5 years’ experience in a related road safety field

In order to build local capability as quickly as possible members of NTSA and Road Authority staff should be identified to become Road Safety Auditors. These members of staff should then be provided with the initial training courses and ‘on the job’ training to gain the necessary experience to undertake road safety audits.

An initial training course has been delivered to 15 members of Government staff from a selection of Government agencies. It is proposed these 15 members are identified to become a core team of Safety Auditors that can then help to develop other members of staff to build local capability.

5.6 Address the needs of vulnerable road users
Analysis of the fatalities figures between 2008 and 2012 indicate that there are significant problems associated with vulnerable road users in Kenya. Vulnerable road users are those groups that are at higher risk of suffering from high severity of injury should a crash occur. They include pedestrians, cyclists and motorcyclists.
The 2008 – 2012 figures indicate that 48.8% of fatalities were pedestrians, 8% were motorcyclists and 7.6% were cyclists. So in total over 64% of fatalities were vulnerable road users. There are a number of factors contributing to this percentage of fatalities. A significant factor is the current design process in place in Kenya and the relative importance given to motorised transport and vulnerable road users in road designs.

Several initiatives have been undertaken in Kenya in recent years to attempt to address the needs of vulnerable road users in road designs. The pedestrian and cycle facilities on UN Avenue are one such example.

The needs of vulnerable road users need to be built into the design process and the review of the design standards noted above should ensure that this is the case. The United Nations have developed guidelines that include local examples of schemes that have been introduced in Kenya. These guidelines will provide a good reference material for the review of the design manuals.

In addition to ensuring the needs of vulnerable road users are taken into account in new schemes it is also necessary to review the situation on the existing road network and address locations where pedestrian and cyclist needs are not addressed. In many locations footways are poorly maintained or are not continuous, often requiring pedestrians to walk in the road placing them at risk.

A national programme for provision and maintenance of separate/appropriate infrastructure for pedestrians, cyclists, and other Non-Motorised Transport (NMT) users should be developed. These will include speed calming measures, improvement of road intersections and crossings, and protection measures. The Nairobi Metropolitan Services Improvement Project (NaMSIP) is currently procuring consultancy services for undertaking studies for NMT facilities in several towns with financing from the World Bank.

A second demonstration project is proposed to develop a scheme for walking and cycling corridors in Nairobi to improve the connectivity of facilities. In order to help build local capacity and understanding of the design issues involved local engineers from the Road Authorities will be attached to the consultants delivering the demonstration projects.

A request for funding for the corridor demonstration project is included in the PAP.

5.7 Undertake a programme of Road Safety assessments

Road Safety Audits are undertaken on new road schemes to ensure safety is taken into account in the design process. A different approach needs to be taken on the existing road network to identify where safety problems exist and where road safety can be improved through engineering interventions; this process is known as Road Safety Assessment.

It is proposed to undertake a Road Safety Assessment Demonstration Project. The demonstration project will undertake a review for one of the heavily trafficked highways (NC, A2, A1, B3, B8, and
urban roads in Nairobi, Mombasa, Kisumu, Eldoret, and Nakuru) through outsourced consultancy services and will result in the development of a series of low cost improvement measures. Local engineers from the Road Authorities will be attached to the consultants as a way of capacity building. Further assistance will be sought to help fund the implementation of the improvement measures.

5.8 Undertake a programme of black spot identification and improvements
In addition to the demonstration project noted above, improvement works will also be carried out at known crash blackspot locations. In the longer term the location of crash blackspots will be identified through the crash database. In the short term local knowledge of the road network will be used to identify and prioritise the crash blackspot locations. Safe Way Right Way produced a crash blackspot plan for the Northern Corridor. This plan could be used as a basis for the development of an improvement project along the corridor.

5.9 Improve road signs and markings
In general the condition of traffic signs and road markings on the Kenyan road network is very poor. In rural areas there are very few traffic signs and the maintenance of road markings is also often very poor.

Traffic signs and road marking can prove to be a very valuable road safety tool when use effectively and correctly. Traffic signs can provide directional and distance information to motorists and can also be used to warn motorists of a hazard they are approaching. Road markings can provide delimitation and road alignment information to drivers. The use of tactile road markings can also provide information to drivers if the driver is starting to drift out of their traffic lane. The use of reflective road studs can also provide directional information to drivers at night.

The theft of traffic signs for use as scrap metal or as building materials is a recognised problem. A leading international traffic signs manufacturer should be approached to help develop traffic sign systems that would not be attractive to use for alternative purposes.

A programme should be established to review and improve the road markings and traffic signs on major inter-urban corridors.

5.10 Improve safety at construction sites
There is a significant need to improve the management of safety at road construction and maintenance sites.

As part of the review of the Design Manuals a Manual covering temporary traffic management at road works should be developed. There will also need to be a significant education programme undertaken within the industry to outline the requirements in the Manual and to inform Roads Authority staff and Contractors as to the need to improve safety at roadworks.
5.11 Introduce inspection programmes for maintenance
There is significant room for improvement in the maintenance of the road network infrastructure. Moves have begun towards introducing performance based maintenance contracts. This development should be continued and expanded to cover the entire major road network.

### Actions

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<thead>
<tr>
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<tbody>
<tr>
<td>Develop a new suite of design manuals for Kenya that comply with the safe systems approach</td>
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<td>Enhance staff awareness of road safety issues</td>
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<td>Long Term training of staff in road safety</td>
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<td>Implement Road Safety Audit procedures</td>
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<tr>
<td>Train Road Authority and NTSA staff to become road safety auditors</td>
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<tr>
<td>Address the needs of vulnerable road users</td>
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<tr>
<td>Undertake a programme of Road Safety Assessments</td>
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<tr>
<td>Introduce inspection programmes for maintenance</td>
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<tr>
<td>Promote the development of safe new infrastructure that meets the mobility and access needs of all users</td>
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<tr>
<td>Identify the number and location of deaths and injuries by road user type, and the key infrastructure factors that influence risk for each user group;</td>
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6. The Vulnerable Road Users

Objective: Improve road safety of vulnerable road users of through infrastructure provision, appropriate legislation & enforcement, road safety education and integrating them equitably within the transport system

Current Situation

A high proportion of Kenya’s road users are vulnerable road users. These are pedestrians, bicyclists and motorcyclists. These particular road uses have not been adequately recognized by planners and nor have their needs been catered for. The contribution of this section of road users to Kenya’s road fatalities is appalling and continues to rise in 2014. Pedestrians account for about 47% of road crash fatalities, motorcyclists is 14%. Pedestrians are not recognized as having the same rights as other road users by planners, engineers & motorized vehicle drivers. Yet we are all pedestrians at some point. Walking is a basic and common mode of transport in all societies around the world. Virtually every trip begins and ends with walking.

The number of motorcycles in the roads in Kenya continue to rise with annual rate of ............ Motorcyclists are currently used in Kenya for public transport for commercial gain and is christened boda boda. This boda boda has subsequently presented as a challenge as far as road safety issues are concerned. There has been a sharp rise in the use of intermediate forms of transport, motorcycles and tuk tuks. Often the users of these modes of transport have little or no formal training and crash numbers involving motorcycles are rising rapidly. The sector provides employment for many youth and there is a fast turnover but at the same time, it has increasingly become the first rising cause of fatalities, injuries and disabilities.

The government, in the recent past, has come up with motorcycle regulations through a legal notice to control the operations of motorcycles. It is important to note that through this regulations, some of the functions of regulating the boda boda industry falls in the purview of county governments.

Infrastructure for non-motorised transport users is lacking and where it is provided it is often blocked by traders or does not form a continuous route. There is little provision of non-motorised infrastructure segregated from roads.

Key Improvement Points

In order to improve facilities for non-motorised users (NMU) the following key points should be addressed:

1. Recognize and address the rights and needs of non-motorized transport users and integrate their requirements within transport planning and provision of infrastructure;
2. Reduce pedestrian exposure to vehicular traffic
3. Public awareness campaign and behavior change communications on pedestrians, bodaboda and bicyclists
4. Develop and/or enforce traffic laws on speed, drinking and driving, pedestrian right-of-way, non-helmet use, red light disobedience, commercial roadside activity and traffic control,
5. Install and utilize overpasses/underpasses
6. Provide sidewalks for pedestrians
7. Construct pedestrian refuge islands and raised medians
8. Construct enhanced marked crossings
9. Provide vehicle restriction/diversion measures to ensure safety of pedestrians as necessary
10. Operationalization of 2015 motorcycle regulations
11. Strengthen capacity of county government to provide appropriate infrastructure and regulatory control of NMT &IMT
12. Provide appropriate NMT infrastructure; routes and parking for NMT
13. Review major transport corridors to identify where NMU facilities are required
14. Undertake a pilot scheme to improve NMU facilities
15. Ensure NMU needs are taken into account as part of all future developments

6.1 Promote the rights and needs of NMU amongst Road Authority staff

Training courses should be developed and delivered to Road Authority staff to ensure they understand the needs and requirements of NMU.

6.2 Review major transport corridors to identify where NMU facilities are required

A review should be undertaken of the major transport corridors in Nairobi. The aim of the reviews should be to identify where NMU facilities are required and to identify where existing facilities are either inadequate or are not continuous along the route. The review should also consider if alternative routes should be provided for NMU that do not run alongside the existing roads.

6.3 Undertake a pilot scheme to improve NMU facilities

A pilot scheme should be funded to show how NMU facilities should be provided. Consultants should be commissioned to undertake the study. As part of the process the Consultants should be required to work alongside Road Authority staff to provide ‘on the job’ training.

6.4 Ensure NMU needs are taken into account as part of all future developments
Planning requirements should be developed that will ensure the needs of NMU will be taken into account when new developments are designed. The requirements should require developers to consider how NMU users will get to the development as well as how they will be catered for within the development.

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7. Vehicle Safety Standards and Compliance

Objective: To ensure that vehicles are safe and the number of crashes caused by vehicle defects in as far as body construction and allied is minimized.

Current Situation

The key organizations in this sector are the NTSA’s Motor Vehicle Inspection Unit and the Kenya Bureau of Standards (KEBS) and standards are covered in both the Traffic Act, NTSA Act and the Standard Act. Currently all vehicle testing is carried out by a small number of Government owned test centres located in the major cities around Kenya. In theory all commercial and public transport vehicles are required to be inspected on an annual basis. In practice the existing test centres do not have sufficient capacity to test all of the vehicles they should. The centres have limited mechanical capability and tests are restricted to visual inspections only. There is a comprehensive test manual that meets international standards. However, this manual has been summarised into a number of items to check on a single side of A4 paper.

There are issues with the equipment at the test centres and in most cases the equipment has not been maintained or calibrated properly. For example, the test centre in Nairobi has equipment to test vehicle brakes. Unfortunately despite the fact that the centre is required to test commercial vehicles and public transport vehicles the weight capacity of the brake testing machine is 7.5 tonnes, i.e. it is only suitable for private vehicles and small commercial vehicles. In addition to the weight limit issue the test centre does not possess the necessary computer software required to operate the machinery.

The Nairobi test centre has equipment that can be used to test vehicle exhaust emissions. Unfortunately there are currently no vehicle emission standards in Kenya. Standards have been developed, but they require to be gazetted before they can come into force.

Key Improvement Points

In order to improve vehicle standards the following key points should be addressed:

1. Introduce annual/periodic vehicle testing for all vehicles
2. Regulate the vehicle body building sector
3. Improve awareness of standards and requirements amongst motorists and law enforcers
4. Introduce vehicle emissions standards
5. Review the Traffic Act and other legislations to improve legislation covering vehicle standards of both new and old vehicles, locally assembled and imported
6. Increase the capacity of NTSA & KEBS to monitor and enforce vehicle standards;
7. Introduce legislations such as standards for public transport IMT vehicles;
8. Inspect all vehicles, including components; being brought into country;
9. Commercial PSV that are 10 years and above to be subjected to inspection by MVIU after 6 months; *(get the latest recommendations)*
10. Private vehicles aged 8 years and above to be inspected bi-annually *(get the latest recommendations)*
11. Local body builders be registered and be certified accordingly

7.1 Introduce annual vehicle testing for all vehicles

In order to ensure that any vehicle that is no longer road worthy is removed from the vehicle fleet it will be necessary to introduce annual inspection tests for all vehicles. Currently only commercial vehicles are required to be tested and the current resources available for testing are not sufficient to cope. There is therefore a need to significantly increase the capability for vehicle testing in Kenya.

It is proposed that a network of garages is established that are licensed to undertake the annual inspections and that are registered and supervised by the NTSA. The intention is that these garages would only undertake annual inspection tests and would not undertake any required repair work. These garages would be responsible for testing private cars and Government owned centres would still be responsible for commercial and public transport vehicle inspections. Through this model it is anticipated that the inspection process can be improved to a suitable quality and that the inspection capacity can be increased so that all vehicles would be tested on an annual basis.

7.2 Regulate the vehicle body building sector

There is a recognised issue with the conversion of truck chassis to public transport vehicles in Kenya. Truck chassis are imported as second hand vehicles from Japan. Local vehicle body builders then convert these trucks into public transport vehicles by building a new body on the chassis. The new body structures often do not have a suitable superstructure and provide passengers with very little, if any, protection in the result of a crash. In addition the anchorage of seats and seatbelt points may not be strong enough to deal with the forces that occur during a crash leading to failure.

Standards should be introduced for the structural stability of public service vehicles. Public service vehicle body builders should be licensed and regulated to ensure that the standards are followed.

7.3 Improve awareness of standards and requirements amongst motorists and law enforcers

In order to support the new vehicle body standards there would be a need to provide education to raise awareness amongst fleet owners, drivers and enforcement officers.

7.4 Introduce vehicle emissions standards
Deaths due to road vehicles are not restricted to those people who die as a result of crashes. There are also a significant number of people who die due to lung diseases caused by pollution associated with vehicle exhaust emissions.

Legislation for vehicle emission standards have been drafted, but have not yet been gazetted. The legislation should be brought into existence and vehicle emission tests included in the annual road worthiness test.

### Actions

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<tr>
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<tr>
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8. Public Transport Regulations and Compliance

Objective: Improved Public Transport operations and safety standards as a result of better legislation, self-regulation in the industry, Government & industry partnership, improved

Current Situation
Passengers on public transport vehicles represent the second highest category of fatalities in Kenyan road traffic crashes. In comparison, in the UK public transport users are the least likely road users to be involved in a fatal crash.

Since the establishment of NTSA, some number of regulations on public road sector have been developed with resultant reduction of fatal crashes and fatalities. Some of the regulations targeted at the public transport subsector include:

- Motorcycle Regulations
- Revised driving regulations
- National Transport and Safety Authority (Operation of Tourist Service Vehicles Regulations, 2014)
- NTSA Operating of PSV Legal Notice 219 of 17.12.13
- Speed Governors Legal Notice 217 of 16-12-2013
- NTSA Operation of Tourist Service Vehicles 2014

The regulatory and legal framework currently spearheaded by the NTSA has brought some order in an otherwise hitherto a chaotic sector on the past. Some of the regulations ensured that that the industry players operate in a Sacco or corporate entity which will ensure self-regulation within the group.

The Public Transport system especially in Kenya is dominated by small vans matatus owned by many independent small-scale operators operated in Saccos/groups.

Driving standards in the country especially within the PSV sector is expected to improve especially with the operationalization of the new driving curriculum which is in the final stages of development and approvals. This will go a long way to improve driver behavior

It has long been recognised that the public transport industry in Kenya has specific problems with poor quality vehicles, poorly trained drivers and a focus on profit rather than passenger safety.
Since the NTSA has been established there have been several initiatives undertaken to improve the industry. They have included:

- The introduction of SACCOS to start to regulate the Matatu sector
- Introduction of regulations for night time long distance coach operations
- Increased enforcement of speed limits and speed limiter checks
- Introduction of legislation to regulate the Boda Boda industry.

The introduction of the new driver training and testing process due to be introduced in 2015 will assist in further development of the standards and quality within this sector.

Infrastructure provision is poor especially for bus termini & laybys as well as problems in termini management, compounding the issues of congestion and insecurity. Congestion in urban areas is a serious problem and there is need to shift towards bigger buses operating routes.

There are proposals to develop bus rapid transit along key corridors in Nairobi. These initiatives will have a significant impact on the public transport sector in Nairobi and could be used as a catalyst to improve public transport throughout the country.

**Key Improvement Points**

In order to support the ongoing action by the NTSA the following activities are also required:

1. The enforcement of regulations on self-regulation via Saccos should be supported and enhanced.
2. There is a need to upgrade the requirements, skills and competence of PSV drivers and improve passenger safety through re-training based on the new curriculum
3. Capacity building for Counties to manage PSV termini and associated facilities to improve services and traffic flow in major towns and cities and to improve passenger safety
4. There is need to develop and implement policy leading to progressive increases in bigger capacity PSV vehicles to ease congestion and improve management in the sector.
5. Support the development of a Bus Rapid Transit Network in Nairobi
6. Establish a clear public transport policy and emphasis on prioritizing mass public transport compared to private car users.
7. There is need to provide easy access to clear information for potential investors in the sector.
8. Transport associations and investors need to be partners in the Government’s interventions in providing safe public transport.
9. Commuters should be educated and empowered to bring improvements to public transport operations.
10. Strengthen law enforcement officers’ knowledge & skills in dealing with public transport operators to achieve traffic regulation compliance by corrective rather than punitive measures.

11. Reorganize and improve the management of bus termini to be safe, efficient transit points for commuters.

12. PSV bodabodas be organized in groups and Saccos to enhance self-regulation

8.1 Support the development of a Bus Rapid Transit Network in Nairobi

A number of core BRT corridors are planned with initial north-south and east-west routes. These will form the basis for a wider network of services, co-ordinated with re-orientated buses and Matatu services. The BRT concept is of high quality, high frequency services using designated lanes to provide reliable and efficient connections across the city. The new network, alongside other improvements for rail users and non-motorized transport, will improve mobility, enabling people to access work and other facilities. Preparatory work is underway for the initial phases including engineering design and service specifications. In parallel, a new city-wide transport authority is to be set up to oversee public transport and the process of change from the current arrangements to the improved network. Considerable work is needed before construction can begin but it is hoped to have Nairobi’s BRT services operating in the next few years.

The development of BRT will need significant road safety input and support to ensure it is developed and implemented as safely as possible. The introduction of BRT will have a significant impact on the quality of delivery of public transport in Nairobi and will also have a significant impact on road safety.

8.2 Support the development of a Nairobi Metropolitan Transport Authority

The need to oversee the development and improvement of public transport services in Nairobi has been recognised and work is currently underway to establish a Nairobi Metropolitan Transport Authority. The Authority will have a key role in driving forward the safety of public transport and should be assisted and supported by the Road Safety Action Plan.

8.3 Establish a one stop shop for industry related information and licensing for investors and operators

There have been significant changes in the public transport industry over the last 2 years and there will be further significant changes over the coming years. A one stop shop should be established to provide information to the industry.

8.4 Capacity building for Counties to manage PSV termini and associated facilities to improve services and traffic flow in major towns and cities and to improve passenger safety
In addition to the NMTA there will also be a need to build capacity within the Counties to manage and regulate the facilities needed to support the public transport services. The Counties will be responsible for locating and managing Matatu and bus stop locations to ensure smooth flow of traffic and the safety of road users.

8.5 Sensitise commuters on their rights

There have been previous initiatives undertaken to encourage public transport users to speak out about poor driving practices. The initiatives have tended to involve stickers in Matatus encouraging passengers to complain to drivers and conductors if they feel the vehicle is being driven in a dangerous manner. Under the Land Transport Safety Act the LTSA are responsible for the regulation of public service vehicles. The NTSA should establish a complaints procedure to allow members of the public to raise complaints against Matatus, drivers, conductors and SACCOS. The procedures should allow anonymous reporting of complaints, with sufficient safe guards to prevent fraudulent or malicious complaints. In order to support the complaints procedure a public sensitisation programme should also be undertaken.

Actions

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<th>Responsible Agency</th>
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<tr>
<td>Support the development of a Bus Rapid Transit Network in Nairobi</td>
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<tr>
<td>Support the development of a Nairobi Metropolitan Transport Authority</td>
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<tr>
<td>Establish a one stop shop for industry related information and licensing for investors and operators</td>
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<tr>
<td>Capacity building for Counties to manage PSV termini and associated facilities to improve services and traffic flow in major towns and cities and to improve passenger safety</td>
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<tr>
<td>Sensitise commuters on their rights</td>
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| The enforcement of regulations on self-regulation via Saccos should be supported and enhanced. | * | * | * | * | *
| Upgrade the requirements, skills and competence of PSV drivers and improve passenger safety through re-training based on the new curriculum | * | * | * | * | *
| Capacity building for Counties to manage PSV termini and associated facilities to improve services and traffic flow in major towns and cities and to improve passenger safety | * | * | * | * | *
| Develop and implement policy leading to progressive increases in bigger capacity PSV vehicles to ease congestion and improve management in the sector. | * | * | *
| Transport associations and investors need to be partners in the Government’s interventions in providing safe public transport. | * | * | * | * | * |
9. Driver Training, Testing and Licensing

Objective: Improve driving skills, attitudes, driver training, testing and licensing system

Current Situation
The level of road discipline and behaviour has a direct relationship with the level of training of drivers in our roads. For a very long time, Kenya hasn’t had a standard National curriculum that driving schools have to follow and the calibre of instructors and quality of instruction has been generally poor. PSV drivers require little more than holding a standard licence for 4 years before being eligible to drive the public. Currently they do not require additional training or standards of competency.

The Police test the students and also have the role of inspecting the schools and testing the instructors. This combination of roles potentially creates conflicts of interest. There are no set test curriculum or pass levels required. Driving tests can be as short as ten minutes driving and often several drivers are tested at the same time in one vehicle.

Medical fitness aren’t mandatory for a driver to get a driver license.

The current driver license is manual, can be tampered with and doesn’t have provision for entering endorsements & tracking drivers. Many drivers have acquired their license without having the necessary skills and knowledge to use the road safely and properly especially PSV & commercial drivers.

The current driving license is a paper based document that is easy to forge. As a consequence there are significant numbers of drivers who have not been trained or tested.

The problems associated with the current situation have been recognised and a new driver training and testing curriculum has been developed by the NTSA in coordination with a number of stakeholders. The curriculum introduces minimum driving training requirements and minimum standards that must be met by driving schools. The training curriculum has been developed for several categories of vehicles, reflecting the different levels of skill and ability required to drive different classes of vehicles. With the implementation of this curriculum, it is expected that driver behavior skills will be improved dramatically. It is expected that all drivers in the country will be retested and periodic tests will be done to ensure that driver skills are improved. Medical fitness will be a key component to this. With the implementation of the TIMS project, it is expected that 2nd generation driver licenses will be issued to the Kenyan Drivers.

Key Improvement Points
In order to support the ongoing action by the NTSA the following activates are also required:
1. Develop driver training handbook
2. Introduce new driver training and testing procedures
3. Train new driver trainers and instructors and examiners
4. Support establishment of new professional bodies for driver trainers and instructors and examiners
5. Finalization of the Curriculum for Training, Testing and Licensing of Drivers
6. Finalization of the Curriculum for licensing and operations of Driving schools
7. Finalization of the Curriculum for Training, Testing and Licensing of driving Instructors
8. Finalization of the Curriculum for training, Testing and Licensing of driver Examiners
9. Implement all the curricula as listed above.
10. Improve the calibre of drivers through debut re-training and re-testing based on the new curriculum
11. Periodic Training, testing and licensing of drivers in Kenya
12. Review and introduce new legislation to make the acquisition of PSV/commercial licences dependent on adequate driving experience & medical fitness and drivers being licenced for appropriate categories;
13. Implementation of Smart Driver licences linked up with the TIMS project
14. Subsidise initial driver training and testing

9.1 Develop driver training handbook

A key element of the new training and testing system will be the Driver Training Handbook. The contents of the handbook will provide guidance to learner drivers and driving schools on the topics that need to be covered and the level of ability that will need to be achieved to pass the test.

In general the contents of the handbook have already been developed. This content needs to be reviewed and edited into a suitable format for publishing.

9.2 Introduce new driver training and testing procedures

The new training and testing procedures have been developed. The procedures now need to be implemented. The actions this will involve include:

- Development of theory test questions and examination procedures
- Establishment of driving schools to suitable standards
- Establishment if body to oversee driving schools and examiners
- Establishment of support services to help organise the new procedures

Further details of the actions needed to establish the new procedures are detailed in the driver training and testing curriculum documents.

9.3 Train new driver trainers and instructors and examiners
In order to establish the new procedures there will be a need to train the first tranche of driver trainers and examiners. There will also be a need to train the trainers of future trainers and examiners.

This will be most successfully achieved if an outside agency with experience of training drivers, instructors and examiners in Eastern Africa is appointed to help.

9.4 Support establishment of new professional bodies for driver trainers and instructors and examiners

The new procedures require the establishment of new professional bodies for driver trainers and examiners. The aim of these bodies will be to make the industry self-regulating. The professional bodies will require technical and financial assistance until they become established.

9.5 Subsidise initial driver training and testing

Once the new procedures are introduced the cost of obtaining a driving license will be greatly increased. This increase may prove challenging to some existing professional drivers who would face losing their jobs if they were no longer able the drive. Consideration should be given to establishing a fund that would be used to subsidise the cost of obtaining a license for a number of existing drivers.

9.6 Implementation of Smart Driver licences linked up with the TIMS project

In order to help address the issues associated with the forgery of driving licenses it will be necessary to introduce smart card type driving licenses that are not as easy to forge. The new card driving licenses should also be supported by a computerised system that can be used to record driver details. Once this system is in place it would then be possible to introduce a points based enforcement system that would allow driving license suspension or removal from drivers who repeatedly break driving rules.

There are proposals to introduce a card based driving license as part of the TIMS systems development. The new licenses should only be issued to those drivers who have passed the new driving test.

**Actions**

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<td>Develop driver training handbook, Road Code and curriculum</td>
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<td>Introduce new driver training and testing procedures</td>
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<td>Implement all the curricula as listed above.</td>
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10. Road Traffic Legislation

Objective: Update and enact traffic legislation to improve road safety standards and to support effective enforcement and penalization of traffic law offenders to bring compliance in the road sector

Current Situation
The Traffic Act CAP 403 of 1954 constituted the primary piece of legislations governing road safety. The Traffic Act Cap 403 has undergone a lot of amendments in the recent past generally to address the challenges of road safety of the day.

Over the last few years, there have been some legislations which have had a direct effect on road safety in Kenya. This includes the NTSA Act which established the NTSA as a state corporation on matters of road transport and safety.

Some of the legislations through legal notices which have been gazetted in the recent past which have a bearing on road safety include those concerned with Drink Driving, Speeding and use of speed cameras, use of reflective jackets and motor cycle helmets rules governing vehicle passenger seating capacity, seat belts, the use of speed governors, certification of drivers and conductors among others.

NTSA has recommended some amendments to the Traffic Act and NTSA Act to improve on the legislations.

Key Improvement Points
The following activities are required to improve traffic legislation and enforcement:

1. Review and update road safety related legislation
2. Administrative and legal changes to ensure that demerit point systems is implemented
3. Liaise and support with the county governments to ensure that legislations and policy is in place to address the Intermediate Means of Transport-including boda boda
4. Review the Traffic Act and NTSA Act and update to be effective in ensuring effective road safety standards legislations which are enforceable;
5. Legislations and regulations on Heavy Commercial Vehicles
6. Ensure road users are aware of the traffic law through public awareness campaigns and availability of information on regulations.
7. Administrative and legal changes to ensure that some of the fees from penalties of traffic law violations are utilizable for road safety activities.

10.1 Review and update road safety related legislation
Several significant changes have been made to road safety related legislation in recent years. Further reviews are required to ensure that all of Kenya’s road safety related legislation meets international best practice. The areas that need to be reviewed include:

- Control of drivers’ working hours
- Vehicle loading
- Driving under the influence of drugs
- Child car seat
- School Children and road safety

10.2 Administrative and legal changes to ensure that demerit point systems is implemented

Driving offences are currently punished by monetary fines and there is no account taken of the driver’s previous driving record. As a result a driver could continually commit driving offences with no long term impact, other than financial.

The introduction of the new driver licences through the TIMS system will allow the introduction of a points based penalty system. Under such a system a driver receives points for every driving offence they commit. Once they have passed a threshold of points their license is suspended or revoked. Such a system addresses the issue of recidivist drivers and encourages drivers to change their driving behaviour.

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<td>Review and update road safety related legislation</td>
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<td>Support county governments to ensure that legislations and policy is in place to address the Intermediate Means of Transport-including boda boda</td>
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</table>
11. Traffic Law Enforcement

Objective: Improved road safety behaviour and compliance through more effective traffic police enforcement of traffic regulations coupled with public education and by improving vehicle roadworthiness

Current Situation

Traffic law enforcement is one of the time tested strategies to change behaviour in the roads. Behaviour change will even be enhanced more if enforcement is coupled with public education/behaviour change communication/social marketing campaigns.

In the past Road discipline and compliance with traffic laws by Kenyan drivers, passengers, cyclists and pedestrians is poor leading to serious traffic congestion and a high rate of crashes, fatalities and injuries. Enforcement efforts have not been effectively combined with extensive road safety public education programmes to result in adequate compliance of traffic regulations. The Traffic Police have been the main actors in enforcing traffic law. However, they face challenges including resources and capacity to effectively enforce traffic regulations.

However, with the establishment of NTSA and availability of the necessary equipment to enforce traffic laws, there has been steady increase in the levels of enforcement. Some of the visible enforcement activities include DD law enforcement, speed law enforcement among others.

There is need to enhance this enforcement efforts wider with increased intensity and visibility in a sustainable way combined with public education activities

Key Implementation Points:

1. Enhance the capacity of the NTSA directorate of RS to enforce the road safety laws.
2. Enhance enforcement of laws on speeding, drunk driving, boda boda regulations, RSL compliance, use of footbridges and safe crossing
3. Adapt use of ICT technology to improve on enforcement eg use of cameras
4. Strengthen Police capacity to enforce traffic regulations
5. Strategically combine enforcement and public education to change driving attitudes & behaviour of road users.
6. Enhance capacity to enforce vehicle standards and roadworthiness
7. Legal and administrative improvements to ensure that violators are dispensed with without due delay eg instant fines etc
8. County specific transport and road safety violation enforcements.
## Actions

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<th>Action</th>
<th>Year</th>
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<td>Enhance the capacity of the NTSA to enforce the road safety laws.</td>
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<td>Develop speed enforcement capability</td>
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<td>Develop drink driving enforcement methods</td>
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<td>Enhance enforcement of laws on speeding, drunk driving, boda boda regulations, RSL compliance, use of footbridges and safe crossing</td>
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<td>County specific transport and road safety violation enforcements</td>
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</table>
12. Road Safety Awareness/ Public Education

Objective: Improve road user behaviour through comprehensive, evidenced-based, effective public awareness/education/social marketing programmes combined with sustained and strategic enforcement measures to increase seat-belt and helmet wearing rates, pedestrian safety and reduce drink-driving, speed and other risk factors.

Current Situation
Road safety awareness is at a fairly low level amongst road users in Kenya. This is demonstrated by the behaviour of road users. There is a Highway Code, but it is outdated and has been out of print for many years.

In recent years there have been a number of different agencies involved in undertaking road safety awareness campaigns, including both Government and non-government organisations. There has been a lack of coordination between these various agencies and as a result the impact of the road safety campaigns have been limited.

The establishment of the NTSA has created a central organisation that should take responsibility for undertaking road safety campaigns and coordinating the efforts of other agencies.

The current level of detail recorded in crash records does not allow detailed analysis to identify key road safety problems or user groups. As a consequence current road safety campaigns are targeted at general themes rather than specific issues. For those campaigns that are undertaken little monitoring is undertaken to establish their effectiveness.

Key Improvement Points
The following activities are required to improve road safety awareness:

1. Develop road safety campaigns based on known road safety issues
2. Develop a road safety campaign calendar
3. Research on the effective and evidence based road safety messaging which involved scientific approaches in developing messages
4. Design innovative ways of conducting road safety campaigns
5. PPP in media campaigns
6. Explore the possibility of legislative changes and administrative actions to ensure that media costs for road safety activities is cheaper than commercial rates.
7. Public education on road safety laws and consequences if caught.
8. Involve children in road safety awareness (as the next generation & as agents of change)
9. Target messaging for high risk road users
10. Ongoing monitoring & post campaign evaluation to ensure efficacy of road safety awareness interventions

11. Coordinate efforts between stakeholders

12. Develop and publish the Highway Code

11.1 Develop road safety campaigns based on known road safety issues

A series of road safety campaigns should be developed and delivered. In the absence of detailed accident data with which to identify target groups and themes the campaigns will be targeted towards the main road safety issues:

- Pedestrian safety
- Motorcycle (Boda Boda) safety
- Speeding
- Drink driving
- PSV (Matatu) passenger safety

Significant efforts have been placed on public education and awareness raising about AIDS and HIV. These efforts have had great effect. The methods and approaches taken should be studied and applied to road safety issues.

11.2 Develop a road safety campaign calendar

The effects of road safety campaigns can be reduced if too many messages are being promoted at the same time. In order to maximise efforts a road safety calendar should be produced. The calendar will identify key themes at specific times of the year and will enable stakeholders to coordinate efforts and maximise the impact of their efforts.

11.3 Coordinate efforts between stakeholders

As previously noted there is a need to coordinate efforts of stakeholders. A coordination committee should be established. The committee should meet on a quarterly basis and involve both Government and non-government organisations.

11.4 Develop and publish the Highway Code

A Highway Code is a very important document to provide all road users with advice and guidance on how to use the road network. The existing document is outdated and has not been in print for a significant number of years.

A new Highway Code should be developed. It should then be published and made easily available to the general public. An advertising campaign should also be undertaken to publicise the existence of the new document.
## Actions

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<td>Develop road safety campaigns based on known road safety issues</td>
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13. Road Safety, Children and Education

Objective: To ensure that children move safely on the roads and become safe road users & drivers of tomorrow and agents of change in the society.

Current Situation
With higher volumes of traffic, little respect for pedestrians by drivers and poor provision of pedestrian infrastructure e.g. sidewalks and zebra crossings, it has become a more dangerous environment for children moving to and from school. This is not just an urban issue, but it is also a rural problem and often children need to walk along road hard shoulders to get to school. Many children walk to and from school as pedestrians. Children have a higher risk of road traffic crash as pedestrians because of age related peculiarities and factors which make them more vulnerable. For those using formal school transport, the safety of these arrangements with school buses/vans is a matter of concern. The safety of formal School transport – Lorries & buses, is a matter for concern and many students especially in urban areas come to school in sub-standard, packed minibuses & vans organized by parents.

The road safety topics are taught to a lesser extent. However, few schools have the guides and in practice there is little training on road safety. There is need for the education system to give lot of emphasis to road safety as they did during raising awareness on AIDS and gender within its in-service training and ‘life skills’ programme.

NTSA is in the process of integrating and mainstreaming road safety in all sectors and Education is one of the key areas.

Key Improvement Points
The following activities are required to improve road safety education for children:

1. Introduce road safety into the school curriculum as a life skill
2. Create school safety zones
3. With children as the next generation of drivers and road users, it is important that they acquire the right knowledge and attitudes to use the roads safely and respect other road users and the law;
4. There is need to emphasise the importance of, and reinforce the teaching of road safety in primary schools through training of teachers (in-service and orientation) and to include road safety as an important life skills topic;
5. A children in cycling proficiency nationwide
6. Road infrastructure for pedestrians and cyclists needs to be provided and maintained, including providing safe routes to schools and safe crossings outside the schools where required;
7. The operations of school transport need to be reviewed and guidelines and standards improved and enforced as well as encourage parents to use safe transport for their children to reach school;
8. Children can be very effective at changing the attitudes and behaviour of their parents and should be included as a target group in road safety awareness programmes not only to change their own behaviour but also to affect their senior
9. Increase the number and coverage of traffic parks
10. Create a cycling proficiency programme

12.1 Introduce road safety into the school curriculum as a life skill

Children are the next generation of road users. By introducing road safety at an early age through the school curriculum a general improvement in road user behaviour will be developed over time. Through educating children it is also possible to educate their parents and encourage a wide appreciation of road safety. There is a need to emphasise the importance of teaching road safety in primary schools through the training of teachers and to include road safety as an important life skill topic.

A consultant should be appointed to integrate road safety into the school curriculum. The issues they should address will include:

- Review approach taken to raise awareness about HIV and AIDS
- Review existing school curriculum
- Create proposals for incorporating road safety into the existing curriculum
- Develop teaching materials
- Develop in-service training for teachers

12.2 Create school safety zones

Legislation is currently being created that will enable the introduction of safety zones around schools with 30kph speed limits. Funding will be needed to identify, design and implement the school zones.

12.3 Increase the number and coverage of traffic parks

The number of traffic parks should be increased to ensure there is national coverage. Mobile versions should also be created for remote rural schools that would not be able to transport pupils to a major urban centre.

12.4 Create a cycling proficiency programme

There is no current form of formal training for cyclists. A cycling proficiency programme should be developed that will provide training to school children.
### Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Year</th>
<th>Responsible Agency</th>
<th>Priority</th>
<th>Cost</th>
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<tr>
<td>Introduce road safety into the school curriculum as a life skill</td>
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<tr>
<td>Create school safety zones</td>
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<tr>
<td>Road infrastructure for pedestrians and cyclists needs to be provided and maintained, including providing safe routes to schools and safe crossings outside the schools where required;</td>
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<td>Review and improve the operations of school transport</td>
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<td>Involvement of Children for effective change of attitudes and behaviour of their parents and society</td>
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14. Emergency Services and Rehabilitation

Objective: Reduce post-crash morbidity and mortality due to road traffic crash and improve the outcome of post-crash injury and rehabilitation.

Current Situation
There is an extensive network of health facilities throughout Kenya, but they are coming under increasing pressure from road crash victims. Each hospital now has a ward dedicated to victims of motorbike crashes and 80% of the patients in the only spinal specialist hospital in Kenya are victims of traffic crashes.

Emergency services are not well developed and crash victims are often transported to hospital by members of the public, rather than trained medical professionals. There is also a limited knowledge of first aid amongst the general public who often are the first responders in case of a crash. As a result of the above injuries are often exacerbated as victims are transported from a crash scene to hospital. The injury severity and mortality rates are increased by poor treatment at the scene of the crash and in evacuation of casualties.

Health services and emergency medical services are devolved functions as per fourth schedule of the constitution and there is need to involve counties in this thematic area. This role would be potentially be coordinated by the County Transport and Safety Committees (CTSC) once they are in place.

Health facilities and emergency service providers require better equipment and training to effectively deal with road crash victims especially at black spot locations

Through the Bloomberg Philanthropies project some first aid training has been provided to communities near known crash blackspot locations

Key Improvement Points
The following activities are required to improve emergency service response:

1. Establish a nationwide emergency response system
2. Train road users, communities and Police in first aid
3. Equip emergency providers with adequate means for safe evacuation of crash victims
4. Establish a nationwide emergency response system equipped with central information & control unit for co-ordinating emergency response.
5. Improve co-ordination at all levels
6. Train road users, communities & Police in First Aid and proper evacuation of casualties
7. Enhance data management on road traffic injuries
8. Improve health facilities’ capacity to respond to casualties of crashes
9. Improve on physical and psychological rehabilitation of road crash victims

13.1 Establish a nationwide emergency response system

The treatment a crash victim receives within the first hour of a crash can have a significant impact on their ability to survive their injuries. This is referred to as the Golden Hour. A nationwide response system should be developed and established. The aim of the response system will be to respond to emergency calls and enable a suitably equipped emergency vehicle to reach all parts of the major national road network within 30 minutes of being advised of a crash. This will ensure all victims of crashes can start to receive treatment for their injuries within the golden hour period.

As part of this system a national emergency telephone number should be developed. Coordination and communication between the service and hospitals should also be established to ensure the service runs as smoothly as possible.

13.2 Train road users, communities and Police in first aid

In addition to the Golden Hour, the care a crash victim receives in the first 10 minutes after a crash can also have a significant impact on their survival and recovery. This period is referred to as the Platinum 10. If the crash victim has stopped breathing or has significant blood loss immediate treatment can help to save their life. The new driver training curriculum will include first aid training. Training should be provided to the Police and residents near known crash blackspots as they are often the first people at the scene of a crash.

13.3 Equip emergency providers with adequate means for safe evacuation of crash victims

Emergency response vehicles should be suitably equipped to enable the safe recovery of victims from inside a crashed vehicle. If suitable equipment is not available a crash victim’s injuries could be exacerbated.

13.4 Improve health facilities’ capacity to respond to casualties of crashes

There is need to provide suitable trauma care equipment and trained staff in all major hospitals to deal with crash victims.

**Actions**

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<td>Establish a nationwide emergency response system equipped with central information &amp; control unit for co-ordinating emergency response.</td>
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<td>Action</td>
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15. Monitoring and Evaluation of the Action Plan

Objective: To ensure effective implementation of the road safety action plan a robust monitoring and evaluation framework.

Current Situation
Effective and successful strategic plans require a well thought out M&E and impact evaluation framework.

To ensure effective implementation of the road safety action plan, there is need to develop and implement a robust monitoring and evaluation framework. M&E activities will inform the level and degree of the implementation of the approved road safety action plan and ensure corrective measures are instituted accordingly as necessary.

It is envisaged that this action plan will oversee at Ministerial or Cabinet level or higher considering the multiagency and multi sectoral nature of its implementation. The overall monitoring and evaluation of the implementation will be vested on the committee appointed by the cabinet.

Some of the activities in the action plans is implemented by ministries, departments and agencies outside NTSA and therefore, appropriate M&E reports will be availed to them for appropriate corrective actions.

Key Improvement Points
The following activities are required to develop and implement the M&E framework include the following:

1. Establishment of an interagency and multisectoral Committee to oversee the implementation of this road safety action plan
2. Development of overall M&E framework
3. Monthly reports to the NTSA board through the Road Safety Committee of the board
4. Quarterly reports to the CS –MoTI
5. Quarterly reports to MDAs implementing the action plan
6. 6-month reports to the Cabinet on the progress of the implementation of the action plan
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