

# REVIEW OF DEVELOPMENTS IN TRANSPORT IN ASIA AND THE PACIFIC

2011



ESCAP is the regional development arm of the United Nations and serves as the main economic and social development centre for the United Nations in Asia and the Pacific. Its mandate is to foster cooperation between its 53 members and 9 associate members. ESCAP provides the strategic link between global and country-level programmes and issues. It supports Governments of the region in consolidating regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalizing world. The ESCAP office is located in Bangkok, Thailand. Please visit our website at [www.unescap.org](http://www.unescap.org) for further information.



*The shaded areas of the map represent ESCAP members and associate members.*

REVIEW OF DEVELOPMENTS IN  
TRANSPORT IN ASIA AND THE PACIFIC  
2011



**New York, 2011**

# REVIEW OF DEVELOPMENTS IN TRANSPORT IN ASIA AND THE PACIFIC 2011

United Nations publication  
Sales No. E.12.II.F.8  
Copyright © United Nations 2011  
All rights reserved  
Manufactured in Thailand  
ISBN: 978-92-1-120642-5  
e-ISBN: 978-92-1-055352-0  
ST/ESCAP/2623

*Acknowledgements:* This document was prepared by the Transport Division of ESCAP with data inputs, research and analysis contracted from GHD Pty., Limited.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Mention of firm names and commercial products does not imply the endorsement of the United Nations.

The term “ESCAP region” is used in the present document to include Afghanistan; American Samoa; Armenia; Australia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People’s Republic of Korea; Fiji; French Polynesia; Georgia; Guam; Hong Kong, China; India; Indonesia; Islamic Republic of Iran; Japan; Kazakhstan; Kiribati; Kyrgyzstan; Lao People’s Democratic Republic; Macao, China; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Mongolia; Myanmar; Nauru; Nepal; New Caledonia; New Zealand; Niue; Northern Mariana Islands; Pakistan; Palau; Papua New Guinea; Philippines; Republic of Korea; Russian Federation; Samoa; Singapore; Solomon Islands; Sri Lanka; Tajikistan; Thailand; Timor-Leste; Tonga; Turkey; Turkmenistan; Tuvalu; Uzbekistan; Vanuatu; and Viet Nam. The term “developing ESCAP region” excludes Australia, Japan and New Zealand. The term “Central Asia” in this publication refers to Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

The term “billion” signifies a thousand million.

Unless otherwise stated, current United States dollars have been used throughout.

This publication has been issued without formal editing.

## CONTENTS

	Page
<b>ABBREVIATIONS</b> .....	vii
<b>I. INTRODUCTION: TRANSPORT DEVELOPMENT PROSPECTS AGAINST A BACKDROP OF ECONOMIC UNCERTAINTY</b> .....	1
<b>II. RAILWAYS</b> .....	13
A. National Railway Sector Development .....	13
B. Railway Traffic Trends .....	15
C. Rail Services .....	19
D. Trans-Asian Railway Network Development .....	23
E. Selected Investment Projects in the Railway Sector .....	29
<b>III. ROADS AND HIGHWAYS</b> .....	35
A. National Road Sector Development .....	35
B. Road Vehicle Fleets and Motorization Trends .....	37
C. Road Freight .....	40
D. Asian Highway Network Development .....	42
E. Selected Investment Projects in the Road Sector .....	45
<b>IV. MARITIME PORTS AND DEVELOPMENTS IN SHIPPING</b> .....	51
A. Trends in Maritime Trade .....	51
B. Container Port Throughput .....	54
C. Shipping Trends .....	57
D. Selected Investment Projects in Maritime Ports .....	62
<b>V. DRY PORTS, INTERMODAL TERMINALS AND LOGISTICS DEVELOPMENT</b> .....	67
A. Development of Dry Ports and Intermodal Terminals in the ESCAP Region .....	67
B. Logistics Development in the ESCAP Region .....	74
<b>VI. FACILITATING TRANSPORT ACROSS BORDERS</b> .....	81
A. Implementation of International Conventions and Agreements Relating to Transport Facilitation and the Movement of Goods and Services across Borders .....	81
B. Subregional Approaches to Transport Facilitation .....	85
<b>VII. SAFE AND SUSTAINABLE TRANSPORT</b> .....	91
A. Road Safety .....	91
B. Sustainable Transport Development .....	103

**CONTENTS** *(continued)**Page***List of Tables**

I-1	Annual GDP growth rates (%) for ESCAP, 2002-2011 .....	2
I-2	Direction of exports for selected economies and subregions (percentage share), 2000-2009 .....	3
I-3	Number and value of PPI projects in the transport sector of ESCAP developing countries, by investment type, 1990-2010 .....	7
II-1	Railway route length (excluding branch lines) and most common track gauge in selected ESCAP countries .....	13
II-2	National rail route-kilometres-to-area ratio – top and bottom five countries .....	14
II-3	National rail route-kilometres-to-population ratio – top and bottom five countries .....	14
II-4	Electrified route-kilometres in member countries .....	15
II-5	Trends in railway freight tonnage in the ESCAP region .....	16
II-6	Trends in railway freight traffic task (tonne-km) in the ESCAP region .....	17
II-7	Overview of the Trans-Asian Railway .....	25
II-8	Missing links in the Trans-Asian Railway network .....	25
II-9	Breaks-of-gauge on the Trans-Asian Railway .....	28
II-10	Selected railway infrastructure development projects in the ESCAP region (as of 2011) ...	30
III-1	Road lengths and road densities, various countries .....	36
III-2	Growth of road freight task in selected ESCAP countries (per cent per annum) .....	42
III-3	Selected road and highway investment projects in the ESCAP region .....	45
IV-1	Port container throughput in selected ESCAP economies and ports, 1990-2010 .....	55
IV-2	Capacity of merchant fleets registered in the ESCAP region, 1980-2010 .....	58
IV-3	Selected port infrastructure projects in the ESCAP region (as of end 2011) .....	63
V-1	Inland container handling facilities in the Republic of Korea .....	72
V-2	Dry Ports in Malaysia .....	72
V-3	Change in ease of trade across borders, 2006-2011 .....	79
V-4	Government regulations and industry self regulations for freight forwarders .....	80
VI-1	Status of accession of ESCAP Regional Members to the International Conventions listed in Commission resolution 48/11, as of 30 November 2011 .....	82
VI-2	Summary of GATS progress on matters related to transport and logistics, 2011 .....	84
VII-1	ESCAP Road Safety Goals, Targets and Indicators for the Decade of Action .....	97
VII-2	Overview of types of measures being implemented by ESCAP member states .....	100
VII-3	Recent Road Safety Initiatives in ESCAP member States .....	100
VII-4	Air Quality Standards – Selected ESCAP Economies ( $\mu\text{g}/\text{m}^3$ ) .....	107
VII-5	Fuel standards in selected ESCAP countries .....	109
VII-6	Measures to improve urban air quality .....	111
VII-7	Selected recent rail mass transit developments in the ESCAP region .....	112
VII-8	Bus Rapid Transit (BRT) projects in the ESCAP region .....	114
VII-9	Urban Policies promoting the use of Bicycles .....	117



## CONTENTS *(continued)*

*Page*

### List of Figures

I-1	Annual GDP growth rates for the selected regions and countries, 2000-2011 .....	1
I-2	Comparison of movements in trade value with selected price indices, 2006-2011 .....	4
I-3	Principal regional trade agreements involving ESCAP member states .....	5
I-4	Annual number of infrastructure projects with private participation in ESCAP developing countries, 1990-2010 .....	6
I-5	Value of Transport Sector PPI projects in ESCAP developing countries, million US\$, 1990-2010 .....	7
I-6	Value of transport PPI projects by subregion, 1990-2010 .....	8
I-7	Geographic location of transport sector PPI projects in developing ESCAP member countries (share of the investment from 1990 to 2010) .....	8
I-8	Comparison of return on infrastructure investment and return on government bonds, selected Asian economies and the USA .....	10
II-1	Average freight haul distances (kilometres) in the ESCAP region .....	18
II-2	Commodity composition of rail freight, selection ESCAP economies .....	19
II-3	Map of the Trans-Asian Railway Network (2011) .....	24
III-1	Annual average growth in road length in selected ESCAP countries .....	35
III-2	Average annual growth in the number of road vehicles, 1993-2008 .....	38
III-3	Vehicle density in selected ESCAP economies, 2007-2008 .....	39
III-4	Motorization rates in selected economies of the ESCAP region, 2005-2008 .....	40
III-5	Actual and forecast growth of road freight volumes in selected countries of the region, 2006-2015 .....	41
III-6	Road freight task in selected ESCAP countries .....	41
III-7	Map of the Asian Highway Network (2011) .....	43
III-8	Asian Highway network by country, 2010 .....	44
III-9	Quality improvement of Asian Highway, 2004-2008 .....	45
IV-1	Growth of world maritime trade (1985-2010) .....	51
IV-2	Developing Asia's share of global maritime volumes, 2009 .....	52
IV-3	World and ESCAP Container Port Throughput Growth (1973-2010) .....	52
IV-4	Distribution of global port container volumes, 1973-2010 .....	53
IV-5	Distribution of container port volumes within ESCAP, 1973-2010 .....	54
IV-6	Increase in containership size (1980-2010) .....	59
IV-7	Developments in the numbers of container vessel numbers and their average size, 1988-2010 .....	60
IV-8	Share of top twenty shipping lines (as of 28 September 2011) .....	61
IV-9	Productivity of the world merchant fleet, 1980-2009 .....	62
V-1	Existing and planned major intermodal terminals in China .....	69
V-2	Container throughput at ICDs operated by CONCOR 1995-2009 .....	70
V-3	Throughput of Indonesia's major dry ports, 2008 .....	71
V-4	Throughput at Birgunj Dry Port .....	73
V-5	World Bank Logistics Performance Index – Selected ESCAP economies .....	76
V-6	Relative ease of trading across borders, 2011 .....	77
VII-1	Fatality rate per 100,000 population in selected ESCAP countries, 2007 .....	92
VII-2	Fatality rate per 10,000 vehicles in selected ESCAP countries, 2007 .....	93

**CONTENTS** *(continued)**Page*

VII-3	Relationship between road fatalities and per capita income, selected ESCAP countries, 2007 .....	94
VII-4	Road fatalities by road user class, selected ESCAP countries, 2007 .....	95
VII-5	Change in road fatalities in selected ESCAP countries, 2007-2009 .....	95
VII-6	Mean and variability of enforcement effectiveness, selected ESCAP countries, 2009 .....	103
VII-7	Sources of global greenhouse gas emissions in 2005 .....	104
VII-8	Geographical distribution of urban air pollution .....	105
VII-9	Air Quality in Asia: Average annual ambient AQ levels, 1993-2009 .....	106
VII-10	Pedestrian mode share in Asian Cities .....	116
VII-11	“Attack points” in reducing the environmental impact of urban freight transport .....	118

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_7804](https://www.yunbaogao.cn/report/index/report?reportId=5_7804)

