Program

Opening, Special Address and Keynote Addresses

25 January (Monday), 15:00 to 18:00, Marine Hall, 4F Toki Messe

Welcome Addresses
IZUMIDA, Hirohiko Governor of Niigata Prefecture
SHINODA, Akira Mayor, City of Niigata

Guest's Opening Addresses
IDE, Keiji Councillor, Minister's Secretariat, Ministry of Foreign Affairs, Japan
MURANAGA, Yuji Deputy Director-General for Trade Policy, Trade Policy Bureau, Ministry of Economy, Trade and Industry, Japan

Special Address
YU, Shayan Vice Governor, The People's Government of Heilongjiang Province, PRC

Keynote Addresses

Seizing the important turning-points within international society of the global financial crisis and the climate change conference COP 15, we will discuss the relationships with Northeast Asia from every perspective, and make keynote reports for the conference as a whole.

Program

The Global Financial Crisis and Subregional Economic Cooperation in Northeast Asia
KAWAI, Masahiro Dean and Chief Executive Officer, Asian Development Bank Institute
Pemberton, Peter President, Climate Business Network (CBNet)

Session A: Seamless Logistics in Northeast Asia

26 January (Tuesday), 9:00 to 12:00, Conference Room 301, Toki Messe

Keynote Reports
YACHEISTOVA, Nataliya Director, UNDP Great Tumen Initiative, Tumen Secretariat
BHATTACHARYYA, Biswa Special Adviser to Dean, Asian Development Bank Institute

Case Reports
IKEDA, Akichika Deputy Manager, International Cargo Development Dept., Japan Freight Railway Co., Ltd.
TSUJI, Hisako Researcher, Research Division, ERINA

Session B: Post-Kyoto Protocol Period Environmental and Energy Cooperation

26 January (Tuesday), 9:00 to 12:00, Conference Room 302, Toki Messe

Coordinator
TERANISHI, Shun'ichi Professor, Graduate School of Economics, Hitotsubashi University

Based on the outcomes of COP 15 in Copenhagen, surveys the paths for future environmental and energy-conservation cooperation in Northeast Asia.
Panel Members

ZHENG, Shuang  Associate Professor, Energy Research Institute, National Development and Reform Commission, PRC

A. Enkhbat  Director, Ecologically Clean Technology and Science Division of Ministry of Nature, Environment and Tourism, Mongolia

OH, Dae-Gyun  Policy Researcher, Korean Emission Reduction Registry Center, Korea Energy Management Corporation (KEMCO), ROK

GERSHINKOVA, Dinara  Head, Scientific Development and Climate Programmes Unit, Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet), Ministry of Natural Resources and Ecology, RF

TANAKA, Hiromu  Senior Advisor, Japan Carbon Finance, Ltd.

Commentator

IDE, Keiji  Councillor, Minister's Secretariat, Ministry of Foreign Affairs, Japan

PANKIN, Alexander  Deputy Director General, Department of International Organizations, Ministry of Foreign Affairs, RF

PEMBLETON, Peter  President, Climate Business Network (CBNet)

Session C: International Food-Industry Clusters and Niigata

26 January (Tuesday), 13:30 to 16:30, Conference Room 301, Toki Messe

With reference to such things as case examples of clusters in the world and in China's Heilongjiang Province, raises the effects of and issues for international food-industry cluster formation in Northeast Asia.

Keynote Reports

STOUGH, Roger R.  Vice President, Research & Economic Development, George Mason University

JIAO, Jiang  General Agronomist, Heilongjiang Academy of Agricultural Sciences, PRC

Case Reports

LEE, Jaehyeon  Associate Professor, Faculty of Agriculture, Kagoshima University

Read by:  ZHU Yonghao  Researcher, Research Division, ERINA

AKUNE, Yuko  Researcher, Graduate School of Life and Environmental Sciences, University of Tsukuba

KIMINAMI, Lily  Professor, Faculty of Agriculture, Niigata University

Session D: The New Trends in Northeast Asia with the Global Financial Crisis

26 January (Tuesday), 13:30 to 16:30, Conference Room 302, Toki Messe

Makes an overview of the relationships between the global economy and the economic and financial situation of the nations and regions of Northeast Asia with the global financial crisis, and explores future economic trends.

Moderator

NOZAKI, Shigeru  Corporate Advisor, Mitsubishi Corporation

Reports

TAKAYASU, Yuichi  Associate Professor, Graduate School of Systems and Information Engineering, University of Tsukuba

KONNO, Yugo  Senior Economist, Mizuho Research Institute Ltd.

B. Tsolmon  Former Chief Operation Officer, Zoos Bank of Mongolia

JIN, Zhe  Director, Institute of World Economy, Liaoning Academy of Social Sciences, PRC

KE, Long  Senior Fellow, Economic Research Center, Fujitsu Research Institute (FRI)

Commentator

IDE, Keiji  Councillor, Minister's Secretariat, Ministry of Foreign Affairs, Japan

Conference Conclusion

26 January (Tuesday), 16:45 to 17:45, Conference Room 201, Toki Messe

This feature has been compiled on the basis of recordings of the proceedings at the 2010 Northeast Asia International Conference for Economic Development in Niigata and various written materials. The People's Republic of China is referred to as China, the Democratic People's Republic of Korea as the DPRK, the Republic of Korea as the ROK, and the Russian Federation as Russia.
Conference Overview

YOSHIDA, Susumu
Chairperson of the Executive Committee,
Northeast Asia International Conference for Economic Development

The "2010 Northeast Asia International Conference for Economic Development (NICE) in Niigata" which took place over two days, ended successfully in short time. I would like to express my heartfelt thanks for everyone's enthusiastic participation and cooperation. Approximately 310 persons from within Japan participated in the conference this time around. From overseas approximately 70 persons participated, from China, Russia, Mongolia, the ROK, the US and Britain, and the international organizations of the United Nations Development Programme (UNDP) and the Asian Development Bank.

1. Firstly, in the opening addresses of the Ministry of Foreign Affairs and the Ministry of Economy, Trade and Industry of Japan, it was stated that they have been making efforts to form the Northeast Asian economic subregion, with Niigata and the prefectures with a coastline on the Sea of Japan, centered on Niigata, exploiting the regional advantage. In the process of overcoming the financial crisis the framework for international deliberation has shifted from the Group of Eight (G8) to the Group of Twenty (G20), which has added the emerging nations, and under Japan's new administration the concept of an East Asian community is being called for. Amid such circumstances, Northeast Asia is yet further the focus of attention. At this international conference there were signs of timely themes being raised.

2. In the special address, the Vice Governor of Heilongjiang Province, Yu Shayan, forcefully stated that "It is already 27 years since this province and Niigata Prefecture concluded a cooperation agreement in 1983, and I would like to exploit this relationship for the development of the Northeast Asian economy in a new phase.

3. In the keynote addresses approaches were raised on the two major problems for the development of this region: the conditions for the formation of the Northeast Asian economic subregion and environmental problems. In the first report, an overview was made of the Northeast Asian economic subregion from the experience of the formation of ASEAN, and in particular the establishment of infrastructure investment funds and the roles of the institutions which will be central for the formation of the economic subregion, and the necessary commitment of the leaders of each country to those ends were emphasized. In environmental problems, a conclusion with binding restrictions did not emerge at COP 15, yet the carbon-market mechanism, which the Copenhagen conference raised, was clarified. Furthermore, it was suggested that it would be possible to make a concrete proposal, centered on ERINA, at the COP 16 Mexico conference.

4. For each of the sessions there were reports as made by the moderators, but I would like to mention briefly what I myself felt. In Session A, Seamless Logistics in Northeast Asia, the Director of the UNDP Greater Tumen Initiative, Nataliya Yacheistova, reported that the Greater Tumen Initiative Consultative Commission is currently a unique governmental cooperation organization in Northeast Asia, and for the last few years has made concrete plans for cooperation in five areas—including energy, transportation, tourism, and trade and investment. Furthermore, she stated that "At the Transport Board we have raised the problem of the border-crossing formalities, customs clearance and visas, etc., for seamless distribution. With the active engagement of many government organs—starting with the foreign ministries of countries in the plural—being vital, the solving of this problem has become one of the tasks for the Consultative Commission. Among the ten topics that the commission has raised, recently five were transportation-related problems, such as the connection of the railways of eastern Mongolia and China and the construction of the port at Zarubino." In addition, Biswa Bhattacharyay, Special Advisor at the Asian Development Bank (ADB) Institute, stressed that for the formation of an infrastructure network a powerful international bank along the lines of the ADB is necessary.

5. In Session B, Post-Kyoto Protocol Period Environmental and Energy Cooperation, the construction of a mechanism for regional cooperation was stressed as a future direction. The public sector will make efforts in the improvement of the environment in order to encourage investment, licensing of technology, and the export of equipment by the private sector, and the environment for cooperation will improve. Within that, the necessary funds will be provided by the financial sector, and emissions credits will be created. The construction of such a comprehensive mechanism of its own for the Northeast Asian region is necessary in East Asia, in particular, where there are many emissions credits. The momentum for establishing an East Asian community for the conservation of the environment has come into being.

6. In Session C, International Food-Industry Clusters and Niigata, the maturation of the conditions for clusters—namely geographical concentration, the presence of innovative entrepreneurs, government support and assistance, the differentiation of products, the establishment of brands, and the establishment of goods distribution routes, etc.—is necessary, and case examples were mentioned from Heilongjiang Province in China, the ROK, Shizuka and Niigata.
The conditions for the international food-industry clusters to be formed are also being put into place. To that end the establishment of a Northeast Asian network is important.

7. In Session D, *The New Trends in Northeast Asia with the Global Financial Crisis*, the consequences of the financial crisis on each country in Northeast Asia and the mechanisms for overcoming it were stated by the respective countries. China secured growth of 8%, but conversely in Russia they have not been able to escape from negative growth. The differences in each country's environment, system, and policy brought differing results. A glimpse is seen here of the complexity of Northeast Asia.

8. The conference participants obtained a great amount of proposals, knowledge, experience, and leads for ideas from the presentations of the persons making reports. Behind each participant are their respective organizations and groups. I wholeheartedly hope that all the participants will take back the outcomes, report them at government organs and all forms of meetings, and exploiting that, develop matters further. In the process of overcoming the financial crisis, the collaboration of each country and cooperation between government and the private sector in various areas is yet more strongly required. This international conference, as a conference made up of a second track, is a place to continue efforts for strengthening exchange and cooperation in all sectors among the nations of Northeast Asia in the future too.

Lastly, I would like to express my gratitude to all of the interpreters for their hard work toward the success of the conference, and all the persons concerned who cooperated in the progression of the conference.

[Translated by ERINA]
Today, I would like to talk about the impact of the global financial crisis on Northeast Asia, and the medium-to long-run implications of the crisis for the subregion, particularly the need to step up subregional cooperation to achieve sustained economic growth, prosperity and peace in the post-crisis period.

**Economic Characteristics of Northeast Asia**

Northeast Asia has witnessed impressive economic development and growth over the last three decades. Following Japan’s success in the 1960s and 1970s, the Republic of Korea (South Korea) embarked on outward oriented policies, and the People’s Republic of China (China) accelerated its economic reform and opening in more recent years. The integration of the core Northeast Asian economies—Japan, China, and South Korea—with other East Asian economies has also been an important factor for this remarkable achievement. Northeast Asia consists of Japan, China, South Korea, the Democratic People’s Republic of Korea (North Korea), Mongolia, and the Russian Far East.

The output share of Northeast Asia in the world economy has risen over the last three decades. The GDP share of Japan, China, and South Korea in world GDP, measured in purchasing power parity (PPP) values, increased from 11% in 1980 to 17% in 2000 and then to 20% in 2008 (Table 1). According to IMF projections, this share will rise to 24% in 2014. Adding Mongolia, North Korea, and the Russian Federation (instead of the Russian Far East due to the lack of consistent subnational data available) to these core countries would not change the general trend and the five countries—including North Korea where GDP estimates are hard to come by—would account for 27% of the world economy in 2014. If measured in nominal GDP (in US dollars), Northeast Asia has experienced some stagnation during the 2000s, but the overall trend is still a rising weight of Northeast Asia in the world economy.

Northeast Asian economies are diverse not only in political systems but also in economic characteristics—e.g., economic size, population, industrial structure, openness, and stage of economic development (Table 2). Japan and South Korea are advanced economies with OECD membership, while China, Mongolia, North Korea, and Russia are transition economies. Mongolia is the most open Northeast Asian economy in trade and inward foreign direct investment (FDI), while North Korea is a highly controlled, closed economy without a functioning market system. Russia and North Korea have yet to join the World Trade Organization (WTO).

The degree of human development is a good proxy for a country’s stage of economic development. It is captured

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**Table 1: Share of Northeast Asia’s GDP in World GDP (%)**

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<tr>
<td>(1) Japan</td>
<td>7.9</td>
<td>9.1</td>
<td>7.6</td>
<td>6.3</td>
<td>5.9</td>
<td>5.4</td>
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<tr>
<td>(2) China</td>
<td>2.0</td>
<td>3.6</td>
<td>7.2</td>
<td>11.4</td>
<td>13.2</td>
<td>16.2</td>
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<tr>
<td>(3) South Korea</td>
<td>0.8</td>
<td>1.4</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>2.0</td>
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<tr>
<td>(4) Mongolia</td>
<td>0.0</td>
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<td>0.0</td>
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<tr>
<td>(5) Russia</td>
<td>--</td>
<td>4.2</td>
<td>2.7</td>
<td>3.3</td>
<td>3.0</td>
<td>3.0</td>
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<tr>
<td>(1)+(2)+(3)</td>
<td>10.7</td>
<td>14.0</td>
<td>16.6</td>
<td>19.6</td>
<td>21.1</td>
<td>23.6</td>
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<td>(1)+(2)+(3)+(4)+(5)</td>
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<td>19.2</td>
<td>19.3</td>
<td>22.9</td>
<td>24.1</td>
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**Nominal GDP (in US dollars)**

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<tr>
<td>(1) Japan</td>
<td>9.1</td>
<td>13.4</td>
<td>14.5</td>
<td>8.1</td>
<td>8.6</td>
<td>7.8</td>
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<tr>
<td>(2) China</td>
<td>2.6</td>
<td>1.7</td>
<td>3.7</td>
<td>7.1</td>
<td>8.7</td>
<td>11.1</td>
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<tr>
<td>(3) South Korea</td>
<td>0.6</td>
<td>1.2</td>
<td>1.7</td>
<td>1.5</td>
<td>1.4</td>
<td>1.6</td>
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<tr>
<td>(4) Mongolia</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>(5) Russia</td>
<td>--</td>
<td>0.4</td>
<td>0.8</td>
<td>2.8</td>
<td>2.3</td>
<td>2.8</td>
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<tr>
<td>(1)+(2)+(3)</td>
<td>12.3</td>
<td>16.3</td>
<td>19.9</td>
<td>16.7</td>
<td>18.7</td>
<td>20.4</td>
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<tr>
<td>(1)+(2)+(3)+(4)+(5)</td>
<td>--</td>
<td>19.4</td>
<td>20.7</td>
<td>19.5</td>
<td>21.0</td>
<td>23.3</td>
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Source: IMF, World Economic Outlook, October 2009, database.
by the Human Development Index (HDI) constructed by the United Nations Development Program (UNDP), which is a composite indicator measuring the average achievements in three basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living. These HDI indicators show that Japan and South Korea performed as well as or slightly better than the European Union average of 0.92 in 2007, whereas China, Mongolia, and the Russian Federation (representing the Russian Far East) lagged behind (Table 3).

Trade integration in Northeast Asia has increased during the last decade. The share of intra-Northeast Asian trade in the subregion’s total trade with the world has risen from 15% in 1992 to 23% in 2008. Most of this intra-Northeast Asian trade is due to trade among Japan, China, and South Korea. The share of trade among these three core countries in their total trade with the world was 14% in 1992 and 22% in 2008. During this period, Japan and South Korea became increasingly dependent on trade with China (Table 4), shifting their focus away from the US and Europe. Although China’s trade dependence on Northeast Asia declined, the overall trade integration among the three Northeast Asian countries has deepened robustly.

The Russian Far East’s trade dependence on Northeast Asia may be high, but the lack of data cannot confirm it; the available data for the Russian Federation shows that its trade dependence on Northeast Asia has been low, at around 12% in 1992 and 14% in 2008. The trade dependence of Mongolia and North Korea on other countries in Northeast Asia is much higher but declined during the same period from 78% to 76% and from 54% to 36%, respectively. Overall, trade links between the three core countries with Mongolia, North Korea, and Russia to date have remained minimal. This can be explained by both economic and non-economic factors: economic factors include a low degree of marketization in North Korea, low levels of trade-related foreign direct investment in North Korea and Russia, and a weak physical infrastructure; and non-economic factors include security tensions in the case of North Korea and geographic remoteness for Mongolia and the Russian Far East. This suggests that there is still huge potential for further trade integration in Northeast Asia.

Developing a positive environment conducive to business is crucial for attracting the required investment for sustainable growth of the subregion. The current performance of Northeast Asia’s business environments, as measured by the World Bank’s Doing Business Index, is mixed (Table 5). Surprisingly, China’s Doing Business Index is not high, despite the large size of inward FDI. Russia faces a formidable challenge of improving the quality of its business environment, while North Korea is not in the position to attract investment though no data are available.

Problems areas in Northeast Asia include: “dealing with construction permits” (Russia, China, and Mongolia); “trading across borders” (Russia and Mongolia); “starting a business” (China, Russia, and Japan); “employing workers” (South Korea, China, and Russia); “paying taxes” (China, Japan, and Russia); “closing a business” (China and Russia); and “protecting investors” (China and Russia). The Northeast Asian economies are encouraged to work on these areas for improvement.

Table 2: Key Economic Indicators of Northeast Asian Countries, 2008

| Country  | GDP (Bill. US$) | POP (Mill.) | GDP/POP (US$) | Inv/GDP % | Sav/GDP % | Exp/GDP % | Imp/GDP % | FDI/GDP % | Industrial Structure
|----------|----------------|------------|--------------|-----------|-----------|-----------|-----------|-----------|------------------------
| Japan    | 4,909.3        | 127.7      | 38,443       | 24.0      | 25.2      | 1.5       | 30.1[21.4] | 68.4      | 16.1       | 14.8       | 4.1       |
| China    | 4,326.2        | 1,325.6    | 3,263        | 42.6      | 49.2      | 11.3      | 48.6[34.4] | 40.1      | 35.0       | 28.4       | 8.7       |
| South Korea | 929.1       | 48.6       | 19,115       | 31.4      | 30.2      | 2.5       | 37.1[28.1] | 60.3      | 52.9       | 51.4       | 10.7      |
| Mongolia | 5.3           | 2.6        | 1,998        | 40.2      | 38.8      | 23.0      | 41.5[4.5]  | 35.6      | 64.3       | 65.7       | 37.3      |
| North Korea | --          | 23.9       | --           | --        | --        | --        | --        | --        | --         | --         | 9.4       |
| Russia   | 1,607.8        | 141.8      | 11,339       | 25.3      | 36.3      | 4.8       | 38.5[19.0] | 56.8      | 33.4       | 22.5       | 12.8      |

Note: Inv = investment, Sav = savings, Exp = export, Imp = import, FDI = stock of inward FDI.

Table 3: Human Development Index in Northeast Asia

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<tbody>
<tr>
<td>Japan</td>
<td>0.887</td>
<td>0.918</td>
<td>0.943</td>
<td>0.960</td>
</tr>
<tr>
<td>China</td>
<td>0.533</td>
<td>0.608</td>
<td>0.719</td>
<td>0.772</td>
</tr>
<tr>
<td>South Korea</td>
<td>0.722</td>
<td>0.802</td>
<td>0.869</td>
<td>0.937</td>
</tr>
<tr>
<td>Mongolia</td>
<td>--</td>
<td>--</td>
<td>0.676</td>
<td>0.727</td>
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<tr>
<td>North Korea</td>
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<td>--</td>
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<tr>
<td>Russia</td>
<td>--</td>
<td>0.821</td>
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<td>0.817</td>
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Note: Data for EU27 are averages for the 27 countries for which data are available.

Table 4: Trade Dependence of Individual Countries on Northeast Asia (%)

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<tbody>
<tr>
<td>Japan</td>
<td>10.9</td>
<td>16.6</td>
<td>25.1</td>
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<tr>
<td>China</td>
<td>22.2</td>
<td>26.7</td>
<td>20.1</td>
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<tr>
<td>South Korea</td>
<td>23.5</td>
<td>26.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Mongolia</td>
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<td>67.6</td>
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<td>North Korea</td>
<td>54.1</td>
<td>34.0</td>
<td>35.7</td>
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<tr>
<td>Russia</td>
<td>12.5</td>
<td>8.1</td>
<td>14.4</td>
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Source: IMF, Direction of Trade, online.
Impact of the Global Financial Crisis on Northeast Asia

The impact of the global financial crisis on the world economy and trade has been generally more severe for advanced economies. According to the most recent IMF estimates, the global economy contracted last year by 0.8%, which was the first decline in world output in the post-WWII era. Advanced economies contracted by a total of 3.2%, while emerging and developing countries grew by 2.1%. The volume of world trade in goods and services saw an estimated drop of 12.3%, with a sharper contraction in manufactured product trade.

As a result of sharp export contraction, GDP growth rates in Northeast Asian economies were significantly affected (Figure 1). However, not all economies saw negative growth in 2009; growth performance was mixed. Russia suffered the most in the wake of the global financial crisis, having likely registered a negative growth rate of 9.0%, followed by Japan with a likely negative growth rate of 5.3%. South Korea was also impacted severely in the first half of the year, but began to recover strongly in the second half and, as a result, registered a 0.2% growth rate for the year 2009. China grew by 8.7% last year so did Mongolia at the likely rate of 2.8%. This year Japan is expected to recover at 1.7%, and China is expected to continue to grow robustly at 10% according to the IMF. Due to the economic recovery, trade among these Northeast Asian economies is expected to perform better than world trade generally.

Figure 1: Real GDP Growth Rates of the US, EU, and Northeast Asia (1990-2010)

Source: IMF, World Economic Outlook, October 2009, database.

Lessons from ASEAN for Northeast Asia

Following the 1997-98 Asian financial crisis, East Asia has been the main driver of regional economic integration, without much involvement from the three non-core Northeast Asian countries. Although Japan, China, and South Korea have increasingly integrated among themselves and with Southeast Asian economies and the rest of the world, other Northeast Asian economies have not witnessed any significant integration. The main challenge is how to integrate Mongolia, the Russian Far East, and North Korea with the core countries of Japan, China, and South Korea, and with wider East Asia.

Over the past 25 years, the major drivers of East Asia's outward-oriented economic growth and integration have been market-driven trade, FDI and finance, and the formation of regional production networks and supply chains linked to international markets. The expansion of intra-East Asian trade has been remarkable compared with those of the North American Free Trade Area (NAFTA) and the European Union. Due to the slow progress of WTO-led multilateral trade negotiations, there has been an increasing worldwide trend towards regional integration through free trade agreements (FTAs), and Asia has been no exception. Most East Asian economies embarked on FTA negotiations with partners inside and outside East Asia.

East Asian economies have also intensified other types of cooperation such as infrastructure development, energy security, environmental protection, and finance. Such cooperation has been based on subregional
cooperation initiatives. The most successful example of subregional cooperation is that of the Association of Southeast Asian Nations (ASEAN), which is composed of Brunei Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam. These countries have been working hard to accelerate economic integration through the establishment of the ASEAN Free Trade Area, the ASEAN Framework Agreement on Services, and the ASEAN Investment Area, and through infrastructure, energy and environmental cooperation. They are now heading towards the establishment of an ASEAN Economic Community by 2015.

As a result of these efforts, ASEAN is now the de facto hub for East Asian economic integration; it has established a series of ASEAN+1 processes, particularly in the form of ASEAN+1 FTAs such as those with China, Japan, South Korea, India, Australia and New Zealand, and others. It is now the core group of the ASEAN+3 process that puts together the 10 ASEAN members plus China, Japan, and South Korea (Figure 2).

Northeast Asia can learn from the experience of ASEAN integration and cooperation to enhance its own subregional economic integration as well as integration with the rest of East Asia and the other world economies. A subregional cooperation mechanism in Northeast Asia would boost institutional (or policy-driven) economic integration not only for the subregion, but also for wider East Asia, as such a mechanism could eventually connect Northeast Asia with ASEAN. One of the principal goals of Northeast Asia’s integration is the peaceful reunification and integration of North and South Korea so that a more peaceful, stable, and prosperous Northeast Asia can be realized. For this to be possible, North Korea must normalize its political relationships with South Korea, Japan, and the international community at large and embark on serious economic reforms and open-door policies. A peaceful Northeast Asia is an essential public good for the entire East Asian region as well as for the whole world.

Northeast Asia is unique in terms of economic integration. Overall, de facto (or market-driven) integration through trade and investment among the three core countries has proceeded smoothly. However, other countries in the subregion remain isolated from the movement toward economic integration, and as a whole lag behind other major economic subregions in both de facto and institutional economic integration. In Northeast Asia, there is not one single bilateral FTA between subregional countries, let alone a subregional FTA. Although Japan, China, and South Korea have recently signed many bilateral FTAs with countries both inside and outside East Asia, and have implemented their respective plurilateral FTAs with ASEAN as part of the ASEAN+1 processes, they have not concluded any between each other (Table 6). Northeast Asia suffers from dual gaps; one between de facto and institutional economic integration for Japan, China, and South Korea, and the other between these three core countries and the remaining countries in terms of de facto economic integration.

Several proposals have been made, and some joint studies have been conducted on forming FTAs among Japan, China, and South Korea, but no negotiation has been initiated on a Japan-China FTA or a China-South Korea FTA. Although Japan and South Korea began FTA negotiations in December 2003, no tangible progress was made and negotiations were suspended in November 2004.

### Table 6: Free Trade Agreements in Northeast Asian Countries

<table>
<thead>
<tr>
<th>Within Northeast Asia</th>
<th>Outside Northeast Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td>ASEAN, Brunei, Chile, Indonesia, Malaysia, Mexico, Philippines, Singapore, Switzerland, Thailand, Viet Nam</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>Asia-Pacific Trade Agreement (APTA)</td>
</tr>
<tr>
<td><strong>South Korea</strong></td>
<td>ASEAN, Chile, Hong Kong, Macao, New Zealand, Pakistan, Singapore, Thailand (Peru signed)</td>
</tr>
<tr>
<td><strong>Mongolia</strong></td>
<td>--</td>
</tr>
<tr>
<td><strong>North Korea</strong></td>
<td>--</td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td>Armenia, Georgia, Kyrgyz Republic, Ukraine</td>
</tr>
</tbody>
</table>

Source: WTO, RTA database.
Negotiations on investment agreements between Japan, China, and South Korea have been underway since March 2007, but without much progress. It is recommended that the three countries negotiate on a comprehensive economic partnership agreement (EPA), including both trade and investment, as this would provide wider opportunities. For example, if Japan could agree to widen agricultural and fishery trade, China could make commitments to the protection of foreign investment and intellectual property rights, and South Korea could pursue efforts to strengthen the industrial supplier system, then the scope for agreement can be significantly widened.

Obstacles to institutional economic integration and agreements in Northeast Asia consist of not only economic factors but also non-economic factors, such as remnants of historic animosities, national rivalries, and a lack of community spirit. So various types of cooperation— including human and cultural exchanges, policy dialogue, and joint studies on history—could help ease these obstacles and create conditions for institutional economic integration.

Infrastructure Cooperation for Northeast Asian Connectivity

Northeast Asia's diversity is its strength, providing opportunities for trade, investment, and economic growth through enhancing its physical connectivity. An important area for the subregion's cooperation is in binding the economies more closely through efficient infrastructure linkages in transportation, telecommunications, and energy. Economies can flourish when they become intertwined with each other and the rest of the world. International supply chains developed among Japan, China, and South Korea—and ASEAN—take advantage of each country's comparative advantage, but these cannot be developed without the support of cross-border infrastructure connectivity. To address these needs and fill this demand, appropriate financing mechanisms need to be designed.

The global competitiveness of Northeast Asian economies depends heavily on the quality of their infrastructure. Table 7 shows that Mongolia is weak in infrastructure and there is also room for improvement in Russia and China. It is essential to strengthen infrastructure—particularly in transport and energy—within and between countries to improve the competitiveness of the entire subregion.

As part of a postcrisis agenda, there are five reasons for increasing infrastructure investment, particularly for subregional connectivity, in Northeast Asia. First, infrastructure investment will continue to aid economic development and poverty reduction. Second, infrastructure will increase the competitiveness and productivity of an economy. Third, an increase in infrastructure investment can form an important part of growth rebalancing. Fourth, subregional infrastructure investment provides opportunities for further economic cooperation in other areas and trust building among the countries involved. Fifth, properly designed subregional infrastructure projects—in areas such as railways, wind farms, and hydroelectric grids—could address environmental concerns, climate change, and energy security problems in a collective manner.

Some Northeast Asian economies are currently undertaking an ambitious infrastructure cooperation initiative, called the Greater Tumen Initiative (GTI), established in 1995. Its objective is to identify and implement subregional projects and programs that encourage economic growth, improve living standards, and contribute to peace and stability in Northeast Asia. Presently, the GTI is a joint initiative of four member countries—China, South Korea, Mongolia, and Russia—and is supported by the United Nations Development Program (UNDP). The Tumen Secretariat has been established to promote subregional infrastructure projects (Table 8) and identify potential investors and donors for funding.

Northeast Asia could further expand subregional infrastructure projects. The successful infrastructure cooperation in the Greater Mekong Subregion (GMS)—Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam and the southern part of China—shows the value of enhancing subregional physical connectivity. The GMS, established in 1992, has aimed at developing infrastructure for economic development, promoting freer flows of goods and people, and encouraging the sharing of the resource base. Similar

Table 7: Global Competitiveness Index and Infrastructure Quality in Northeast Asia

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GCI</td>
<td>Infrastructure</td>
<td>GCI</td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Rank</td>
<td>Score</td>
<td>Rank</td>
<td>Score</td>
</tr>
<tr>
<td>Japan</td>
<td>15</td>
<td>6</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>China</td>
<td>47</td>
<td>2.9</td>
<td>30</td>
<td>47</td>
</tr>
<tr>
<td>South Korea</td>
<td>28</td>
<td>13</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Mongolia</td>
<td>--</td>
<td>--</td>
<td>100</td>
<td>133</td>
</tr>
<tr>
<td>Russia</td>
<td>63</td>
<td>--</td>
<td>51</td>
<td>59</td>
</tr>
</tbody>
</table>

Note: GCI = Global Competitiveness Index; Score for infrastructure: 1 = poorly developed and inefficient; 7 = among the best in the world


1 The Greater Tumen Initiative (GTI) originally started as the Tumen River Area Development Programme (TRADP) in 1995, intended to be a regional cooperation mechanism including North Korea also. But North Korea withdrew in 2009.
serious efforts are needed to connect Northeast Asian economies within the subregion, as well as with other economies outside the subregion.

The recent ADB/ADBI study, *Infrastructure for a Seamless Asia*, proposed the creation of a Pan-Asian Infrastructure Forum so that various subregions in Asia can coordinate and prioritize their subregional projects to realize a seamless Asia. The study also proposed the creation of an Asian Infrastructure Investment Fund to mobilize both public and private funds for Asia’s infrastructure development. I would like to suggest the establishment of a Northeast Asian infrastructure investment fund to promote and finance cross-border infrastructure investment. This will require a common vision, strong leadership, and a shared commitment by Northeast Asian leaders, as well as support by international and regional development partners and bilateral donor organizations.

**Energy and Environmental Cooperation**

Emerging Northeast Asian economies, particularly China, are facing the difficult reality of meeting the increasing demand for energy while lowering the impacts on its environment and climate change in the face of rapid industrialization, urban expansion and development, and increased pollution. Critical efforts are needed to make transport and energy investments more environmentally friendly, protect the environment, and discourage greenhouse gas emissions. It is important that new infrastructure investment, particularly in transport and energy, should target environmentally sustainable projects.

In November 2005, an Inter-governmental Collaborative Mechanism on Energy Cooperation in Northeast Asia was established to facilitate energy cooperation and trade to enhance energy security in Northeast Asia. Its vision is "improving energy security in Northeast Asia through energy cooperation in a sustainable manner by 2020." The major objectives include: (i) increasing the supply of energy in the subregion by lessening its dependence on energy imports from outside the subregion; (ii) enhancing the economy and efficiency of the supply and use of energy; and (iii) minimizing the environmental impact of energy production and consumption through an improved energy mix and greater energy efficiency.

Northeast Asian economies have already been involved in energy and environmental cooperation under GTI. In 2005, the GTI member countries declared the environment as a cross-cutting theme for priority areas of joint cooperation, such as transport, tourism, energy, and investment. The GTI is also undertaking a feasibility study on "Tumen River Water Protection" to protect the Tumen River from water pollution through subregional cooperation. Effective environmental cooperation would require standardized data and information across countries.

Energy consumption in the three core economies of Northeast Asia, particularly in China, is expected to rise significantly (Table 9). Green energy cooperation to enhance energy security and encourage a shift toward a low carbon society is essential for sustainable economic growth of the subregion. A shift toward a low-carbon society would call for a set of market-oriented policies to encourage energy efficiency and a wider mix of energy sources. These policies would require reduction of energy price subsidies and/or caps on energy prices, thereby forcing energy prices to rise, strong social protection measures are needed to mitigate the negative impact of price liberalization on the poor and the socially vulnerable. In addition, these policies must be supported by international

---

**Table 8: Approved GTI Projects**

<table>
<thead>
<tr>
<th>Projects</th>
<th>No.</th>
<th>Name of the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>1</td>
<td>NEA Ferry Route Border Infrastructure Framework</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Modernization of Zarubino Port</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Mongolia-PRC Railway Construction</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Resuming Hunchun-Makhalino railway</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>PRC Road, Harbor Project in the Border Between PRC and North Korea</td>
</tr>
<tr>
<td>Energy</td>
<td>6</td>
<td>Capacity Building on GTI Energy at Regional Level</td>
</tr>
<tr>
<td>Tourism</td>
<td>7</td>
<td>Capacity Building on GTI Tourism at Regional Level</td>
</tr>
<tr>
<td>Investment</td>
<td>8</td>
<td>Training Program for Officials from GTI Member countries</td>
</tr>
<tr>
<td>Environment</td>
<td>9</td>
<td>GTI Environmental Cooperation: focusing on Trans-boundary Environmental Impact Assessment (TEIA) in GTR and Environmental Standardization in the Northeast Asia</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Feasibility Study on Tumen River Water Protection</td>
</tr>
</tbody>
</table>

Source: GTI (2010).

**Table 9: Primary Energy Consumption Needs in North East Asia (million TOE)**

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Forecast</th>
<th>Average Annual Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>439</td>
<td>525</td>
<td>543</td>
</tr>
<tr>
<td>China</td>
<td>673</td>
<td>932</td>
<td>1406</td>
</tr>
<tr>
<td>South Korea</td>
<td>93</td>
<td>191</td>
<td>262</td>
</tr>
</tbody>
</table>

Note: TOE = ton of oil equivalent
assistance for financing, technology transfer, and capacity building.

**Toward an Integrated Northeast Asia**

In addition to meeting the challenges brought about by the global financial crisis, an enlarged and more integrated Northeast Asian market will contribute to realizing a peaceful Northeast Asia. Although non-economic factors can be important obstacles to Northeast Asian economic integration, closer subregional economic cooperation could help reduce tension, prevent conflicts, and build community spirit. European and ASEAN economic integration, and GMS infrastructure cooperation, provide clear positive examples.

A good place to start the economic integration process in Northeast Asia would be within the core countries of Japan, China, and South Korea. Such integration could then be expanded to include other economies in Northeast Asia. Therefore, a Japan-China-South Korea Economic Partnership Agreement (EPA) should be the first target to reach in forming a greater Northeast Asia FTA (NEA-FTA), and these three countries should strengthen other types of economic cooperation initiatives, including cross-border infrastructure development, energy security, and environmental protection. Mongolia may also participate in the trilateral cooperative initiatives. For the Russian Far East to be a member of the NEA-FTA, the Russian Federation will need to first join the WTO to set conditions for substantial trade and investment liberalization.

To support a subregional FTA in Northeast Asia and promote other types of cooperation initiatives from a comprehensive perspective, a new institutional body, such as a secretariat for Northeast Asian Economic Cooperation, may be set up. Given the political situation in Northeast Asia, it is realistic for Japan, China, and South Korea to exercise leadership to build this type of economic cooperation body. The Secretariat could encourage Northeast Asian government officials to discuss various economic cooperation and subregional issues, by involving business people, scholars and researchers, and non-government organizations. The fact that the leaders of the three countries have met regularly since November 1999 would facilitate such institutional cooperation.

In these uncertain times, Northeast Asian economies should forge ahead with the challenging—and the immensely rewarding—task of integrating this diverse subregion for the benefit of all its citizens. Subregional cooperation and integration will help to further boost growth and prosperity in Northeast Asia and spread its benefits more widely. It will enhance the subregion's competitiveness and extend its global reach. It will help reduce poverty and promote greater environmental sustainability. Once the potential for substantial benefits—due to subregional cooperation in trade and investment, infrastructure development, energy, and the environment—is shown, these efforts could provide strong incentives for North Korea to open up and cooperate with these economies. This would strengthen the prospects of a peaceful Northeast Asia and the drive for further integration in wider East Asia. To achieve this, exemplary and visionary leadership, as well as firm and unflinching commitment, will be needed.
**Keynote Address**

"The Kyoto Protocol and Northeast Asia"

PEMBLETON, Peter,
President, Climate Business Network (CBNet)

**Context**

How will the Kyoto Protocol and the current carbon market change from 2012? How may they change? The Copenhagen climate conference\(^1\) did not reach any agreement that impacts the Kyoto Protocol for further commitment periods. Therefore, this keynote address will not be able to present a "new framework." Nevertheless, many of the issues "on the table" will be agreeable on in one formulation or another, hopefully sooner rather than later.

After lengthy and difficult negotiations, even with 115 heads of state attending, only a general non-binding political statement, the Copenhagen Accord, was agreed at the last-minute (and that only by five countries\(^2\)). Many observers believe that the Accord did not "seal the (sort of) deal" that was hoped for and that Copenhagen did not turn out to be Copenhagen (as widely advertised in the city). The reverberations of what many call a failure, and some a small but promising first step, are still echoing through the press.

The future of the Kyoto Protocol and the carbon market as well as their post-2012 architecture therefore remains in limbo for at least another year while the two working groups (AWGs) continue their deliberations, refining their respective draft reports for submission to the Parties in December this year. It is therefore still unclear, at the time of making this presentation, if there will be a new Protocol that covers all Parties, a continuation of the Kyoto Protocol with "alterations", or two (or more) separate Protocols. Parties, in the meantime, will decide whether or not to accede to the Accord or indeed, as some surmise, to continue with one or more separate, politically-led process outside of the UNFCCC.

The United Nations Secretary-General, in his briefing to the UN General Assembly on the outcome of the Copenhagen Conference, identified a number of tasks that the international community should now undertake and suggested examining its lessons and consider how to improve the negotiation process. In that respect, and given the Convention- and Protocol-related positions of the countries attending this conference, there is an opportunity in the coming months, perhaps under the auspices of this Institution\(^3\), to hold indicative discussions leading to a deeper mutual understanding of the positions of the different negotiating groups. Such discussions could lead to proposals for formulations that satisfy each group, the results of which could be communicated by the participants to their respective group leaders to bolster common positions in advance of the Mexico COP. Such a pro-active and timely approach may help to relieve the tensions and lack of faith in the UN-led process that have built up over the last 12 months and could go a long way to making COP16 a much-needed success.

But I am getting ahead of myself! Nevertheless, I ask that you keep the foregoing ideas in mind as I continue.

After setting the scene with the foregoing appetizer and the following introductory remarks, this keynote address takes a look at the Kyoto Protocol as currently configured and practiced, highlighting the involvement of the countries represented here today. The focus will be upon the carbon market that has emerged since the entry into force of the Protocol in 2005 and the "effect" that the "flexible (market) mechanisms" have had on the countries of North East Asia.

The address will then turn to those results from Copenhagen that may eventually be part of the future regime that may have an impact on the mechanisms of the Kyoto Protocol and the carbon market; this review will include the CMP decisions on the Clean Development Mechanism (CDM) and (briefly) Joint Implementation (JI) as well as the Copenhagen Accord and the draft texts of the two AWGs but in reverse order so as to end on a "high-note". Other important Convention issues such as adaptation, financing and technology will only be addressed in so far as they may impact these mechanisms, and then only in passing.

To add further perspective to tomorrow's discussions, the address will review publicly-announced, post-Copenhagen, national "commitments" from countries of this region; the stress on the word "commitments" is deliberate and its meaning will become apparent later.

A few observations arising from the analysis will conclude this address.

**Introduction/ background**

As recorded by ERINA, the region of Northeast Asia

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1. 15\(^{th}\) Conference of the Parties to the Climate Convention (COP), 5\(^{th}\) Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP or CMP), 10\(^{th}\) Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), and 8\(^{th}\) Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA)
2. China, USA, India, Brazil and South Africa
3. The Economic Research Institute for Northeast Asia (ERINA)
is "diverse in terms of ... socio-economic development and industrial structures". That diversity translates into different "positions" of these countries in the Kyoto Protocol as all are Parties that have ratified it and established the required institutions.

As you will all know, the Protocol has three "flexible mechanisms": Joint Implementation (JI/ Article 6); the Clean Development Mechanism (CDM/ Article 12); and Emissions Trading (ET/ Article 17) and the Parties to the Protocol are divided into geographic groups that determine for which mechanisms they are eligible. Japan is an Annex 1 country (AI to the Convention but Annex B to the Protocol) and is therefore eligible to take part in all three mechanisms. Russia, also an Annex 1/Annex B country, but one flagged as an "economy in transition", is currently only associated with two of them (JI & ET). The remaining countries of the region (China, Mongolia, the ROK and the DPRK) belong to the non-Annex I (NAI) group and are only eligible to take part in the CDM.

These distinctions are further reflected in the countries' respective roles within the carbon market and the types of carbon credits they can either utilize as part of their efforts to reduce national emissions or benefit from in terms of obtaining carbon finance or cleaner technology. In concrete terms, Annex 1 countries can buy or sell Assigned Amount Units (ET/ AAUs) and buy Emission Reduction Units (JI/ ERUs—note that Russia can also sell ERUs) and Certified Emission Reduction units (CDM/ CERS) but only to the extent that their national legislation allows. NAI countries can only generate and benefit from the "sale" of CERS.

**The Carbon Market**

The "carbon market" is currently a misnomer as there is not (yet) a single market; rather it consists of a number of disparate elements some of which are currently interlinked (i.e. consist of "fungible" carbon instruments), some with relatively lengthy existence and experience (e.g. the European Emissions trading Scheme (EU ETS)), others in early stages and yet others (hopefully) soon to come into existence. It is generally hoped that these separate systems will eventually merge into one global carbon market that will send sufficient carbon price signals and provide the sort of incentives that the private sector requires to participate in emission-reducing activities in a significant manner. This slide [shown as Figure 1 in the Japanese version] shows a mixture of allowance-based (cap-and-trade), project-based, regulated and voluntary market components.

The carbon market was valued at US$126 billion in 2008 and, according to some estimates, is likely to reach $670 billion by 2013 and $1 trillion by 2020. The figures in this slide [not shown] start at entry into force of the Protocol in 2005 with $11b; thereafter, the market trebled in value the first full year of operation and doubled each year from 2006 up to $126b in 2008. But the exponential growth stopped in 2009 (current estimate is $136b) and is forecast to grow at a much slower rate until 2012 partly due to the economic crisis and partly because of post-2012 uncertainties. Thereafter, the belief is that rapid growth will again be seen but this will largely depend upon the decisions and subsequent rules and regulations implementing them that will now have to be made at a later Conference of the Parties, hopefully at COP16/ CMP 6 in Mexico.

At the time of writing, the carbon market is depressed following the failure of last December's negotiations to conclude an inclusive and legally-binding agreement; European carbon prices crashed by almost 9% on the first day of trading after the Accord was announced. The market is expected to remain "bearish" throughout 2010. While there have been increasing calls for post-2012 clarity in the market over the last year market participants will undoubtedly exert further pressure on the negotiators in the coming year.

We can see from the next slide [shown as Figure 2 in the Japanese version] that the EU ETS dominates the carbon market in terms of the different carbon certificates currently being traded through its internal compliance (cap-and-trade) certificates—European Allowances (EUAs)—the value of which was $91.9 in 2008 as shown in the previous slide [not shown]. In addition, Kyoto certificates (CERs and ERUs) are allowed into the EU scheme through the European Parliament's Linking Directive (2004/101/ EC); these currently represent 26% of the 2008 value of the carbon market (primary CERs/ pCERs and secondary/ sCERs being 6.5b and 26.2b US$ respectively). The remainder of the carbon certificates traded in 2008 were in much smaller volumes: ERUs (from JI) at $0.3b; $0.4b in the voluntary market; in the USA the Chicago Climate Exchange traded $0.3b and the East Coast Regional Greenhouse Gas Initiative (RGGI) $0.2b; in New South Wales (Australia) it was $0.1b. European governments and Japan started purchasing AAUs from a couple of former Eastern European countries in 2008 to the tune of $0.2b.

Five of the six countries covered by this conference are currently only "vendors" (i.e. they either already own or can generate) carbon certificates that they can sell to the carbon market. Japan is the only current "buyer" in the region although the ROK is gearing up to become a major regional buyer and trader. Both countries have established national carbon trading platforms.

As is widely known, China dominates the CDM host-country market; 84% of the CER volume in 2008 were transacted there and there are 1,700+ Chinese projects in the "pipeline"; half of these have been recorded since 2008. At the time of writing, the CDM Executive Board has issued 174,537,938 CERs (that is 47.6% of all issuances). Even from different perspectives such as number of registered projects (current 724) or CERs expected until 2012, China is a long way ahead of other countries.

While the ROK has only a few registered projects (35), it has still generated a significant number of CERs (47,664,437) mostly coming from large-scale, industrial gas projects.

The remaining two NAI countries from the region are still in the very early stages of entry into the CDM market with Mongolia having only 3 registered projects that...
will generate 71,000 CERs until 2012; the DPRK has no projects so far.

Moving on to JI, Russia has a 68% market share of transacted volumes from a total pipeline of 95 projects with an estimated volume of 198 million ERUs; however, all are still at the "determination" stage so none have so far been registered. Also, despite a huge surplus of Russian AAUs (50% of the estimated potential supply), none have so far entered the market due to there being no clear system in the country for allocating carbon revenues to "green investments" (GIS).

Japan, as a buyer of carbon credits, so far only accounts for 5% of purchases from the project based mechanisms (CDM and JI) as the main buyers of these certificates are European due to the early implementation of the EU ETS Linking Directive and the aggressive entry into the market of a few EU countries with the UK well in the lead. The Japanese government has only recently started to purchase AAUs through its Kyoto Mechanisms (KM) Credit Acquisition Program and has secured two transactions of 70Mt to help towards its Kyoto target. CERs are all being purchased by the private sector in Japan with entities such as Mitsubishi and Marubeni being among the top ten largest buyers. Japanese companies have purchased credits from over 250 registered CDM projects with a 2012 value of 553 Mt CO₂e. According to the reports from which this data was obtained, Japan has so far purchased carbon credits valued at 620 Mt CO₂e (i.e. there are some CDM and JI projects that have not yet been registered). Should the Kyoto Protocol be extended in its present form until 2020 and the CERs from the projects carried forward, the value of the currently-purchased CERs bought by Japanese companies from registered projects would rise to 1.3 trillion tons (1,325 Mt).

From the foregoing it is clearly apparent that most of the countries in this region have a significant interest in the regulated carbon market under the Kyoto Protocol.

The Future Regime?

I will now take a look at issues under negotiation among the Parties to the Convention and the Kyoto Protocol that are likely to be relevant to the carbon market.

As previously mentioned, there were several parallel sessions going on at the same time at COP 15 and, contrary to the generally negative impression that the press is giving, progress was made in some areas, even under the Ad-hoc Working Groups that were unable to finalize their reports and submit them to the COP and CMP for decisions; both AWGs were given a further year for their deliberations.

Therefore, we will have to read between the lines of the current "state of play" as reflected in the reports of the various negotiating sessions to get an idea of the types of changes that may eventually occur. I hope that the following will provide useful input to tomorrow's discussions on this topic.

The Ad-hoc Working Groups

As previously indicated, there are two ad-hoc working groups, one deliberating under the Convention track, the other under the Protocol track.

Kyoto Protocol

The draft report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) still includes a great deal of bracketed text and blank sections; issues relevant to the carbon market include:

- Amendments to the Protocol
  - Text and tables on revised and new emission reduction commitments for the second commitment period (until 2017 or 2020)
  - Carry-over of AAUs into the second commitment period (especially important for Russia)
  - Consideration of carbon units generated from new market mechanisms under the Protocol or Convention;
- Land-use, land-use change and forestry (LULUCF)
  - Making it more inclusive and reducing risks under the CDM
  - Improving and increasing available methodologies
  - Accounting and inventory issues;
- The market mechanisms
  - The possible inclusion or exclusion of carbon capture and storage (CCS), nuclear energy, nationally appropriate mitigation actions (NAMAs), and standardized baselines in the CDM
  - Special attention to countries with less than 10 registered projects
- Simplified modalities for demonstrating additionality and
- Provision of up-front financing for transaction costs (both adopted under the CMP decision on the CDM)
  - Inclusion or exclusion of nuclear energy under Joint Implementation
  - To limit or fully allow units to be banked for future commitment periods
  - Deduction of a share of proceeds for adaptation from AAU transactions
  - Establishment of new market mechanisms under the CMP that allow voluntary participation of Parties and
  - Supplementation.

In addition, greenhouse gas values, calculation and reporting issues are included as well as a new gas, nitrogen trifluoride (NF3).

Cooperative actions

The main sticking points in this year's negotiations, still not resolved, are related to capping global emissions (including the "historical responsibility" of developed countries) and actions taken to mitigate them (especially those by developing countries). The former even led to a walkout by the G77 as they considered that insufficient attention was being paid to this issue. In relation to the
former, a few pledges were made in advance of the conference but are widely considered to be cumulatively less than required to stay below a 2°C threshold (more on this later). On the other side, it seems that there is an emerging consensus for mitigation actions by developing countries in so far as actions taken domestically need only be reported through a NAI country’s National Communication and those supported by international partners should go through a measurement, reporting and verification (MRV) process and be recorded in a registry on nationally appropriate mitigation actions. How these issues will play out and eventually impact upon the carbon market remains unclear at this time.

The draft conclusions proposed by the Chair of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) also contain a significant number of bracketed and blank sections. The draft includes items directly or indirectly relevant to the Kyoto Protocol and the carbon market such as:

- Financial resources and investment;
- Technology development and transfer;
- Capacity-building;
- Nationally appropriate mitigation actions by developing country Parties;
- Forestry;
- Various approaches to mitigation, including opportunities for using markets;
- Sectoral approaches and sector-specific actions in agriculture.

I will now briefly take a look at the potential implications of some of these issues but only as they might relate to the post 2012 carbon market.

The draft report, "without prejudice to the possible form and legal nature of the agreed outcome"—i.e. no decision on the form of an agreement has as yet been made—recognizes that the Kyoto Protocol is playing an important role in contributing to the ultimate objective of the Convention and goes on to present various expectations under a future mitigation regime.

Provision of financial resources is, inter alia closely related to the discussion of internationally-supported NAMAs in NAI countries. The draft report discusses establishment of a climate fund that would support the various initiatives under the Convention; the fund would channel "new and additional, and adequate funding" supplemented by funding from the private sector and "other innovative sources". A Finance Board would monitor financial flows and could, inter alia, assist NAI Parties find financial support for mitigation actions and that may, in turn, lead to increased financial flows of project finance; a significant barrier for many CDM and JI projects.

Actions in the forestry sector through reducing emissions from deforestation and forest degradation (REDD) are reported to be closer to agreement than other aspects of the draft reports of the AWGs. REDD will most likely be introduced in phases, starting with policies, incentives, strategies, plans and capacity building and demonstration activities. There is a significant interest in REDD from both AI and NAI countries but, as the issue is being considered under the LCA umbrella it is not clear if or how REDD will relate to the carbon market; however, the AWG-KP is working on an expansion of LULUCF so it is possible that these two related approaches eventually find common ground.

The consideration of sectoral approaches has so far made most progress in the agriculture sector where they are considered in the light of food security and sustainable livelihoods from the perspectives of both mitigation and adaptation. This issue may eventually feed into the carbon market as it is categorized as "sectoral" and could reduce a significant volume of emissions. The whole question of sectoral CDM is still open to debate with strong views for and against. Those against are mostly NAI countries not wanting to take on "commitments" so their antipathy may be mitigated as progress is made under the NAMA discussions. Those that promote sectoral CDM see it as a means of scaling up emission reductions and reducing the transaction costs and approval processes.

Technology development and transfer has the potential to feed into new methodologies and mitigation projects in the carbon market so it is worth keeping an eye on developments under this rubric and the work that would be undertaken in a Climate Technology Centre/Network, should they be initiated. This development has been particularly lobbied for by China for several years. Capacity-building is closely related to technology transfer and the proposed network of centres as well as to most of the other issues under the Convention therefore continued calls for support can again be found in this draft report. Capacity-building is also relevant for mitigation activities and for development of CDM and JI capabilities in many NAI countries, but any support given will be dependent upon the availability of financial resources and, in some cases, to up-front funding of CDM transaction costs (more relevant to Mongolia and the DPRK).

Other aspects of mitigation that are included in the AWG-LCA draft report relate to: "various approaches, including opportunities to use markets" that leaves room to carry on with the market mechanisms of the Protocol, whatever legal form that may eventually take. While aviation and bunker fuels/shipping are specifically mentioned here, it not clear what other sectors or types of activity that may be relevant to carbon markets, would be included.

Some other issues that have not been resolved include: complementarity (i.e. the discussion of purely domestic measures in AI countries vs. more flexible approaches such as inclusion of the CDM—for instance, Japan plans to source a high percentage of its future commitment from offshore projects while the EU is considering restricting access post-2012); the role of LULUCF (apart from afforestation/ reforestation and sectoral approaches in agriculture); MRV and compliance.

Once adopted by the two groups of AWG negotiators, the reports will be presented for decisions at COP 16 in Mexico at which time it should be clear whether or not separate tracks will be maintained post-2012 or if there will be a convergence on some or all issues under discussion in both groups.
The Copenhagen Accord

The much-maligned Copenhagen Accord is a non-binding political statement that, as such, does not provide a platform to change, expand, extend or replace the Kyoto Protocol in a post-2012 climate change regime. It remains therefore unclear from this document whether an additional, new, protocol is likely to emerge from the negotiations; or indeed, whether a politically-driven, largely bilateral process will take over from the multilateral negotiations under the UNFCCC. Given the way COP 15 moved towards a political summit, that is certainly going to be one of the means of continuing discussions in 2010.

As mentioned earlier, the Accord was reached between the USA, China, India, Brazil and South Africa as a last ditch effort to achieve a result in Copenhagen and was only "taken note of" by the final plenary of the UNFCCC. No "decision" was taken on the Accord. However, it was supported as a compromise document by Japan, Russia and the EU that, together with the ROK, participated in the process.

The unprecedented agreement between the USA and four major NAI countries, represented by the content of the Accord, is arguably the main achievement of COP 15. Several of the issues that are included in the Accord would have an impact upon the carbon market if it becomes legally binding. More importantly, most of these issues are also contained in the draft reports of the AWGs in nascent form so could very well emerge from negotiations in another form should there be continued dissent around the Accord. Among the issues are:

- Agreement to enhance long-term cooperative action to combat climate change (as indicated in the previous section of this address);
- Recognition of the 2°C ceiling for temperature rises due to global warming;
- Non-Annex I “nationally-appropriate mitigation actions” (NAMAs)
  - If nationally-supported only domestic MRV will be needed
  - If externally-supported, they will be recorded in an international registry and subject to international MRV;
- Incentives for forestry, especially REDD-plus;
- Consideration of "various approaches", including markets;
- Incentives, including the provision of financing, a “significant portion” of which will flow through the "Copenhagen Green Climate Fund"
  - $30 billion would be available for the period 2010-2012 (as a quick start package) and
  - $100 billion a year by 2020; and
- Establishment of a Technology Mechanism.

The Accord is considered by a few heads of state to be a "small but necessary step" but the jury is still out on whether or not this will be sufficient to maintain momentum in 2010.

The final Accord document includes tables for pledges by Annex I and non-Annex I Parties that included those previously announced through the press. China, Japan, Russia and the ROK are Parties from the North East Asia region that have publicly stated their intentions and are already included in those tables. It should be re-stated here that the Accord is not (yet) an official document of the UNFCCC and is therefore not binding. Should there be insufficient support for it from other Parties in the coming year (e.g. Cuba has already announced it will not accede), it will not be the basis for the post-2012 UNFCCC architecture; neither will the promise it holds for funding and other support be realized through this potential instrument.

Other decisions

While the foregoing results of the Copenhagen conference are not as encouraging as many had hoped for, the work of other bodies under the Convention did bring results and progress was made on a number of fronts. For instance, a CMP decision on the CDM made further adjustments to its functioning including issues relevant to the countries of this region that are related to:

- Governance, by requesting the Executive Board (EB) to
  - Take national legislative requirements into consideration but to make sure that these do not create perverse incentives (a reference to the feed-in tariff argument that affected the wind power project submissions in China);
- Methodologies, especially as they apply to under-represented project types and countries
  - SBSTA has been requested to further examine standardized baselines;
- The demonstration of additionality. In this respect
  - There is a new simplified rule that covers renewable projects under 5MW and energy efficiency projects that save up to 20 GWh/year (may be relevant for Mongolia and the DPRK)
- The EB has been requested to further examine carbon capture and storage (CCS) (a technology that would reduce significant emissions from all countries in this region);
- Registration and issuance in relation to
  - Programmes of activities (PoAs) and
  - Establishment of an appeals procedure;
- Geographic distribution; for countries with less than 10 registered projects (i.e. Mongolia which has 3 and the DPRK none)
  - Deferring the registration fee until after the first issuance
  - Allocation of loans to support project development, validation and verification that is to be repaid after the first CER issuance.

The COP decision on Joint Implementation was largely about progress in development of its facilities and procedures.

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8 http://unfccc.int/files/meetings/cop_15/application/pdf/cm15_cdm_auv.pdf
9 http://unfccc.int/files/meetings/cop_15/application/pdf/cm15_ji_auv.pdf
Emission Reduction "Commitments"

Unfortunately, the Copenhagen discussions did not lead to what many had originally hoped for since the Bali forward-looking decisions (Bali Action Plan and Bali Road Map) with predictions being progressively scaled down in the run-up to the conference, then suddenly hope being expressed as so many world leaders agreed to participate, only to be let down in the end by the last-minute Accord developed by so few countries.

The issue of binding emission reduction "commitments" remained a major sticking point in the negotiations; rejected out-of-hand by those countries that are not an Annex I Party. Over the last year however, a new term has emerged among the negotiators that might replace "commitments"—although the application of the word "binding" is still being debated. "Nationally appropriate mitigation actions" or NAMAs are different to "commitments" in so far as the term applies the concept of "common but differentiated responsibilities" so it is not surprising that this approach has gained a broad acceptance among non-Annex I countries.

While negotiations continue at various levels, some countries continue to work on their own policies and legislation supporting their climate change actions. For instance: Brazil has announced that it will maintain its emission reduction target (36.1% - 38.9% below business-as-usual projections by 2020) to be regulated by its new National Policy on Climate Change; Mexico has committed to reduce its emissions by 50 Mt a year starting in 2012 with its own means and funds; South Africa said that it would undertake mitigation actions which will result in a "deviation below the current emissions baseline" of around 34% by 2020 and by around 42% by 2025; and India has set a voluntary target to cut its carbon intensity by 25% by 2020 from 2005 levels. Meanwhile, Australia, Canada, Papua New Guinea and the Maldives have already announced that they will accede to the Copenhagen Accord; presumably they will also announce their pledges at that time.

According to the "Climate Action Tracker"10 pledges so far put forward by industrialized and developing countries show that the world is headed for a global warming of 3.5°C - 4°C by 2100; much more than the 2°C rise above pre-industrial levels, the widely accepted boundary beyond which scientists do not recommend going and the target mentioned in the Copenhagen Accord. The slide [not shown] shows the reference scenario for emissions (i.e. business-as-usual) at the top, followed by the trend line in red that current pledges will follow and how they are expected to impact global average temperatures. These are compared to targets of 450ppm and 350ppm that are expected to lead "only" to a 1.5°C rise.

The global volume of emissions is, now, not just a problem being caused or continued by developed countries; developing countries currently emit as much as developed countries and therefore have an equal potential and opportunity to mitigate those emissions and that more cost-effectively than the former.

It is worth noting at this point that the countries of this region cumulatively represent almost 34% of global carbon emissions, largely due to China's "leading position"! Considering that agreeing to a maximum overall global temperature rise and consequently to mitigation actions are key issues in the negotiations and that the results of this discussion will affect the future of the carbon market, countries and regions such as this one, that have significant emissions, as well as a keen interest in the carbon market, clearly have a major role to play and interest in the outcome of negotiations.

Now to some related observations on the individual countries in this region.

Japan

As mentioned earlier, Japan is an Annex I country. When signing up to the Kyoto Protocol, the country agreed to a target reduction of 6% from its 1990 level of 1,261 Mt11 CO2e/year. Prior to COP 15, Japan, reported as being a supporter of the Copenhagen Accord, proposed to decrease emissions to 25% below 1990 levels by 2020 and to 60-80% below 2005 levels by 2050. Recent government announcements reconfirmed that the country will stick to its 2020 target and that this pledge will be registered with the United Nations, under the Accord, by the end of January. However, the goal, considered to be "sufficient" by the "Climate Action Tracker"12, is conditional that all major emitters commit to ambitious targets.

Japan is also in favour of the international carbon market mechanisms and has stated that it would cover up to 60% of its 25% emission reduction target through their use. The country's trial domestic emissions trading scheme, based on voluntary participation and launched in October 2008, should provide sufficient experience upon which to base a transition to mandatory participation and a full-blown scheme that will provide a cost-efficient means of moving towards achieving their target.

Russia

As the other Annex I country in this region Russia was allowed to retain its level of 1990 emissions that was 3,323 Mt CO2e/year and has also been reported to have supported the Copenhagen Accord, even though it is not shown as an originator of the final text.

Russia announced target emission reductions ahead of the Copenhagen conference that were 10-15% below 1990 by 202013, and 30% below 1990 thereafter. But, according to figures recorded by the UNFCCC, Russian emissions are already 33.9% below 1990 levels14 largely due to the contraction in its economy; therefore, the Climate Action Tracker considers this pledge to be inadequate15. The

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10 http://www.climateactiontracker.org/
11 http://unfccc.int/ghg_data/kp_data_unfccc/base_year_data/items/4354.php
12 http://www.climateactiontracker.org/country.php?id=1165
13 Another figure of 20-25% has been announced
14 http://unfccc.int/files/ghg_data/ghg_data_unfccc/image/pjpeg/changes_in_ghg_excluding_lulucf.jpg
15
Russian President, in addition, recently announced a long-term goal of 50% reduction from 1990 levels by 2050. As the last country to ratify the Kyoto Protocol in early 2005, Russia was widely applauded as this led to its entry into force. However, the country has been relatively slow in implementing procedures and measures necessary to benefit from the carbon market. A recent decree and anticipated amendments to a previous resolution are expected to facilitate procedures that will finally open the carbon market for the country.

In addition to the potential for gaining carbon credits under Joint Implementation, Russia could also benefit from the sale of its surplus AAUs. This potential has so far been unrealized as the country has not developed any Green Investment Schemes (GIS's) that would allow the incoming funds from their sale to be "greened"; a condition that buyers are imposing on vendors with AAUs resulting from contractions in the economy rather than from specific measures taken to reduce emissions. However, a recent press report indicates that Russia and the European Bank of Reconstruction and Development (EBRD) are exploring opportunities that will channel funds from AAU sale into an energy efficiency programme. Given the large volume of surplus AAUs, Russia is naturally interested in an option to carry them forward into future commitment periods; one of the issues still under debate.

China

China is one of the authors of the Copenhagen Accord and it has become clear, since the closing days of COP15 that the country is in a very good negotiating position! However, it has been criticized by many of its former Group of 77 colleagues for agreeing to the Accord and for other positions taken during the Conference; but one needs to look at the broader picture that shows an initiative that may pave the way for an inclusive agreement in 2010.

China and the other three NAI author-countries (India, Brazil and South Africa) are key developing countries and the largest in their respective geographic regions. Together with the USA, the other author-country, they represent close to 50% of the world’s carbon emissions, notwithstanding the fact that China’s emissions per capita are far lower than in the USA. Apart from these NAI countries "politically" agreeing (albeit non-binding) to take on a form of emission reduction commitments (the NAMA discussion), the Accord may also provide the essence of what legislators in the US need to finalize their domestic legislation. This could well be the key to breaking the long-standing deadlock between NAI countries and the USA, not to mention the problems this issue has caused with the Parties to the Protocol, as well as being an extremely contentious issue that nearly derailed the Copenhagen talks.

"In 2006, China’s five-year plan set a target for a 20% cut in the energy intensity of GDP by the end of 2010, ... by the end of last year (2008) it had managed 10%-18% (according to reports this was extended to 16% by the end of 2009). Given that achievement it is perhaps no surprise that China’s pre-conference announcement to reduce its CO2 emissions per unit of GDP by 40% - 45% from 2005 to 2020 was widely thought to be close to business as usual. The Climate Action Tracker rates this target as inadequate19 given that this would probably be achieved through implementation of current national policies20 anyway. However, as this is China’s own proposed contribution to mitigate climate change according to its national circumstances and will be by its own efforts, further reductions should be possible if financial resources and technologies are made available from AI Parties. And that seems likely given the pre-COP bilateral discussions China held with various developed countries including with the USA and the EU, the latter agreeing to cooperate on CCS that alone would lead to significant additional emission reductions in the country given its current heavy reliance upon carbon-intensive energy production.

The ROK

The ROK, still a NAI Party although a member of OECD, is also reported to have been involved in discussions of the Accord and recently announced that it will publish its emission reduction target, of 30% below "reference emissions" in 2020 (4% below the 2005 value), under the Accord. According to the Tracker, this pledge is considered to be "medium"21.

In addition, the country is widely expected to become an Annex I country post-2012 and is already preparing itself to become a key player in the carbon market. A pilot emissions trading scheme will start operations this month with a target of reducing 1% of 2005 emissions from the installations covered. The country already has a carbon fund. A number of institutions are also actively sourcing projects in the Asia/Pacific region intent on investing in suitable projects as well as in obtaining carbon credits from them.

Neither Mongolia nor the DPRK have come forward with proposals for emission reduction targets.

Recommendation

In conclusion, it is clear that the larger countries in this region have not only the potential to influence negotiations under the UNFCCC and its Protocol, but also to gain significant benefits from the resultant mechanisms: China and Korea embraced the Protocol and the CDM early on; Japan is a major buyer of carbon credits and is

12 http://www.climateactiontracker.org/country.php?id=1168
16 Decree No. 884-r, 27 June 2009
17 Resolution No. 332
18 A long game: China sees opportunities as well as dangers in climate change, The Economist, December 5th-11th 2009
19 http://www.climateactiontracker.org/country.php?id=1152
20 China has agreed and is implementing a domestic energy efficiency target (~20% per unit of GDP from 2005 to 2010) and a renewable energy target (15% of primary energy by 2020) and various other measures which have an effect on reducing greenhouse gas emissions
21 http://www.climateactiontracker.org/country.php?id=630
further gearing up its facilities; Russia is poised to enter the market. Only Mongolia and the DPRK have not benefitted but may well do through reforms and future developments of the flexible mechanisms.

Perhaps, considering the Convention-related positions of the countries attending this conference, and their obvious interest in maintaining the market aspects of the Kyoto Protocol despite their different viewpoints, the coming months could be utilized to hold indicative discussions. These, held under the auspices of this Institution\textsuperscript{22}, could lead to a deeper mutual understanding of the positions of the different UNFCCC and other negotiating groups.

The objectives embedded in the Copenhagen Accord, co-authored by China with the tacit support of Japan, Russia and the ROK, could be a starting point. Discussions could also review the negotiating texts under the AWGs and suggest alternative formulations that would satisfy the Parties in each group. Results could be communicated by the participants to their respective group leaders to bolster common positions in advance of the Mexico COP. Such a pro-active approach (if timely) may help to relieve the tensions and lack of faith in the Convention process that have built up over the last 12 months. It could also go a long way to making COP16 a much-needed success while re-directing attention back to the multilateral table. This in turn, could help to avoid a "de-railing" of the Convention process through bilateral or plurilateral negotiations that have already started.

Whatever legal form the discussions in this group and under the UN take, it is in everyone's interest to find common ground and formulations so that acceptable processes can be established that build upon the foundation laid in Kyoto in 1997. Perhaps Japan, again, with its neighbours from this region, could be recognized for being instrumental in bringing a new era of international climate cooperation to bear.

\textsuperscript{22} The Economic Research Institute for Northeast Asia (ERINA)
Session A: Seamless Logistics in Northeast Asia

There were approximately 100 participants at Session A. The "seamless" in the title for the session means "having no seams or joints." In general, in the process of distribution from the consignor or producer to the consignee or consumer there exist "points of discontinuity" where cargo transportation halts. For example, these include the transshipment between different modes of transportation such as from railways to ships, and the customs inspections at international borders. A situation where there are no such discontinuities is the state where "seamless logistics" has been realized. While actually realizing complete seamlessness is difficult, exploring the best way to get as close as possible thereto was the objective of this session.

Of the total of four reports, two were reports from the viewpoint of international organizations involved in multilateral cooperation, and the other two introduced case examples of international multimodal transport using containers.

Nataliya Yacheistova, Director of the UNDP Greater Tumen Initiative Secretariat, introduced the detail of the activities in the transport sector within the framework of the Greater Tumen Initiative (GTI). In the GTI they have designated the transport sector as one of five major sectors. The "GTI Transport Board", which was established in order to promote cooperation in the transport sector, is planned to hold its first meeting in July 2010. At the "GTI Transport Workshop (December 2009, Hunchun City)" the importance was shared of promoting the streamlining of legal systems and procedures and of regional cooperation in the area of Northeast Asian transport.

Biswa Bhattacharyay, Special Advisor to the Dean, Asian Development Bank Institute (ADBI), reported on research outcomes connected with the development and upgrading of "Infrastructure for a Seamless Asia" which the ADBI carried out. In that research they took as their research subject the regional infrastructure in Asia to 2020 (including both "hard infrastructure" and "soft infrastructure"). For the development and upgrading of infrastructure in the Asian transport, communications and energy sectors during 2010-2020, it was found that investment of US$750 billion per year would be needed. In addition, he concluded that it was necessary to have pan-Asian infrastructure strategies for prioritizing investment and the coordination of policy.

Akichika Ikeda, Deputy Manager, International Cargo Development Department, Japan Freight Railway Co., Ltd. (JR Freight), introduced the international logistics business utilizing railway containers which JR Freight is developing. The company is offering high-speed services between Japan and China and between Japan and the ROK, using 12-foot containers. Within this, in the service between Japan and the ROK, they are offering a "rail-sea-rail" service, carrying out transportation by rail within both countries. 12-foot containers are not the international standard, and this is an impediment to the expansion of services to become multilateral.

Hisako Tsuji, Researcher, ERINA, introduced the latest situation and issues for international container transportation utilizing the Trans-Siberian Railway. It was estimated that Trans-Siberian Railway container transportation fell by half in 2009. The problems that this route has are that price competitiveness is low, that improvement in the coordination of the parties involved is necessary, and that the frequency of shipping services from Japan is low. What will have attention focused on it will be the container transportation connected up to the railway lines of China and Russia, and the rail transportation of finished cars which are unloaded at Russian Far Eastern ports, including the port of Troitsa.

Following the four reports, the "development and upgrading of soft infrastructure" was discussed. Soft infrastructure is the legal system, business practices, and additionally the firms offering logistics services and the related government organs. Whereas in each of the countries of Northeast Asia the development and upgrading of hard infrastructure has been progressing to a fair degree, the situation has become pronounced wherein the realization of seamless logistics is being hampered because of the constraints in the area of soft infrastructure. For example, as the formalities at the time of customs clearance are complex, there are cases of it costing time and money.

The awareness of problems, with the development and upgrading of soft infrastructure being insufficient—as pointed out by the four reporters—is widely shared. The development and upgrading of soft infrastructure, however, is no easy matter. For hard infrastructure, if there is the provision of funding it will progress, but for the development and upgrading of soft infrastructure, instead of needing a colossal amount of funds, time and effort is necessary. The complex intertwining of the interests of many of the related parties is a problem.

Consequently, a way of thinking has emerged of drawing out commitment at a high level using a multilateral cooperation framework, and with this as a springboard, attempting to promote the development and upgrading of soft infrastructure. Biswa Bhattacharyay, based on the example of the Greater Mekong Subregion (GMS), indicated the importance of a formal framework. Nataliya Yacheistova noted the point that discussion on various issues is possible within the framework of the GTI.

On the other hand, the process of multilateral cooperation has the substantive flaw of easily becoming inefficient. As the number of the participating interested parties grows larger, to that same degree the relations among the vested interests become more complex and it takes more time to achieve a conclusion—and the problem emerges of the conclusion which was achieved becoming thinner on substance.

The important thing is how to eliminate the inefficiency. The sharing of a well-defined vision, at a high level, is necessary. At the same time, making maximal use of existing frameworks, and also avoiding new operational and administrative costs from arising, will probably be effective. As stressed at this conference last year also, the GTI is an important platform for the promotion of seamless logistics in Northeast Asia, and we should give careful consideration to the practical utilization thereof.

ARAI, Hirofumi
ERINA
[Translated by ERINA]
Session B: Post-Kyoto Protocol Period Environmental and Energy Cooperation

Based on the ongoing international discussions on climate change leading to the post-Kyoto or post-2012 architecture, discussions at this session embarked upon various approaches toward cooperation schemes in Northeast Asia to combat climate change. The participants reiterated that by being a unique combination of Annex I and Non-Annex I countries, the countries in the Northeast Asian region have great potential for leading international cooperation on climate change mitigation and adaptation and pushing forward global efforts toward moving to low-carbon, sustainable societies.

Professor Shunichi Teranishi, Graduate School of Economics, Hitotsubashi University, Japan, who coordinated the discussions, noted that although the next framework for the post-Kyoto period was not settled at the COP 15 held in Copenhagen, and was postponed until the subsequent COP 16 in Mexico, the Copenhagen Accord was an important step toward creating the consensus by the major economies to halve greenhouse gas (GHG) emissions by 2050 called for by the Intergovernmental Panel on Climate Change (IPCC). Therefore, the world community needs to pursue the evolution of new energy systems and new energy structures, while ensuring economic development takes place.

Professor Zheng Shuang, ERI, China, highlighted the issue of MRV (measurable, reportable and verifiable) mitigation actions and support as one of the key topics for international climate change talks. On the one hand, MRV mitigation actions in developing countries in accordance with their Nationally Appropriate Mitigation Actions (NAMAs) are being sought, to be a process defined by the host country and to follow the general procedures agreed upon by the Parties to the UNFCCC. On the other hand, the financial and technological support from developed countries to developing countries differs in nature and therefore separate MRV mechanisms for each type of support will be developed. In order to facilitate a matching-up between the mitigation actions in developing countries and the available support from developed countries, a two-way registry system that can be developed and maintained by the UNFCCC Secretariat is indispensable.

Mr. A. Enkhbat, Director, Ecologically Clean Technology and Science Division, Ministry of Nature, Environment and Tourism, Mongolia, introduced the impact of climate change on the country's biophysical environment and economy. Agriculture (animal husbandry and arable farming) and forestry have been identified as the areas that would be most impacted by climate change. The government of Mongolia has established an interagency and intersectoral National Climate Committee led by the Minister of Nature, Environment and Tourism to coordinate and guide national activities and measures aimed at adapting to climate change and mitigating GHG emissions. Mr. Enkhbat proposed promoting regional cooperation dealing with climate change issues for the post-2012 period, such as the development of regional climate change strategy, improvement of forecasting and warning systems, country-specific impact and vulnerability assessment analyses, assistance in the development of national adaptation and mitigation strategies in the region's developing countries, promotion of technology transfer, and the strengthening of existing human and technical capacities along with cooperation on project financing.

Dr. Oh Dae-Gyun, Policy Researcher, Korea Energy Management Corporation (KEMCO), ROK, introduced the Low Carbon Green Growth Bill, which was ratified by the National Assembly at the end of 2009 to facilitate the country's new national vision for the next 60 years. Aimed at meeting the country's mid-term emission reduction target, the government of the ROK has been operating a domestic GHG emission reduction registration program since 2007, and in line with the new bill plans to establish the Government-Industry Negotiated Agreement of Energy Consumption and Korean Emission Trading Scheme starting from 2010.

Dr. Oh proposed establishing a regional carbon market in Northeast Asia that could minimize the GHG emission reduction costs in the region and facilitate the building of regional capacity to respond to climate change. Emission-trading-based cooperation in the regional market could provide the opportunity to develop and adapt the MRV system in Northeast Asia. Furthermore, the creation of a regional market would secure a larger market volume and pave the way to promote international GHG emission reduction projects.

Ms. Dinara Gershinkova, Head, Scientific Development and Climate Programmes Unit, Roshydromet, Russia, pointed out that assessment of observed and expected changes in the climate and their impacts are an important component of the information system for the development of climate policies at the national and international levels. She pointed out that the current situation and socio-economic forecast for 2020 had been taken into account in defining the Russian position in the negotiations and in national climate policy.

From Russia's perspective, mitigation and adaptation are the potential directions for international or regional cooperation for the future or in the Post-Kyoto period, where win-win solutions might be easily found. Accordingly, Ms. Gershinkova proposed several areas for promoting regional cooperation in Northeast Asia, such as knowledge sharing of the best available practices in energy saving and energy efficiency improvement, wide use of renewable energy resources, and assistance in the practical realization of mitigation measures.

Furthermore, she pointed out that as the adaptation concerns all countries, the most valuable elements for regional adaptation cooperation would be cooperation on climate monitoring and modeling, including weather forecasting and weather monitoring, research on the climate
change impact on key sectors of the national economies, and research on their adaptive capacities along with assisting the practical realization of adaptation measures.

Mr. Hiromu Tanaka, Senior Advisor, Japan Carbon Finance, Ltd., highlighted the lessons of the Kyoto Mechanism. There is criticism that the projects under the Kyoto Mechanism have so far been implemented disproportionately in a small number of countries, such as newly-emerging countries. As long as the market mechanism is used, the above result is inevitable. Although expectations were high for Japanese technologies in their contribution to energy saving and energy efficiency improvement issues, past experience has shown that it has been extremely rare that Japanese technologies have played major roles in emission credit projects. Japanese companies, however, are expected to be active in directly developing projects in cooperation with project operators to further promote regional cooperation in the future.

Mr. Tanaka pointed out that the momentum toward the promotion of regional cooperation has been gathering pace since the financial crisis and cooperation in the areas of energy and the environment should be addressed urgently as a common issue. On the other hand, based on the lessons learned in the financial crisis, it is necessary to establish a mechanism to help mobilize financial resources within the region along with providing effective investment opportunities. A comprehensive system of regional cooperation that enables the different players to play their respective roles must be developed, in which the private sector reviews investments, provision of technologies, and export of facilities as a business, the public sector works to set up an environment for the effective promotion of the above, and the financial sector provides the required funds in an improved investment environment, and, as a result, emission credits are created.

Mr. Keiji Ide, Councillor, Minister's Secretariat, Ministry of Foreign Affairs of Japan, informed the participants about the "Hatoyama Initiative." In order to support the developing nations, the Japanese government has committed itself to providing US$11 billion as overseas development aid up to 2012, and this will total US$15 billion when combined with private investment. He pointed out that many opportunities exist for cooperative action at a regional level by using various regional networks. The region’s economies in transition—China, Russia and Mongolia—are facing various challenges for their economic development and environmental protection. Therefore, in order to understand them and work together toward GHG emission reduction, it would be relevant for Japan to look at the economic structure of each country and carry out country reviews. Public opinion is important also.

Mr. Alexander Pankin, Deputy Director General, Department of International Organizations, Ministry of Foreign Affairs of the Russian Federation, stressed that the Copenhagen Accord is not just a small political statement; it is an important signal for movement. He mentioned that the legally-binding nature of a future agreement causes a lot of questions, the financial part of the deal is as yet unclear, and the ideal amount is far from being realistic. Concerning a future agreement, the current two-track mechanism will remain on the table, but in the future, the two tracks will have to merge into a one-track mechanism. The Kyoto Protocol will play an important role up to 2012, and it should be absorbed by a new agreement, with many of its useful elements included in that agreement. In his opinion, the new agreement will recognize not only the past, but also the present responsibilities of the countries. Mr. Pankin highlighted that even without waiting for a new international agreement to emerge, Northeast Asia has a lot of opportunities to develop energy cooperation in order to increase energy security and energy efficiency in the region, as well as in the areas of water and natural-disaster preparedness and prevention, either through bilateral or multilateral channels.

As indicated in the keynote speech delivered by Dr. Pemberton, the Northeast Asian countries "... have not only the potential to influence negotiations under the UNFCCC, but also to gain significant benefits from the resultant mechanisms ... and Japan, with its neighbors from this region, could be recognized for being instrumental in bringing a new era of international climate cooperation to bear." Therefore the participants welcomed the message of the keynote addressee on holding significant discussions in the Northeast Asian region that would lead to a deeper mutual understanding of the different negotiating groups of the UNFCCC.

Based on the discussions, the participants put forward several policy and cooperation proposals, including organizing a joint workshop at the upcoming COP 16 in Mexico.

Sh. Enkhbayar
ERINA
Session C: International Food-Industry Clusters and Niigata

For the three years from fiscal year 2007, ERINA has made efforts on the problems of food security and of the food industry in Northeast Asia, and has furthered its collaborative research with Niigata University and the University of Tokyo. The food session this time around is the third one. This time, while looking at a variety of studies and case examples concerning food-industry clusters, we have explored the potential for a food-industry cluster in Niigata.

First, Roger Stough, the Vice President of George Mason University, a world authority on industrial cluster theory, gave a speech on "Industrial Cluster Analysis, Entrepreneurship and Regional Economic Development" and put in order the points necessary for the formation of clusters.

Knowledge production and the conversion of that knowledge into useful economic knowledge is central to successful economic development and growth. What are the conditions for optimizing the conversion of pure knowledge into economically useful knowledge at the regional level? Clustering and related economic activity is assumed to be one of these conditions itself, but that alone is not sufficient. In the global economy there are many other ingredients. They are the "smart infrastructure" of capital availability, tax advantages, presence of angel investors, intellectual property management, science parks, business incubators, education and training programs, and physical infrastructure processes.

Furthermore, he introduced the optimum public policy with the example of the food-industry cluster in Denmark and southern Sweden (Oresund).

Next, Jiao Jiang, General Agronomist at the Heilongjiang Academy of Agricultural Sciences, with profound exchange with Niigata, reported on the "Industrialization of Agriculture in Heilongjiang Province".

The rate of commercialization of food products in Heilongjiang Province is more than 70% and that amount accounts for approximately 30% of the total for the country as a whole, which makes the province the largest commodity grain production area in China. What are sold are mainly raw materials and primary processed products. The overall number of processing companies is large, but the percentage of small-sized companies in the above number is high, companies are weakly linked, and the production of superior processed products has yet to begin. The percentage of an integrated production and sales system, having a processing company at its core, is increasing, and the quality specific to each product is coming to be emphasized. In addition, the improvement of the transportation of foodstuffs is also important.

It is necessary for farmers and companies to establish a structure of integrated production and a system of profit sharing. For the direction of the industrialization of agriculture, it is advisable to diffuse "regional cluster production models."

For the case example from the ROK, Lee Jae-hyeon, an Associate Professor at Kagoshima University, contributed a report on the "Actual Situation of Regional Brands and Possibilities of Regional Agricultural Clusters in the ROK", but due to urgent business, Zhu Yonghao of ERINA read it on his behalf.

For implementation of the WTO Agricultural Agreement, the ROK had to open the domestic agricultural product market and at the same time reduce domestic subsidies. In recent years, the food product industry has been broadly included in the area covered by agricultural policies for the collaboration of agricultural and food product industries. As a policy targeting rural areas and the food product industry, there is support for the formation of regional agricultural clusters that aim at the positive development of agricultural/rural-related business that includes the food processing industry, which has taken advantage of local specialties, and among others, green tourism.

In the efforts of forward-looking local agricultural clusters in the ROK there are many cases where the integration tends to be forward-directed from the producer side (upstream) to the processing/selling businesses (downstream) and there is no small number of cases lacking in innovation dynamics, which work as the largest benefit of corporate accumulation.

As a Japanese case example, this time around there was the report of Yuko Akune, Researcher at the Graduate School of Life and Environmental Sciences, University of Tsukuba, entitled "A Consideration on the 'Green Tea Cluster' with the Tea Manufacturing Industry in Shizuoka Prefecture at its Center".

The amount of production of raw leaves and crude tea in 2008 was largest in Shizuoka Prefecture. In the Makinohara area, stretching from the middle to the western part of the prefecture, raw-leaf production, crude-tea processing and finished-tea processing are thriving, and most of the processes of tea manufacturing have been mechanized, with many companies that produce the machinery located in the area.

Tea farms and tea merchants are engaged in tea production, agricultural cooperatives and mediators in the mediation of crude tea trading, and tea production machinery companies in machinery production. In particular, research and development and marketing activities, which are the source of product differentiation, are actively conducted in this cluster, and the Tea Section, Division of Agriculture and Fisheries, Department of Industry, Shizuoka Prefecture, as an administrative entity, and the Shizuoka Tea Experimental Station, as a research institute, have been supporting this.

Lastly, presenting collaborative research, Lily Kimmami, a professor at Niigata University, reported on the "Formation of an International Food-Industry Cluster and the Potential of Niigata."

In recent years, the formation of industrial clusters has been drawing attention as one of the important strategies for regional development. For the formation of industrial clusters, what is significantly important is not just the accumulation of companies, but the way that business cooperation works. The result of the analysis of
the relations between business cooperation of food-related companies and their performance in Niigata Prefecture and in Heilongjiang Province is that the establishment of methods of cluster formation that will lead to better corporate performance was an urgent issue.

Higher-level approaches are necessary for Niigata to play the role of the core of such an international food-industry cluster. It is only after the stage begins when companies and clusters in different regions in different countries are able to recognize each other as competitors/cooperation partners that efforts toward the formation of an international cluster can progress for the first time.

What professor Kiminami has illustrated here is the method of thinking on a research platform for promoting international food-industry clusters. It shows the way forward for coordination between industry, government, and academia in Niigata Prefecture and research collaboration in Northeast Asia. I hope that ERINA will play a core role not only in food-industry clusters, but, as an international research exchange center, in Northeast Asian economic research as well.

NAKAMURA, Toshihiko
Research Division Director, ERINA
[Translated by ERINA]
Session D: The New Trends in Northeast Asia with the Global Financial Crisis

In Session D reports were made as below by the respective specialized researchers on the post-global financial crisis economic situation of each of the nations and regions in Northeast Asia.

On the ROK there was the following report from Yuichi Takayasu, Associate Professor at the University of Tsukuba.

In comparing the post-global financial crisis ROK economy with the ROK economy after the 1997 Asian currency crisis, if you convert simply the -5.1% of the October-December quarter of 2008, when the drop was the most intense, to an annual rate, then the drop was equivalent to -18.9%, and the economy suffered a great shock second to the -27.7%, which in similar fashion was the -7.8% of the January-March quarter of 1998, when the drop was the most intense, converted simply to an annual rate. Incidentally, the ROK’s potential growth rate is 4-5%.

Analysis of the 1997 currency crisis

・ Regarding the 1997 crisis, exports decreased on a foundation of the economic slowdown from the fall in the price of semi-conductors in 1996, and of suffering the effect of the Asian Financial Crisis originating in Thailand and the attendant global economic contraction; the outcome of overseas financial institutions, which disliked such a situation, precipitously withdrawing foreign currency from the ROK, was that it triggered a foreign-currency liquidity crisis (the vulnerability of the international balance of payments sector), and created an extreme situation of the chain-reaction bankruptcies of ROK companies and bank failures.

・ A summary of the crisis where the shock had been magnified by endogenous factors—such as, for the constitution of ROK companies at that time, the characteristic features (vulnerability of the corporate sector) of 1) low profitability, 2) excessive dependence on borrowed money, and 3) the back-scratching between groups, and in addition, in terms of financial institutions, the vulnerability of the financial sector, where problems in liquidity arise, with 1) the potential high number of nonperforming loans and 2) the withdrawals of deposits from banks with uncertainty about their trustworthiness continuing.

・ Moreover, in the process of overcoming that currency crisis, while the ROK received financial support for supplementing liquidity from the IMF, the severely austere macro-economic policy (targeting the improvement of the capital balance, current-account balance, and investment and savings balance through a high-interest rate policy and severe fiscal austerity), which was a condition thereof, caused an unprecedented major recession, and subsequently a traumatic memory remained for quite some time in the realm of the ROK economy.

・ Immediately after the currency crisis, the resolution of the vulnerability of the financial sector (the improvement of the equity capital ratio by the injection of public money into rehabilitable banks, the purchase of nonperforming loans by asset management companies, and the setting of a ceiling for the ratio of nonperforming loans), the resolution of the vulnerability of the corporate sector (with the setting of a target value of 200% for the debt-to-net worth ratio, corporate revival with monitoring and workout by the banks, and the introduction of privately-organized schemes via the Corporate Restructuring Promotion Act), and the vulnerability in the current-account balance (not only the contraction of the investment and savings gap resulting from a decrease in the debt-to-net worth ratio and the slowing of plant investment via corporate restructuring reforms, but also a return to the black of the current-account balance) were planned and a success. Sufficient foreign currency exchange reserves and conclusion of agreements on bilateral currency swaps with the countries of Asia.

Analysis of the 2008 global financial crisis

・ The recent global financial crisis was brought about by an external negative shock. In concrete terms the following two phenomena can be seen: 1) the decrease in exports from the contraction in external demand. (The ratio of exports to GDP was in the region of 40% from the second half of the 1990s to 2004, but in 2008 it was 70%. In addition the major trade partners were China, the United States and ASEAN.) 2) The slump in domestic demand and falling-off of investment accompanying the negative wealth effect from the fall in share prices (the increase in the ratio of holdings by foreigners via the deregulation of investment, the large size of the influence of that investment behavior, and the hike in share and bond investment funds), but:

・ Regarding the temporary outflow of foreign currency, with plentiful foreign currency reserves it is tackleable. The exchange rate devaluation (a weak won) also had a favorable effect on exports (with there being the import of raw materials and intermediate goods, the effect was limited).

・ The strengthening of the health of the economy via the restructuring reforms after the previous currency crisis (overcoming vulnerabilities), and preparation was also completed via the construction of a safety network through the coordination of all the countries.

On Russia there was the following report from Yugo Konno, Senior Economist at Mizuho Research Institute Ltd.
Up to the second half of 2008 the stock market was strong and showing signs of a bubble. In the background: Putin’s criticism of Mechel and the August invasion of Georgia. Inter-market trading, which was dependent on the raising of funds using share collateral, was in chaos from the Lehman shock. Added to the chaos of the stock market and the short-term money market, there was also the exchange market (depreciation of the ruble). The causes of this were:

- After receiving a trade balance surplus and capital balance surplus via the surge in energy resource prices up to that point in time (with the outflow of capital continuing in the private sector in the meantime), and the de-facto liberalization of foreign-currency inflow and outflow via the drastic amendment to the foreign-currency-control legislation of July 2006 (the elimination of obligations on deposits and on the use of special bank accounts).
- Under the managed-float system (doing everything possible to maintain the ruble) introduced after the currency crisis, with the pressure to sell the ruble strengthening from the second half of 2008, the central bank approved the small-scale enlargement of fluctuations. This led to a large-scale outflow of capital in the fourth quarter of 2008 (the central bank planned a stabilization, fixing the lower limit of the basket rate for the ruble at 41 rubles).

At the same time, the central bank, suffering a surge in the short-term interest rate immediately after the Lehman shock, greatly cut the reserve deposit rate in September and October, and in addition strengthened the supply of funds via selling operations and standing facilities (uncollateralized loans, subordinated loans, and funding to support the repayment of external debt). (On the flip-side there is the dilemma of having no choice other than to raise interest rates to maintain the ruble rate.) The same amount as the strategy that undertook such a strengthening of the supply of funds to the banking sector from the government and central bank (in the five-month period from the end of August 2008 to the end of January 2009: 4 trillion rubles, equivalent to US$130 billion)—as an increase in the external assets of the banking sector in that period—didn’t circulate round to the finance for Russia’s foreign outflow and domestic firms. Rather, there was a credit squeeze domestically (from November 2008).

The program for government measures on the financial crisis announced in March 2009 is as below:

- Tax reduction measures (crude oil export duties: alleviation gearing the calculation method to the oil price one month earlier; corporate profit tax: lowering of the tax rate, raising of the depreciation rate, and lowering of the tax rate for the simplified taxation system aimed at small and medium-sized enterprises).
- Support for the domestic stock and bonds markets through the provision of subordinated loans via utilization of public welfare funds.
- Support for the automotive industry and the military-industrial complex via federal budget measures.

That progress, however, is also partly behind schedule.

As points which foretell the subsequent direction of the Russian economy: 1) the trends in the price of crude oil; 2) the state of the manifestation of the effects of the program of measures on the financial crisis by the government and central bank; and 3) the extent of the clearing of debts overdue after idly exceeding the deadline (adjustment of the balance sheet).

On Mongolia there was the following report from B. Tsolmon, Former Chief Operations Officer, Zoos Bank.

After passing through a major economic slump immediately after the 1990 systemic transition to a market economy, Mongolia realized remarkable economic development. In recent years the economic growth rate in 2004-2006 was 8.4%, in 2007 10.2%, and 2008 per capita GDP was US$1,960.

What has driven the economy is the mining sector (28.2% of GDP and 74% of exports in 2008). It may be said it is a monoculture by reason of Mongolia being blessed with mineral resources. For this reason Mongolia would take a direct hit from the current global financial crisis and the attendant slump in resource prices.

- International balance of payments: the current-account balance went from +6.7% compared to GDP in 2007 to -13.7% compared to GDP in 2008 (the compensation of the current-account balance from FDI has also been on a downward trend since the fourth quarter of 2008).
- Exchange rates: to maintain the rate of the togrog the central bank released US dollars. The foreign currency reserves, from their peak in mid-2008 of US$1.0 billion, had fallen by half at the beginning of 2009. In spite of this, the togrog depreciated 38% during the period from December 2008 to March 2009.
- Fiscal accounts: the share within revenue of the income from mining has in recent years been a little over 30%, and this is a sharp decrease. For 2008 it was -5% compared to GDP, and for 2009 this is forecast to worsen further (-6.5%).
- Inflation: There was the impact of the exchange-rate depreciation and surge in the market prices of foodstuffs, and the surge continues.
- Financial system: from the second half of 2008 a decrease in togrog deposits and a trend of increasing foreign-currency deposits continued, but subsequently slowed. Meanwhile, the ratio of nonperforming loans increased sharply (from 2.9% in September 2008, to 7.4% in February 2009, to 10.6% in April, and to 21.5% at the end of August). The banks have curbed loans to companies, and purchased central bank securities. There has been a reduction in liquidity.
- Growth rate: Mongolia suffered the impact of the drop in the price of metal resources, the price of cashmere and other agricultural products, and the slump in the construction sector, etc., and the real
GDP growth rate in 2008 went from 8.9% to 0.5% in 2009.

- Influx of informal workers into urban areas from the increase in the incidence of poverty (35.2% in 2007-2008), the increase in the unemployment rate (officially 3.8%, actually 21-26%) and the bankruptcy of farmers and herders.

The path to overcoming the crisis

- IMF-supported standby (approved in April 2009)
- There is a trend toward a reduction of the current account deficit via the recovery of exports, including resource prices (copper, etc.) picking up and gold exports resuming, and the curbing of imports. Income from tourism and remittances from overseas, however, have not yet recovered. The foreign currency reserves in July 2009 were US$684 million (US$1.270 billion in December).
- The government, with the difficult situation of public finances continuing, is grappling for fiscal and financial stabilizing measures, including a cutback in expenditure on public investment and a comprehensive guaranteeing of deposits in accordance with the IMF prescription.
- The agreement with the investors connected to the Oyu Tolgoi copper and gold mine development will have a favorable effect on the development of the mining sector in the future.

On China's Northeast and China-DPRK economic cooperation there was the following report from Jin Zhe, Director, Institute for World Economic Studies, Liaoning Academy of Social Sciences.

The impact of the international financial crisis for the three northeastern provinces of China (and one autonomous region) was indirect. Economic development in recent years has been centered on economic development via investment in the supply-side, including the strategy for the revitalization of the Northeast, heavy secondary industry and infrastructure. The degree of dependency on the outside world is relatively low. Regarding the DPRK, because of its adherence to a self-reliant economy, by means of regeneration by its own efforts and a planned economy, and its exports being centered on the three northeastern provinces, the fluctuations of that economic growth, along with the size of their impact, appear after a time-lag.

The current international financial crisis can also be said to have exposed the contradictions and imperfect nature of capitalism, and through combining a socialist economic system with a market economy, with various ownership systems coexisting, is giving rise to smooth economic development, preventing the advent of just such a systemic cyclical economic crisis.

As China's economic development is overly dependent on the international market and external trade—although domestically a financial crisis has not occurred—it has invited economic stagnation. A turnaround of this economic and industrial structure is vital. That said, there are high hopes that the Liaoning coastal economic zone development plan will drive the economic development of the interiors of the three northeastern provinces, and this plan will have a great effect on the economic development of the DPRK.

The DPRK: 2012 is the "year for opening the door to a Strong and Prosperous Nation". Oriented toward a self-reliant economy, there is dependence on imports in a marginal sector only. It is focused on electrical power, metals (the exports that are a source of foreign currency of iron and steel manufacturing, iron ore and coal to the three northeastern provinces) and the foodstuffs sector.

- In China-DPRK relations priority is given to political, future, potential and strategic benefits. In recent years, based on materialistic principles, there have also been moves to focus effort on the development and upgrading of infrastructure (a plan for an infrastructure modernization investment of US$22.0 billion).
- Regarding relations with international society, above all else there are the economic sanctions stemming from "nuclear and security issues."
- When these things are surmounted, there will be the green shoots of Northeast Asian regional cooperation through assistance for the development and upgrading of infrastructure, etc.

On China there was the following report from Ke Long, Senior Fellow, Economic Research Center, Fujitsu Research Institute (FRI).

- The 2009 real GDP growth rate was 8.5% (predicted value). The world is paying attention to China's economic growth.
- With the concerns about inflation in 2006-2007 the People's Bank of China implemented an orthodox financial and exchange rate policy of removing money from circulation and allowing the yuan to appreciate, via first raising the reserve deposit rate, and subsequently raising interest rates. In addition, as it introduced rules on total lending to commercial banks, liquidity was inadequate in the markets. Incidentally, after the reserve deposit rate was raised a total of 18 times from mid-2006 to mid-2008, the bank, with there also being the impact of the global financial crisis, changed this over to reductions.
- With the global financial crisis the government State Council, in addition to a financial easing policy in November 2008, announced a four-trillion-yuan measure for increasing public spending (high savings rate and leeway in public finance). As cause for concern was the emergence of "signs of an asset bubble (in real estate and shares, etc.)." The government and central bank, based on the above experiences, adopted a cautious response (did the 0.5% raise in the reserve deposit rate and the measure of additional tightening from 18 January 2010 depend on the trends in the CPI?).

- Constraining factors on the economic policies of the government and central bank are "employment" and "social security." For employment in particular, recently, where a global "jobless recovery" is widely touted, this has been notable in China. Therefore it is...
necessary to continually promote domestic demand and consumption via the raising of the labor share, transforming the economic structure which to date has been one of investment and a dependency on exports, and striving for the fostering of service industries such as finance, information, and distribution, and the raising of the industrial structure to a high level. In addition, while the development of social security is an urgent task, amid there being the so-called "disparities" between employment sectors and between regions, an overnight solution is next to impossible. Patient approaches are necessary.

Keeping as a basis the continuation of the current proactive fiscal policies and fiscal easing policies, it is necessary to actively proceed with economic structural reform and systemic reform therein. To that end further Japan-China cooperation is necessary.

NOZAKI, Shigeru
Corporate Advisor, Mitsubishi Corporation
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