

# ***Overview of Vehicle Overloading Issues in Cambodia***

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# The Message

**The operational environment and economics of transportation in developing countries encourage widespread vehicle overloading**

**Cambodia experiences widespread vehicle overloading**

**This causes expensive premature failure of road pavements and bridges**



# General Pressures to Overload

- ❑ Poor legal framework for controlling vehicle weights
- ❑ Inappropriate load limits (most transporters violate)
- ❑ Cambodia 10t single, 19t dual (regional plans to reduce)
- ❑ Ineffective vehicle weight control systems
- ❑ Economics of overloading & profits for transporters
- ❑ Rapidly developing economies – heavy construction materials, intense use of available resources



# The Particular Problems in Cambodia

- ❑ Weak road foundations in many locations
- ❑ High rainfall, flooding, variable water tables
- ❑ Problems obtaining good construction materials
- ❑ Poor construction practices & quality control
- ❑ Insufficient maintenance of roads
- ❑ Trucks modified to increase capacity (20m<sup>3</sup> on 3 axles)
- ❑ Pavement and bridge designs inappropriate

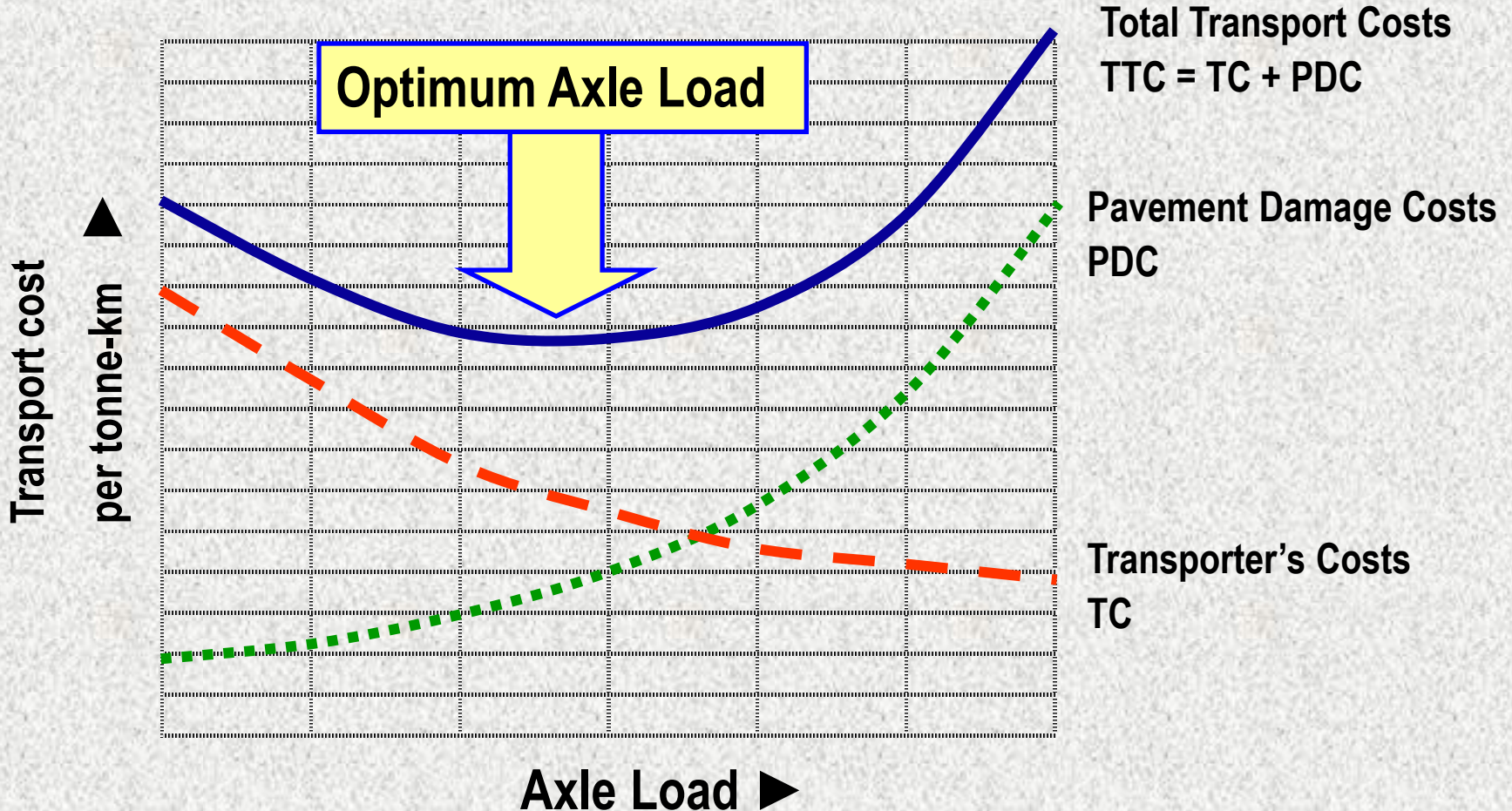


# The Effects of Overloading

- ❑ Bridges damaged or destroyed
- ❑ Road pavement life severely reduced or destroyed
- ❑ Routes severed and traffic delayed
- ❑ Higher vehicle operating costs on rough roads
- ❑ National Total Transport Costs are higher than optimum
- ❑ High costs to public



# Optimum Axle Load Concept



# Possible Initiatives to Reduce Overloading - 1

- ❑ Monitor actual loading & effects of any initiatives to be taken
- ❑ Determine Optimum Axle Loads for each road category
- ❑ Differential legal axle loads: Main, Tertiary, Urban roads?
- ❑ Encourage delegation of responsibilities/powers – road operators and communities
- ❑ Establish forum and partnership for all stakeholders
- ❑ Establish effective weight inspection & control arrangements
- ❑ Effective and equitable penalties for violators
- ❑ Load limits on bridges and to be consistent on each route
- ❑ Effective vehicle registration & inspection arrangements
- ❑ Permanent or temporary physical barriers

## Possible Initiatives to Reduce Overloading - 2

- ❑ Improve pavement design methods
- ❑ Improve construction & quality control procedures
- ❑ Improve road maintenance to reduce Total Transport Costs
- ❑ Media campaign to advise public and operators on initiatives
- ❑ Further local research on pavement options for heavy loading
- ❑ Private developers, contractors, quarry operators/hauliers to pay for upgrading of haul routes
- ❑ Construction projects to allow for upgrading materials haul routes
- ❑ Special arrangements for abnormal loads
- ❑ Media reporting of axle load control operations and details of violators.