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Toward Energy Cooperation in Northeast Asia

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Today, on top of serious anxiety on Iraqi situation, many coincident issues such as general strike in Venezuela, nuclear safety failure in Japan, speculative oil buying by market players, etc., have brought considerable uncertainties on the world petroleum outlook. Many people feel necessity of energy cooperation to cope with these challenges. To this end, an effective regional agency needs to be organized to specifically promote cooperative activities among Northeast Asian countries, in addition to existing global institutions like IEA. It is because contemporary energy markets in the northeast Asia resemble and share common issues ever than before, and it is more effective to identify peculiarity of the region and prepare specific cures. This paper refers to a general approach toward regional cooperation in northeast Asia on oil and gas, rather than specifically touching upon individual issues such as strategic oil stock piling. We are still in an infant stage regarding regional energy cooperation and understanding of fundamental principle is very important.

1. Development of Petroleum Industry in Northeast Asia

The petroleum industries in the Northeast Asian countries have developed independently until quite recently. The contemporary petroleum industry in the region started to grow virtually in the postwar era of the 20th century, but the countries in the region had totally different backgrounds in terms of political and economic circumstances. Their positions were also different. Japan and South Korea have been consumers consistently. On the other hand, China played an important role as an oil exporter for a long period since discovery of Daqing oil field. Hence, these countries have substantially different economic and regulatory frameworks regarding the petroleum industry. Further, petroleum technology in Japan and South Korea were westernized since very early days, while, in China, eastern or its own unique technology has been developed.

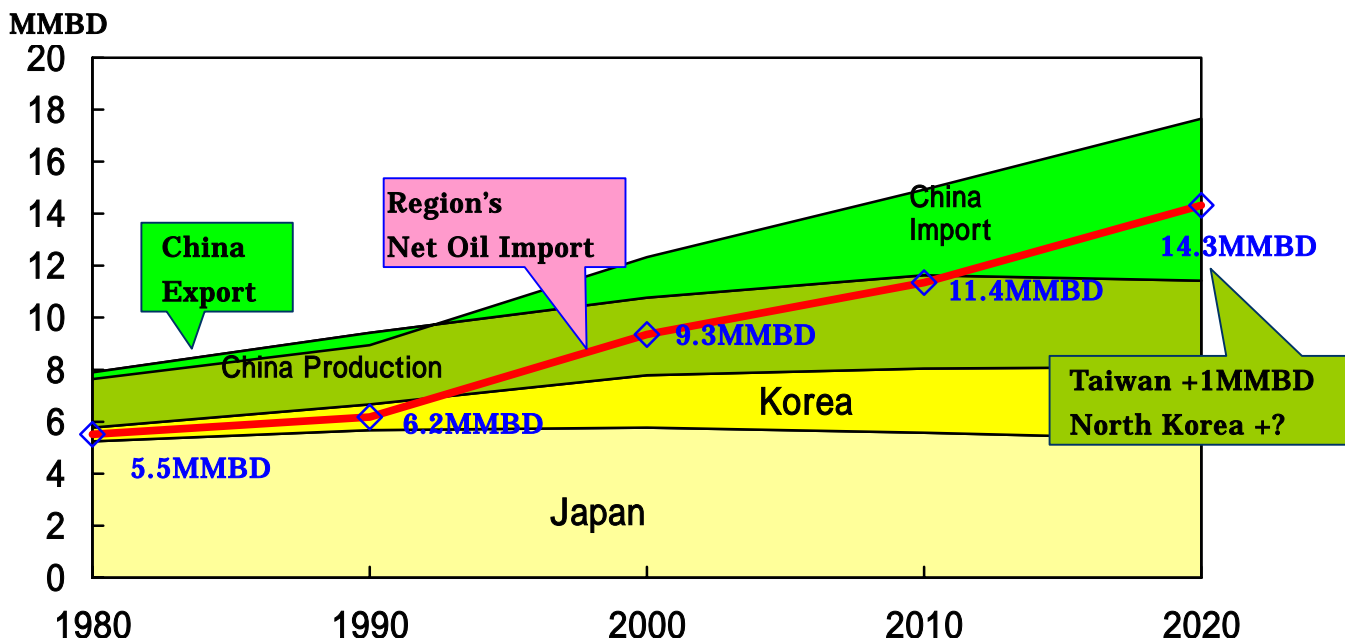
At any rate, the petroleum industry in each country was put under government control for a long time, mainly because oil is important fuel to drive the country's economic

development and gives great impact on foreign currency policy, which was deadly needed in an effort to put the economy on the development track.

However, after decades, circumstance has changed in the Northeast Asia. Japan and South Korea have been successful in miracle economic development and now China is developing vigorously. Economies are being liberalized and more opened. South Korea has become an IMF member and China has become a WTO member. Especially when we look to the oil industry, circumstances have changed dramatically since China became a net oil importing country in 1993. Now three of them are all oil importers, though China still produces substantial amount of oil. And, with China's rapidly growing oil demand, Northeast Asia is emerging as a new oil market center of the world.

2. Petroleum Outlook of Northeast Asia

Until 1980s, the region's oil import was virtually represented by Japan's oil import as shown in the following figure. Then, South Korea was successful in economic development and their oil import increased rapidly in 1980s and 1990s. And, now China is increasing oil import. There are various views on China's petroleum outlook, but a general view will be that its domestic production will be leveling off sooner or later and its oil import will continue to increase. The region's oil import will increase by 4 or 5 million barrels per day in the coming two decades.



Note: In the coming decades, Japan's oil consumption will be leveling off around 2010 (IEEJ, November 2002) and South Korea's oil consumption will become more moderate than the previous decade, according to author's discussion with KEII, with slower economic growth and increase of natural gas consumption. The above forecast of China's oil consumption is almost same with the view of IEA (World Energy Outlook 2002), while some Chinese researchers are in the opinion that its oil consumption growth will become moderate than the IEA's view. However, the total variance of forecasts may be within the range of one million barrels per day for 2020.

As people tends to take it easy that current vigorous economic development may continue forever, this projection result should be considered more seriously. The incremental demand is really a huge quantity. According to BP statistical review 2002, the United States imported 11.6 million barrels per day of oil in 2001 and Europe 11.5 million barrels per day. The oil importing market of Northeast Asia in the coming decades will be much greater than them. And, the incremental quantity should be newly procured.

Then, the question is whether we would be competing or cooperating in quest of oil supply in the next decades. The author thinks both should happen.

3. Steps toward Northeast Asia Regional Cooperation

1) Recognition as a region

As explained above, petroleum industries in Northeast Asia have developed independently in each country, it is now very important for us to have a recognition that we are living in the same region of the world of oil. To date, there has been no such concept of a united region among Northeast Asian countries, but now, from a global viewpoint of oil market, Northeast Asia is becoming a very homogeneous, specific and sizable oil market located in the far eastern edge of the Eurasian continent. All of them are oil importing countries while located far from world oil suppliers. Still, they need stable oil supply for the sustained economic growth of the region. They have common concerns, and therefore there will be fields for them to cooperate for common objectives. For example, their common concerns are:

- 1) Procurement of incremental oil supply. It is inevitable that the region's dependence on the Middle East will increase. Measures should be developed to mitigate any impact of disruption in oil supply from the single source through a single transportation route.
- 2) An efficient oil supply system should be developed to feed the incremental petroleum demand. Regional integration of oil importing, refining and delivery system will enhance rational industry performance eliminating losses incurred by individual activities, as economics of scale is essence. Alignment of product quality is another concern to realize this, as well as for efficient and environmentally friendly use.
- 3) Everybody desires stable oil price. Measures to ease speculative oil price fluctuation is deadly needed. By listing oil price at mercantile exchanges, development countries have been successful to realize market oriented pricing.

However, this was something like opening the Pandora's box, as there are many phantoms like speculative investment funds that want violent fluctuations of commodity prices. The world needs to create effective measures to curb sinful human minds. Region's another concern in oil price is the existence of Asian premium. Northeast Asia needs fair and sound treatment in comparison with the global oil market. To realize this, proper information system should be developed to reflect the reality of the Northeast Asian oil market in the world crude oil pricing, as the region is emerging one of the big markets in the world.

2) Cooperation and Competition: An Important Understanding

The Northeast Asian countries have so many common concerns as shown above. Then, shall we cooperate or compete to cope with these challenges? The author's answer is we should cooperate as well as compete.

Many of these concerns will be resolved more efficiently under regional cooperation. At the same time, we should recognize that, when we pave the way for regional cooperation removing obstacles, such effort would automatically bring about flatter grounds for competition. And it is widely known that, with fair and sound competition, market principle works well to realize efficient and environmentally friendly energy use.

Here, it should be clearly understood that there are roles of the governments and roles of the business sector. Then, what is the principle to classify them into two categories? Simply speaking, beneficial cooperation, result of which cannot be directly reflected in an accounting book of the business sector, should be initiated and carried out by the government sector.

In this context, at first, cooperation at government level engaging business sector whenever necessary should be promoted to cope with common concerns to the best benefit of the Northeast Asia region, for example, in the manner as follows:

- a) Recognition of the benefit of regional approach
- b) Alignment of data, information and analytical tools, as represented by APERC activities
- c) Setting up an international framework for regional cooperation
- d) Identification of common policy objectives
- e) Action plans, where some issues may need legally binding agreements

Then, fair and sound competition at business level should be encouraged to realize efficient and environmentally friendly energy use in the following manner:

- a) Show government initiatives and guidelines on energy and environmental objectives
- b) Prepare consistent and transparent regulatory framework which provides a fair and sound field for business competition
- c) Encourage cooperation at business level, as represented by, such as, Northeast Asia Petroleum Forum¹

3) Conditions to Implement Cooperation

To promote the regional cooperation, it is first and foremost important to recognize areas of cooperation and their benefits. With this recognition, it will be possible for the member countries to establish common policy objectives and identify roles and benefits of each member. At this point, it is very important to classify roles of the governments and the business sector according to the principle mentioned above.

Major roles of the government sector will be to prepare a fair, consistent and transparent regulatory framework, which covers areas such as trade and foreign direct investment rules, taxation and duty, business laws, rules of transit, environmental regulations, and so on. Here, it should be noted that *transparency* of policy or regulatory framework means not only setting up of laws and regulations but also across the board enforcement of them once they are put in force.

Major roles of the business sector would be more technical. Candidate areas will be such as alignment of activity data, product quality specification, technical and safety standard for designing and operation. One important thing is *compatibility* of measures and facilities like tanker size and port capacity. For example, in China, the number of deepwater port to accept VLCCs is quite limited while Japanese and Koreans are using them for most of their crude oil import. With this discrepancy, Japanese oil companies are intimidated to cooperate with Chinese counterparts due to anticipations on possible demurrage, loss and oil spills.²

4. Possible Areas for Regional Cooperation

Regional cooperation should be designed systematically. The following are the samples to kick off dialogue for regional cooperation. They will be classified into three categories, namely, government-to-government cooperation, government and business mixture type cooperation and business-to-business cooperation. Probably,

¹ Northeast Asia Petroleum Forum is being promoted by petroleum industries and energy research institutes of Japan, China and Korea and its next session is scheduled for 16th and 17th of April 2003 in Tokyo.

² Cargos on VLCCs for Chinese refineries occasionally have to be transhipped to smaller tankers at offshore; such operation is vulnerable to weather change.

the last one may rather develop into business alliances.

At the government level, concerted political action for common policy objectives should be promoted through such an organization like *Northeast Asia Energy Counsel*. Existing institutions such as IEA or APEC would be too broad and non-binding, and hence powerless. More specific organization is needed to identify the region's common concerns, interests and benefits of cooperation, and create meaningful measures. Only through such specific organization, practical discussion can be made on coordination of regulatory framework. For such dialogue, immediate objectives may include strategic oil stock piling, collusive emergency response program, sea-lane security and oil spill responses.

Government and business mixture type cooperations can be understood as those in the areas where governments should take initiative and responsibility but probably should act more softly, and involvement of business sector is essential. Candidate topics will be:

- a) Alignment of data and information, and exchange of views
- b) Regional quick information system and emergency response drills
- c) Joint technology development
- d) Upstream exploration and development especially those challenging projects of large scale, frontier, deepwater and application of new technologies
- e) Construction of large scale infrastructure such as international pipelines, sea-lane security system and oil spill response preparedness

These activities may be promoted at an early stage through voluntary exchange of information and views. As such, IEEJ is promoting *Northeast Asia Petroleum Forum* together with Japanese, Chinese and Korean oil industries and our colleague research institutes.

Through such activities, business-to-business cooperation or alliances will be promoted in the areas as listed below:

- a) Optimum petroleum supply system engaging product trade, exchange, processing consignment, etc.
- b) Joint oil purchase, which will bring about greater bargaining power and greater lifting flexibilities for the region's oil companies
- c) Joint fleet operation, which may need relaxation of supplier's cargo destination restriction clause currently applied strictly
- d) Large-scale joint project in upstream, pipeline, refining, etc.
- e) Joint development of technology, product and market
- f) Technology exchange in various areas such as business management and planning,

technology, designing, construction, operation, logistics, marketing, etc.

5. Rules of Cooperation

To implement above discussed regional cooperation, the following rules should be agreed and observed by every member of the region.

- 1) There should be a clear recognition that every body benefits from cooperation. For this, it is necessary for us to get more conscious that we are living in one region, or we are cruising in a same boat.
- 2) Then, every member should take equitable responsibility, to obtain its share of the benefit of cooperation. In some areas, legally binding agreements may be necessary to assure this.
- 3) Cooperation should be designed to realize win-win situation, or double happiness for every member of the region.

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