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JAPANESE ENERGY SECURITY AND CHANGING GLOBAL ENERGY MARKETS:
AN ANALYSIS OF NORTHEAST ASIAN ENERGY COOPERATION AND JAPAN'S EVOLVING LEADERSHIP ROLE IN THE REGION

JAPAN'S ENERGY STRATEGY, RUSSIAN ECONOMIC SECURITY, AND OPPORTUNITIES FOR RUSSIAN ENERGY DEVELOPMENT: MAJOR ISSUES AND POLICY RECOMMENDATIONS

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Introduction

Energy demand in industrializing Asian countries recorded a four-fold increase between 1971 and 1995 and is expected to increase at the rate of approximately 4 percent per annum between 1995 and 2010. This is dramatically higher than the global energy use which increased at a rate of approximately 2.3 per cent per annum between 1971 and 1995 and is forecast to grow at a rate of 2.1 percent over the 1995-2010 period. The Asian share in world energy use is to increase to 29 percent in 2020 from 20 percent in 1995, according to the DOE forecast, and to 32 percent in 2020 from 24 percent, according to the forecast of the International Energy Agency.

Drastic increases in energy consumption by industrialized Asia poses grave supply (and environmental) problems for the Asia Pacific Community at large. Japan is not an exception as its economic growth has been fueled by imported energy sources. The economic health of this economic giant can also affect the progress of many Asian and other economies. Therefore, it is essential to reduce the grave problem of potential supply shortages and interruptions for the well being of the region and that of Japan in particular.

Against this background, this paper examines the pros and cons of Russian energy development for Japan and Russia. It reviews the obstacles and opportunities of developing energy resources in the Russian Far East. Also, the paper examines the potential for this development to stimulate Russia's Far Eastern economy and to diversify Asia's energy supply sources. It also attempts to identify risks involved in such energy development and cooperation.

This paper is divided into five sections. The first section examines major geo-political factors obstructing economic cooperation between Japan and Russia. The second section discusses Japan's energy strategy and the pros and cons of utilizing Russian energy sources from the viewpoint of Japan's energy security and environmental protection. The third section investigates economic problems faced by communities in the Russian Far East and the implication of energy resource development as a policy tool to enhance their economic security. The fourth section considers major risks, obstacles

and ways to overcome them in order to ensure successful energy resource development and cooperation in this region.

The Geopolitical and Historical Context of Russo-Japanese Relations

Relations between Japan and Russia have not been harmonious. The twentieth century began with the Russo-Japanese war, which, thanks to the Anglo-Japanese Alliance, ended in Japan's victory. For Russians, Japan was the first country that defeated their great nation. Since Japan is not even a Western nation, the defeat greatly hurt Russian national pride.

From a Japanese viewpoint, Japan has been under a Russian threat for many centuries. Since the feudal era, long before the arrival of the American Commodore Matthew Perry who led to the "opening" of the country, Japanese rulers had been constantly vexed by Russian ambitions to move southward. Political, economic and military friction has long prevailed in Russo-Japanese relations. From a Russian viewpoint, Japan is seen as an aggressive nation because of its annexation of Sakhalin after the defeat of the Russo-Japanese war and its continuous attempts to explore resources in the Far East. In the post-Cold War world, unlike China, Japan continues to be regarded as a potential enemy in the Russian defense strategy.

Japanese mistrust of Russia was reinforced on many counts: by Russia's late entry into the Pacific war, despite the neutral treaty with Japan; by its invasion and retention of four Kurile Islands; and by the harsh treatment of Japanese prisoners-of-war in the postwar era. According to public opinion surveys in postwar Japan, Russians are portrayed as being the least trustworthy. This is in stark contrast to Japan's former enemy and occupier of the whole archipelago, the Americans, who have been given the status of most reliable friend.

Furthermore, although Russia and Japan signed the Declaration of Cease-fire in 1956, they have not been able to conclude a peace treaty to date. Both nations are in an unprecedented legal status - they are neither at war nor at peace. The underlying issue is the territorial dispute of the Kurile Islands.

The relationship between Russia and Japan has not improved substantially despite President Yeltsin's visit to Japan in October 1993. Japanese fishermen continue to be shot at and arrested in the waters of the Southern-Kurile Islands, and radioactive waste has been dumped into the Japan Sea.

Yet, at the local level, the exchange of citizens in Kurile and Hokkaido without visas (for up to a week's visit) has been taking place since 1992. Many sick Russians have been flown to Japanese hospitals for urgent treatment. Fundraising efforts by a well meaning Japanese public have saved many Russian lives without medical fees. The two peoples have realized their common destiny of being good neighbors and friends at the grass-roots level. Such new developments are important first steps for trust building and the eventual normalization of bilateral relations.

Nonetheless, the democratization of Russia that has been taking place since the collapse of the Soviet Union will make it more difficult to settle the territorial dispute. The major reason is that Russian political leadership is more fragile and has to be more sensitive to public sentiments than ever before. This means that in order to secure more votes, no Russian leader can afford to inflame nationalist sentiments by returning the disputed territories to Japan or even mention such a possibility.

Despite these uneasy geopolitical constraints, the prospects for cooperation between Japan and the Russian Far East are improving. To begin, Russian President Vladimir Putin has reportedly developed a good understanding of Japanese culture and society through his practice of Japanese martial arts. The failure of the IMF-sponsored market-based program to revitalize the Russian economy has raised interest in Moscow for a different model such as the government-led economic development plan used in Japan during the 1950s and 60s. In fact, President Putin invited a retired Japanese deputy minister of finance to serve as an advisor for his new economic program.

Japan's new Prime Minister Yoshiro Mori had an informal talk with the new Russian leader in St. Petersburg in late April 2000. They discussed the prospects for concluding a peace treaty and the possibility of a visit by President Putin to Japan. Prospects for Russo-Japanese economic cooperation, especially in the field of energy, are good. Prior to the talk, the Japanese government announced it was lifting the freeze on

financial assistance to Russia. The first assistance will be used to finance the construction of a natural gas pipeline project between Russia and Turkey.

Japan's Energy Strategy and Russia

As in many other mixed economies, the Japanese government has been increasingly concerned with the management of energy supply and demand in the volatile energy market. Like many of its counterparts in industrialized economies, Japan largely relies on market mechanisms as the prime instrument of supply and demand management.

Compared to other major economies, however, Japan has a key advantage in that historical and cultural factors lend themselves to fostering a close networking of people and institutions between government and industry. The government, therefore, can influence the market using this extensive and frequent contact nearly as much as supply and demand forces without resorting to strict direct regulation.

The involvement of various Japanese policymaking institutions changes according to the issues and salience of energy issues at a given time. For instance, the Prime Minister and the National Diet are not directly involved in day-to-day energy policymaking. But they became central actors at such times as the energy crises of 1973 and 1979. Further, though Japanese consumers are often passive price takers, they can become vocal during major disruptions in the normal distribution and pricing of energy.

In routine energy policymaking, however, it is the Ministry of International Trade and Industry (MITI), especially its Agency for Natural Resources and Energy (ANRE), which has the most say within the government. Many other governmental organizations are also engaged in energy policymaking. Their level of engagement depends on the nature of energy issues at hand. For example, if budget allocation is involved, the Ministry of Finance (MOF) must be consulted. The support of its Minister or Vice-Minister is critical for the commitment of substantial funding for new projects and programs, which gives them significant influence.

Similarly, the Ministry of Foreign Affairs (MFA) is involved in relations with foreign energy suppliers. Its influence is somewhat limited, however, as was seen in the

policy change from pro-Israel to pro-Arab stance during the first oil crisis. Because the U.S.-Japan relationship is the most important bilateral relationship, and MFA officials have extensive contact with U.S. counterparts, they tend to be pro-American in policy orientation. But, the dilemma in Japan's international energy policy has been how to secure Japanese interests when they conflict with U.S. positions.

Energy policy, like many other policies, is, however, formulated through deliberation in advisory councils attached to various ministries. The most important advisory council in the energy area is the Comprehensive Energy Investigation Committee (VEIC). The Committee was set up in 1965 in place of General Energy Sub-Committee of the Industrial Structure Investigation Committee, one of the most important and most influential advisory committees affiliated with MITI. Committee members are nominated by the ministry concerned and include industry leaders, academics and experts who are pro-government in stance. There have been cases in which those members who opposed the government's position were not reappointed. Some journalists argue, therefore, that advisory councils are used as a convenient vehicle to press the ministerial views. At the same time, there is no denying that these advisory councils provide an important arena in which the viewpoints of the government and industry are exchanged, and their differences are minimized.

Other vehicles of communication in energy policymaking between the government and industry are think tanks like the Japan Institute of Energy Economics and industrial organizations. Industrial organizations include the Federation of Petroleum Industries, which is the umbrella organization of major oil refineries and distributors, and the Federation of Economic Organizations, an umbrella organization of big businesses in Japan. More importantly, many retired MITI men and bureaucrats from other ministries are seconded to senior posts in the energy and other industries. This practice, known as amakudari, "descendent from Heaven" is extensive in the energy sector and provides close networking in policymaking. In this sense, once formulated, energy policy in Japan may have a much wider basis of understanding and support than elsewhere. Many energy policy decisions can be viewed as a result of consultation

between government and major business interests as well as a strategy with a wider support base.

This does not mean, however, that there are always harmonious relations between government and business or within the government itself. Rather, policy often emerges as a compromise of conflicts between competing interests both within government circles and between the government and industry, leaving implementation nearly as difficult as elsewhere in the world. Even so, policy made in such a fashion often has a better chance for successful implementation than a policy made without consultation or input from the public and industry.

The impact of government regulation and intervention in the oil market can be observed in many ways. One is the pricing of oil products. For many years, the price of heavy and fuel oil has been kept relatively low since its major users, heavy industry, fishermen and farmers, have traditionally been very important supporters of the ruling conservative party, and as a result, their interests have been well looked after.

The prices of kerosene and gasoline in Japan provide a more complex and interesting case. Japanese consumers have paid dearly for their lack of organization through high gasoline taxes and the resulting expensive prices. Because gasoline for private cars has historically been regarded as a luxury, public transport throughout Japan has been extensively developed. When it comes to home heating, however, government leaders have been concerned with the general welfare of the public. As a result, the price of kerosene, a main source of home heating, has been kept at relatively low levels.

Despite the effective management of the two oil crises in the 1970s and increased sophistication in Japan's energy strategy, several issues remain unsolved. First, Japan lacks sufficient indigenous energy sources. It consumes much more than it produces. Although Japan's import dependency on energy has decreased from 90.5 % in 1980 to 79.2 %, this figure is much higher than the OECD average. The country must depend on the goodwill of exporters and the politico-economic conditions of the international energy market.

The second problem is that the Japanese economy continues to be highly dependent on oil. In 1996, oil supplied 53.65 % of total primary energy sources. This

figure is much higher than 39.0% in the United States and 41.9% in the EU. Related is the third major issue, that is, most oil imports continue to come from one politically fragile region, the Middle East. Its concentration on this region is actually increasing, reaching 85.5% in 1998.

Given these problems, the major pillars of the Japanese energy strategy are: (1) the security of supply; (2) reasonable prices; (3) the diversification of energy sources (away from oil to non-oil resources, in particular, the development of alternative and new energy sources, such as nuclear, solar and wind power); (4) geographical diversification of the supply of energy; and (5) energy conservation. Of these, it is important to note that the first four are concerned on the supply side, while the last focuses on demand.

Energy development in the Russian Far East can be instrumental in helping diversify energy supplies and thus enhance energy security. It will reduce Japan's energy dependency on the Middle East. It will also contribute to Japan's efforts of diversifying its sources away from oil to natural gas. The Russian Far East is rich in natural gas that is less polluting and more efficient in power generation. The increased use of natural gas in Japan could contribute to achievement of the environmental pollution targets of the Kyoto Accord. Finally, the prospect for nuclear power development in Japan has become even bleaker with the difficulties in finding new sites and, to maker matters worse, with the terrible nuclear radiation accident at Tokai- Mura in the fall of 1999. Russian natural gas would be able to contribute in filling the gap between energy demand and the amount of energy supplied by nuclear power. There also exists the possibility that Russian natural gas would be very competitively priced.

Japan's Role in the Economic Survival and Security of the Russian Far East

With the collapse of the Soviet Union, the geopolitical significance of the Russian Far East has increased. The Far Eastern region occupies one third of Russian territory. The region also provides Russia with an important outlet to the sea now that access to the Black Sea has been reduced with the independence of the Ukraine and Baltic States.

Most importantly, however, rapid economic growth among the countries in the Asia Pacific region has brightened the prospect for economic cooperation and trade in the Pacific. Realizing the increasing importance of Asia, Russia has been giving more emphasis to the Pacific Community since 1992.

Historically, the Russian Far East has been functioning as a supplier of raw materials and also as a military base. Raw material production and military spending have been two major sources of economic growth of the region. Large budgets allocated to local governments and industries during the Cold War years reportedly accounted for more than 90 % of the investment made in the region. This public funding was reduced to a level below 15 % by the mid-1990s. More than half of the enterprises in the region are now registering losses, and it is impossible for many to obtain loans from banks because of extremely high interest rates.

Currently, the region is suffering from depopulation as well as great economic recession. For instance, the Khabarovsk region experienced a 14% decrease in population; Sakhalin, 6%; Kamchatka, a 10% loss; and the state of Magadan endured a 48 % reduction between 1991 and 1995. During the same period, mineral and industrial production recorded continuous negative growth (-2.7 % in 1991, -15.2 % in 1992, - 12.3 in 1993, - 22.8 % in 1994 and - 7.6 % in 1995, whereas the annual average growth rate was 2.3 % between 1986 and 1990 in the region and 2.6 % nationally). Thus, depopulation, decreased investment and negative growth have made life in the Russian Far East extremely hard, especially when basic foodstuffs cost 2-2.3 times more than the Russian average. It is said that those living below the poverty line consist of 24 % of the Russian population. In the Coastal district, this figure has reached 38.9 % and in Amur 43%. In Khabarovsk, Magadan and Sakhalin, the figure stands at more than 50% of the population. Unemployment is also a grave problem. In Kamchatka, it reached 18%, in Khabarovsk, 11%, and in the Coastal district, 9% by the mid-1990s. Conditions have not improved, and many cannot pay electricity or heating fuel bills. Such a deteriorated state of affairs has led to delayed payments to workers at public utilities and mines, which has resulted in strikes. Even well into 2000, the situation has not improved. Heating in schools has been switched off and many schools have to be closed in the winter.

Massive capital input and technological transfer is essential for the improvement and increased competitiveness of the Russian Far East economy. It is a must for the economic survival of the people of this region. Development of natural gas and other resources by Japanese and other companies can help overcome the economic crisis in the region. It would also assist the diversification of industries away from military manufacturing. In this sense, both Russians and foreign investors including Japanese can find mutual benefits in resource development and economic cooperation in this investment-starved region.

Major Opportunities for and Obstacles to Russo-Japanese Joint Energy Development

Given the Japanese need to diversify sources of energy away from oil and the Middle East and given the Russian need for massive capital for economic re-vitalization, the joint resource development in the Russian Far Eastern region could provide an ideal venue for both countries. Japanese Prime Minister Mori seemed to be well aware of this and just before his informal meeting with President Putin, he pointed to Japan's financial resources as the locomotive of its economic cooperation with Russia. The first beneficiary of improved relations is Gasprom, Russia's natural gas monopoly enterprise, which will receive a $626 million in Japanese financing for the Blue Stream Plan, a natural gas pipeline project from Russia to Turkey via the Black Sea. Of the Japanese funding, the Government's International Cooperation Bank (formerly International Cooperation Fund) will supply $ 331 million, and a consortium led by Fuji Bank will fund $ 295 million.

The project will finance construction of a 400 kilometer pipeline through the Black Sea, in some places at a depth of more than 2000 meters. The construction requires special steel tubes more than two thirds of which will be made in and imported from Japan. Three general trading companies, Mitsui & Co., Sumitomo Corporation and C. Ito & Co. have already entered into contracts. Thus, the Japanese financial support will revitalize both the Russian and Japanese economies. In addition to Japanese trading companies, many other business interests such as steel makers, construction and shipping

companies, are keen supporters. Entering into close business cooperation with a big Russian business entity such as Gasprom serves Japanese long-term business interests and also increases Japan's energy security. The deal has the support of MITI, MFA, and the Japan National Oil Corp. Gasprom possesses a quarter of world natural gas reserves. This project finance, therefore, may be the beginning of many more business co-operations between this Russian giant and Japanese business. Still, within Japan, the Gasprom deal was viewed suspiciously by Japanese natural gas distributors who are small and undercapitalized.

The development of Russian Far East natural gas faces many obstacles and risks. One of the biggest obstacles is the unresolved territorial dispute. No one can see the end of this dark tunnel. Japanese business leaders seem to have committed their companies by simply assuming that this issue will not affect their investments.

Financially, major business risks can be divided into (1) Russian sovereign risk; (2) political risk; (3) counterparty risk; (4) operational risk; (5) long-term credit risk; (6) market price risk; and (7) long-term funding risk.

Political risk is the most difficult obstacle to foreign investment in mega resource development projects in Russia. That is, the possibility of a sudden interruption in energy, personnel, financial and other flows caused by industrial strikes, the rise of resource nationalism or unexpected changes in the government or the balance of power between Moscow and local governments. Depending on the type of country risk, different solutions are required.

Russia's political uncertainty makes many foreign investors hesitant to commit themselves heavily in Russian investment projects. Russian country risk, that is both sovereign and political risk, is rated much higher than that for any OECD country. Many foreign business interests are hesitant to invest in this politically fragile country.

Long-term credit risk occurs when business concerns advance loans or make investments covering a long period of time. Investment in oil and natural gas exploration and development requires long-term technological, capital and labor inputs without which natural resources cannot be commercialized. The cost and benefits of pipeline construction is, for instance, made on a long-term time frame of, say, 25 years or more.

As a result, investors take very long-term credit risks unprecedented in the investment of ordinary financial instruments. If there are few takers of long-term credit (and operational) risks, no project can become operational.

Furthermore, the long lead-time associated with mega resource development projects means that investors are also taking long-term market price risks. There is the possibility that market prices will fall below the assumed prices of commodities in the initial feasibility study of the projects.

The long-term credit risks and market risks combined will make it very difficult to find long-term investors for this kind of project which points to the problem of long-term funding risks. However, the government can assist to reduce investment risks. In fact, the main investment risks associated with the commitment of the Japanese consortium led by Fuji Bank to the Blue Stream Plan in the Black Sea, for example, is totally hedged by MITI's trade credit guarantee scheme. This way, commercial projects involving national interests can be supported by the public sector. Projects can also get support from international non-governmental organizations such as the World Bank.

Conclusion

Despite a difficult historical background between Russia and Japan, the development of energy resources in the Russian Far East can serve both Japanese energy security needs and Russian economic security interests. Projects will reduce supply shortages in Asia, heavy reliance on Middle East oil, and increasingly unreliable dependence on nuclear power in Japan. The increased use of natural gas, instead of coal and oil, will also help to reduce environmental damage.

The Russian Far East also needs large capital and technological investment so as to conquer the vicious circle of negative economic growth, depopulation, high unemployment and business bankruptcy. A high proportion of Russians in the Far East live under the poverty line without adequate heating and other energy sources. With revenues from oil and gas exports, the Far Eastern region should be able to foster renewed economic growth.

There are many active Japanese participants in Russian energy resource development including trading companies, pipeline and other material manufacturers, shipping companies, and major user industries. MITI, MFA, and other government agencies are keen to see further growth but will meet resistance from gas distributors who will fear competition given their small capitalization.

There are some obstacles to further development of energy resources in Far Eastern Russia. The major one is the unresolved territorial dispute between Japan and Russia. Furthermore, there are many investment risks. Market products can resolve many of these risks while the government can also help commercial enterprises reduce their investment exposure through such schemes as trade insurance.