



Government of Nepal

Ministry of Physical Infrastructure and Transport

**Department of Transport Management**

**NEPAL INDIA REGIONAL TRADE AND TRANSPORT PROJECT (NIRTP)**

SUB-PROJECT OFFICE

**Road Transport Safety and Axle Load Control Study in Nepal**

**Part B: Axle Load Control**

**TASK-B1**

**INSTITUTIONAL, REGULATORY AND ENTREPRENEURIAL  
ASPECTS OF AXLE LOAD CONTROL**

Submitted by:



**Katahira & Engineers International**

*in association with*



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## ABBREVIATIONS AND ACRONYMS

ADB	:	Asian Development Bank
ALC	:	Axle Load Control
ALC-MIS	:	Axle Load Control – Management Information System
DoLIDAR	:	Department of Local Infrastructure Development and Agricultural Roads
DoTM	:	Department of Transport Management
LOCAFV	:	Directives for Load Carrying Capacity for Freight Vehicles 2014
DoR	:	Department of Roads
FNNT	:	Federation of Nepal National Transport Entrepreneurs
FTTEN	:	Federation of Truck Transport Entrepreneurs Nepal
EA	:	Executing Agency
FBC	:	Full Bright Consultancy
GoN	:	Government of Nepal
HVMP	:	Heavy Vehicle Management Policy, 2005
KEI	:	Katahira& Engineers International
LRN	:	Local Road Network
MoCS	:	Ministry of Commerce and Supplies (Nepal)
MoPIT	:	Ministry of Physical Infrastructure and Transport (Nepal)
MVTMA	:	Motor Vehicle and Transport Management Act, 1993
MVTMR	:	Motor Vehicle and Transport Management Rules, 1997
NIRTTP	:	Nepal India Regional Trade and Transport Project
NRs	:	Nepalese Rupees
PPP	:	Public Private Partnership
PSP	:	Private Sector Participation
RTS	:	Road Transport Safety
SRN	:	Strategic Road Network
STEP	:	Sub-regional Transport Enhancement Project (ADB assisted)
ToR	:	Terms of Reference
UN	:	United Nations
VFTC	:	Vehicle Fitness Testing Center
VOC	:	Vehicle Operating Cost
WB	:	World Bank
WHO	:	World Health Organization
ZTMO	:	Zonal Traffic Management Office



## **EXECUTIVE SUMMARY**

This report has prepared in conjunction with other experts after reviewing six reports prepared by consultant team members in the various issues of axle load control in Nepal. All the reports those are prepared, identified under ALC and taken a consideration of problem to address the issues that arise from overloading problem. Therefore, based on task wise reports prepared by respective experts, Motor Vehicle Transport Management Act and Rules (amended draft) have been prepared for consideration for axle load control in Nepal.

In preparing this report, existing MVTMA and MVTMR has been reviewed and recommended for amendments within the issues of ALC. In addition, international transport laws and rules have been taken as source of amendments. In further, DoTM, Traffic Police Directorate office, DoR, FTEN, Transport Labor Unions from the different political parties are consulted and taken their suggestions while preparing of the report.

It is recommended that for cargo motor vehicle, sharing responsibility require to be adopted in case of overloading against axle load or GVW. In the case of overloading driver or owner or manager or freight forwarder (in case of freight forwarder involved) require to share responsibility. Despite this fact, Motor Vehicle Act and Rules require to adopt exemption provision as tolerance limit not exceeding 5% three times a year. In further special provision require to provide for certain products with making proper aforementioned fines that cover the loss of roads by calculating overloading weight and distances for those products such as which is not breakable. In recommended amendments, number of overloading offences will be calculated and fined, followed by total overloaded products and distance of travelling. It is recommended that cargo motor vehicle registered beyond Nepalese jurisdiction and registered within the country oblige the same provision for all the cargo motor vehicles. Further, it is recommended to make mandatorily publish overloading limit for public information and awareness as per proposed axle load fines in the recommended MVTMA. DoTM advised that it may appoint transport inspector through outsourcing process to minimize the work load of DoTM and bring competent proceedings and work efficiency to control overloading problem in Nepal.

In the report, number of provisions recommended for cargo motor vehicle drivers such as drive slow on slippery road, require to installed warning signs of cargo motor vehicle in front and rear, keep stopping distance with another vehicle as per geographical differences and etc. has been recommended in the reports.

In the report, it has been recommended that to remove conflicting provision of Public Roads Act, 1974 Section 16A against existing MVTMA Section 117 by harmonizing provisions of overloading, off-load overweight along with paying fines for the offences.

Directives for LOCAFV has exclusively providing exclusive rights to FTEN as 'providing operation rights of weighbridges station unless other arrangement has been made' recommended to remove and to provide access for private sector to ensure open and accessible market for new entrants as well.

DoTM as institution is recommended to increase capacity building for regulating overloading motor vehicles. DoTM is require to well equipped for collecting data and information in relation to overloaded motor vehicles by establishing separate section within the organization, so that it would help to form policies and other sectors specific regulation as per requirements.

By consideration of all these aspects of recommendation for axle load control in Nepal, there has been number of issues that are listed in the table-1 for amendments within the MVTMA and MVTMR;

**Table 1 Existing Provisions and Recommended Amendments**

<b>Motor Vehicle and Transport Management Act</b>		
<b>Section</b>	<b>Existing Provision</b>	<b>Proposed Amendments</b>
116	Weight of motor vehicle	Road instead place and GVW word inserted before 'weight'
117	Prescription of number of passengers and quantity of goods to be hold in motor vehicle	Require to put provision of standing capacity for local public transport service and inserted 'mandatorily' before information of the general public
	Inserted	Referring proposed sub-section (2), if motor vehicle found overloaded, off-load overloading overloaded materials and to be issued fines. Clarification: 5% tolerance limit excused/ year/3 times
	Inserted	Referring proposed sub-section (4), Referring proposed sub-section (3), overloading fines require issuing against motor vehicle.
	Inserted	Notwithstanding previous provisions, products those are not breakable can be transported by paying advance fined calculation based of total over weight and distance of travel.
158	(a) To inspect whether or not a public motor vehicle that is engaged in the transport service is operating the transport service on the route for	Further power is elaborated and inserted to off-load out-numbered standing passenger and overloaded goods and fines on the spot.
	Inserted	Transport inspector requires coordinating inspector team that is deployed from DoTM to inspect motor vehicles against GVW and axle load.
159c	Inserted	License to be obtained to operate of weighbridge station
160	2 (a)	(a) Punishment related provision Section 117 (a) elaborated provisions on proposed (d) and (e) by providing duties as per proposed Section 117, proposed sub section of 2,3, and 4.
Sechedule-10	Inserted / relating to proposed Section of 117 (4) and 160 (e)	Proposed format of fines for overloading

<b>Motor Vehicle and Transport Management Act</b>		
<b>Section</b>	<b>Existing Provision</b>	<b>Proposed Amendments</b>
<b>Motor Vehicle and Transport Management Rules</b>		
<b>Rule</b>	<b>Existing Provision</b>	<b>Proposed Amendments</b>
16.	Classification, standards and capacity of cargo motor vehicles	Explanation inserted: to treat all the cargo motor vehicle registered within the country and registered beyond the Nepalese jurisdiction to apply same legal compliances.
56c	Inserted	License to be obtained to operate of weighbridge station, require to apply proceedings of obtain license as per proposed Schedule of 60c and license will be awarded under Schedule 61c.
58	Inserted/ (a) Functions and duties of driver	Not to allow the load of cargo or articles to be loaded in themotor vehicle to exceed the ceiling of weightdetermined by the motor vehicle manufacturer company
	Inserted/ (c) Functions and duties of cargo motor vehicle driver	(1) All the duties of sub-rule (a). (2) Driver must keep all the documents as per amended Section 131 of the MVTMA. (3) Require to drive slowly in slippery roads. (4) Require to have rest after six hour driving. (5) Require to follow rush-hour schedule specific provision. (6) If cargo motor vehicle bigger than 22 meters, must put on sign of saying ' heavy and long vehicle' (7) If trailer attached, require to check properly. (8) Tightening ropes for goods require checking whether tighten-up properly or not. (9) Goods require to put against head park (10) Before stop or turning, require to turn sign light till ten seconds. (11) If possible, cargo motor vehicle carries explosive products require avoiding tunnel road.



## सार-संक्षेप

परियोजनाको विज्ञहरूले तयार गरेको ६ वटा प्रतिवेदनहरूको आधारमा भारवहन (एक्सललोड) नियन्त्रण सम्बन्धि प्रतिवेदनहरू तयार भएका छन् । उक्त प्रतिवेदनहरूमा नेपालले भोग्नुपरेको भारवहन नियन्त्रण सम्बन्धि समस्याहरू लाई पहिचान गरी सम्बोधन गर्न तयार गरिएका छन् । तयार पारिएका उक्त ६ वटा प्रतिवेदनहरूका आधारमा विद्यमान सवारी तथा यातायात व्यवस्था ऐन र नियमावलीमा भारवहन नियन्त्रण सम्बन्धि आवश्यक संसोधन गर्नका निमित्त यस प्रतिवेदनतयार गरिएको छ ।

यस प्रतिवेदनतयार गर्दा विद्यमान सवारी तथा यातायात व्यवस्था ऐन, र तथा नियमावलीमा सुधार सहितको संसोधन गर्न ६ वटै प्रतिवेदनहरूमा आएको सुझावहरूलाई कानूनीरूपमा व्यवस्थित गर्ने प्रयास गरिएको छ । यसको अतिरिक्त सवारी तथा यातायात व्यवस्था ऐन र नियमावलीका साथै अन्य अन्तराष्ट्रिय यातायात कानून तथा नियमहरूलाई पनि आवश्यक अध्ययनको स्रोत मानी सवारी ऐन तथा नियमावली माथी संसोधित प्रावधानहरू प्रस्ताव गरिएको छ । यस वाहेकका प्रतिवेदन तयार गर्दा यातायात व्यवस्था विभाग, ट्राफिक प्रहरी निर्देशनालय, सडक विभाग, ट्रक यातायात व्यवसायी महासंघ, मालसामान ढुवानी महासंघ, लगायत यातायात मजदुर युनियनहरू संग समेत विस्तृत छलफलका साथै अन्तरकृया गरिएको छ ।

मालवाहक सवारी साधनहरूबाट कानूनले तोके भन्दा बढी भारवहन गरेको खण्डमा त्यस उपर सामुहिक उत्तरदायित्वको कानूनीव्यवस्था हुने केहि अन्तराष्ट्रिय प्रचलन भएतापनि नेपालको हकमा उक्त सवारी साधनलाई नै उत्तरदायि बनाउने व्यवस्थागर्नु पर्ने देखिन्छ । यसो भएतापनि सवारीसाधन ऐन वा नियमले उच्च भारवहनका अपवादहरू जस्तो टुक्राउन नमिल्ने मालसामानको हकमा विभागको स्विकृती लिइ, कानून बमोजिम स्विकृती बापत शुल्क लिई उक्त विशेष प्रकृतिका मालसामानहरू ओसारपसार गर्न गराउन सकिने व्यवस्था तथा कुनै पनि मालवाहक सवारी साधनले कानूनत निर्धारित गरेको सिमा भन्दा समष्टिगत भारवहन एवं एक्सलको भारवहन ५ प्रतिशत सम्म बढि भएको अवस्थामा त्यसखाले मालवाहक सवारी साधनलाई बर्षमा ३ पटक सम्म छुट दिन सकिने प्रावधानलाई नकार्न सकिदैन । त्यस्ता अपवादका घटनालाई सवारी कानून बमोजिम जरिवाना तिराएर मात्र सञ्चालन गर्न सक्नेछन । अत्याधिक भारवहन सम्बन्धि व्यवस्थाको उल्लंघनलाई पटकहरू कायम गरी, अत्याधिक भारको मात्रा र अत्याधिकभार सहितको यात्रालाई मुल्याङ्कन गरि जरिवाना गर्नु पर्ने देखिन्छ । विभागले कानूनी रूपमा अनुमति प्राप्त मात्र मालसामानको भारवहनको हद निर्धारित गरिएको सुचना प्रकाशनअनिवार्य रूपमा प्रस्तावित ऐनमा गरिएको व्यवस्था बमोजिम प्रकाशन गरिएको हुनु पर्नेछ । विभागले यातायात निरिक्षक नियुक्तिगर्दा सरकारी सेवा बाहिरकालाई समेत (outsource)करारमा कार्यसुची प्रदान गरी नियुक्त गर्न सक्ने छ । जसले गर्दा विभागको कार्यभार कम भई चुस्त रूपमा नियमनको कार्यविधीलाई अगाडी वढाउन मद्दत पुग्ने छ ।

अत्याधिक भारवाहक सवारी साधनका चालकहरूले सवारी संचालन गर्दा विशेष सावधानी अपनाउन जरुरी देखिन्छ । जस्तो चिप्लो वाटोमा विस्तारै चलाउनु पर्ने, सवारी साधनको अगाडी पछाडी चेतावनीयुक्त संकेत राख्नु पर्ने, भौगोलिक स्थितीको आधारमा अर्को सवारीसंग दुरी कायम गरी सवारी संचालनगर्नु पर्ने प्रावधानहरू प्रस्तावित संसोधन ऐन तथा नियममा व्यवस्था गरिएका छन् ।

मालवाहक सवारी स्वदेश स्थित वा विदेश जहाँ सुकै दर्ता भएको भएतापनि नेपाल भित्र समान रूपमालागु हुने प्रावधानलाई समाविष्ट गर्न सुझाव पेश गरिएको छ । त्यसै गरी ट्रक तथा टैकरको हकमा अगाडिको धुरा भार, एउटा, दुईवटा वा तिनवटा धुरा भारमाक्रमशः ६,१०.२, १९ र २४ टन

भारलाई नियमन गर्न सुझाव पेश गरिएको छ । त्यसै गरी सडक ऐन २०३१ को १६क को प्रावधान र सवारी ऐन को दफा ११७ संग नवाभिने गरी ऐनको वरिखलाप भएका सवारी साधनवाट सामान भार्ने जरीवानाको व्यवस्था प्रस्ताव गरिएको छ । मालवाहक सवारीको भारवहन नियम सम्बन्धि कार्यविधि २०७१ मा तौलपुल सञ्चालन गर्ने अर्को व्यवस्था नभए सम्मको लागी दिइएको एकाधिकारले स्वतन्त्र वजारको प्रावधानहरुलाई प्रवर्धन गर्दैन । त्यसैले त्यस्ता अधिकारहरुलाई कटौति गरी निजी क्षेत्रलाई संलग्न गर्ने खालका कानूनी प्रावधानहरु हुनु जरुरी देखिन्छ ।

विभागले अत्याधिक भारवहन क्षमताका सवारी साधनलाई नियमन गर्न क्षमता अभिवृद्धि गर्नु पर्ने तथा अत्याधिक भारवहनका सुचना तथ्याङ्कका निमित्त छुट्टै शाखा स्थपना गर्न जरुरी पनि देखिन्छ । जसवाट नयाँ खालका निति नियम बनाउन सघाउ पुग्नेछ ।

यी सम्पूर्ण अवस्थाहरुलाई मध्यनजर गरी प्रस्तावित सवारी तथा यातायात व्यवस्था ऐन तथा नियमावलीमा निम्न लिखित प्रावधानहरुलाई संसोधन प्रस्तावित गरी सुझावसहित पेश गरिएको छ ।

सवारी तथायातायातव्यवस्था ऐन	
भैरहेको व्यवस्था	संसोधनगर्न खोजिएको व्यवस्था
सवारीको वजन	स्थानको ठाँउमा <b>सडक</b> र वजनको अगाडी <b>कूल</b> शब्द थप्ने
१. सवारीमा राखिने मानिस र मालसामानको हद तोक्ने	साधारण (लोकल) सेवामा सार्वजनिक सवारीमा राख्न सकिने पछि <b>सिटमा बस्न मिल्ने तथा उभिन मिल्ने अधिकतम</b> र सर्वसाधारणको जानकारीको लागि पछि <b>अनिर्वाय रुपमा</b> शब्द थप्ने ।
थपिएको	उपदफा (२) बमोजिम निर्धारित मानिसको संख्या भएको पाइएमा यात्रुहरुलाई सवारी साधनवाट ओराल्न लगाइ जरीवाना गनुपर्छ ।
थपिएको	उपदफा (२) बमोजिम निर्धारित माल सामानको ओजन भन्दा बढि हुने गरी चलाएको पाइएमा बढि भएको सामान सवारी साधनवाट भार्न लगाई जरीवाना गनुपर्छ । स्पष्टिकरण: समष्टिगत भारवहन एवं एक्सलको भारवहन ५ प्रतिशत सम्म बढि भएको अवस्थामा प्रत्येक मालवाहक सवारी साधनलाई वर्षमा ३ पटक सम्म छुट दिन सकिनेछ ।
थपिएको	उपदफा (४) बमोजिम रकम जरीवाना गर्दा मालवाहक सवारीलाई अनुसूची-१० बमोजिम जाँच गरिएको स्थानमा जरीवानाको रकम भराउनु पर्छ ।
थपिएको	माथीका उपदफाहरुमा जुनसुकै कुरा लेखिएको भएतापनि टुक्राउन नमिल्ने मालसामानको हकमा विभागको अनुमति लिई, कानुन बमोजिम जरीवाना तिरी उक्त विशेष प्रकृतिका मालसामानहरु ओसारपसार गराउन सकिनेछ ।
क) यातायात सेवामा संलग्न सार्वजनिक सवारीले बाटोको इजाजतपत्र प्राप्त बाटोमा यातायात सेवा सञ्चालन गरे नगरेको निरीक्षण गर्ने ।	क) यातायात सेवामा संलग्न सार्वजनिक यात्रुवाहक सवारीले बाटोको इजाजतपत्र प्राप्त बाटोमा यातायात सेवा सञ्चालन गरे नगरेको निरीक्षण गर्ने यात्रुवाहक सवारी साधनमा तोकिएको संख्या बाहेक को संख्या भए नभएको निरीक्षण गर्ने, बढि यात्रु भए भार्ने र जरीवाना गर्ने ।
थपिएको	च) मालवाहक सवारी साधनहरुले तोकिएको वजन बमोजिम प्रत्येक सवारीहरुको कूल भार एवं धुरा ( एक्सल)मा पर्ने भार बढि भए नभएको निरीक्षण गरी बढि भएको ओजन भार्न लगाई जरीवाना गर्ने तथा बढि हुन सक्ने वजन सिमाको अनुगमन एवं निरीक्षण गर्नका लागी विभागले खटाएको टोलीसंग समन्वय गरी काम गर्ने ।

सवारी तथायातायातव्यवस्था ऐन		
	भैरहेको व्यवस्था	संसोधनगर्न खोजिएको व्यवस्था
१५९ ग.	थपिएको	तौलपुल सञ्चालन गर्न अनुमति लिनुपर्नेव्यवस्था गरिएको ।
१६०	२ (क)	(क) दण्ड सजाय सम्बन्धि दफा ११७ बाट हटाइ (घ) र (ङ) मा व्यवस्था गरिएको । (घ)दफा ११७(३) बमोजिम निर्धारित मानिसको संख्या भन्दा बढी भएको पाइएमा यात्रुहरुलाई सवारी साधनबाट ओराल्ने र दफा १६० (२) (क) बमोजिम जरीवाना गनुपर्छ । (ङ) दफा ११७(४) बमोजिम निर्धारित माल सामानको ओजन भन्दा बढि हुने गरी चलाएको पाइएमा बढि भएको सामान सवारी साधनबाट फार्न लगाई अनुसूची-१० बमोजिम जरीवाना गनुपर्छ ।
अनुसूची-१०	थपिएको दफा ११७(४) र १६० (ङ)सँग सम्बन्धित	अत्याधिक भार बहन गराउनेलाई जरिवाना सम्बन्धि व्यवस्थाको ढाँचा ।
सवारी तथायातायातव्यवस्थानियमावली		
नियम	भैरहेको व्यवस्था	संसोधन गर्न खोजिएको व्यवस्था
१६.	मालवाहक सवारीको वर्गीकरण, तथाक्षमता:	स्पष्टिकरण थपिएको: नेपाली तथा विदेश स्थित दर्ता भएका मालवाहक सवारी लाई समान रुपमा नियम लागू गर्ने व्यवस्था गरिएको ।
५६ग	थपिएको	१. तौलपुल सञ्चालन गर्न अनुमति लिनुपर्ने उपनियम (१) बमोजिम दरखास्त पर्न आएमा विभागले आवश्यक जाँचबुझगर्दा त्यस्तो तौलपुल सञ्चालन गर्न दिन उपयुक्त देखेमा ऐन तथा यस नियमावलीमा उल्लिखित अन्य व्यवस्थाहरुको अधीनमा रही अनुसूची-६० (ग) बमोजिमको दर्ता किताबमा दर्ता गरी अनुसूची-६१(ग) बमोजिमको ढाँचामा तौलपुल सञ्चालनगर्ने अनुमतिपत्र दिनेछ ।
५८.	(क)चालकको काम र कर्तव्य:	(७) सवारी निर्माता कम्पनीले निर्धारण गरेको सवारीको वजनको हदको सीमा नाघ्ने गरी सवारीमा माल बस्तु तथा सरसामानहरू राख्न नदिने
	थपिएको (ग) मालवाहक सवारी साधनका सवारी चालकका उत्तरदायित्व:	मलवाहक सवारी साधनका सवारी चालकका उत्तरदायित्व: (१) नियम ५८(क) का सम्पूर्ण उत्तरदायित्व (२) सवारी चालकले ऐनको दफा १३१ बमोजिमका सम्पूर्ण कागजात राख्नुपर्नेछ । (३) चिप्लो बाटोमा गाडि विस्तारै चलाउनु पर्ने । (४) ६ घण्टा गाडि चलाइसके पछि आराम गनुपर्ने । (५) व्यस्त समय तालिकाको विशेष नियम पालना गनुपर्ने । (६) यदि ठुलो सवारी २२ मिटर भन्दा बढि भएमा गाडिको पछाडि लामो र गह्रो सवारी साधन भनी सुचीत गनुपर्ने । (७) ट्रेलर जोडेको भए राम्रो सँग जोडिए नजोडिएको जांच गर्नु पर्ने । (८) मालसामान बाधेको सुरक्षा रस्सीहरु राम्रो सँग बाधे नबाधेको जांच गर्ने । (९) मालसामान हेड पार्कको विपरित राम्रो सँग राख्ने नराख्ने जांच गनुपर्ने । (१०) पार्क वा रोकनु वा मोड्नु भन्दा कम्तीमा १० सेकेण्ड सम्म लाइट बाल्ने । (११) प्रञ्जवलनशिल पदार्थ बोकेको भए सुरुङ्ग मार्गलाई सके सम्म प्रयोग नगर्ने ।

## **CHAPTER 1 INTRODUCTION**

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### **1.1 GENERAL**

Axle Load is one of the main parameter while designing the road pavement thickness. It is obvious that higher the load pressure from the vehicle there is require for thicker pavement structure. Though there is limitation of 10.2 Ton axle load in MVTMR; the standard axle load considered for engineering design is 8.2 Ton. As per MVTMA, MVTMR and Directives for Load Carrying Capacity for Freight Vehicles 2014 (LOCAFV), DoTM is the main regulating authority to control overloading problem in Nepal.

In MVTMA, MVTMR or LOCAFV, Gross Vehicle Weight (GVW) or variances of axle load limit is not clearly defined. Instead MVTMR defined axle limit as per modal of goods carrying motor vehicles. In absence of clearly defined axle load control mechanism within regulatory framework, rapid deterioration of road pavements is occurring in roads. Therefore, it is need of time for Nepalese road to minimize incremental cost of road maintenance and vehicle operating cost through support of clearly defined regulatory provisions with effective control on overloading problems through legally backed enforcement proceedings.

### **1.2 OBJECTIVES**

The objectives of this service are to assess and improve the existing legal provisions for effective axle load control along with to assess the existing axle load control applied by various agencies and private sector and develop a specific guidelines for implementation of axle load control and assess the effect of overloading in terms of its effect on road and its maintenance, effects on the vehicle operating cost and vehicle life, and develop effective and specific results to be used to raise public and road user's awareness regarding overloading control.

### **1.3 SCOPE OF WORK**

The scope of the work of this task is to review and recommend on the institutional, regulatory and entrepreneurial aspects for the effective vehicle axle load overloading control;

- i. National Transport Policy;
- ii. Motor Vehicle and Transport Management Act (MVTMA)-1993, Motor Vehicle and Transport Management Rules (MVTMR)-1997 and other related Acts and Rules;
- iii. Prepare a draft for necessary improvement or change in the existing Act and Rules that necessary to improve the axle load overloading control;
- iv. Analyze the existing governmental and private agencies involved in axle load control, and recommend appropriate institutional restructuring for effective overloading control measures.

## **1.4 STRUCTURE OF REPORT**

This report consists of four (4) chapters followed by one (1) appendix. Details of each chapter and appendices are shown below.

**Chapter 1:** This chapter provides background of the task, scope and objectives of the review and amendments, and structure of the report.

**Chapter 2:** This chapter provides a detailed approach and methodology of taken to accomplish the task.

**Chapter 3:** This chapter provides the review of various legal, regulatory and policy documents both national and international. The various provisions made in the documents reviewed, identified the constraint and made recommendations for the improvements.

**Chapter 4:** This chapter provides summary of findings followed by and draft amendments on MVTMA-1993 and MVTMR-1997.

## CHAPTER 2 APPROACH AND METHODOLOGY

### 2.1 DATA COLLECTION

Since the scope of the study is to review and amend the MVTMA-1993 and MVTMR-1997 based on the results of technical studies pertaining to axle load control and international practices particularly in regional context, the Study Team has collected relevant legal document, regulatory document, policy document and previous study reports related to axle load control in Nepal as well as in overseas particularly in India. The list of document collected is shown in **Table 2-1**.

**Table 2-1 List of Collected Documents related to Axle Load Control**

<b>Legal Documents (International Legal Instrument to be harmonized with National Laws)</b>	
International Legal Documents	1. Consolidated Resolution on Road Traffic-2010
	2. Guidelines on Road Safety Actions Plans and Programmes, Economic and Social Commission for Asia and the Pacific
	3. UN Multilateral Version UN Convention On Road Signs, 1968
	4. Central Motor Vehicle Act, 1988 (India)
	5. Central Motor Vehicle Rules, 1989 (India)
<b>National Legal Documents and Policies</b>	
National Legal Documents	1. Motor Vehicle and Transport Management Act – 1993 (MVTMA 1993)
	2. Motor Vehicle and Transport Management Regulation – 1997 (MVTMR1997)
	3. Public Road Act , 1975
	4. Local Self-Governance Act, 1999
	5. Local Self-Governance Regulation, 1999
	6. Road Board Act, 2002
	7. Cargo Carriers Load Regulating Directive, 2014
Policy Documents (National)	1. Road Safety Action Plan (2013- 2020)
	2. DoTM Transport Management Directive, 2003
	3. DoTM Organization Chart, 2014
	4. National Transport Policy 200/2001 (2058)
	5. DoR Heavy Vehicle Management Policy 2005

## **2.2 REVIEW OF DOCUMENTS**

The collected documents have been reviewed from the view point of axle load control. While reviewing the documents, the following aspects were considered;

- Existing Provisions
- Constraints
- Recommendation

## **2.3 INTERACTION WITH STAKEHOLDERS**

The Study Team interacted with primary stakeholders as regulating and implementing agencies; DoTM, Nepal Police and collected written suggestions and those are incorporated in the report and recommended draft MVTMA/MVTMR. Similarly, the team has interacted and took suggestions and advices from DoR, Insurance Board, Roads Board Nepal, Nepal Law Commission, Federation of Truck Transport Entrepreneurs Nepal, Federation of Nepal National Transport Entrepreneurs, Nepal Freight Forwarders Association and Transport Labor Unions; Transport Labor Union, Nepal Transport Independent Labor Association and All Nepal Transport Labor Union.

In addition to above stakeholders meetings and consultations, seminars were also organized to share the information and incorporate the relevant issues raised in the seminar.

## **2.4 INCOPORATION OF TASK SPECIFIC RECOMMENDATION**

Under the Study, axle load control is divided into seven activities. The recommendation made based on technical study in Task B-2 to Task B-7, were incorporated in draft MVTMA-1993 and MVTM-1997 for giving legal status of the recommendation.

## **2.5 DRAFT AMENDMENTS ON MVTMA – 1993 AND MVTMR -1997**

Based on the results of review of existing documents, international practices, recommendation made in task wise study and discussion with concerned stakeholders, draft amendments on MVTMA-1993 and MVTMR-1997 were prepared. This draft amendment is submitted to DoTM for their review and proceeds for the amendments from the council of minister and the parliament.

## CHAPTER 3 REVIEW OF LEGAL, REGULATORY AND POLICY DOCUMENTS

### 3.1 GENERAL

The report has been prepared after reviewing of number of legal, regulatory and policy documents. National and international legal documents that are available and related axle load issues have been reviewed and concluded within the report.

### 3.2 REVIEWED LEGAL, REGULATORY AND POLICY DOCUMENTS

**Table 3-1** shows the legal and policy documents are currently available in Nepal in relation to axle load control.

**Table 3-1 Reviewed legal Documents on Axle Control**

<b>Legal Documents (International Legal Instrument to be harmonized with National Laws)</b>	
International Legal Documents	1. Consolidated Resolution on Road Traffic-2010
	2. Guidelines on Road Safety Actions Plans and Programmes, Economic and Social Commission for Asia and the Pacific
	3. UN Multilateral Version UN Convention On Road Traffic, 1968
	4. Central Motor Vehicle Act, 1988 (India)
	5. Central Motor Vehicle Rules, 1989 (India)
<b>National Legal Documents and Policies</b>	
National Legal Documents	1. Motor Vehicle and Transport Management Act – 1993 (MVTMA 1993)
	2. Motor Vehicle and Transport Management Regulation – 1997 (MVTMR1997)
	3. Public Road Act , 1975
	4. Local Self-Governance Act, 1999
	5. Local Self-Governance Regulation, 1999
	6. Road Board Act, 2002
	7. Cargo Carriers Load Regulating Directive, 2014
Policy Documents (National)	1. Road Safety Action Plan (2013- 2020)
	2. DoTM Transport Management Directive, 2003
	3. DoTM Organization Chart, 2014
	4. National Transport Policy 200/2001 (2058)
	5. DoR Heavy Vehicle Management Policy 2005



### 3.3 REVIEW OF INTERNATIONAL PRACTICES

#### 3.3.1 Consolidated Resolution on Road Traffic- 2010 United Nations Economic Commission for Europe (Reference Document)

Braking effort from any wheel is less than the percentage of maximum effort recorded from the other wheel on the same axle specified in the regulations. Or in the case of testing on the road, the vehicle deviates excessively from a straight line.

The Resolution has segregated axle in three different segments;

1. **Axles:** Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tones Gross Vehicle Mass (GVM); (a) Axle fractured or deformed.(b) Insecure fixing to vehicle.(c) Inappropriate repair or modification.
2. **Stub axles:** Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tones GVM. Apply a vertical or lateral force to each wheel and note the amount of movement between the axle beam and stub axle; (a) Stub axle fractured.(b) Excessive wear in the swivel pin and/or bushes.(c) Excessive movement between stub axle and axle beam. (d) Stub axle pin loose in axle.
3. **Wheel bearings:** Visual inspection with the vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tones GVM rock the wheel or apply a lateral force to each wheel and note the amount of upward movement of the wheel relative to the stub axle.

#### 3.3.2 UN Multilateral Version UN Convention on Road Traffic, 1968

In Article 30: Loading of vehicles, has provision that if the country has a permissible limit of mass, the laden mass of the vehicle shall never exceed the permissible maximum mass. This clearly provisioned that vehicle overloading is not allowed.

#### 3.3.3 The Road Traffic Law of Japan 2015

Japanese Road Traffic Law has prohibited to a driver to ply on the road beyond the limits on the numbers of passengers, loading weight, loading volume, or loading manner as prescribed by the law.

A driver of motor vehicle must not let to load goods in a such a way as to obstruct the drivers view or operation of handle or other devices, eliminate the use of back mirror, affect the stability of the vehicle, or to make it impossible to ascertain from the outside the direction indicator, number plate, brake light, tail light or back reflector of the vehicle.

In the case that vehicle is recognized as having load exceeding the weight restriction for loaded goods, the police officer may stop the vehicle and request the driver to present the document prescribed by the law and submit motor vehicle inspection certificate under the Vehicle Inspection Law to measure the weight of loaded goods of the corresponding vehicle.

In case that the Road Traffic Law which is not recognized the standard or limit related to overloading to prevent, the public safety commission may have jurisdiction over motor vehicle to give guidance or advise to a driver to prevent overloading of the motor vehicle.

Overloading offences has been regulated other users such as to request a driver of vehicle and overloaded vehicle or to sell a loaded goods exceeding the weight restriction in order to cause such loaded goods to be loaded on to the corresponding vehicle or deliver to the same to a driver of a vehicle with knowledge of the situation in which loading of relevant goods on to the corresponding vehicle constitutes overloaded.

In case an action that violate overloading provision and if it is recognized that the person who has conducted such action is likely violating the overloading provisions repeatedly, chief of a police station may order such person not to undertake such action violating the axle load limit as prescribed by the law.

A person who has failed order of police officer in accordance with provision of article 58(3) (Orders for measures related) to excessively loaded vehicle shall be liable to imprisonment with hard labor not exceeding 3 months or a fine not exceeding ¥50,000.

### 3.3.4 Central Motor Vehicle Act, 1988 (India)

The Act has provisioned to specify model of a transport vehicle's maximum gross vehicle weight of such vehicle and safe axle weight of each axle of such vehicle. The registered axle weight of any axles differences require to be done under model of such vehicle and to the number, nature and size of the tires attached to its wheels.

Motor vehicle's model and maximum safe laden weight and the maximum safe axle weight of each such vehicle require to be recommended. In further un-laden weight, and gross vehicle weight and such other particulars in the registration certificate of the vehicle the laden weight of which exceeds the gross vehicle weight specified in the certificate or registration require taking a consideration.

However, exemption may apply in some of overloading vehicle, who has written permit to ply motor vehicle on the road by the authority.

The Act's Clause 194 lays down that driving any overloaded motor vehicle refuse to stop to monitor on the weighbridge station are punishable with fine whoever contravene exceed the permissible weight punishable with minimum fine of two thousand rupees and additional amount of one thousand rupees per ton of excess load and liability remains to pay excess off-

loading charge to the authority. The driver to offload excess weight at their own risk and motor vehicle should not remove unless pays fine for overloading. In the case of refusing to stop or submitting load-sheet prior to weighing by the driver is punishable offence that may fine up to three thousand rupees.

### 3.3.5 Central Motor Vehicle Rules, 1988 (India)

The Rules does not grant permission for goods carriage, other than multi-axle vehicle, which is more than 20 years old at time of application. Although, harsh rejection has been under the rule for national permit multi-axle goods carriage which is more than 15 years old at any point of time.

The Rule has put stringent provision to disqualify license for those driver under the provision namely *constitute nuisance or danger to the public*, carrying overload in goods carriages.

## 3.4 REVIEW OF NATIONAL LEGAL DOCUMENTS

### 3.4.1 Motor Vehicle and Transport Management Act – 1993

MVTMA-1993 contains various provisions related to vehicle overloading control. The existing provisions, there are number of constraints in implementing and recommendation are summarized in sub-chapters.

#### (1) Section 116:Weight of motor vehicle

- i. **Existing Provision:**DoTM may determine the limit of weight of a motor vehicle in respect of to drive any public place and DoTM has restricted motor vehicle to ply on the road if motor vehicle has excess of the limit of weight.
- ii. **Constraints:** The determined weight is not clearly defined.
- iii. **Recommendation:**The weight limit requires defining as 'total weight limit' to have legal and regulating clarity.

#### (2) Section 117: Prescription of number of passengers and quantity of goods to be hold inMotor vehicle

- i. **Existing Provisions:** DoTM has responsibility to determine the number of passengers' andthe weight of goods permissible in a public motor vehicle and require to publish a notice to that effect for information of the general public. A public motor vehicle may not carry persons or goods in excess of such number of persons or weight of goods as may be specified in a notice as per Sub-section (1).

- ii. **Constraints:** The provision does not make clear along with Public Roads Act Section 16a whether to off load that violated limit of goods or weight. The provision does not have provision for maximum feed in capacity to local public transport.
- iii. **Recommendation:** The provision requires amendments that motor vehicle violate axle load limit are subjected to fine as well as off-load the goods from motor vehicle. If the motor vehicle that carries more than load limit, the driver of motor vehicle subjected to fine and freight require to be off-loading from vehicle as per LOCAFV, Section 11 (1).

Based on international experience for those motor vehicles crossing overload limit, responsibility sharing mechanism required establishing. In the result, that motor vehicle cannot be ply on the road for certain times along with fines and for driver of motor vehicle along with process of disqualifying from driver license by counting axle load violations require to be considered. Similarly, if driver continues to violate axle load control more times, there require being provision of disqualifying from driver license responsibility. In terms of fines, axle load control mechanism, there should be calculation of weight, axle load limit, distance and number of violation at the time. Based on consultant report, within proposed amendment draft of MVTMA separate Schedule will be proposed for axle load offences.

Similarly, DoTM shall determine the number of passengers and the weight of goods permissible in a public motor vehicle and limitation of number of passengers and goods require to be published on publish a notice to inform of the general public.

On the provision related to punishment in the Act, transport inspector or traffic police shall punish, a person who drives motor vehicle, though anything contained elsewhere in MVTMA, the driver may face instant fines on the spot. If a motor vehicle is more than the determined weight and number of people to be seated or kept in can fall under traffic law violation.

For responsibility sharing mechanism for over limit of axle load control is recommended among driver and owner or manager of motor vehicle and freight forwarder if involved in the case must share responsibility to pay the fines. It is inferred that freight forwarders are main stakeholder and are primary persons of knowing exact load of the freight. Therefore, penalty or fines segment there require adopt share mechanism among freight forwarders, drivers of motor vehicle and owner motor vehicle itself.

Exemptions require providing and listed within law or rules for certain products or goods that cannot avoid limit of axle loads such as heavy hydro equipment's; transformers for hydroelectricity plant etc. should allow along with penalties by applying method of road compensation through distance and weight of the products or goods.

Tolerance limit require to be provided by making presumption that accuracy may not meet on weight measurement all the time. To obtain international axle load practice to be

harmonized with exemption each motor vehicle that may be exempted three times a year followed by 5 percent of over limit against GVW and axle load limits.

**(3) Section 147: Prohibition on driving motor vehicle recklessly**

- i. **Existing Provisions:** Recklessness while driving is prohibited.
- ii. **Constraints:** The provision lacks provision of heavy motor vehicle operation while driving on the road.
- iii. **Recommendation:** The provision requires addressing close distance driving that increases probabilities of accident. It can be recommended that driving distance in between motor vehicle without infringing provisions of Section 147 (b) (~~proposed~~) motor vehicle require being at least six meters. In the meantime, heavy motor vehicle is distinguished in geographical differences in between 15-22 meters.

**(4) Section 158: Functions, duties and powers of transport inspector**

- i. **Existing Provisions:**

Transport Inspector is responsible for inspect whether or not a public motor vehicle that is engaged in the transport service is operating the transport service on the route for which it has obtained the route permit and to check limitation of total number of passengers and loads of goods along with weight capacity.
- ii. **Constraints:** The provision lacks of power for transport inspector to deliver the duties for heavy load carrying, in terms of checking axle load on the motor vehicles.
- iii. **Recommendation:** The provision is not specific to deliver the duties for load carrying motor vehicle from transport inspector. The transport inspector require to have right to check loads of each axle and limit of gross vehicle weight. Similarly, if limit of load carrying found more than axle load limit or gross vehicle limit, transport inspector should have right to off load the goods from motor vehicle. There require being mandatory provision for transport inspector to cooperate inspection team deployed from DoTM to coordinate to fulfill the requirements

**(5) Section 160(2): Punishment**

- i. **Existing Provisions :** Traffic police or DoTM may punish a person who commits, or causes the commission of, the following act with the following fine:(a) A person who commits or causes or contravention of prohibition use of other purpose of, driving motor vehicle without license and cross the axle limit: NRs. 500 to 2,000 Rupees. (b) A person who commits, or causes the commission of, an act in contravention registering of motor vehicle, prohibition on plying foreign motor vehicle without obtaining permission, Prohibition on; alteration without obtaining approval, operating transport service without obtaining route permit, determination of the rate of fares, causing obstruction to traffic, causing loss and damage to passenger and motor vehicle involved in accident and not

listing the name of transport service: NRS. 1,000 to 5,000 Rupees.(c) A person who commits, or causes the commission of, an act in contravention of license to be obtained to operate training center, factory and workshop: NRs. 2,000 to 10,000 Rupees.

- ii. **Constraints:** Repeated action against Section 117 requires be addressing and prohibiting.
- iii. **Recommendation:** In the Section, single and multiple offences against Section 117 by violating axle load limit of require to fine through measurements such as limit of excessive weight, travel distance as per a matrix of overloading fine, based on the study team report followed by proposed Schedule 10.

### 3.4.2 Motor Vehicle and Transport Management Regulation – 1997 (MVTMR 1997)

#### (1) Rule 16- Classification, standards and capacity of cargo motor vehicles

Existing Provision

Rule 16 has defined legal limit for axle and payloads for various types of vehicles is as follows.

- Rear axle-load -trucks and trailers = 10.2 MT
  - Maximum permissible payload
  - Mini Trucks: 5 MT
  - Power-tillers, Pick-up Truck: 1 MT
  - Dozers, Loaders, Dumper, Crane, Roller, Ambulance: prescribed in government gazette conforming to the manufacturer's specification, standard
- i. **Constraints:** Heavy motor vehicles that violated axle load limit and that are registered in other countries are not defined.
  - ii. **Recommendations:** The Rule require to provide more explanation for cargo motor vehicle by making inclusive provision for vehicle registered within country and abroad by prohibiting any vehicle that are against axle load control in Nepal while plying in Nepal. It is inferred to address this problem to remove lacunae foreign plated motor vehicles require to put under defined provisions to make control freight transport system in Nepal.

For cargo motor vehicles truck and trailer are recommended to have clear regulating provision such as front axle limit 6 ton, rear axle 10.2 ton, tandem axle 19 ton and tridem axle 24 ton based on international practices.

#### (2) Rule 58(b) 5- Functions and duties of driver and conductor

Existing Provision

Sub-Rule has given loading related responsibility to the conductor of motor vehicle such as not to allow the load of cargo or articles to be loaded in the motor vehicle in such a manner as to exceed the ceiling of weight of motor vehicle determined by the motor vehicle manufacturer. In further, Schedule-4 Relating to Sub-rule (1) of Rule 4) in the load bearing capacity requires being mention while registering motor vehicle to the DoTM.

- i. **Constraints:** Provision has lacunae not to make responsible to driver for ceiling of weight in the motor vehicle.
- ii. **Recommendations:** In further there require to provisions for drivers to make responsible for ceiling of weight in the motor vehicle determined by manufacturer within 58(a). In further, there require to additional provision for heavy motor vehicle drivers to make responsible such as precaution in slippery road, abide the rule and instruction of busy hour, apply and install warning signs if motor vehicle is more than 22 meter long, checking trailer with precaution, make sure goods are tied up and secured, turn on sign light at least 10 second before stopping or parking, check goods against head park, if available avoid tunnel road while carrying explosive products, keep distance 60-200 meter in between motor vehicle in geographical differences.

### 3.4.3 Public Road Act, 1975

The Act has promulgated to make provisions to classify all kinds of public roads and acquire lands required for the development, maintenance, expansion or improvement of the public roads and to collect development tax as a road externalities from beneficiaries such as landholders near the roads who benefit from the public roads, in order to maintain the convenience and economic interest of the general public.

The Act is addressed the Axle overloading legal provision under Act, Section 16 (a) that allow off-loading with Penalty(*amended by second amendment*) and further legal action require to be put under draft MVTMA and existing MVTMA Section 117 with amendments of hand over power of off-loading, further penalty and legal action for strengthening DoTM's capacity enhancement or power of implementation of legal and regulatory mandates to avoid conflicts among MVTMA and Public Road Act.

The contradiction occurs in obligation of overloaded motor vehicle but also contradict fine as well within these MVTMA and Public Roads Act. In MVTMA, Section 117 fine ranges Rs. 500-2000 for overloading vehicle whereas Public Roads Act -1975, Section 30 differentiates with up to Rs. 2,000 fines.

#### **3.4.4 Road Board Act, 2002**

Road Board Act is promulgated to make necessary provisions on having the roads repaired and maintained, making cost effective the expenditures to be incurred in repairing and maintaining the roads and making transparent and effective the repairing and maintenance works of the roads.

The Act establishes the Road Board to carry out routine, recurrent periodic and emergency repair and maintenance works of the road and to make arrangement for imposition on and collection of tolls from the motor vehicles plying on the road. The Act with the aim of providing sustainable fund for planned maintenance of the roads. The aim of planned maintenance is to keep existing maintainable roads in serviceable condition, reduce vehicle operating cost and provide more comfort to the road users. The board is empowered to collect the tolls prescribed by the government through public notification in the Nepal Gazette. The board provides fund for repair and maintenance of roads included in the integrated annual programme prepared.

#### **3.4.5 Local Self-Governance Act, 1999**

The Local Self-Governance Act, 1998 aims to provide the opportunity for the local people to participate in the process of resource mobilization, development and distribution of the result of development process to the local communities by the process of decentralization of different powers in the country. Particularly, the Act provides Local Government as autonomous and corporate body formulation of plans and implementation of project such as construct, maintain and repair or cause to be constructed, maintained and repaired are important features of this Act.

The Act has facilitated devolution of power, responsibility, resources and means to empower the local bodies. In the same time the power of local bodies to collect and mobilize the resources with accountable and responsible manner.

The Act has mentioned that Local Bodies the municipality may impose parking charge (Section 144) as prescribed, at vehicles parking places managed by it. It is also arrange or cause to be arranged for bus parks and parking places in their areas.

The Local Bodies (in relating to Transport, Section 96) to prepare plans of un-pitched and pitched roads, bridges and culverts as required within the Municipality area, except those roads which are under the responsibility and control of Government of Nepal, and to be arranged for bus parks and parking places of rickshaws (three-wheelers), horse-carts, trucks etc. within the Municipality area. The local bodies to prescribe the upper limit of pushcarts, rickshaws, horse-carts etc. in consideration of transport requirement of the Municipality and register and provide number to them.



### **3.4.6 Local Self Governance Rules, 1999**

Local Self Governance Rules, 2056 (1999) stated that (Rules 147) the maximum and minimum rates of the parking fee that may be charged by a Municipality within its area shall be as referred to in Schedule-19.

- i. Municipality may levy a parking charge of not exceeding Forty Rupees per hour each time on the buses, minibuses or trucks and tractors which have been parked.
- ii. A Municipality may levy a parking charge as fixed by the Municipality Council at the bus park with modern facilities constructed and operated by itself.
- iii. A Municipality may levy a parking charge of up to Twenty Rupees each time on the basis of the time of parking on the parking area as prescribed by the Municipality.
- iv. A Municipality may levy a parking charge of upto Ten Rupees on the vehicles other than the vehicles referred to in Clauses 1, 2 and 3 to be parked in the areas managed by the Municipality on the basis of the parking time.

### **3.4.7 Directives for Load Carrying Capacity for Freight Vehicles 2014 (LOCAFV), 2014**

LOCAFV is pertaining to axle load control in Nepal. LOCAFV in exercise of the powers conferred by Section 45 of the Good Governance (Management and Operation) Act, 2008 framed the Directives, in which DoTM is responsible for implementing Directive. DoTM has provided the required instruction to strictly enforce transporter not to violate the gross vehicle weight stipulated in their vehicle registration certificate.

The directive is mandated heavy vehicles to declare their tare weight at the loading points and carry a computer printed load sheet compulsory to confirm to the gross vehicle weight limit. For trucks transporting construction materials, the volume of the material that is permitted to be transported is specified in lieu of the loading sheet documentation required.

The Directive Section 14 (4) and (5) should not provide exemptions for those certain goods carrier vehicle. Apart from unavoidable axle loads with defining terms in the Act or Rules, loopholes of the Directives provisions will infringe all the provisions of axle load control mechanism.

To strengthen the DoTM and legal and regulatory uniformity, there require to amendment to allocate the power to MVTMA for directives or Manual for the purpose of carrying out the activities. The Cargo Carriers Load Regulating Directive, 2014 require to be under the Act of MVTMA instead of Good Governance (Management and Operation) Act, 2008.

### **3.5 POLICY DOCUMENTS (NATIONAL)**

#### **3.5.1 Road Safety Action Plan (2013- 2020)**

The Plan developed by DoR and has identified the amendments required in the MVTMA1993 and MVTMR1997 to accommodate the following items as stipulated in the National Road Safety Action Plan (2013- 2020):

- ◆ Harmonization with UN and international agreements, pedestrian regulations, DoR Heavy Vehicle Management Policy 2005, global safe practices for commercial vehicles, etc.
- ◆ Prohibiting freight on bus and mini-bus including more effective mechanism to effectively control the same
- ◆ Delegate more power to the traffic police to penalize traffic rule violators with stiffer fines on site
- ◆ Promotion of ISO traffic safety management standard -ISO 39001
- ◆ Heavier penalty to effectively discourage both transport operators and passengers to travel on vehicle rooftops
- ◆ Safe vehicle guideline and better route permit procedures aligned with safety provisions

The broad objectives of the road transport safety study is to implement the actions identified in the road safety action plans to minimize road accidents through strengthening the road safety component related to the road safety management including legal provision; safer vehicles, safer roads and safer users.

#### **3.5.2 DoTM Transport Management Directive, 2003**

The Directives is to identify areas of operating of workshop and driver training center, registration of transport service and operator association, issuing of root-permit for night bus services, reviewing of public transport fares, issuing of road worthiness certificate, issuing certificate against vehicle air pollution. The Policy recommended to inform to the ZTMO to cancel driving license by close distance relatives, in case of driver faces death or casualties.

#### **3.5.3 DoTM Organization Chart, 2014**

The Organization Chart lacks of provision and number of Transport Inspectors for Axle Load and traffic rules surveillances or monitoring. In the Organization Chart Technical Responsibility within the organization, Transport Inspectors, require to put under the Technical Section instead Administration and Route Permit Section. In proposed draft MVTMA and MVTMR may have to be recommended to deploy adequate number of transport inspectors by well defining their roles and responsibilities.

DoTM require having regular Section for research and analyzing of traffic data, accidents and other relevant factors that may help to formulate new types of transport law, regulation and policy. In the result, this sort of research would help continuing policy recommendation to amend the act and regulation related to motor vehicle law and regulations.

#### **3.5.4 National Transport Policy 200/2001 (2058)**

National Transport Policy 2001 is consisting provision, in order to attain the objective on axle load control to operate the appropriate axle load system vehicles to reduce load on roads. The Policy has generalized the issue but lacks of addressing specifically to control axle loaded vehicle plying on the roads.

#### **3.5.5 DoR Heavy Vehicle Management Policy 2005**

DoR's HVMP further differentiated the axle load limit for individual axle of heavy vehicles (front, rear single and rear tandem) to guide both the government and the private transport sector in further preserving the road asset. This policy was introduced in the wake of lack of institutional capacity within DoTM to tackle overloading despite the acts and rules vesting the authority for heavy vehicle management to this department. The Policy was approved by the Ministerial Cabinet of GoN but require being part of MVTMA 1993 and MVTMR 1997 to obtain legal mandate to enforce and to implement.

The Policy clearly defined contradiction of 'fine but no off-loading' of MVTMA and 'off-loading without further penalty' Public Roads Act-1975. Although the existing two road infrastructure and transport management statues; Public Roads Act –1975 and MVTMA are lacking to specifically to deal with the axle overloading issues.

The Policy's provision on axle load control require to harmonize along with recommended draft of MVTMA and MVTMR, such as franchising vehicle inspection to private workshops, incorporate comprehensive vehicle insurance, heavy penalty for travelling on rooftops, etc. so that the amendment is conducted comprehensively and efficiently.

The Policy has following objectives;

Preventing premature failure of road pavement and thus ensuring that road provide the desired serviceability throughout its design life.

- Enhancing road capacity by increasing average vehicular speed.
- Enhancing road safety by adhering to vehicle manufacturers' specifications and road design standards.
- Reducing vehicular emission thereby reducing adverse effects on the environment of the road corridor.

To achieve the HVMP goals and objectives following policies has been recommend within the policy;

The Policy has recommended appropriate axle load limits that require to be incorporated in the legislative framework. It has further recommended incorporating within legal frameworks;

- The number of wheels per axle
- Multiple axles and groups of axles
- The distinction between trucks and mini trucks
- A fair and practical penalty system
- Differential loading limits on different pavement types
- Loading restrictions on bridges
- Gross weight limitations

The Policy encouraged transporters to make capital investment on tandem rear axle trucks. It has recommended legal axle load enforcement to carry out through a rational and practical plan.

Importantly, the Policy highlighted Weighbridges construction at all main border crossings and at other strategic locations and training for ensuring weighbridges operation efficiently. The Policy intended to involve private sector participation for axle load control operation to reduce the incidence and extent of overloading.

### **3.6 EXISTING GOVERNMENTAL AND PRIVATE AGENCIES INVOLVED IN AXLE LOAD CONTROL; RECOMMENDATION**

A number of weighing bridges are operated by the private sector (FTTEN) which is regulated by Directives for LOCAFV and other private parties for their own purpose) in Nepal within areas of Kathmandu, Jitpur, Simara, Hetauda, etc., in addition to the ones operated by the government at custom and trade corridors along the Terai plains. However, there is no comprehensive guideline to control the operations of the weighbridges and regulate them including those operated by the private sector for axle load control. The Directive which stipulates some general provisions on operation of weighbridges by providing exclusive right to operate on the road until GoN provides service to deliver for truck operators. Such a guideline require to offer advices on a range of issues confronting while establish weighbridge station and operation to a appropriate locations; type of weighbridge to adopt (portable/fixed/weigh-in-motion); training requires for axle-load control; modality of public-private partnership to adopt (service, management, lease, concession, etc.).

However, in the Directives operational exclusive rights has given to one particular operator FTTEN require to be change to provide PSP on the basis of fair market practices to entry as

service provider. LOCAFV provision on Section 4 requires to open up for PSP or other sector those may intend to involve into the sector.

Private sector can participate in PPP business model into axle load control mechanism through transparent, competitive and fair procurement awarding basis to enter as new entrants. There is no legal or regulatory hurdle arise to involve private sector for these sorts of weighbridge operation. The cooperation and participation of private sector in controlling the axle load limit in a freight transport vehicle is very vital whereas almost all freight vehicles are operated by the private entrepreneurs.

GoN initiated approach to overload control may not succeed due to lack of experiences within the sector; rather it can be done through PSP for work efficiency. It can be establish through enabling appropriate legal framework to resolve the problem that caused overloading in Nepal. PSP require determining overloading fine based on scientific method as per total overloading and distance of travelling of the goods to make workable and non-conflicting provision to facilitate DoTM.

These PSP require to adopt integrate approach for regional level to regulate through weight bridge station for cross-country heavy vehicle movement as well. Therefore, national policies, laws and regulations require harmonizing along with infrastructure support.

These practices require maintaining level of standardization in the regional level and require formalizing regional practice on axle load control to have common understanding among the weighbridge operators.

### **3.7 RECOMMENDING APPROPRIATE INSTITUTIONAL RESTRUCTURING FOR EFFECTIVE OVERLOAD CONTROLLING**

The effective and efficient vehicle overloading control is possible only by active involvement of DoTM, DoR, traffic police, RBN etc. However, the effective implementation is possible, if there is clear responsibility sharing/demarcation among the institutions involved.

#### **3.7.1 DoTM**

##### **(1) Organization**

DoTM is main regulatory body for vehicle overloading control in Nepal. However, DoTM Organization lacks provision of number of Transport Inspectors for Axle Load control surveillances or monitoring. Within DoTM organization Transport Inspectors, require to put under the Technical Section instead Administration and Route Permit Section. Therefore, recommendation has been made to deploy adequate number of transport inspectors by well defining their roles and responsibilities.

To improve institutional capacity on regulating axle load measurement, the Act lacks of Transport Inspector or Traffic Police with having technical expertise on specific issue for monitoring to surveillances.

Further, DOTM requires having regular Section for ALC-MIS research and analyzing of traffic data, accidents and other relevant factors that may help to review and formulate new types of transport law, rule and policy. This would help continuing policy recommendation to amend the Act and Rule related to motor vehicle laws and rules.

For DoTM appropriate institutional structure on axle load control, there require to have following issues necessitated, elaborated and facilitated in detail;

**(2) Legal/Regulatory: Requisites for DoTM**

- 1) MVTMA and MVTMR should ensure that enforcement authority to be given power to detain the vehicle, off-load goods from motor vehicle and charge excess load fine if found;
- 2) Fines for the overloading require to based on scientific (such as quantity of excess load and travelled distance) and based on logic and rationality such as distance;
- 3) Fines require to determined on the spot to avoid administrative dawdling along with opportunity of appeal with certain time frame as per MVTMA, Section 172 (1);
- 4) Axle load issue must harmonized with cross border transportation and DoTM develop capacity enhancement to augment efficiency;
- 5) The Directives for Load Carrying Capacity for Freight Vehicles, 2014 can be further developed as sector specific regulation in detailing of regulating proceedings of axle load control mechanism in Nepal.

**(3) Enforcement: Requisites for DoTM**

- 1) It is very important to make enforcement process simply understanding of driver, owner/manager or freight forwarder. The process require to make possible to operate if excess goods off-loaded, fine paid as per fine slip and driver, owner/manager or freight forwarder cooperate the regulating process.
- 2) It is prudent, in available; inspection team for the axle load control on weighbridge station require to deploy mechanical engineer, traffic police to comply the inspection process of heavy motor vehicle.
- 3) DoTM require coordinating with custom offices in the border to display regulatory prohibitory provisions (restricted cap of over load) of axle load control within Nepalese jurisdiction.

- 4) DoTM, in the case of power handover to the traffic police on the axle load control, fines cap recommended to remove to allow them to collect all the fines, which is required to pay by the overloaded motor vehicles.

**(4) Training: Requisites for DoTM**

- 1) To empower or enhance capacity building process for the DoTM officials for regulating axle load control, training is recommended. Transport inspector and other officers involving in inspection require to well aware of cause, result of overloading.
- 2) Training for enforcement authority requires involving technical and administrative officials to address both way of approach to train the inspection team.

**(5) Information: Requisites for DoTM**

- 1) Driver, owner/manager or freight forwarder requires to get easy access of information on over load compliances. Widely available information and legal obligation only make stakeholders aware of legal restriction.
- 2) There require an information sharing mechanism on overloading offences and penalty in wide level to stakeholders so that same offence may not repeat again.
- 3) Sharing information to driver, owner/manager or freight forwarder on benefit not to carrying overload in financial return and longevity of motor vehicle and road condition.

**(6) Equipment: Requisites for DoTM**

- 1) DoTM is advisable all the weighbridge equipment's require owning, if PSP involved, require assurance from operators that it will be used for fair process of inspection without favoring association or organization or federation or etc.
- 2) Weighbridge stations require following strategic points for inspection and regulation process.

**(7) Operation: Requisites for DoTM**

- 1) Weighbridge station operation receipts require being having four copies. In case of freight forwarder involved, there require to be 5 copies for responsibility sharing. Each copy requires to be deposited to DoTM, driver, owner/manager, freight forwarder and station itself.
- 2) For those foreign national registered motor vehicle violates overloading offences more than three times, require stopping on the border with coordination of custom officials.
- 3) To take advantages and developments of information technology and to get-rid of complain about mal-practice (i.e. corruption) due to offline operation, web-based ALC-MIS is required to install in DoTM.

### **3.7.2 Nepal Police; Traffic Police**

There is requiring of continue support from Traffic Police to DoTM to implement enforcement against traffic rules and axle load control measurements. To control axle load compliances, traffic police require to be well trained in terms of axle load control. Further, traffic police require having instrumental access to have correctly regulating appliances.

Training on axle load control laws and rules require to be provided to the traffic police to have effective implementation. This training requires basing on definite period programme within traffic police organization to have capacity enhancement regarding overloading issues.

Traffic Police require getting more power from DoTM to receive complete overload fines, more than existing fines cap against overloading vehicles.

### **3.7.3 Department of Roads (DoR)**

DoR Road and Traffic Unit, the one responsible agency for road sign and traffic lights require to closely coordinating with DoTM, traffic police to install road sign that are related to axle load control to ensure road quality.

### **3.7.4 Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR)**

DoLIDAR is responsible for operation and management of local road. DoLIDAR requires to closely coordinating with DoTM, traffic police to control under their jurisdiction.

### **3.7.5 Road Board Nepal (RBN)**

RBN can contribute through financing of certain percent of budget for road safety and axle load control (weighbridge station operations) and campaigning to aware the motor vehicles.



## **CHAPTER 4 FINDINGS, DRAFT AMENDMENTS & MVTMA/ MVTMR**

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### **4.1 FINDINGS**

After reviewing legal and regulatory documents, having discussions with DoTM, Traffic Police, DoR officials and based on task-wise reports of study team, it can be concluded that DoTM effectively require to pro-active to regulate issues that has been raised from over loading issues. There are following axle load issues that are enlisted as findings;

1. In the existing provision for the overload fines which is nominal fines in between NRs. 500- 2,000 indoctrinate whole axle load control issues. Existing provision of axle load fines has been poorly regulated with very negligible fines. The fines which have cap to fine NRs. 1,000 at the spot by traffic police and over the cap by the DoTM may not be effective enough to control over loading issues.
2. By providing exclusive right to operate (even for the certain period) weighbridge station to the particular organization may not provide operation efficiency. The directive for load carrying capacity for freight vehicle 2014 may hurdle PSP and create no competitive environment.
3. Temporarily addressing axle load issues through DoTM notice, Feb 1. 2010 without having proper notice by allowing through measurement rather weight may not address axle load issues for the long term goal. This requires being transfer in the total weight compliances to all the motor vehicles including construction materials transporting trucks and dumpers.
4. Inability of appointing Transport Inspector by DoTM in existing situation despite previous attempt to appoint and activate provision of the MVTMA require to discussed for appointing proceedings and require to fix appointment criteria to open up and fix the way for appointments.
5. Due to not deploying transport inspectors, DoTM's regular and random monitoring and surveillances on over load issues, the number of axle load offences are not curbed down or minimized. There is clear worded de-facto coordination in among DoTM, Traffic Police and DoR for responsibility sharing such as road safety, axle load control traffic signs or junction improvements.

### **4.2 DRAFT AMENDMENTS & MVTMA/ MVTMR**

Based on the task-wise reports, number of amendments has recommended controlling vehicle over loading problem in Nepal. In the same time institutional arrangements has been recommended that leading for along with Traffic Police, DoR, RBN and other stake holders.

For the foremost, to control axle load in Nepal, Motor vehicle's maximum safe payload and maximum safe axle weight require be recommending and regulating. It requires to be mentioned in the blue-book as registration documents. This would be appropriate to put total weight limit in regulatory compliance to have legal and regulating clarity. In the meantime, regulatory agencies and legal compliances require clearing enough for special provision for certain items of overloading as well. To put stringent provision, it can be recommended that that motor vehicle refuse to stop in weighbridge station for monitor or observation to be put under punishment or fines and ultimate provision of disqualifying from the heavy vehicle driving for the certain time period.

Here is reviewed report conclusion which is prepared with conjunction of experts enlisted as per task deliverance in related axle control in Nepal;

**TaskB-2:**

Weighbridges stations are installed and operated under directives for load Carrying Capacity for Freight Vehicles 2014 by FTEN, there is no regulatory hurdle in operating such stations. However, it is envisaged that if private sector other than FTEN is involved in weighbridge operation, FTEN might object to installment and operation of such weighbridges. However on the basis of fair market practices proposed amendment suggests PSP or other sector that may involve into the sector.

MVTMR require providing clear provision on foreign cargo motor vehicle that is plying in Nepal. Regulatory lacunae require to be minimized for axle load control to bring road transport efficiency. For making responsible instead of conductor driver require to be responsible for ceiling of the weight. In addition driver require to be oblige of rules such as taking precaution of slippery roads, installing warning signs on the long and heavy vehicle, keeping certain distance in between plying motor vehicle in consideration of geographical differences.

Harmonization of axle load laws and regulations with MVTMA and MVTMR is a most. Provision such as off-loading with further penalty (amended by the second amendment) provision from Public Road Act require to be harmonized by putting off-loading provision as well as fine in the MVTMA.

To create PSP involvement through possible PPP business model and to set up weighbridge station and operation, should be transparent, competitive and done on fair procurement awarding basis to enter as new entrants for weighbridge station establishment and operation.

GoN directly involvement of approach to control overload problem may not succeed due to lack of experiences within the sector; rather it can be done through PSP for operational efficiency. It can be established through enabling appropriate legal framework to resolve the problem that caused overloading in Nepal. PSP can be involved to determine overloading fine

based on scientific method as per total overloading and distance of travelling of the goods to make workable and non-conflicting provision, whereas DoTM can play as regulating body for all the PSP related weighbridge operation system.

These PSP requires to adopt integrated approach for regional level to regulate through weighbridge station for cross-country heavy vehicle movement as well. Therefore, national policies, laws and regulations require harmonizing along with infrastructure support. These practices require to maintain level of standardization in the regional level and to formalize regional practice on axle load control to have common understanding among the weighbridge operators.

**Task-B3:**

Existing legal provision for axle load control is limited to the axle load limit is 10.2 ton. However, it has been noted that this provision should be elaborated on forms of axle load as well as gross vehicle weight for various types of vehicle in Nepal.

**Task-B4:**

Existing legal provision for charges or fines is based on flat rate NRs. 500-2, 000. It has been recommended violating axle load limit of require to fine through measurements such as limit of excessive weight, travel distance as per a matrix of overloading fine.

However, there require to certain special provision to be provided and listed within law or rules for certain products or goods that cannot maintain limit of axle loads require to allow with compensation. Tolerance limit require introducing three times a year followed by 5 percent of over limit against GVW and axle load limits.

**Task B-5:**

At present, DoTM has no comprehensive guidelines for operation weighbridges in the country. DoTM has solely authorized to FTTNEA only to operate weighbridges at the location as identified and decided by FTTNEA. This privilege to FTTNEA stipulated in Cargo Carriers Load Regulating Directives Capacity for Freight Vehicles 2014. It is envisaged that if private sector other than FTTEN is involved in weighbridge operation, FTTEN might object to installment and operation of such weighbridges. Therefore, axle load control guideline developed under this task, recommended to keep open to all private sectors for making eligible to compete and involving in establishment and operation of weighbridges in any type financing mechanism under PPP to be decided by DoTM. The overloading fine will be based on overloaded mass, distance travelled with overloading and multiple offending and anybody who is authorized to operate weighbridges will be eligible for collecting overloading fine of any amount based on the fine estimation method.

**Task B-6:**

For public awareness campaign, there require to be clear legal mandate to work along with required funding mechanism on operation of weighbridge station, media campaign for axle load control awareness and prohibitory warning signs on the roads. To have bi-lateral GoN agencies cooperation, it will minimize maintenance cost through support of axle load control mechanism.

**Task B-7:**

It is very important to make enforcement process transparent and simply understanding of driver, owner/manager or freight forwarder. The process require to make possible to operate if excess goods off-loaded, fine paid as per fine slip and driver, owner/manager or freight forwarder cooperate the regulating process.

Here are some of the issues that may be discussed and suggested but that may not in a straight line of amendment but elaborated for the further discussion;

For responsibility sharing mechanism for over limit of axle load is recommended among driver or owner or manager of motor vehicle and freight forwarder, if involved in the case must share responsibility to pay the fines. It is inferred that freight forwarders are main stakeholder and primary person of knowing exact load of the freight. Therefore, penalty or fines segment there require adopting share mechanism among freight forwarders, drivers of motor vehicle and owner motor vehicle itself.

Within DoTM organization, there require to well defining roles and responsibilities of transport inspector for axle load control system. In further, adequate number of transport inspector require to put under technical division to have clarity understanding as well as effective implementation of axle load control.

To improve institutional capacity on regulating axle load measurement, DoTM and Traffic Police lacks technical expertise on specific issues for monitoring to surveillances. Further, DOTM requires having regular Section for research and analyzing of traffic data, overloading and fine issues and other relevant factors that may help to review and formulate new types of axle load control mechanism would help continuing policy recommendation to amend the Act and Rule related emerging axle load issues.

Finally, DoTM require to have appropriate institutional structure on axle load control, which require to consist of legal and regulatory clarity, enforcement compliances, sector specific axle load based training and information materials, equipment to support axle load control operation to obtain complete efficiency.

The amendments in MVTMA and MVTMR from the view point of axle control are summarized than recommended in Appendix-1 and Appendix-2 respectively.