
Contents

The Tianjin Statement	xi
Opening Ceremonies	1
Welcoming Address	3
<i>Li Shenglin</i>	
Opening Remarks	5
<i>Lee-Jay Cho</i>	
Cosponsor's Remarks	7
<i>Charles Morrison</i>	
Statement by the Director of the Planning Research Center, National Council of China	8
<i>Ma Hong</i>	
Statements by Country Representatives	10
<i>Hisao Kanamori, Japan</i>	
<i>Tseghmid Sukhbaatar, Mongolia</i>	
<i>Steve Cowper, United States</i>	
<i>Seung-Yun Lee, Republic of Korea</i>	
<i>Georgi Toloraya, Russian Federation</i>	
<i>Kim Si Jin, Democratic People's Republic of Korea</i>	
Tianjin's Role in Northeast Asian Economic Development	16
<i>Zhang Lichang</i>	
Technology Transfer and Asia's Economic Revolution	23
<i>Hisao Kanamori</i>	

Regional Economic Cooperation	25
Developing and Linking National Financial Infrastructure	27
<i>Yunjong Wang</i>	
Developing an Economic Center for Northeast Asia	51
<i>Wu Jinghua</i>	
Prospects for Regional Economic Cooperation	53
<i>Georgi Toloraya</i>	
Issues of International Cooperation among the Region's Economies	55
<i>Zou Yong</i>	
The Economy and Development Prospects of the Russian Far East	57
<i>Natalya A. Lysova</i>	
Marine, Land, and Air Transportation Networks	71
Toward Efficient and Sustainable Development of Transportation Systems in Northeast Asia	73
<i>Il-Soo Jun</i>	
Transportation Networks in Northeast Asia and Japan's Trading Activities ...	101
<i>Hideo Kayahara</i>	
Mongolia's Transport Sector: Cooperation with Northeast Asian Countries ..	103
<i>A. Togosbold</i>	
The Transport System of the Russian Far East: Contemporary Possibilities and Problems	107
<i>Yaroslav Semenikhin</i>	
Establishing a Multinational Transport-Hub Network in Northeast Asia: Concept and Measures	109
<i>Zhou Lianyou</i>	
The East by West Corridor Project	112
<i>Joseph H. Borich</i>	
Commentary on Northeast Asian Transportation Systems	113
<i>Richard L. Collins</i>	

The Tumen Region as a Model for Northeast Asian Economic Cooperation	115
The Tumen Session Statement	117
China and Tumen Area Cooperation	118
<i>Jiang Zai Huan</i>	
The DPRK and Tumen Area Cooperation	120
<i>Kim Si Jin</i>	
Mongolia and Tumen Area Cooperation	122
<i>Tseghmid Sukhbaatar</i>	
The Republic of Korea and Tumen Area Cooperation	126
<i>Rak-Yong Uhm</i>	
Russia and Tumen Area Cooperation	128
<i>Sergey Patrikeev</i>	
Issues for the Tumen River Area Development Programme	129
<i>Susumu Yoshida</i>	
Facilitating Investment in the Tumen Region	131
<i>Geoffrey Wright</i>	
Regional Cooperation in Protection of the Environment	133
<i>Yu Fei</i>	
Partnerships with Donor Agencies, Private Sector Interests and Financial Institutions and The Northeast Asia/Tumen Investment Corporation: The Case for a New Financing Agency	135
<i>David Husband</i>	

Supply and Use of Energy Resources in Northeast Asia	139
Energy Supply and Demand	141
<i>Taro Nakayama</i>	
Key Issues for the Supply and Use of Natural Gas in Northeast Asia	142
<i>Mohammad Farhandi</i>	
The Electric Power Industry and Energy in China	151
<i>Shi Yubo</i>	
Supply and Use of Energy Resources in China	154
<i>Zhu Binggang</i>	
The Siberian–Northeast Asian Gas Pipeline Network: Major Problems To Solve, Hard Choices To Make	155
<i>Vladimir I. Ivanov</i>	
Natural Gas Utilization in the Republic of Korea	158
<i>Jong-Sool Kim</i>	
Supply and Use of Energy Resources in Mongolia	167
<i>Bold Badral</i>	
Energy Issues in Northeast Asia and Regional Cooperation	168
<i>Tsutomu Toichi</i>	

Environmental Issues in the Energy Sector	169
Summary by the Session Chair	171
<i>Vladimir I. Ivanov</i>	
Toyama Prefecture's Promotion of Environmental Cooperation	172
<i>Koichi Murakami</i>	
Critical Role for Environmental Cooperation in Northeast Asia	173
<i>Charles J. Johnson</i>	
Dalian Environmental Demonstration Zone Project	185
<i>Shigeki Takeda</i>	
The Economy, Energy, and the Environment in Tianjin's Development	187
<i>Xing Zhengyang</i>	
Comments on Energy and Environment Papers	189
<i>Mark J. Valencia</i>	

Financial Issues and Mobilization of Capital for Infrastructure Development	191
The Role of a Northeast Asian Development Bank in Northeast Asia's Future Development	193
<i>S. Stanley Katz</i>	
Infrastructure Development and the Japan Bank for International Cooperation	205
<i>Kazuhisa Marukawa</i>	
Promoting Financial Resource Mobilization for Infrastructure Development through Public-Private Partnerships	207
<i>Randolph N. Earman, Jr.</i>	
Modern Financial Services and the Growth of the Region's Economies	213
<i>Li Fu'an</i>	
Mobilization of Capital for Infrastructure Development	215
<i>Keith Chiddy</i>	
Tianjin's Financial Sector and Economic Development	225
<i>Hao Xiaoyuan</i>	
From Dream to Reality: Spurring the Development of Northeast Asia	227
<i>Tzong-shian Yu</i>	
 Cooperation in the Telecommunications Sector	229
Building a Northeast Asian Telecommunications Network	231
<i>Liu Dan</i>	
Northeast Asian Telecom Development: Key Issues	234
<i>Lin Sun</i>	
Current State of Telecommunications in the Russian Far East and Prospects for Their Development	246
<i>Sergei N. Leonov</i>	
Creating a Communications Center in Tianjin To Promote International Relations and Cooperation	247
<i>Yu Xuelin</i>	

Cooperation in the Electric Power Sector 249

Restructuring the Northeast Asian Electricity Industry
in a Globalizing World 251

Yoon Hyung Kim

Restructuring the Electric Power Industry: A Global Overview
and Implications for Northeast Asia 254

Oliver Yu

Major Reforms and Strategic Concepts of China's State Power Company 257

Jiang Shaojun

Restructuring Taiwan's Electric Power Industry 258

Oliver Yu

Structural Reform in the Japanese Electricity Industry 260

Hisatake Narita

Restructuring the Electricity Supply Industry in the Republic of Korea 265

Young-Chang Kim

Electricity in the Russian Far East: Status and Opportunities
for Cooperation in Northeast Asia 280

Victor D. Kalashnikov

About the Speakers 281

List of Speakers, Discussants, and Session Chairs 283

Figures and Maps

Map of Russian Far East territory compared with the Russian Federation 57

Map of administrative divisions of the Russian Far East 61

Map of eastern Mongolia and neighboring areas 106

Comparison of primary energy mix of the Asia-Pacific region
and of the world excluding the Asia-Pacific region, 1998 179

SO₂ depositions in Northeast Asia in 2000 180

SO₂ depositions in Northeast Asia in 2020 181

Schematic map showing possible natural gas pipeline infrastructure 182

Figures and Maps (continued)

SO ₂ depositions in 2020 and proposed natural gas pipeline network in Northeast Asia	183
Comparison of the shares of CO ₂ from each primary hydrocarbon source in the Asia-Pacific region and in the rest of the world in 1998	183
Relative carbon emissions per unit of contained energy for natural gas, oil, and coal	184
Reduction in carbon/kWh for fuel and technology options, compared with China's average 33% efficiency of coal PCs	184
Partial liberalization of retail electricity supply in Japan	262
Maintaining public policy goals: promotion of nuclear power in Japan	264
Competition in electricity generation in the Republic of Korea	269
Wholesale electricity competition in the Republic of Korea	270
Retail electricity competition in the Republic of Korea	272

Tables

IMF financial resources and liquidity, 1997–99	36
IMF commitment of liquidity support to the crisis countries, January 1999 ...	36
Foreign reserves of Asian and other economies, 1993–98	45
Production dynamics of large and medium-size enterprises in the Russian Far East, 1996–97	60
Ranking of investment climate in the Russian Far East, by region	64
Investment in the Russian Far East in the first quarter of 1997	65
Industrial structure of the economy of the Russian Far East	66
Container handling in Northeast Asian ports, 1980–97	76
Intra-Northeast Asian international air traffic, 1997 and 2002	79
Natural gas supply/demand balance for Northeast Asia, 1996–2010	150
Primary energy consumption in the Republic of Korea, 1996–99	158
Diversification of LNG sources for the Republic of Korea, 1986–2010	160
Natural gas consumption in the Republic of Korea, 1987–98	163
Three uses of town gas in the Republic of Korea, 1995–98	164
Financing for Northeast Asian infrastructure investments: indicative requirements, possible sources and amounts	195
Hypothetical allocation of shares in the Northeast Asian Development Bank .	201