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Motor Vehicle Examination (MVE) & Vehicle Fitness

6.1 Section –I Importance of Motor Vehicle Fitness Testing & Certification Systems:

6.1.1 In the context of “Modernizing the Trucking Sector” regular fitness testing of vehicles and certification for road worthiness is an essential component of road safety and reduction in accidents. It cannot therefore be neglected.

6.1.2 Investments to improve the infrastructure of highways and roads and introduce international standards of reflective traffic-signage, road furniture, interactive messaging and warning systems, policing and speed control systems, elimination of dangerous “black-spots”, etc. is one side of the equation. Improved roads also means a capability created for vehicles to attain higher speeds. If road-worthiness and fitness of vehicles is neglected, the “active elements” of road safety, (i.e the vehicle and driver)

combine to create an environment of new dangers on the roads. Without due attention to vehicle fitness, the equation remains incomplete.

6.1.3 Unfit trucks are a major cause of the accelerated wear and tear of highway and road surfaces. Poor condition of suspension, axle and brakes, wheels and tyres, are the common features of unfit vehicles. Although age of a vehicle does not necessarily mean that the vehicle is unfit, but archaic and anti-aerodynamic body design, unbalanced load distribution, etc. is a feature of the older vehicles in Pakistan that directly cause undue wear and tear of roads and compromises safety standards.

6.2 Section –II The Current System & its Limitations:

6.2.1 The legal basis for motor vehicle fitness, examination and fitness certification exists in the Motor Vehicles Ordinance 1965, under Rule-35 of the M.V. Rules 1969. Apart from the legal requirement, there is a complete void, in terms of any detailed operational standards or an effective regulatory framework that can manage modern day requirements and compliance with international standards of vehicle fitness testing and certification.

6.2.2 Currently, vehicle fitness certification, i.e. periodic requirement for Inspection and Certification applies only to commercial vehicles. Even in the case of commercial vehicles, the issue of Fitness Certificate function is no more than an eye wash, serving no meaningful purpose, except a “rubber-stamp” compliance. The Motor Vehicle Examiner (MVE) is neither trained nor equipped for the functions of testing and certification. The systems, tools and

knowledge that are required for inspecting and testing simply do not exist.

6.2.3 The structure of Motor Vehicle Examiner Organization varies from Province to Province. For instance in Punjab the MVE operates under the Provincial Transport Authority, in Sindh, the MVE's are being run by the Police Department and are referred to as Motor Vehicle Inspectors (MVI). In NWFP and Baluchistan it falls under the Provincial Police Department. While in Northern Areas and FATA, MVE is under the administrative control of DIG who also acts as Motor Vehicle Registering Authority.

6.2.4 Responsibilities of MVE include:

- Inspection and Certification for granting/ renewing fitness of vehicles
- Monitoring traffic for violations of the Motor Vehicle Ordinance 1965
- Suspending/ canceling certificates of registration of any Motor Vehicle under Section-34 of the Motor Vehicle Ordinance (Rule-45, MVR-1969)
- Prosecuting Motor Vehicle Emitting Smoke
- Prosecuting motor vehicles being operated in unsafe conditions (Section-104, MVD)
- Collection of Annual Revenue (Punjab)
- MVE is also empowered to:
 - Render Unfit (condemn) GoP Vehicles
 - Inspect Vehicles in case of an accident
 - Detain vehicles in certain cases
- In some Provinces MVE is also responsible for conducting Driving Tests and carrying out accident inquiries.

6.2.5 Province-wise MVE Positions in various province is depicted in the Table blow:

Table: Province-wise MVE Positions

Province	MVE Posts	Vehicles Inspected/year (5 years average 1997-2001)
NWFP	21	53,221
Punjab	41	180,209
Sindh	12	117,377
Baluchistan	3	18,032
AJK	3	8,577
Northern Areas	NIL	247
Islamabad	-	-
TOTAL	80	377,663

Source: UNDP/ENERCON study on MVE

6.2.6 Punjab has 41 MVE posts. Organizational structure of MVE in Punjab is placed at *Annexure-III*. MVE in Punjab is also responsible for annual revenue collection. Currently, they have no access to testing equipment or fitness stations and the functions are being carried out in small requisitioned offices located in congested areas.

6.2.7 The Organizational structure of MVE's in NWFP is annexed at *Annexure-IV*. NWFP has 21 MVE sanctioned posts. Annual revenue collection is also their responsibility. They are also operating without any testing equipment and yard facilities and relevant functions are carried out in small offices located in congested areas.

6.2.8 Sindh has 12 sanctioned posts of MVE's at district levels. Organizational structure of MVE's in Sindh is placed at *Annexure-V* MVE's have no access to any inspection equipment and all the inspection work is carried out on the basis of technical experience.

- 6.2.9 In Baluchistan there are 3 MVE's sanctioned positions as this province has 3.4% of the total vehicle population. Organizational structure of MVE in Baluchistan is annexed at *Annexure-VI*. No testing equipment is available for vehicle inspection & testing.
- 6.2.10 AJK with a vehicle population of only 1% of the total, has 3 MVE's posts. Organizational structure of MVE's in AJK is placed at *Annexure-VII*. MVE's are operating without any testing and yard facilities and inspections are carried out on individual experience.
- 6.2.11 In Northern Areas the Institution of MVE operates under the administrative control of the DIG and there is no sanctioned post of MVE. Organization set up of MVE in Northern Areas is placed at *Annexure-VIII*. The inspection functions are carried out without any testing equipment

6.3 Section -III The Requirements for an Effective MVE

- 6.3.1 There is a need to introduce effective vehicle fitness testing and certification applicable to all categories and classes of vehicles in Pakistan. In the context of modernising the trucking industry, in particular, an early start is required to address the category of heavy (goods and passenger carrying vehicles). The fact is, this category of heavy transport vehicles (HTV) poses the highest compromise in road safety and consequently the most danger to life and property.
- 6.3.2 The subject of Vehicle Fitness Testing and Certification requires a clearly defined long term strategy and a practicable approach to make a substantive and effective start. International experts suggest a soft, graduated but a structured and progressive approach for countries like Pakistan; an environment that operates a predominant population of older design and age of trucks. The approach recognizes the reality that if highest international standards were introduced and enforced, it would result in the majority of trucks being rendered unfit and off-road. Such an outcome would obviously be unpracticable and consequently unsuccessful in terms of achieving any medium to long term results.
- 6.3.3 Vehicle fitness is a wide encompassing subject that extends beyond the scope of testing and certifying vehicles already on the road or monitoring those new vehicles that are inducted and registered from a given date. It needs to cover all stakeholders engaged in the designing, prototyping, approving, manufacturing and assembling of new trucks, trailers, containers, liquids, gas, dangerous goods carrying containers, etc. Such a wide encompassing subject needs to consider:
- The fitness and certification of existing Trucks/ prime movers.
 - The fitness and certification of existing trailers.
 - The fitness of new truck and trailer design (covering the design approval to production life cycle).
 - The fitness and certification of trucks and trailers designated for carrying dangerous goods (inflammables, explosives, etc.).

6.4 Section -IV Recommendations and Policy Interventions:

6.4.1 A progressive and graduated introduction of effective Vehicle Fitness Testing and Certification is required for a modernized trucking industry, to attain higher standards of safety, reliability and social responsibility.

6.4.2 Therefore, the complete environment for Vehicle Fitness Testing and Certification would require:

- a) The Motor Vehicle Examiner (MVE), with the enhanced capability and capacity to take over effectively the role of regulator, inspection, investigation and monitoring.
- b) A system of uniform standards and inspection investigation and monitoring procedures for implementation in all the Provinces and District Transport Departments/ MVEs.
- c) The functions of Vehicle Fitness Testing (VFT) to be revamped and establishment of Dedicated, Certified and Authorized Workshops and Vehicle Fitness Testing Stations (VFTS), undertaken in the Private Sector to carry out this job. These VFTS to be equipped with modern and international standard testing equipment having technically trained staff, to carry out the functions of testing and certification.
- d) Introduction of Vehicle Fitness Testing regime with a graduated implementation and enforcement, progressive but structured approach, commencing with the most basic and visible of elements (without the use of sophisticated testing equipment). Given the general state of our vehicles,

examples of starting with the basic elements are:

- Checking vehicles with incorrectly aligned headlights.
 - Checking brake and indicator lights not working or covered behind accessories and trappings.
 - Ensuring that revised and uniform systems of standardized inspection and certification procedures are introduced for harmonized implementation by the District Transport Departments, in all Provinces and Territories.
 - Checking excessive and clearly detectable exhaust emissions
 - Checking hindered driver visibility because of excessive decorations and trappings, etc.
- e) The functions of License approval, Accreditation, Periodic Inspection and Re-certification to be carried out by the MVE in a redefined or expanded role of regulator and certifier.
 - f) Revision and strengthening of the Laws and Rules governing vehicle fitness testing and certification. For a compact and integrated regulatory environment, this would include a need to cross reference and consolidate laws and rules that currently reside and function under different departments of the government. For example, the regulations relating to permission and licensing for carrying of dangerous goods, liquids, gases, explosives (residing in the domain of a different department) are a case in point. The new policies and laws recommended and being taken up for governing truck and trailer design and specifications are another example.

g) Modern standards and laws to regulate driving time, forced break and rest time, to address safety compromised through driving stress and fatigue.

6.4.3 The above areas clearly do not require advanced training or sophisticated equipment for checking and correction and emphasize the point that an early start is possible.

6.4.4 Implementation and enforcement of the complete regime would be over a period and is achievable in two stages which are explained as under:

Stage 1 - BASIC

Checking visually obvious infringements such as those stated above. The practical approach would require empowering National Highways & Motorway Police (NH&MP) to carry out (ideally at toll points and other points of presence) the functions to check, caution and penalize. The NH&MP would also require an interface to the Motor Vehicle Registration and the Motor Vehicle Examiner’s computerized systems, so that data relating to warnings and penalties can be entered on behalf of the MRA and the MVE. In this manner a progressive penalty based system (as defined in NHSO-2000) would be the basis for cancellation of vehicle registration at the defined threshold of accumulated penalty points. Any infringements that have been corrected would of course result in reducing the points accumulator.

Stage 2 - ADVANCED

This stage would be implemented when the complete legal, operational and regulatory environment has been established. Periodic fitness testing and certification would be introduced, to cover aspects that require testing equipment, proper trained inspection

staff, upgraded MVE capacity and requisite knowledge. Such aspects would include for example:

- Checks of head lights level and brightness
- Tail lights level and brightness
- Tests of brake
- Suspension and emission
- Installation and safety tests of fuel
- CNG, LPG fittings and containers, etc.

6.4.5 The stage would be accompanied by the establishment of Authorised Vehicle Fitness Testing Stations (VFTS) and a fully equipped and trained MVE possessing the capacity and systems for inspection, certifying and re-certifying the proper functioning and standards of authorized VFTS. The major Equipment required by the VFTS would be:

- Automatic Wheel Alignment Machines.
- Brake Testing Machine
- Suspension Testing Machine
- Head Light Tester
- Exhaust Analyzer for 4 fuels (Petrol, CNG, Diesel, LPG)
- Balancing Analyzer
- Pole Post/ Ramp Pit

Infrastructure Requirements

- Land:10-12 Kanals(5000-6000 sq yards)
- HR: Automobile / Mechanical Engineer-1
- Inspectors:2
- Mechanics:2

Approx Cost: 200,000 Euros

6.4.6 It would also require, ideally, that the MVE and VFTS have an interface with the Vehicle Registration Systems of the E&TD, for a two way data-access and updating relationship.

- 6.4.7 Stage 1 and 2 would together then constitute the complete operational environment, covering checking, warning and penalizing infringements on the one hand while inspection, testing, regulation and monitoring on the other hand. *Annexure-IX* shows a typical VFTS in Europe, well equipped with latest testing equipment.
- 6.4.8 International experience for the medium to long term implementation strategy requires to be considered. Different approaches have been adopted internationally by countries with effective vehicle fitness testing and certification environments. Two major and somewhat divergent approaches exist. Examples are the Japanese approach and the European (German based) approach. The divergence in approach is that the Japanese system relies on a “*Checklist and Automated*” approach, while the European approach relies more on “*Visual checks and Inspector Judgment*”. What this essentially means is that the Japanese system does not take into account an inspector’s experience and subjective assessment. The approach is also reflective in the Japanese protection of its auto industry, that has successfully created an environment that forces the vehicle owner to regularly replace a vehicle and the system itself to scrap older vehicles or export them to 3rd world and emerging countries like Pakistan; that have weak laws regulating vehicle construction and fitness standards.
- 6.4.9 The European (or German) approach enables the graduated and progressively structured approach. It suggests a progressive “raising of the bar”, by placing a cap on the percentage (say 20%) of vehicles that would be failed in the initial stages of fitness testing and certification. The approach places more importance on the Inspector’s and Certifier’s responsibility, experience and subjectivity. It suggests that testing equipments and checklists are an important tool for carrying out the tests, but should not replace the inspector’s judgment and ruling. The approach also implies that vehicle age does not necessarily mean that a vehicle of a certain age limit is automatically rendered unfit.
- 6.4.10 Examples of vehicle fitness testing and certification systems in the Region, that can be studied in more detail as relevant and being the closest applicable examples, are those operating successfully in Qatar, Dubai, Iran, Turkey, Lebanon and certain other countries of the UAE, Middle East and ASEAN Region.
- 6.4.11 The location and reach of Vehicle Fitness Testing, in terms of accessibility by the different types of vehicles also needs to be considered. VFTS designated for trucks and buses (HTV class of vehicles) would need to be located on the main trucking arteries for Heavy Vehicles (Trucks/ Buses/ Trailers). They could ideally be located adjoining on at the Trans Freight Stations (TFS), a subject covered under **Chapter 7**, where it is envisaged that branch offices (or facilitation points) of the Motor Registering Authority (MRA) and Motor Vehicle Examiner (MVE) would also be present. For other light vehicles (LTV class) ideal locations could be large Petrol Stations, CNG Stations, Workshops having adequate space and equipment within or adjoining, in addition to other specifically designated locations.
- 6.4.12 Vehicle Fitness Testing Stations, operating in an environment of effective regulation and enforcement have a regular and assured revenue stream, in terms of the testing and certification fees fixed by the government. As such, and to ideally separate the operational functions of testing (of the VFTS) from those of the certifier and regulator (the MVE), Vehicle Fitness Testing Stations would ideally be established in public

sector under a Build - Operate Transfer (BOT) business model.

- 6.4.13 International experts recommend that the existence of a Central Vehicle Repository (or CDR as already covered in Chapter 5 of this document), is a pre-requisite for successful regulation and

monitoring of national vehicle fitness and certification programmes, both from the viewpoint of data accessibility and for an integrated environment, whereby the relevant stakeholders (such as the NH&MP, MVE and VFIS) can update data in a proactive role.

6.5 Section -V Conclusions and Way Forward

- 6.5.1 Vehicle Fitness Testing and Certification is a subject that cannot be underplayed and requires detailed study and attention in the context of “Modernizing the Trucking Sector of Pakistan”. For formulating the detailed regulatory and operational environment, it extends beyond simply reviewing the functions, addressing the gaps and enhancing the capacity of MVE.

2.5.2 Implementation

Ministry of Communications/ NTRC shall undertake a project in consultation with Provincial Authorities to revamp and strengthen MVE to carry out licencing/ inspection procedures in all provinces along with defining the Standards and Inspection Procedures in all provinces and Standard Criteria for designated Workshops or VFIS.