境産業の現状と展望を中心に報告を行った。1998年の世界に占める韓国の環境産業の市場規模は2%であり、今後10年間で約3倍に成長すると見込まれていること。特に環境に優しいエネルギー分野とクリーン技術分野で高い成長の伸びが期待されている一方で、韓国の環境産業の抱える課題の克服のためには、環境に優しい産業構造への転換、環境産業の成長基盤の確立、環境産業の輸出産業化、環境技術開発等の拡大の必要性を述べ、北東アジア地域との協力の重要性を指摘した。

ロシア・石炭生産者連盟のヴィクトル・ズィコフ氏は、ロシアにおけるクリーンな石炭の利用を中心として報告を行った。ロシアは豊富な石炭資源を保有し、エネルギー源として重要な役割を担っていることと、環境保全の観点も含めてクリーンコール技術の重要性が指摘された。さらに、ロシアでは石炭の採炭から燃焼までの一連のシステムにおいて様々なクリーンコール技術が適用されているため、この点において中国など北東アジア地域において国際協力の可能性があることを示唆した。

日本の代表的な環境産業として荏原製作所の竹林征雄氏からは、地球環境保全、資源の有効活用、経済発展というグローバルトリレンマの克服に向けて、エネルギーに焦点を当てて報告が行なわれた。環境効率や資源の利用効率の向上の重要性を強調し、エネルギーにおいては「分散」と「集中」の2つの概念を用いて、自然系、バイオマス系、廃棄物系における各発電技術の現状と課題について述べた。北東アジアの環境産業の振興に向けては、ライフスタイルの変換、開発・実証試験等の資金の集中化等が大きな課題の一つであり、国際機関との協調の必要性を指摘し、さらには「北東アジア地域ゼロエミッションセンター」の設立を提案した。

国際機関からの参加としてアジア開発銀行のラマムルティ・スワミナサン氏は、アジア開発銀行の北東アジア地域

における環境問題の取組を中心に報告した。エネルギー及び大気汚染分野での技術支援や地球温暖化問題に係わる人材育成等の有効性を示唆しつつ、今後も、ADBの参加加盟国政府及びその民間企業に対して積極的に協力したい旨を述べた。

討論において特筆すべきこととして、環境産業の国際協力を行なう際には、まず環境の悪化の一番の犠牲者は社会的に恵まれていない方々であることを基本的な認識として据える必要があること。さらに、環境産業が提供する技術やサービスに係わるコストの議論にも踏み込み、環境に対する価値をマーケットの中に取り入れると同時に、環境に対する付加価値を高めていくことが必要であり、環境プレミアムをどのように高めていくかは北東アジア全域で共通の課題であることが示唆された。そして、環境に対するコストの議論は、環境分野への投資による一連のダイナミックな経済発展過程の中で論じる必要性があることが指摘された。

セッション全体としては、今後の北東アジア地域の環境 産業は成長産業の一つと見込まれており、環境と経済の両 立のために重要な役割を担っていることについては共通の 認識が形成されていた。しかしながら、環境産業の進展を 加速させるためには課題も多く、その解決に向けては、 環境産業・技術データベース、ゼロエミッションセンター などの共通のプラットホームを設立すること、 幅広い参 加の下、総合的なネットワークを構築し、環境意識の向上 に努めること等が提案された。今回のパネルでは、幅広い 観点から環境産業の振興に係わる議論を行うことはできた が、環境技術開発の資金調達面など環境分野への投資促進 に直接繋がる議論までは十分に時間が割けず、次回の課題 として残される。

(ERINA調査研究部研究員 浜田充)

Summary of Session 2

The theme of Session 2 was "Promotion of the Environmental Industry in Northeast Asia: Towards Integration between Economic Growth and Climate Change Mitigation."

At the beginning of the session, the moderator, Dr. Tsuneyuki Morita, of the National Institute for Environmental Studies, highlighted the importance of measures to mitigate climate change, in Northeast Asia, using a projected image of the distribution of temperature increase in the next 100 years. Then, he reported that the session at the previous Economic Conference entitled "The Prevention of Global Warming in Northeast Asia,"

concluded that advanced strategies for sustainable development were necessary to resolve global warming issues in Northeast Asia. It was agreed that one of the most important strategies among these was the development of environmental industries in the region. Based on this recognition, he raised the issue of what kind of international cooperation is possible to develop environmental industries in Northeast Asia.

As an introduction to the session, the current status and prospects for the environmental industries in Northeast Asia were reported by ERINA. The scale of the market of the environmental industries in Northeast Asia is forecast to reach more than 13% of the world market in the year 2010. Besides this, a simulation of the emerging

CO₂ emissions trade market, taking into account the implementation of the Kyoto Mechanisms, the results of a simulation of the environmental industries 'effects on the macro economy, and the positive effects on economic development in Northeast Asia brought about by the development of the environmental industries, were introduced.

Following reports by panelists, active discussion was conducted, and various ideas were suggested.

Based on his business experience in this field, Mr. Takashi Kojima, of the Environment Clinic of Niigata Inc., which is a venture enterprise in the advanced environmental field, pointed out the importance of the highly systematic resolution of environmental issues through the utilization of basic environmental preservation technologies and the need for raising "eco-consciousness". Furthermore, he suggested the establishment of the "Northeast Asia Environmental Protection Organization." He said that it is necessary to accelerate efforts to resolve environmental issues in Northeast Asia through further strengthening networks among the public sector, research institutes, and the private sector.

Mr. Yi Bin, Director of the Technology Department of the China Environmental Protection Industry Association, reported on the current situation and prospects for the environmental industries in China. In the 1990 s, the annual growth rate of environmental industries in China was 15%, which was approximately 1.5 times the national economic growth rate. The environmental industries are placed as an important issue in the "Tenth Five-Year Plan", and the government intends to increase investment in the environmental industries. Regarding cooperation with other countries, he illustrated specific technologies which are necessary for some environmental fields, such as air, water, and waste.

Professor Yoon Ki-Kwan of Chungnam University & Department of International Trade, reported mainly on the current status and prospects for the environmental industries in the ROK. The ROK & share of the world & environmental industries market was 2% in 1998. It is expected to grow approximately three-fold in the next 10 years. In particular, growth in the environmentally-friendly energy and clean technology fields is expected to be high. Meanwhile, transition to an environmentally-friendly industrial structure, the establishment of growing bases of environmental industries, the development of export-oriented environmental industries, and further environmental technology development, is all necessary. He stressed the importance of regional development in Northeast Asia in this matter.

Dr. Victor M. Zykov, of the Russian Coal Producers 'Union, reported mainly on the utilization of alternative methods of coal processing in Russia. Russia has ample coal reserves, which play an important role as an energy resource. He pointed out the importance of clean coal technology, including a view towards environmental protection. He also suggested the possibility of international cooperation in Northeast Asia on clean coal technology, since Russia has various technologies throughout the system, from mining to burning.

Mr. Masao Takebayashi, of the Ebara Corporation \$

Zero Emissions Promotion Center, reported about the use of energy to overcome the "trilemma" of global environmental protection, efficient utilization of resources and economic development. He emphasized the improvement of the environmental and utilization efficiency of resources, and explained the current status and issues of electricity generation technology using various resources, such as natural resaurces, biomass and waste, based on the concepts of "distribution" and " concentration". He said that important issues towards promotion of environmental industry in Notheast Asia are changes in lifestyles, the concentration of funding for development and experiments, and also stressed the importance of cooperation with international organizations. He also suggested the establishment of the "Northeast Asia Zero Emissions Center. "

Dr. Ramamurthi Swaminathan, Advisor of the Asian Development Bank, reported mainly on the ADB s efforts on environmental issues in Northeast Asia. He suggested the usefulness of technical assistance in energy and air pollution fields, as well as capacity building to combat global warming. He mentioned that the ADB intends to actively cooperate with the governments of member countries and private enterprises.

An important point which arose at the discussion was that, when the environmental industries cooperate internationally, it is necessary to recognize above all the fact that victims of a deteriorated environment are underprivileged people. Furthermore, costs for technologies and services offered by the environmental industries were discussed. It was suggested that the wider market should be made more aware of the true value of the environment, and this value should be raised. How to raise the premium on the environment is a common issue for the whole region of Northeast Asia. It was pointed out that costs for the environment should be discussed in connection with the process of a series of dynamic economic developments through investment in the environment field.

The environmental industries are expected to be one of Northeast Asia's growth industries. A common recognition that the environmental industries will play an important role in the coexistence of the environment and the economy has already been created. However, there are many issues to be resolved to accelerate the progress of the environmental industries. In order to do this, some suggestions were made, such as the establishment of a common platform, e.g. environmental industry and technology database and the Zero Emissions Center, and to make efforts on raising "eco-consciousness" though the establishment of a comprehensive network with various participants. At the session, various points regarding the development of environmental industries were discussed. However, there was not enough time to discuss issues directly related to the promotion of investment in the environment, such as financing for developing environmental technology. This remains as the next issue to be discussed.

(Mitsuru Hamada, Researcher, Research Division, ERINA)