Road Transport Safety and Axle Load Control Study in Nepal

Part A: Road Transport Safety

TASK-A5

GUIDELINES FOR ESTABLISHMENT AND OPERATION OF ROAD TRANSPORT SERVICE FACILITIES

Submitted by

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in association with

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# ACRYNMS AND DISAMBIGUATION

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CO</td>
<td>Carbon mono Oxide</td>
</tr>
<tr>
<td>CoP</td>
<td>Commodity of Production</td>
</tr>
<tr>
<td>ESPS</td>
<td>Environment Sector Programme Support</td>
</tr>
<tr>
<td>GVW</td>
<td>Gross Vehicle Weight</td>
</tr>
<tr>
<td>HC</td>
<td>Hydro-Carbon</td>
</tr>
<tr>
<td>M.E.</td>
<td>Mechanical Engineer</td>
</tr>
<tr>
<td>MOPE</td>
<td>Ministry of Population and Environment</td>
</tr>
<tr>
<td>MVTMA</td>
<td>Motor Vehicle Transport Management Act</td>
</tr>
<tr>
<td>MVTMR</td>
<td>Motor Vehicle Transport Management Regulation</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
<tr>
<td>VDC</td>
<td>Village Development Committee</td>
</tr>
<tr>
<td>VFTC</td>
<td>Vehicle Fitness Test Centre</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
EXECUTIVE SUMMARY

The occurrence of road accident is mainly due to behavior of driver, vehicle and road users. Therefore, road accident can be minimized by taking various measures such as employing well trained and knowledgeable driver, using a good condition vehicle and well aware road users. The skill of driver can be enhanced by taking various measures such compulsory enrollment in driving school and enforcement of strict and rigorous driving license test. Similarly, vehicle condition can be maintained in good condition with some mandatory provisions such as regular test of vehicle fitness, quality assurance in vehicle repair workshop and controlling of duplicate spare parts. To strengthen these provisions, transport service facilities such as driving training school, driving license trial center, vehicle fitness center and maintenance workshop shall be established and maintained systematically. However, less efforts has been paid in establishment and operation of such service facilities in Nepal. Driving school and maintenance workshops are established and operated by private sector whereas vehicle trial center and vehicle fitness tests are solely conducted by the government. Since number of driver and vehicles are increasing day by day, the capacity of government trial and vehicle test center is very limited and thus cannot conduct the test smoothly. Therefore, GoN shall opt for alternatives for the establishment and operation of such transport facilities by private sector also with close monitoring mechanism of DoTM. Thus, the main purpose of this task is to develop standard guidelines for establishment of various transport service facilities in relation to road transport safety.

The Study Team carefully reviewed the prevailing regulatory provisions in establishment of such facilities and existing transport service facilities and their capacity. Similarly, the Study Team reviewed the international best practices also. Based on the result of existing regulatory provision, consultation with concerned stakeholders and international best practices, the Study Team has developed standard guidelines for the establishment of the following road transport service facilities.

1. Driving School Training School
2. Driving License Trial Center
3. Vehicle Fitness Testing Center including Vehicle Emission Test
4. Vehicle Maintenance Workshop

In drafting the above guidelines the various requirements of their establishment have been considered, namely legal and administrative provisions, physical facilities, equipment and devices, safety measures, waste management and environmental and social compliances. As for physical facilities various components such as office space, working space, typical layout of the facility, traffic sign and signals, accessibility, sheds and open space has been taken into account.
Sar Sankhyup

Sarvari darghna humko mukh kaaran chaalak, sarvari r samvaadharaan sadak pryoagtaaahro gatinibidhi nahi hoi. Vyasarakar
bihinnan kismakah sathvaanikaupayaharo jaante uchita taliim prapta dakh sarvari chaalak nisukru gare, gaadikoi abhva
duroost rakhie r sadak sanchetana voe jagruk sadak pryoog kato bhare sarvari darghnaa aare hrad samam vynnikrana gane sakhina.
Chaalko daksata bihinnan udayhara jaante abhvaarupma sarvari chaalak taliim kondraa taliim lin lagaaer r kada r
khotnabhalo chaalak anumati patn paunere persha vyoosha gare vojuaa sakhina. Vastey gare sarvari r abhvaan ygmtumat
duroost ral abhvaar prlaan ganu pune sarvari anumati jamko vyoosha gare, sarvari mambnt ganen kayanshalako r fereekha
perto juuktaro vyooshaa gare ganu sakhina. Yee vyooshaahrnaa kadaaikaa sakh karaanyahna gan vataayata
soevamooluk vyooshaahr jaante sarvari chaalak taliim sashtya, chaalak anumati patn taliim kendet, sarvari mambnt sambar
karyaanshalo r sarvari abhvaan jaac kendet yojanaanurupyo evaapana gare r pichch samam raakhu pardoo. Duroost vascare
Nepalama lysata soevamooluk sashtya vyooshan r schanalan gan vato jood dideekaro vedheen. Nepalaana chaalak taliim kendet (Driving School) r sarvari mambnt karyaanshalo (Work Shop) liee kherstara sashtya r schanalan geerikaa chun bhen sarvari chaalak
anumati persha kendet r sarvari abhvaan jaac kendet sarkaaro matra schanalan gerko. Vastey sarkaaro matra schanalan
geerr ko yasta kondenko sashtya ait ymamikhaa cakko sushaare skulo evaap schanalan gan r ygmtumat pershna/jaac ganen
nasakiko mahsunu geeriko. Vastey abhvaara Nepal sarkaaro yee kondhhr schanalan gan vataayata vyoosha vishaygle
nichchit anunaytan sashtya vanaai neegetheeranaa bijaksanakaarhna chun ganu pardoo.

Sarvari, yaa karyaaro mukh udderh sadak suruvaalarai pryayamaa raahere vihinnanbashaa vataayata sashtya puvaaargaarh
sashtyaa ganeke nichchet aadta nichchit nichchitya/mampardonko ninmah jannekhoo.

Bihaalko tooleile yasta sashtya kondenh sashtyaa gane sambhama prachalaat vyoosha r haa bhe raabhko sashtya puvaaargaarh
karyaamatalo raamari sashtya garekaa chun. Vastey gare bihaalko antartaatyo rupam pracalaat sambhama sanandik and uchita
vyooshaa aane abhvan garekaa chun. Haa pracalaat kanunii pryayvanahkoo kohi karmogra and pershna, vihinnan sarokar
valaar sashtyo kholakar and antartaatyo prachalanalai agarh maneer bihaalko tooleile vataayata sashtya puvaaarh
sashtyaa ganekaa nichchet ninmahalasakko nichchitya

1. Sarvari chaalak taliim sashtya (Driving School)
2. Sarvari chaalak anumati patn persha kendet
3. Sarvari abhvaan jaac kendet (Sarvari pramun jaac kendet lagaaat)
4. Sarvari mambnt karyaanshalo

Maaadikaa nichchitya banauan vataayata sashtya puvaaarh samvabaikaa bihinnan dhikaa aavaryakataa vare vyan gareekee, ahaarerni kanunii jhaa pryayvanik pryayvan, bhautik sarancha, upkaaran, suruvaalarai, foohar vyooshan r vataabaranishn
riska samahik mampardonko prlaan, eetaahee. Ullexh bhe aahunyan bhautik sarancha anuthart afsis praahnaa lagaaat
ayy suhubha, trafikik sanket r chint, bhavan thu kaunsaalai niileo kee.
CHAPTER 1 INTRODUCTION

1.1 BACKGROUND

Road transport has great importance for the overall development in Nepal. Road transport can be understood in terms of transport infrastructure and transport services. These components of the transport sector have equal significance. In other words, effective and efficient transport services rely on the performance of these components. Road safety is one of the prime indicators of the transport service. Better the transport service, safer the transport system.

Road transport infrastructure comprises of the roadway, and roadside structure to support it. It includes bridges and other types of drainage structures. This component as physical infrastructure is the prime requisite for the starting of any transport service.

Transport service sector is complex than the physical component. In this study, transport service is referred as the public transport service except the movement of individual means of transport. The service sector comprises mainly of the transport operators, road users and regulators. Safe, fast, convenience and affordable service are desirable indicators of the transport service. These indicators mainly depend on the performance of each component.

Road safety and transport management aspects need various facilities. These facilities play vital role for the overall performance of road transport management including road safety. These facilities are required for the working at various stages of the road transport procedures. There are mainly two types of transport services facilities for the traffic control provision:

- Vehicle control: Vehicle Registration/renewal, transport service registration/renewal;
- Drivers' control: Driving training, license testing and licensing;

These aspects are major part of overall transport management system. The process of driving license and vehicle registration and registration for public service process and related facilities are shown in Figure 1.1 and Figure 1.2.

Public transport service provision starts after the vehicle import and its registration at Zonal Transport Management Office (ZTMO) by the recommendation of DoTM on the Conformity of Production (CoP) and type approval certification of the vehicle manufacturer Company. The registration of the vehicle as per the regulation requires the technical inspection of the particular vehicle. Further, this technical inspection is required during the transfer of vehicle ownership. The permit for particular public transport service is issued only after the vehicle inspection. This vehicle inspection is performed regularly and renewal of the permit also requires the technical inspection (Vehicle Fitness testing). In this context Zonal Transport Management Offices are responsible for the whole process of testing and certification. The technical staffs (mechanical/automobile engineers) are responsible for the technical inspection of vehicle. As shown in Figure 1.1, vehicles deteriorating after the certain period of service are needed to
maintain or repair for preserving the original serviceable condition. Therefore, automobile workshops are important transport service facilities for the better performance of public transport service.

Similarly, driving licensing process as shown in Figure 1.2, requires the transport service facility for the better performance of this process. At the first, drivers are taught for the overall knowledge of driving and road environment. Secondly, the testing of knowledge and skill for issuing drivers' license requires well managed infrastructure as well as human resources.

![Figure 1.1 Transport Service Provision and Facilities](image)
1.2 RATIONALE

Transport service facilities such as driving training schools, driving testing centers, vehicle maintenance workshops, and vehicle testing centers are established in different model of the infrastructure development. Driving training schools and vehicle maintenance workshops are established and managed by the private sector. Whereas, vehicle inspection (testing), driving testing centers (written and trial testing) are managed by the Transport Management Offices.

As per the existing regulation, individual or firm intended to operate vehicle maintenance workshops are required to take license from DoTM. Therefore, the responsibility for issuing the operating license for private workshops requires certain guidelines/directives for licensing, monitoring and inspection such workshops. However, due to lack of perfect technical document for the establishment and monitoring of such workshop DoTM is facing the problem to implement its mandate to regulate these workshops in the country. Similarly, driving training schools are operated by the private sector. These schools are also under the DoTM monitoring and inspection. The requirements on the training course material, duration, methods, and physical facilities are major concern to impart the higher level of knowledge and skill for future drivers. Drivers are major actors of the transport service. Therefore, they shall possess the good
quality in terms of traffic knowledge, skill and attitude. These attribute the drivers' profession could be imparted by the well managed and equipped driving schools and their training system. The requirements for the monitoring and inspection to control the quality of the education/training DoTM should conduct regular monitoring based on the well documented and technically sound directives related to the driving school establishment, operating and monitoring.

Driving testing centers are equally important to conduct an adequate examination for issuing the driving license. The examination taking is the responsibility of ZTMO. The examination process is managed and regulated by the ZTMO in coordination with traffic police. The study is confined only for the establishment of testing centers as the physical facilities. Due to the lack of its adequate physical facilities ZTMO are not capable to conduct examinations as required in terms of its number as well as quality. The issue manly focused for the driving trail testing centers. Most of the places these centers are established on the rented land (lease) or any government land by the Transport Management Office. However, these facilities are difficult to manage and creating financial burden to the Transport Management Offices. Further, physical facilities are not adequate and user-friendly. Physical components for conducting especially trail testing centers are required to standardize for efficient and perfect examinations.

Vehicle inspection is major technical part of the transport management. Public transport service, and its quality greatly depends on the means of transport i.e. buses. The quality of service and safety of the can be assured by imposing the effective vehicle testing procedures. Present practice, of vehicle testing at the ZTMO and other its service centers are not satisfactory. The physical facility including equipment, adequate number of trained personnel and technical guidelines are major issues for improving the scenario in this issue. The study outcomes are expected to be very relevant for enhancement of the transport service quality and quality of services provided by the Transport Management Office.

1.3 OBJECTIVE AND SCOPE OF STUDY

Road transport safety component, related to the traffic management depends on the quality of services provided at various stage of the transport management. In this aspect the main objective of this study is to standardize the service quality regarding, driving school, workshop and vehicle inspection by the preparation of standard documents on the requirement for the establishment of transport service facilities.

1.4 REPORT CONTENT

The report on the guidelines for the establishment of road transport service facilities comprises of:

Chapter 1: Introduction
Chapter 2: Establishment of Transport Service Facility
Chapter 3: Establishment of Driving Training School
Chapter 4: Establishment of Driving License Trial Center
Chapter 5: Establishment of Vehicle Fitness Testing Center
Chapter 6: Establishment of Vehicle Maintenance Workshop
CHAPTER 2 REVIEW OF ROAD TRANSPORT SERVICE FACILITY

2.1 INTRODUCTION

The occurrence of road accident is mainly due to behavior of driver, vehicle and road users. Therefore, road accident can be minimized by taking various measures such as employing well trained and knowledgeable driver, using a good condition vehicle and well aware road users. The skill of driver can be enhanced by taking various measures such as compulsory enrollment in driving school and enforcement of strict and rigorous driving license test. Similarly, vehicle condition can be maintained in good condition with some mandatory provisions such as regular test of vehicle fitness, quality assurance in vehicle repair workshop and controlling of duplicate spare parts. To strengthen these provisions, transport service facilities such as driving training school, driving license trial center, vehicle fitness center and maintenance workshop shall be established and maintained systematically. However, less efforts has been paid in establishment and operation of such service facilities in Nepal. This chapter attempt to review the existing practices of establishment and operation of such facilities in Nepal and elsewhere.

2.2 CURRENT PRACTICES IN NEPAL

2.2.1 Driving Training School

It is mandatory to get permission from DoTM to establish and operate driving school in the country. Application for establishment and operation of driving training schools shall be submitted to DoTM as per MVTMA 1993. So far, very few driving schools (with adequate facilities) are established in the country. DoTM has developed and introduced a new curriculum in 2013. These training schools need to follow for trainees that enroll in order to acquire driving license for two and four wheelers (excluding construction vehicles). The curriculum, Driving School Curriculum 2013 Guidelines for Practical Test of Driver’s License in 2013, includes the following aspects for both two and four wheeled vehicles.

Table 2.1 Curriculum for Drivers’ Training Schools

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Particulars</th>
<th>Duration (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Vehicles, vehicle control and driving</td>
<td>2 hours</td>
</tr>
<tr>
<td>Traffic education</td>
<td>vehicle registration, license; traffic offense; traffic signs, signals and road markings; speed limits (highways, streets); defensive driving; vulnerable road users; driver’s responsibility</td>
<td>2 hours</td>
</tr>
<tr>
<td>Vehicle security, maintenance</td>
<td>Vehicle security; insurance; maintenance</td>
<td>1 hours (four wheelers only)</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
<td>Duration (four wheelers only)</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Vehicle mechanics</td>
<td>Vehicle and engine types; emission control standard; fuel system; lubrication; transmission; brakes; electrical; tires puncture sealing; wheel alignment; emergency maintenances</td>
<td>2 hours</td>
</tr>
<tr>
<td>Crash management</td>
<td>What to do if own vehicle or other vehicle damaged</td>
<td>1 hour</td>
</tr>
<tr>
<td>Primary medical treatments</td>
<td>Vital organs; dressings; blood circulation; injuries and trauma.</td>
<td>1 hr</td>
</tr>
<tr>
<td>Driving behavior</td>
<td>Good habits; good behavior for commercial drivers</td>
<td>2 hrs</td>
</tr>
<tr>
<td>Driving skill</td>
<td>Skills to acquire; skills to be evaluated during trials</td>
<td>30 hrs (four wheelers)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 hrs (two wheelers)</td>
</tr>
</tbody>
</table>

It is now mandatory to present the certificate of completion of driving training from the authorized driving training school before siting for written and driving trial test.

![Figure 2.1 Driving Training School, Ramshahpath](image1)

![Figure 2.2 Driving Training School, Kupondol](image2)

2.2.2 Driving License Testing Trial Centers

Taking driving license trial test is responsibility of ZTMO. In order to conduct trial test, ZTMO are using spaces available in the premises of ZTMO and also renting/leasing by installing only basic facilities such as pavement marking and traffic signal.

In the recent past, DoTM has improved the type of driving maneuvers that more realistically test driver’s skill. However, the trials are still conducted in an enclosed space managed by the department and or TMOs do not reflect the actual road environment. Syakar Company operates a modern safety riding training center in Kathmandu and has provided essential training to novice drivers on defensive driving. To realistically determine whether an applicant has the necessary driving skill to be awarded a driving license, it is important to conduct trials on actual roads, test the applicant’s skill for all driving maneuvers in a manner reminiscent of the real world situation.
A guideline on the requirement for trial centers that ensures adequate space for all driving maneuvers if testing is to be performed in an enclosed space is necessary.

Since it is mandatory to enroll and complete the training course from the driving school, trial center established by driving school can also be used for taking driving trial test with mutual agreement between ZTMO and driving school operator.

2.2.3 Vehicle Fitness Testing Centers

To implement MVTMR, Rule 20 and 22 to obtain Vehicle Fitness Certificate, all vehicle inspections for the purpose of vehicle roadworthiness certification and renewal are conducted in the 11 ZTMOs, two Transport Management Service Centers and DoTM testing centers. The Vehicle Fitness Certificate from ZTMO is being issued mainly by visual inspection only. In addition, a modern Vehicle Fitness Testing Center (VFTC) was recently established in Teku, Kathmandu for heavy and light vehicles but it has not come into operation yet. DoTM has already deployed necessary staff for the center however it is yet to start the operation. However, considering the current number of vehicle in Nepal and mandatory provision made in the MVTMA and MVTMR, only by Teku VFTC cannot meet the demand as it can test only 30 vehicles per day. At the moment, there are no other VFTCs authorized by DoTM in the country. However, DoTM shall opt for involvement of private sector in the vehicle fitness testing certification.

1. Motor Cycle Trial Center (DoTM Premises)  
2. Light Vehicle Trial Center (Ramshahpath)  

Figure 2.3 Driving License Trial Centers
2.2.4 Vehicle Maintenance Workshops

All the vehicle maintenance workshops (repairs, bus and truck fabrication, vehicle assembly plants, heavy equipment repairs) require prior approval from DoTM before operation of such facilities. Party interested in operating such workshops need to apply for permission at DoTM along with the required documents stipulated in MVTMR 1997. DoTM has the right to cancel the workshop license if the former determines that the facility lacks the required logistics, infrastructure to adequately conduct the required maintenances during the inspection from the department or if the facility is found indulging in unauthorized vehicle modifications. License for workshop operation is valid for a year and are renewal every year. The 2014 Guideline for Automobile Workshops stipulates the required physical infrastructure, layout for each type of workshops. Vehicle maintenance workshops operated / authorized by manufacturers are

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Figure 2.4 Vehicle Fitness Testing Center, Teku
equipped as per the manufacturer’s standard whereas workshops operated by private sectors are not well equipped and many of them are not registered in DoTM. The comparison of actual condition vehicle manufacturers authorized service center and workshop operated by private sector is shown in Figure 2.5.

(1) Hyundai Service Center  (2) Private Vehicle Maintenance Workshop

(3) Sipradi Service Center  (4) Sipradi Vehicle Maintenance Workshop

Figure 2.5 Vehicle Maintenance Workshop

2.2.5 Vehicle Emission Testing Centers

As per MVTMA 1993, Section 23 (1) (c) and, 24 (3) Government of Nepal may specify criteria for examination of vehicles that pollution likely to be generated from the motor vehicle. DoTM may refuse to register the vehicle under Section 24 (3), if it is reasonable to stop the registration of any type of motor vehicle to be made under Section 14 for public interest owing to environmental pollution.

Currently, vehicle emission testing is mandatory only for vehicles inside the Kathmandu Ring Road while motorcycles are currently not tested. Emission testing are conducted within the three offices (one ZTMO and two Traffic Service Centers) existing inside the Valley. The Government has recently introduced the Nepal Vehicle Emission Standard 2069 (2013)
conforming to EURO-3 standard in August 2014. This new standard replaces the previous Nepal Vehicle Mass Standard 2056 which was conforming to EURO-1 standard.

The existing logistics and infrastructure for vehicle emission testing within Kathmandu Valley is inadequate and need to be augmented. The space provided for the testing area is inadequate and waiting area to accommodate the vehicles to be tested is also inadequate in all the centers. In addition, the emission pollution control is not effective as the testing is conducted annually rather as a formality during renewals of the emission certification and there are no random checks on site.

2.3 INTERNATIONAL PRACTICES

The establishment and operation of road transport service facilities in developed countries is varying country by country. The reduction in road traffic accident is possible only by enforcement of various regulations and their strict implementation.

2.3.1 Driving Training School and Trial Center

In most of the country, certificate from driving school is mandatory while applying for driving license written and trial test. The driving schools are well equipped and maintained. Figure 2.6 shows a typical driving school with physical facilities in Japan.

![Figure 2.6 Driving Training School in Japan](image)

Driving license will issue only if the test giver pass the driving in real road. The trial is both in trial center premises as well as on the normal road with normal traffic. Examiner will ride together with the examinee.
2.3.2 Vehicle Fitness Testing Center

In many countries vehicle fitness testing facilities and vehicle emission testing facilities are integrated in the same testing center. Figure 2.7 and Figure 2.8 show the typical vehicle fitness testing center and test steps details and vehicle pollution test respectively. In addition to vehicle fitness test, other several vehicle safety performance tests are also carried out.

Figure 2.7 Vehicle Fitness Testing Center in Japan

Figure 2.8 Vehicle Pollution Test in Japan (Sample only)
2.3.3 Vehicle Maintenance Workshop

In developed countries, vehicles are repaired only in manufacturer authorized workshop only and such facilities are established in several places as per the need. However, such workshop shall duly registered either in local government or central government or in both. Establishment and operation of workshop requires some special aspects such as duplication of spare parts, and workshop waste management (lubricants, metal, etc.). Granting permission to establish vehicle maintenance workshop only to the vehicle manufacturer’s authorized workshop can control the duplication of spare parts remarkably.

Figure 2.9 Vehicle Maintenance Workshop in Japan
CHAPTER 3  ESTABLISHMENT OF DRIVING TRAINING SCHOOL

3.1 GENERAL

Driving training school is very much important in reducing the road transport accident because training center is the first school to give a proper traffic safety education. The probability of occurrence of an accident by a driver who is trained and educated in the specialized driving training school is relatively very low in comparison to the driver who gets driving licenses without going to training school. In many countries including in Nepal, attending driving training school before sitting for driving test is mandatory. However, DoTM, as a regulator of the driver’s license in the country, has no specific guidelines in regulating establishment of driving training school in the country. Therefore, this guidelines provide a guidance to DoTM officials in granting permission for establishing and monitoring driving training school in the country. The various aspects of establishment of driving training school are described in the subsequent sections of this chapter.

3.2 CLASSIFICATION OF DRIVING SCHOOLS

Based on the specific skilled needed for driving the vehicle, the following categories of driving training schools is considered.

Table 3.1 Driving School Category

<table>
<thead>
<tr>
<th>Category A</th>
<th>Two Wheeler Driving Training School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicle Type: Motor Cycle and Scooter</td>
</tr>
<tr>
<td>Category B</td>
<td>Three Wheeler and Four Wheeler (Light) Driving Training School</td>
</tr>
<tr>
<td></td>
<td>Vehicle Type: Tempo, Car, Jeep, Van, etc.</td>
</tr>
<tr>
<td>Category C</td>
<td>Four Wheeler (Heavy) Driving Training School</td>
</tr>
<tr>
<td></td>
<td>Vehicle Type: Truck, Bus, Minibus, Micro-bus</td>
</tr>
<tr>
<td>Category D</td>
<td>Heavy Equipment Driving Training School</td>
</tr>
<tr>
<td></td>
<td>Vehicle Type: Roller, Dozer, Excavator, Loader, Crane, etc.</td>
</tr>
</tbody>
</table>

3.3 LEGAL AND ADMINISTRATIVE CLEARANCE

All training schools shall duly register in the company registration office. The training school shall comply with legal and administrative requirements such as tax compliances, approval from local government (municipality, village development committee). All training schools shall receive the permission from the Department of Transport Management before establishment and operation of the training school.

In order to obtain the permission for establishment of driving training school, the following document shall submit to the Department of Transport Management.

- Application Form
3.4 PHYSICAL FACILITIES

3.4.1 Office Space

Training school shall have physical office in the land as mentioned in the company registration certificate. The office shall have adequate space for conducting office such as for administrative and other tasks.

3.4.2 Class Room and Written Test Center

Training school shall have sufficient space for class room and written test center. The minimum size for written test center shall be 20X15 feet. The trial center shall be either in the own land or in rented or leased land.

3.4.3 Trial Centers

Training school shall have own trial center for which the permission is granted such as if permission is granted for two wheeler, the school shall have at least roads suitable for driving motorcycle. The trial center shall be located beyond the right of way of the road. The typical layout of trial centers for two wheeler, and four wheeler vehicles are shown in Figure 3.1 and Figure 3.2 respectively.
Figure 3.1 Typical Layout for Two Wheeler Driving Trial Center
3.4.4 Traffic Sign and Signals

The training school shall install necessary traffic signs and signals in the trial center. These sign and signals shall be consistence with prevailing traffic sign and signals which are being used in the country.
3.4.5 Garbage and Sewerage Management Facilities

Training school shall have necessary facilities for garbage and sewerage management in the premises of the training school. Toilet shall be constructed in the premises of the training center.

3.5 HUMAN RESOURCES

Training shall have necessary technical, administrative and supportive staff. The number and type of technical staff (drivers, mechanics, mechanical engineer, etc.) depends on type of training schools for which they are granted the permission. The following table shows the minimum number of technical staff required for the different type of driving school.

<table>
<thead>
<tr>
<th>SN</th>
<th>Driving School Type</th>
<th>Position</th>
<th>Min. Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Two Wheeler Driving Training School</td>
<td>Skilled Driver</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Four Wheeler (Light) Driving Training School</td>
<td>Skilled Driver, Mechanics</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Four Wheeler (Heavy) Driving School</td>
<td>Skilled Driver, Senior Mechanics</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Heavy Equipment Driving Training School</td>
<td>Skilled Driver, Senior Mechanics, Mechanical Engineer</td>
<td>5</td>
</tr>
</tbody>
</table>

Note:

Skilled Driver: Driver of the same class of vehicle having at least 5 years experience.

Mechanics: A technical person who has experience certificate received from academic intuition or training centers or vehicle maintenance workshop.

Senior Mechanic: A technical person who has experience certificate received from academic intuition or training centers or vehicle maintenance workshop. The experience shall be more than 5 years.

Mechanical Engineer: A person who has bachelor degree in Mechanical Engineering.

3.6 TRAINING VEHICLES

Training school shall have minimum number of vehicles for which the permission is granted. The vehicle shall be in good condition and duly registered as per the prevailing rules and regulations of the country. The regular and periodic check of the vehicle shall be performed.

3.7 EDUCATIONAL MATERIALS

The training school shall have necessary educational materials in sufficient number. Each training school shall have the following educational materials but not limiting to:

- Traffic Rules and Regulation
- Driving rules and regulation
 TASK A-5/Guidelines for Establishment and Operation of Road Transport Safety Facilities

- Driving training course curriculum
- Road Users Code of Conduct
- Safety Guidelines
- Basics about vehicles parts and maintenance

3.8 SAFETY MEASURES

All vehicles and drivers including trainee drivers shall meet the safety requirements. All vehicles shall be equipped with safety features such as safety belt, safety light, safety tool box, first aid toolkit, fire extinguisher, etc.

3.9 ENVIRONMENTAL AND SOCIAL COMPLIANCES

Since activities of training school especially driving practice requires a wide area, frequent driving, vehicle garage, class room, etc., the environmental and social compliances of the country shall be met in establishing the training school. Trial center shall be established far from hospital, school and residential area. Therefore, it is advisable to establish training school a bit far from the residential and commercial area.

3.10 THIRD PARTY INSURANCES

The road safety should have the first priority of the training school. The driving education to be given in the training school would have significant impact in road safety. During training courses, attempts should be for zero road accidents. However, road accidents come as unexpectedly as an accident and most of the time it would be beyond the drivers control because it may occur due to mechanical as well as human error. The possibility of accident is higher with trainee drivers and thus special care shall be given avoid any accidents. All the training vehicles owned and to be used in the training school shall have compulsory third party insurance.
CHAPTER 4  DRIVING LICENSE TESTING TRIAL CENTERS

4.1 GENERAL

The negligence of driver can cause an enormous human and economic loss in road accident. In Nepal, the driver’s negligence is reported as the major cause of road the accident. In the country where driver license test is taken very strictly, the number of road accidents due to driver’s negligence is relatively low. Therefore, driving testing center is very much important in producing the skilled and capable driver. Driving testing centers are important to conduct an adequate examination for issuing the driving license. In the existing regulatory provisions, it is the responsibility of Transport Management Offices to issue driving license. However, due to the lack of its adequate physical facilities Transport Management Office are not capable to conduct examinations as required in terms of its number as well as quality. The issue mainly focused for the driving testing trial center. Most of the places these centers are established on the rented land (lease) or any government land by the Transport Management Office. However, these facilities are difficult to manage and creating financial burden to the Transport Management Offices. Therefore, it is high time to DoTM to opt for alternative options including involvement of private sector in establishing and operating trial center. However, establishment of such trial center shall meet the minimum requirement as required by the Department of Transport Management. In order to establish and grant permission, DoTM needs standard guidelines for the establishment of driving license trial center.

4.2 DRIVING LICENSE TYPE

The facilities required for the establishment of driving trial center depend on the type of driving license and the test curriculum of the test. Currently, DoTM is issuing the following category of licenses in Nepal.

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Motorcycle, Scooter, Moped</td>
</tr>
<tr>
<td>B</td>
<td>Car, Jeep, Delivery Van</td>
</tr>
<tr>
<td>C</td>
<td>Tempo, Auto-rickshaw</td>
</tr>
<tr>
<td>D</td>
<td>Power tiller</td>
</tr>
<tr>
<td>E</td>
<td>Tractor</td>
</tr>
<tr>
<td>F</td>
<td>Minibus, Mini truck</td>
</tr>
<tr>
<td>G</td>
<td>Truck, Bus, Lorry</td>
</tr>
<tr>
<td>H</td>
<td>Road Roller, Dozer</td>
</tr>
<tr>
<td>I</td>
<td>Crane, Fire Brigade, Loader</td>
</tr>
<tr>
<td>J</td>
<td>Others</td>
</tr>
</tbody>
</table>
4.3 LEGAL AND ADMINISTRATIVE CLEARANCE

All driving license trial centers shall duly register in the company registration office. The training school shall comply with legal and administrative requirements such as tax compliances and recommendation letter from the local government (municipality, village development committee). All trial centers to be established by the private sector shall receive the permission from the Department of Transport Management before establishment and operation of the trial centers.

In order to obtain the permission for establishment of trial centers by the private sector, the following document shall submit to the Department of Transport Management.

i. Application Form
ii. A copy of Nepalese Citizen Certificate
iii. A copy of company registration certificate
iv. Copy of VAT/ PAN Registration Certificate
v. Recommendation letter from Municipality or VDC
vi. Technical evaluation report
vii. Manpower status report including experience certificate
viii. Copy of land ownership certificate or agreement of hire

4.4 PHYSICAL FACILITIES

4.4.1 Office Space

Trial center shall have physical office which can accommodate all administrative and traffic personnel to be used during the written and trial test.

4.4.2 Written Test Center

It is recommended to have sufficient space for taking written test in the premises of the trial center. However, this kind of written exam can also be taken by using others facilities such as facilities of transport management office, school, college or driving training school.

4.4.3 Trial Roads

The trial center shall have own adequate space trial center for which the permission is granted such as if permission is granted for two wheeler and light four wheel vehicle, the center shall have roads in the specified configuration suitable for driving motorcycle. The trial center shall be located in the accessible location beyond the right of way of the road. The typical layout of trial centers for two wheeler, and four wheeler vehicles are shown in Figure 3.1 and Figure 3.2 respectively.
Figure 4.1 Typical Layout for Two Wheeler (Motorcycle) Driving Trial Center
Figure 4.2 Typical Layout for Four Wheeler Driving Trial Center
4.4.4 Traffic Sign and Signals

All necessary traffic signs and signals shall be installed in the trial center. These sign and signals shall be consistent with prevailing traffic signs and signals which are being used in the country.

4.4.5 Garbage and Sewerage Management Facilities

Trial center shall have necessary facilities for garbage and sewerage management in the premises of the training school. The trial center shall have toilet in the premises of the trial center.

4.4.6 Other Facilities

Driving License Testing Trial Center shall equip with following facilities:

- Compound wall
- Waiting room for examinee
- Shade for examiner and examinee

4.5 VEHICLE REQUIREMENT

The trial center shall have minimum number of vehicles for which the permission is granted or established. The vehicle can be either owned or rented by the trial center. Owning or renting the vehicle shall be in accordance with the condition of granted permission. The vehicle shall be in good condition and duly registered as per the prevailing rules and regulations of the country. The regular and periodical check shall also be performed.

4.6 HUMAN RESOURCES

The trial center shall have necessary technical, administrative and supporting staff. During the trial test, officials of Transport Management Office and Traffic Police Office shall present. In addition to traffic police and official of Transport Management Office, driving license trial center must keep one manager and minimum two supervisors for different helping work while trials ongoing.

4.7 SAFETY MEASURES

All vehicles and drivers including trainee drivers shall meet the safety requirements. All vehicles shall be equipped with safety features such as safety belt, safety light, safety tool box, first aid toolkit, fire extinguisher, etc.

4.8 ENVIRONMENTAL AND SOCIAL COMPLIANCES

Since activities of trial center require a wide area, frequent driving, vehicle garage, etc., the environmental and social compliances of the country shall be met in establishing the training school. This kind of trial center shall be located away from the hospital, school and residential...
area. Therefore, it is advisable to establish training school a bit far from the residential and commercial area.

4.9 THIRD PARTY INSURANCES

The road safety should have the first priority of the trial center. The education to be given or examined during the trail test would have significant impact in the road safety. During trial test, attempts should be for zero road accidents. However, road accidents come as unexpectedly as an accident and most of the time it would be beyond the drivers control because it may occur due to mechanical as well as human error. The possibility of accident is higher with trainee drivers and thus special care shall be given avoid any accidents. All the training vehicles owned and to be used in the training school shall have compulsory third party insurance.
CHAPTER 5  VEHICLE MAINTENANCE WORKSHOP

5.1  GENERAL

Vehicle maintenance and repair workshop is popular business sector in urban areas. Rapidly growing vehicle fleet in the country requires more and more number of workshops. It has been realized that, the quality of spare parts and maintenance work is always issue raised by the vehicle owner in the country. Regular and quality of maintenance workshop of the vehicle fleet may be a great contribution for the road safety improvement. Especially, vehicles for the public transport operating for long routes require a thorough and sincere maintenance and repair. The operators of bigger vehicle fleet may be needed to establish their own maintenance and repair workshop.

This study mainly focuses on the establishment of a technically sound workshop. The general requirements of a typical workshop are mentioned as:

- Space should be enough to perform each item of works without disruption each other vehicles and operation.
- Adequate access from the road and sufficient parking for waiting vehicles should be managed.
- There should not any disturbances to the surrounding community by unusual noise, light and waste disposal,
- Record keeping of vehicle maintenance and repairing with the indication of replaced spare parts as well as major repairing works shall be managed.
- Registered human resources as per the class of workshop should be maintained. The regular training and skill development programs for the technicians working in the workshop shall be managed,
- Safety at work place including fire safety and first-aid kits shall be maintained in the workshop.
- Pricelist for the general maintenance services should be hanged on the visible place to the clients.
- Administrative documents such as copy of license certificate, other legal documents should be kept in the workshop.
- A signboard should be hanged on the entrance of the workshop,

5.2  CLASSIFICATION OF MAINTENANCE ACTIVITIES

Vehicle maintenance workshop for the purpose of workshop classification and administrative requirements are classified as below:
a) General maintenance works: it includes regular servicing, puncture repair and replacing the wheels, simple electrical repair works, brake-shoe replacement and replacement of general parts, engine overhaul and etc.
b) Electrical wiring works
c) Body repair and simple dent and paint works,

5.3 CLASSIFICATION WORKSHOPS

Vehicle maintenance workshops are classified based on the type of vehicle repairing works and type of vehicle handled.

a. Workshop Class A: vehicle maintenance and repairing works of all category (paragraph 5.2: a, b, and c) for vehicle having Gross Vehicle Weight (GVW) less than 5t. (Car, Jeep, Van).
b. Workshop Class B: All categories of maintenance and repairing works for the vehicles having GVW more than 5 t and up to 10 t (Minibus Bus, Bus, Microbus, Trucks etc.)
c. Workshop Class C: All categories of maintenance and repairing works for the vehicle having GVW more than 10 t such as Heavy Equipment, Roller, Dozer, excavator, loader, crane etc.
d. Workshop Class D: Motorcycle repairing workshops for all repairing and maintenance works fall under this Class.
e. Workshop Class E: All the body building workshops
f. Workshop Class F: vehicle assembling workshop by importing vehicle parts including Chassis.

5.4 LEGAL AND ADMINISTRATIVE CLEARANCES

Vehicle maintenance and repairing workshops are required to obtain operating license after having the requirements set by the DoTM. The application for the permission should be accompanied by the certified copies of following documents:

a. Citizenship certificate of the owner of the workshop,
b. Company registration certificate,
c. PAN/VAT Registration certification,
d. Consent letter /permission from the Metropolitan/sub-metropolitan/ Municipality /VDC,
e. Technical Inspection Report prepared by the Mechanical/Automobile Engineer form the Roaster maintained at DoTM, as per the Workshop Guidelines,
f. Brief profile of the qualified technicians with the consent to work at workshop,
g. The land or workshop lease agreement or Land Registration Certificate of the workshop premises
5.5 REQUIREMENT ON PHYSICAL FACILITY

5.5.1 Office space

Workshops shall possess the minimum space requirement as per the Class of workshop. Recommended the minimum space required for various category of workshop in given in the guidelines and typical layout is provided below. The space requirement for the specific type of work is only considered for that particular type of work such as: parking space, maintenance bay, office accommodation etc. The minimum requirements for the workshop is taken from Figure 5.1.

![Figure 5.1 Workshop Layout (Space Management)](image)

5.5.2 Workshop Components

Workshop premises consist of type of space allocation for the specific purpose of work. A typical workshop comprised of the following components:

a. Administrative area or Office accommodation  
b. Parking area  
c. Maintenance bay  
d. Washing bay  
e. Tool room  
f. Store for spare parts  
g. Pump room  
h. Battery space  
i. Toilets and Rest rooms
Total recommended workshop space layouts are given in Figure 5.2, Figure 5.3 and Figure 5.4.
Figure 5.3 Typical Layout of Light Vehicle Maintenance Workshop
Figure 5.4 Typical Layout of Motorcycle Repair Workshop
5.5.3 Access Road

The workshop should have adequate access from the nearest road link. The requirement on the access road depends on the Class of workshop. The minimum recommended access road facility is mentioned in the Workshop Guidelines.

5.5.4 Waste Management

Workshop should have their adequate waste management system. The good drainage system should be maintained. Any surface run-off from the workshop premises should not flow to the road pavement. Maintenance and repairing works are strictly prohibited on the pavement on the RoW of the adjoining road. The collection and disposal of waste water, solid waste and oils should be managed by the workshop. It should not be extra burden to the community or residential waste management system.

5.6 HUMAN RESOURCES

Human resource is the qualified technical strength of the workshop. The quality of works depends on the persons involved in the works. The requirement of human resources for operating the workshop is given in the workshop guidelines.

5.7 TOOLS AND EQUIPMENT

Tools and equipment with the adequate plants are the major parts of the workshop standard. The basic equipment and tools are mentioned as below:

a. Mechanical tools: Complete set of hand tools, chemical waste collection facilities, transmission unit, Jacking device, wheel geometry and alignment tester, wheel balancer, tachometer, various torque wrenches, air compressor, hydraulic jacks (manual operated), vehicles supporting stands, vehicle repair lifting platforms, hoists or pits, hydraulic jib crane, ventilation and exhaust system

b. Electrical services: battery chargers, battery maintenance / charging area (with powered ventilation), belt tension gauge, discharge tester, equipment for diagnosis (e.g. oscilloscopes, thermometers), tachometer, voltage / current / resistance meters (multi-meter)

c. Body repair: vehicle body frame alignment adjuster or equivalent, transmission unit jacking device, oxygen / acetylene gas welding equipment, tungsten inert gas and metal inert gas welding equipment, electric arc welding machine, hydraulic jib crane, vehicle hydraulic jacks, ventilation and exhaust system
d. Body painting: paint mixing equipment, spray gun, paint rooms (with air filter and heating facilities) or equivalent, spray gun cleaning machine, vehicle hydraulic jacks, ventilation and exhaust system

e. Motor cycle maintenance: complete set of hand tools, motor cycle supporting stand, tyre machine, wheel balancer, motor cycle front fork adjustment press, tyre work, complete set of hand tools, gloves, vehicle hydraulic jacks, vehicle supporting stands, various torque wrenches, air compressor, pneumatic tools (impact wrenches), tyre machine, wheel balancer, wasted tyre recycling / storage facilities and records.

f. Battery work: complete set of hand tools, battery work protecting clothing, gloves and goggles (for preparation and refill of electrolyte), battery chargers, battery maintenance / charging area (with powered ventilation), discharge tester, voltage / current / resistance meters (multi-meter), wasted battery recycling / storage facilities and records, chemical warning signs and notes.

g. Lubrication work: complete set of hand tools, oil measuring containers / tools, protecting clothing, gloves, waste oil recycling/ storage facilities and records, waste oil filter storage facilities and records, brake fluid hygrometer

5.8 SAFETY MEASURES

The workshop should establish and maintain the safety features as below:

- Fire extinguisher as per the required guidelines
- First aid box and its content
- Working safety tools such as gloves, masks, protective glass for wilding, proper storing of poisonous chemicals,
- Floor bed should be dry and should not allowed any slippery patches by the oil and other liquids,
- any electric wiring should be properly insulated
- Shed should be perfect to protect from rain and sun

5.9 ENVIRONMENTAL AND SOCIAL COMPLIANCES

Since activities of VFTC require a wide area vehicle garage, etc., the environmental and social compliances of the country shall be met in establishing the VFTC. This kind of test center shall be located away from the hospital, school and residential area.
CHAPTER 6 VEHICLE FITNESS TESTING CENTER

6.1 GENERAL

MVTMR, Rule 20 and 22 stipulates that all vehicle need to obtain Vehicle Fitness Certificate for the purpose of vehicle roadworthiness certification and renewal. These tests are currently conducted in the 11 ZTMOs, two Transport Management Service Centers and DoTM testing centers. The Vehicle Fitness Certificate from ZTMO is being issued mainly by visual inspection only due to lack of facilities. GoN has establishes, a modern Vehicle Fitness Testing Center (VFTC) was recently established in Teku, Kathmandu for heavy and light vehicles but it has not come into operation yet. This newly established VFTC can test only 30 vehicles per day. However, considering the current number of vehicle in Nepal and mandatory provision made in the MVTMA and MVTMR, only by Teku VFTC cannot meet the demand. Therefore, it is high to DoTM to consider for the involvement of private sector in the vehicle fitness testing certification. This guideline provides a generic guidance in establishing VFTC and its monitoring.

6.2 TYPES OF INSPECTION /TEST

Vehicles must be tested at VFTC with its full setup. Teku VFTC has facility to test the following test items except vehicle emission test (Item No. 7). Since vehicle emission test can be integrated in the same facility and practiced in other countries also, vehicle emission test item is supplemented in the inspection list.

1. Axle Load Test: front & Rear
2. Brake test - to ensure vehicle safety control
3. Chassis clearance check - to ensure vehicle safety
4. Side-slip test - to ensure the safety of vehicle movement
5. Noise Test - to ensure that vehicle is not producing any abnormal noise
6. Headlight test - to ensure vehicle is suitable for night driving
7. Vehicle Emission Test – to ensure that vehicle is not producing any environmental hazard

6.3 LEGAL AND ADMINISTRATIVE CLEARANCE

It is yet to decide by DoTM whether to allow the private sector in establishment and operation of VFTC. However, considering volume of work it is not efficient to solely establish and operate VFTC only by DoTM.

When DoTM decide to involve private sector for its establishment and operation, private VFTC are required to obtain establishment and operation license after having the requirements set by the DoTM. The application for the permission should be accompanied by the certified copies of following documents:
a. Citizenship certificate of the owner of the workshop,
b. Company registration certificate,
c. PAN/VAT Registration certification,
d. Consent letter /permission from the Metropolitan/sub-metropolitan/ Municipality /VDC,
e. Technical Inspection Report prepared by the Mechanical/Automobile Engineer form the Roaster maintained at DoTM, as per the Workshop Guidelines,
f. Brief bio-data (CV) of the qualified technicians with the consent to work at workshop,
g. The land or workshop lease agreement or Land Registration Certificate of the workshop premises

6.4 PHYSICAL FACILITIES

6.4.1 Office Space

Since operation of VFTC required number of staffs of different fields, a proper office equipped with necessary office equipment and materials shall be installed in the premises of the VFTC.

6.4.2 Parking Space

Sufficient space is necessary for waiting vehicle and tested vehicle to park in the premises of the VFTC. Parking space should be smooth and paved.

6.4.3 Testing Yard

VFTC shall have equipment and tools for testing at least seven tests of different types in order. Therefore, sufficient space is required for installation and examining the test. A typical layout of the VFTC is shown in Figure 6.1.
Figure 6.1 Typical Layout of Vehicle Fitness Testing Center
6.4.4 Access Road

VFTC should be located in the easily accessible place. The access road shall be paved and in good condition.

6.4.5 Waste Management

VFTC should have adequate waste management system. The good drainage system should be maintained. Since some oils and lubricants may also be spilled, their proper management shall be made within the premises of the VFTC. The collection and disposal of waste water, solid waste and oils should be managed by VFTC.

6.5 HUMAN RESOURCES

VFTC shall have necessary technical, administrative and supporting staff. During the test, officials of Transport Management Office and Traffic Police Office shall present. In addition to traffic police and official of Transport Management Office, driving license trial center must keep one manager and minimum two supervisors for different helping work while trials ongoing.

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Chief</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical Engineer</td>
<td>2</td>
</tr>
<tr>
<td>Mechanical Supervisor</td>
<td>8</td>
</tr>
<tr>
<td>IT Expert</td>
<td>1</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>3</td>
</tr>
<tr>
<td>Office Assistant</td>
<td>2</td>
</tr>
<tr>
<td>Security Guards</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

6.6 TOOLS AND equipments

VFTC shall be equipped with computerized system. All the test results shall be displayed electronically on the display board and printed if necessary to print. Any manual input on the test results should not be allowed.

Further, in order to monitor the vehicle performance continuously, a database system is recommended which will be connected with the central database system. If database is maintained properly, any vehicle can be examined from any vehicle fitness testing center.

The following facility / equipment (but not limiting to) shall be installed in the testing yard:

1. Axle Load Tester (Front & Rear)
2. Brake Tester  
3. Chassis Clearance Check Pit  
4. Side-slip Tester  
5. Noise Tester  
6. Headlight Tester  
7. Vehicle Emission Tester  
   - Diesel Vehicle (Smoke Density Tester)  
   - Petrol Vehicle (Carbon mono-Oxide (CO) and hydro-Carbon (HC) Tester)

6.7 SAFETY MEASURE

VFTC should establish and maintain the safety features as below:

- Fire extinguisher as per the required guidelines
- First aid box and its content
- Working safety tools such as gloves, masks, protective glass for wilding, proper storing of poisonous chemicals,
- Floor bed and pit should be dry and should not allowed any slippery patches by the oil and other liquids,
- Any electric wiring should be properly insulated
- Shed should be perfect to protect from rain and sun

6.8 ENVIRONMENTAL AND SOCIAL COMPLIANCES

Since activities of VFTC require a wide area vehicle garage, etc., the environmental and social compliances of the country shall be met in establishing the VFTC. This kind of test center shall be located away from the hospital, school and residential area.