WHITE PAPER ON LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM IN JAPAN, 2013



Ministry of Land, Infrastructure, Transport and Tourism

Contents

Preface

Part I Towards Maintenance, Management and Renewal of Future Social Infrastructures - Social Infrastructures That Are Passed on from Aged to Age -

Chapter 1 Social Infrastructures To Date and Challe	enges Open for the Future2
Section 1 History of Social Infrastructures and Their	3 Tightening Financial Constraints21
Roles2	4 Fragile National Land and Heightening Disaster
1 Development of Infrastructures Viewed in	Risks22
Chronological Order2	Section 3 Status of Maintenance and Management of
2 Roles of Social Infrastructures11	Social Infrastructures28
Section 2 Climate of the Economic Society	1 Aging Social Infrastructures28
Surrounding Social Infrastructures15	2 "America in Ruins" and Subsequent
1 Slipping into a Society of Sheer Dwindling	Approaches31
Population15	3 Trends in the Maintenance and Management of
2 Sagging Economy and Stiffening International	Social Infrastructures33
Competition18	Conclusions ————————————————44
Chapter 2 Social Infrastructure in the Future	46
Section 1 Using it Wisely46	2 Residents Participating in the Maintenance and
1 Using the Market Mechanism46	Management of Social Infrastructure83
2 Ingenuity in Using Existing Stock54	Section 3 Taking a Far-sighted Vision92
3 Efficiency through Integration64	1 Perception of Burden on Future Generations 92
Section 2 Supported by Everyone72	2 Planned Efforts with Future Strain in Mind98
1 Using PPP/PFI for Maintenance and	3 Using New Technology and Training Leaders for
Management72	Maintenance, Management, and Upgrading 105
Chapter 3 Major Efforts Made in the Fields of Natio	nal Land and Transportation120
Section 1 Effort to Use Social Infrastructures	Section 3 Efforts to Take a Far-Sighted Vision of
Wisely120	Social Infrastructures 124
1 Effective Road Space Utilization 120	1 Efforts Made during the First Year of Social
2 Forging a Compact City121	Capital Maintenance Activity and Carrying Them
Section 2 Supporting Social Infrastructures by	Forward through the Future124
Everyone121	2 Getting Construction Works Executed Right, and
1 Driving PPP/PFI121	Securing Manpower to Undertake Them 127
2 Resident Cooperation in Maintenance and	Conclusions128
Management123	
3 Maintaining Local Public Transportation 123	
	Capital ······129
Annotation 2 Verifying the Welfare Effect of Social Capital	
Annotation 3 Estimating the Effects of the Compactness of	

Part II Trend in MLIT Policies

Chapter 1	Initiatives towards Restoration and Reco		
Section 1	The Current Status and Measures towards Restoration and Reconstruction	Section 5	Ensuring the Smooth Execution of Reconstruction Projects141
Section 2	The Steady Recovery and Reconstruction of Infrastructures and Transportation 137	Section 6	Reconstruction, Revitalization and Etc. of Fukushima142
Section 3	Promoting Post-Disaster Town Reconstruction and Securing Stability of	Section 7	Developing Tsunami-resistant Communities learned from the Great East Japan
Section 4	Residency 139 Securing Local Public Transportation and Promoting Tourism 140		Earthquake142
Chapter 2	Deploying Land, Infrastructure, Transporthe Times		
Section 1	Driving the Implementation of a National Land Policy Package143	Pro	uring the Quality of Public Works and moting Proper Tendering and Contracting for
Section 2	Driving the Implementation of Third Priority Plans for Social Infrastructure Development 143		lic-Works Projects ————————————————————————————————————
Section 3	Promoting the Implementation of Transport Policy	1 Nev	Governments and Private Sector 148 v Phase of Relationships between the Central
2 New	c Act on Transport Policy 144 Institutional Approaches to Enhanced Local	2 Driv	Local Governments 148 ving Public-Private Partnerships, etc. 148
Publ Section 4	Driving the Implementation of Ocean Policy (Oceanic State)146		Policy Evaluations, Project Evaluations and Interactive Administration
Section 5	Efficient, Prioritized Deployment of Measures	2 Imp	elementation of Project Evaluations 149 Ving Administrative Management Open to the
of Ir	ring Improvement of the Total Cost Structure implementation of Public-Works ects	Nati	ion and Interactive Administration 149 Approaches to Hosting Tokyo 2020
·	B Realizing a Tourism Nation and Beautiful	Nation Build	Olympic and Paralympic Games 150
Section 1	Trends in Tourism151	5 Con	solidating the Tourism Industry and
2 Tour	rism Now151	6 Dev	reloping Human Resources
	Approaches to Forging a Tourism Nation152	8 Prep	ouraging holiday taking156 paring tourism statistics156
2 Fuel	ating and Promoting a Japan Brand		Building a Beautiful Nation Blessed with Pleasing Landscapes, etc. 157
3 Impi	roving Reception of Inbound Foreign rists154	2 Con	asing Landscape Formation157 nmunity Development Leveraging Nature and tory158
4 Con	solidating International Competitiveness in Field of MICE 154		
Chapter 4			
Section 1	Approaches to Regional Revitalization160		eral Endeavors to Realize an Intensive Urban acture162
Section 2	Promoting Measures Supporting Regional Revitalization 160	3 Urb	an Planning and Infrastructures Development ing Advantage of Regional
	orts Directed at Augment Regional and ate Self-reliance and Discretion160		racteristics162

4 Self-Reliance and Revitalization of Wide-Area	1 Measures Drected at Heavy Snowfall Areas · 172
Blocks, and Formation of National Land 167	2 Promoting Remote Islands Development ······ 172
5 Promoting Regional Partnerships and	3 Promoting and Developing the Amami Islands
Interaction 168	and Ogasawara Islands172
6 Securing Means of Regional Transport 169	4 Promoting Peninsulas 172
Section 3 Promoting Urban Reconstruction Projects, etc	Section 5 Promoting Integrated Development of Hokkaido
1 Promoting Urban Reconstruction Projects 170	1 Promoting the New Hokkaido Comprehensive
2 Promoting Urban Development by Private	Development Plan to Lead the Era of the Global
Sectors170	Environment173
3 Approaching National Strategic Special	2 Promoting Distinctive Regions and
Districts 172	Cultures 174
Section 4 Promoting Localized Promotion	
Measures172	
Chapter 5 Creating a Comfortable Living Space	176
Section 1 Realizing Affluent Residential Living 176	1 Developing City Parks, and Shaping a Good
1 Securing Stability of Residential Living and	Urban Environment 181
Advancing its Betterment 176	2 Advancing Road Development that Prioritizes
2 Supply and Utilization of Good Housing	Pedestrians and Bicycle Riders182
Land180	Section 3 Realizing Traffic with Enhanced
Section 2 Realizing Comfortable Living	Convenience 183
Environments 181	
Chapter 6 Building a Competitive Economic Society	<i>j</i> 187
Section 1 Constructing Traffic Networks 187	3 Trends of Maritime Industries and
1 Constructing Highways 187	Measures201
2 Constructing Arterial Railway Networks 188	4 Trends in Air Transport business and
3 Constructing Aviation Networks 189	Measures206
4 Facilitating Traffic Access to Airports 193	5 Trends in the Consigned Freight Forwarding
Section 2 Implementing Comprehensive and	Business and Measures206
Integrated Logistics Policies 194	6 Trends in the Warehousing Business and
1 Implementing Logistic Policies to Correspond	Measures207
with Deepening Global Supply Chains 194	7 Trends in the Truck Terminal Business and
2 Measures Aimed at Building an Efficient	Measures207
Logistics System at Home 197	8 Trends in the Real Estate Business and
Section 3 Reactivating Industries 198	Measures207
1 Trends in Railway Industries and Measures 198	9 Building a Sustainable Construction
2 Trends in Motor Truck Transport Business and	Industry210
Measures 199	
Chapter 7 Building a Safe and Comfortable Society	214
Section 1 Realizing a Universal Society 214	Section 3 Ensuring the Safety of Architecture 243
1 Realizing Accessibility through a Universal	Section 4 Strengthening Safety Measures in the
Design Concept 214	Transport Sector 244
2 Creating an Environment that Supports Child-	1 Establishing and Improving the Safety
rearing Under an Low Birthrate Society 215	Management System of Public
3 Ageing Society Measures 216	Transportation 244
4 Promoting the Support of Pedestrian Travel - 217	2 Railway Transportation Safety Measures 245
Section 2 Natural Disaster Measures217	3 Safety Measures for Maritime Traffic 247
1 Shaping National Land that is Safe and Resilient	4 Air Traffic Safety Measures 250
to Disasters, Enhancing and Strengthening the	5 Determining the Causes of Air, Rail, and Marine
Framework of Preparedness for Emergency	Accidents/ Serious Incidents and Preventing
Management217	Recurrence 252
2 Secure Transportation Systems Resistant to	6 Support for Victims and Families of Public
Disasters	Transport Accidents

7	Safety Measures for Road Traffic 253	3	Strengthening the Coast Guard Syst	
Secti	on 5 Crisis Management and Security	4	Protecting Our Country's Interests i	
	Measures257		Rights····	
1	Promoting Crime and Terrorism	5	Security and Protecting Citizen's Li	
_	Countermeasures 257	_	Assets	
2	Establishing a Response System for Accident	6	Infectious Disease Measures	264
	Disasters			
Cha	pter 8 Creating and Preserving a Beautiful and	Healthy	Environment	266
	on 1 Promoting Countermeasures against Global	2	Measures in building a healthy water	
	Warming266		system in cooperation with ministric	
1	Implementing Global Warming		agencies involving water	
	Countermeasures 266	3	Establishment of the Basic Law of V	
2	Promoting Global Warming Countermeasures		Circulation and the law concerning	the promotion
	(Mitigation Measures)267		of rainwater use	
3	Promotion of the Use of Renewable Energy - 273	4	Initiatives in improving the water	
4	Promotion of Global Warming Countermeasures		environment	283
	(Adaptations)274	5	Cultivating water and using it efficient	ently 285
Secti	on 2 Promoting the creation of a recycling	6	Realizing amenity by promoting im	provements
	society274		to sanitary drainage	286
1	Advancing recycling in construction 274	Secti	n 5 Protecting the marine environ	ment 288
2	Constructing a resource recycling logistics	Secti	n 6 Improving living environment	s by
	system276		preventing atmospheric and no	oise
3	Recycling vehicles and marine vessels 277		pollution	
4	Efforts in Green Procurement 277	1	Policies for environmental issues re	
5	Promoting the use of wooden building		traffic ·····	
	materials277	2	Environmental measures for airport	
Secti	on 3 National land development that revives and		surrounding areas	
	preserves the natural environment 278	3	Countermeasures for Railway Noise	
1	Initiatives for preserving biodiversity278	4	Countermeasures for urban heat isla	
2	Creating rich and beautiful river	5	Countermeasures for sick building s	
2	environments 278		soil contamination	
3	Preserving and improving coastal	6	Environmental measures in construction	
4	environments 280	Secti		_
4	Greening port and harbor administration 280	1	changes in the global environment. Observing and monitoring the global	
3	Greening roads and promoting natural environmental measures282	1	environment	
Socti		2	Research and Prediction of the Glob	
Secu	on 4 Building a healthy water circulation system	2	Environment	
1	Becoming a society that can enjoy the blessings	3	Promoting Global Mapping Project	
1	of water282	3	geodetic network	
	202		Second new one	_, _
Cha	pter 9 Strengthening International Expansion ar	nd Inter	ational Contributions	297
Secti	on 1 Promoting the Export of Infrastructure	Secti	n 2 Promotion of International Co	operation and
	Systems297		Negotiations	300
1	General Direction of Government Policy 297	1	Initiatives in the Field of Economic	
2	The Concept of Infrastructure System Exports in		Partnerships	300
	the Field of Land, Infrastructure, Transport and	2	Contributions and Strategic Utilizat	ion of
	Tourism297		International Organizations	
3	Upstream Involvement and Information	3	Cross-Sectoral Endeavors	
	Dissemination 298	4	Multilateral and Bilateral Initiatives	
4	Development of Soft Infrastructure 298		Sectors ····	305
5	Supporting Businesses for Overseas	Secti		
	Infrastructure298		Standardization	310

Chapter 10 Utilizing ICT and Promoting Technology	
Section 1 Promoting Innovation in the Field of	1 The Position of Technological Research and
National Land and Transport Utilizing	Development in Technology Policies and
ICT313	Comprehensive Promotion 317
1 Promoting ITS313	2 Promoting the Utilization and Adoption of New
2 Realizing a Society that Utilizes Geospatial	Technology for Public Works319
Information Sophisticatedly 314	Section 3 Improving Construction Management
3 Realizing an Electronic Government 315	Technology319
4 Development and Opening of Optical Fiber for	1 Improving Costing Technology for Public
the Management of Public Facilities and Its	Works 319
Housing Space 315	2 CIM and BIM Initiatives320
5 Sophisticated Water Management and Water	Section 4 Technology Development for Construction
Disaster Prevention Utilizing ICT316	Machinery and Mechanical
Section 2 Promoting the Research and Development	Equipment320
of Technology317	
Column	
Public Works Undertaken by Gyoki3	Flood Control Projects Demonstrate Effectiveness
Private Management of Eitai Bridge in the Edo	Against Floods Caused by Typhoon Man-yi 221
Period6	Emergency Warnings Begin Operations 227
Hurricane Sandy vs. U.S. Disaster Preparedness26	First Eruption in 39 Years Near Nishi-no-shima of
Lives of Concrete 41	the Ogasawara Islands 229
Aging Condominiums43	Amendment of the Act on Promotion of Seismic
Use of Toll-charging System Overseas48	Retrofitting of Buildings (Seismic Retrofitting
PFI in Edo Period—Construction of Canals by a	Promotion Law)236
Wealthy Merchant——78	Responding to the Large-Scale Sediment-related
Various Funding Methods for Maintenance and	Disaster in Oshima-Machi, Tokyo Metropolitan Area
Management82	- Assistance and Strengthening of Sediment Disaster
"Dobojo (play on word to mean engineer woman)"	Measures by TEC-FORCE239
~Women Who Work in the World of Civil	Ensuring the Safety of JR Hokkaido246
Engineering~116	The Third Traffic Vision - Initiatives for the Safety
Skill Inheritance and Securing Technicians for	of Vessel Traffic249
Shikinen Sengu (installation of a new deity on a	■ Measures to Improve the Safety and Regain Trust of
specified year)118	Bus Operations 254
Efforts towards Creating the "New Tohoku" 140	The Promotion and Dissemination of Alternative
Achieving the 10-Million-Inbound-Foreign-Tourist	Fuels in Aviation (Biojet fuels)271
Mark for the First Time in History 151	"Guiding Committee for GEBCO" Coast Guard
Japan's First Cruise Train "Seven Stars in Kyushu"	Marine Information Director elected Chairman ··· 295
Just in Service	Japan Overseas Infrastructure Investment
■Inaugurating a One-stop desk for Cruise Promotion	Corporation for Transport & Urban
- Efforts Directed at Encouraging More Cruise Ships	Development
to Call in166	Japanese Construction Technology Contributes to
An Approach to Advancing Tourism Built around	Fulfilling "Turkish Peoples' 150-Year Dream"
Bird Watching in Nemuro City175	- Opening of Bosphorus Cross-Strait Railway 305
"Dam Regeneration" -Utilization through the	Efforts Toward International Standardization of
Redevelopment of Existing Dams219	"Water Re-use"312