# Economic Cooperation in Northeast Asia: Views of the Japanese Local Governments and Enterprises, and Changchun's Proposal for the Tumen River Area Development

Chiwai Cheung

#### I Introduction

#### 1.1 The Issue of Concern

The Issue of Tumen River Area Development Program (TRADP) has first caught worldwide attention as the Far Eastern Economic Review (16 January 1992) revealed the February inaugural meeting for the management committee sponsored by the United Nations Development Program (UNDP) with delegations from North and South Korea, Japan, China, Russia and Mongolia. Of course, the UNDP and the Geographical Institute of Northeast Normal University at Changchun, P. R. China have done a series of research studies leading to the proposal of an international areal development at the value of 30 billion US dollars only for infrastructure investment for the next 20 years as estimated in May 1993.

The emergence of local economic zones such as South China Economic Zone (including the Hainan Island, Greater Hong Kong, Taiwan-Fujian area and Shanghai-Pudong area), and the Baht Economic Influence Zone comprising Thailand, Laos, Kampucha and Burma have caught many concerns in Japan (Watanabe, 1991; Inagaki, 1992). In comparison, this Pan-Japan Sea Economic Zone (PJSEZ)<sup>1)</sup> is of much bigger scale and more untapped resources (Figure 1), consisting of areas of the five nations around the Japan Sea (or East Sea), with focuses of the Pan-Yellow Sea Zone, the TRADP, Valdivostok and Okhotsk for possible development<sup>2)</sup>. Moreover, the TRADP becomes a sensitive ground for catching the policy directions of Russia and North Korea or a stimulus to promote their policy change in foreign and economic development policies.

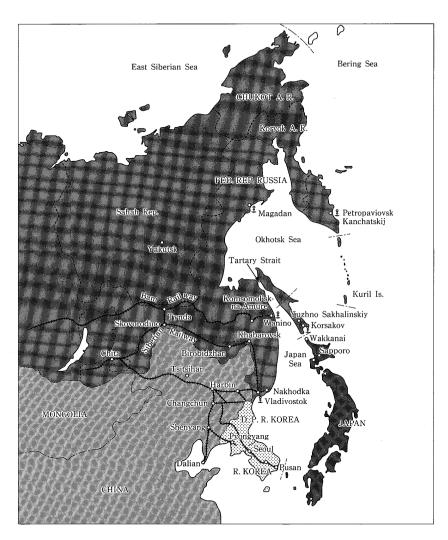


Figure 1 : Cities and Regions in Northeast Asia (Pan-Japan Sea Region)
Source: Ohsono (1993), p. 159.

The regional characteristics of the PJSEZ can be summarized as follows:

- 1) The scale of development potential is enormous. The Far East Region of Russia and the three Northeastern provinces of China are full of natural and land resources, its development will not only affect the economic zone itself, but the world in areas of energy, foodstuffs and industrial production. For this reason, big projects are best realized with multinational involvement and cooperation.
- 2) The production and marketing factors of natural resources, labor, capital, technology, market and etc. at the present stage are unevenly distributed, efforts to promote complementarity and integration will eventually benefit all. The dynamism of economic growth is great.
- 3) The economic growth will best take place with local regions of involved countries as the main actors, and without the dominance of any single nation. However, if enterprises are left to act as the major agent in integrating the whole zone, the pattern of growth will probably be spontaneous and dispersed.

# 1.2 The Neglected National Land Axis Along the Japan Sea

The development for the PJSEZ has special meaning for the regional development and distribution of economic activities in Japan. Japan has been facing the problem of unbalanced growth and development between the three metropolitan regions (along the Tokaido) centered at Tokyo, Osaka and Nagoya and the rest—local regions. This gap has once slowed down but again widened to form a three-tier structure (Tokyo capital at the top, other metropolitan regions in the middle, and non-metropolitan /local regions at the bottom) as Tokyo has emerged as one of the three largest world financial market (others being London and New York) since it then assumed the status of biggest creditor nation since the mid-1980s and ran into buoyant securities and real estate markets before the bubble was burst out in 1990.

The local regions or prefectures which are situated away from the Tokaido, are comparatively lagged in the economic and infrastructure development such as high-speed ground transportation. The Tokaido being extended from Tokyo to Fukuoka, served with Shinkansen and a more complete system of highway development is taken as the first

national land axis. In the late 1980s, as domestic demand and infrastructure building are forced to be an important part of the national development policy due to the agreement from the U. S.—Japan Trade Structure Consultative Committee, two groups consisting of prefectural government and their chambers of commerce and industry compete for the early development and national budget outlay for the second national land axis. They are the Wakayama—Shikoku—Kyushu group at the southwest and Tohoku group at the northeast. Both have their good reasons to call for more financial spending and infrastructure investment.

However, one more group is still left over. This group comprises the prefectures lying along the Japan Sea, represented by Yamane, Tottori, Fukui, Toyama, and Niigata. These prefectures demand for better transportation network along the coastline, known as the Japan Sea National Land Axis in contrast to the first and second (eastern and western Japan) axes (Figure 2). They have started to promote exchange activities with regions or cities in Russia. China and South Korea. These exchange activities take the form of cultural, academic and sports activities in the beginning and become more economic in nature. And based on further sistership establishment, opening or addition of flight or shipping routes are under discussion at local and national levels. Prefectures see these activities as an important way to vitalize their regions in this age of "borderless" globalization. Kyushu region is more Pan Yellow Seaoriented in cultural exchange policy and active in exchange activities with cities/regions in China and South Korea.

Within this bigger trend, Japanese enterprises are also very active. A report tells that 20 firms in Niigata Prefecture have investments in the opposite shore, and three joint-ventures took place between firms in Toyama Prefecture and those in the Far East of Russia. A firm in Ishikawa Prefecture has its products manufactured in a joint-venture in China, and then exports them to Russia. Joint efforts between the government and private sector also took place. The "CIS Investment Environment Preparation Corporation" has been set up in Niigata, and "Aomori Prefectural Japan—CIS Trade Corporation" in Aomori.

Recent efforts include the Meeting of Governors of the Eight Prefectures Along the Japan Sea in 1991; the Conference Among the Six

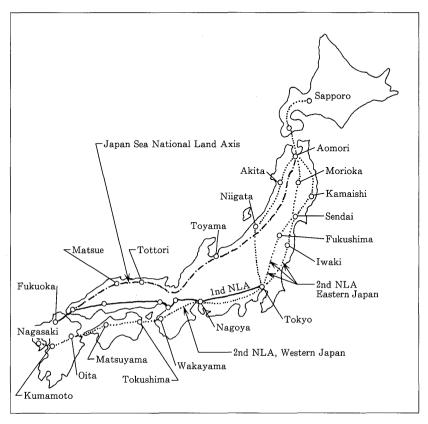


Figure 2: Japan Sea National Land Axis and other National Land Axes (NLA)

Source: Nakato (1993), p. 2.

Asian Cities including the cities of Kita-Kyushu, Shimonoseki, Dalian, Qingdao, Pusan and Inchon; Symposium on Pan-Japan Sea Exchange Activities among Kanazawa, Shimonoseki, Niigata cities and etc.; the International Conference to Promote Fisheries in the Pan-Japan Sea; the Economic Exchange Promotion Conference of the Three Prefectures of Niigata, Toyama and Ishikawa in 1992. Osaka, with its new Kansai International Airport to be opened in September 1994, claims itself as the hub center for Asia's air network.

With the view of balanced national land development, no doubt fur-

ther economic exchange activities among the countries around the Japan Sea will enable dispersion from existing development pattern concentrated in large cities along the Pacific Ocean, and produce aggregation and possibly agglomeration effects for prefectures along the Japan Sea. This development along the Japan Sea will help ameliorate the concentration of economic activities at and only at Tokyo and lead to a more multi-nuclear pattern of national land development for Japan.

## 1.3 The Survey by Japan's Economic Planning Agency

In order to find out the pattern of existing and future exchange activities, expectations towards local and central governments for policy making, the Economic Planning Agency of Japanese Government has contracted the Survey on "The Age of Pan-Japan Sea and Vitalization of Regional Economy" to the Institute of Japan System Development in 1991 for implementation. The survey took the form of mailed questionnaire sent to two different sets of respondents, one to local governments, defined as prefectural, or city/district governments with a population over 300,000 people; and the other to enterprises.

206 questionnaires were sent to local governments; out of which 111 questionnaires were returned, giving a responding rate of 54%. Amongst which the prefectural governments returned 25 out of 47 (53%), and the city or district governments 86 out of 159 (54%).

Questionnaires towards enterprises were limited to those situated in prefectures of Hokkaido, Aomori, Akita, Tokyo, Niigata, Toyama, Ishikawa, Fukui, Kyoto, Tottori and Fukuoka only. The responding rate was 20%, a return of 208 out of 1,020 questionnaires from the enterprises. Of which effective replies were at 95%. Results of the questionnaires will be highlighted and discussed in the following sections.

# 1.4 Discussions on international cooperation for Northeast Asia

Wang & Quan (1993) have surveyed that 15 international conferences for the regional cooperation in Northeast Asia and/or Tumen River Area have been held from July 1990 to December 1992. Main themes of these conferences/symposia were of the two following types: (a) those related to international relations in Northeast Asia, conditions or frameworks for international cooperation, and background of or scenarios for Tumen River development; (b) those organized by UNDP, especially on coopera-

tive frameworks, legislative issues, development planning and program planning for TRAD. The conference sites were mostly within Northeast Asia, namely China (7 times), D. P. R. Korea (2), Mongolia (1), F. R. Russia (1), R. of Korea (3), and U. S. A. (1).

II Japanese Local Governments: Views on Economic Cooperation in NE Asia

## 2.1 Expected Complementarities in Technology and Natural Resources

Local governments were asked to give a list of five priorities for the technologies and resources they can offer and those they want to acquire. Their answers are tabulated in Table 1, giving the ranking of the choice and number of local governments choosing it. Local authorities (prefectures and cities) are classified into five regions: Hokkaido; Aomori and Akita; Niigata, Toyama and Ishikawa, known collectively as the Hokuriku region; other coastal areas like Fukui, Kyoto, Tottori and Shimane prefectures; and non-coastal areas.

Table 1 shows the complementarities perceived by the local governments in the category of "to offer" in contrast to that of "to acquire". More replies come from the other coastal areas, non-coastal areas and the Hokuriku Prefectures.

In the category "to offer", water resources processing technology/skills, agricultural technology, machinery manufacturing and processing technology rank high, and there exist soft programs like language study programs and business administration diagnosis.

From Russia, respondents from local governments expect to acquire forest resources, water resources (fisheries and water plants inclusive), mineral resources, energy, and exchange programs in cultural and economic activities.

From China, they want to acquire mineral resources, water resources, forest resources and human resources for complementary development.

From North Korea, local governments want to acquire water resources and mineral resources and forest resources.

From South Korea, they want to acquire water resources, mineral resources, forest resources, and exchange programs, and etc.

ranking on left & their number on right) Table 1: Local Governments: Views on Complementarities in Technologies and Resources

agr. products stone fab. products nachinery proc. tec. nachinery products economic exchange cultural exchange mineral resources mineral resources human resources mineral resources ndust, products water resources forest resources water resources water resources 1 water resources Acquire for Complementary Development ·0 ~ — — 2 mineral resources 3 cultural exchange 1 seonomic exchange 1 silk 1 silk mineral resources mineral resources 1 mineral resources North Korea 1 water resources 1 mineral resources water resources water resources water resources forest resources fiber materials agr. products 2 water resources
3 human resources
3 agr. products
5 cultural exchange
5 economic exchange
5 silk
5 indust. products Resources to mineral resources 1 mineral resources mineral resources 1 mineral resources mineral resources 2 water resources 3 forest resources 3 agr. products 5 energy human resources water resources forest resources forest resources water resources agri. products China energy 1 labor Technologies and നന ယကက economic exchange 4 cultural exchange 5 economic exchange mineral resources mineral resources mineral resources mineral resources mineral resources 1 mineral resources knitting factory 1 forest resources water resources forest resources forest resources water resources water resources I forest resources water resources 4 energy 5 metal products Russia agr. products energy 001 Technologies & Resources mac. manufg. & proc. tec. architecture and building technology in cold lands tec. study or lang. study 5 waste disposal treatment port & shipbuilding tec. business adm. diagnosis machinery manufg. tec. agricultural technology knitting & sewing metal processing tec. 2 agr. production tec. 3 mac. manufg. & pro 5 knitting & sewing 5 elec. & electron. tec. 5 wood proc. tech. 5 business adm. diagno water res. proc. tec. elec. & electron. tec. water res. proc. tec. l forestry technology water res. process. meat manufg. tec. knitting & sewing agr. technology wood work tec. agr. technology food proc. tec. Niigata, Toyama, & Ishikawa Aomori & Akita Authorities Other Coastal Non-Coastal Hokkaido Local

Abbreviations: adm.: administration; agri.: agricultural; elec.: electrical; electr.. electronic; fab.: fabricated; indust.. industrial; lang.:

language; mac.: machinery; manufg.: manufacturing; proc.: processing; res.: resources; tec.: technology. Notes: 1) Agricultural resources include livestock, orchard farming, paddy farming, and green-house culture; 2) Knitting and sewing include dyeing, sewing, manufacturing and knitting technologies;

3) Energy include petroleum and coal.
4) Water resources include fisheries and water plant resources.

Source: Keizai Kikaku Cho (1991), p. 49.

#### 2.2 Exchange Programs to be Needed

The first three exchange programs as expected by local governments in the Pan-Japan Sea Zone are (1) economic exchange based on import and export promotion, 81% of the respondents; (2) receiving and dispatching programs for technology research students, 68%; and (3) art and cultural exchange, 56%; covering economic, technical, art and cultural areas (Figure 3).

The other programs expected include (4) holding international conferences or events, 21%; (5) establishing sister relationships with overseas prefectures, provinces, or cities, 20%; (6) dispatching or receiving programs for youths, children, and/or women, 15%; and (7) promotion of foreign language education, 10%.

#### 2.3 Expectations Towards the National Government

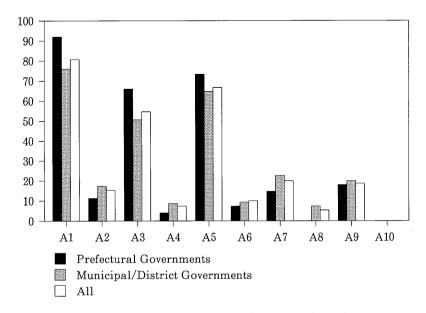
Respondents from local governments expect the central government in the following areas: (1) to establish trade and investment risk insurance agreements between governments, and to promote economic exchange activities in private sector, 68%; (2) to develop transportation access such as new air and sea routes for further exchange, 62%; (3) to allow for further initiatives from the prefectures and cities in an institutional setting, 51%; (4) to develop the infrastructure framework within Japan to link well the cities and areas along the Japan Sea, 36%. In short, local governments express their demand for inter-governmental agreements, infrastructure building, and decentralization of power to local regions (Figure 4).

## III Japanese Enterprises: Views on Economic Cooperation in NE Asia

The enterprises that have replied are classified according to their types (Figure 5-a), capital outlay (Figure 5-b), and prefecture of origin (Figure 5-c).

Processing, services, commerce, assembly, transportation and storage comprise the major types of firms responded to this survey. Minor types include fishery, forestry and agriculture, and construction.

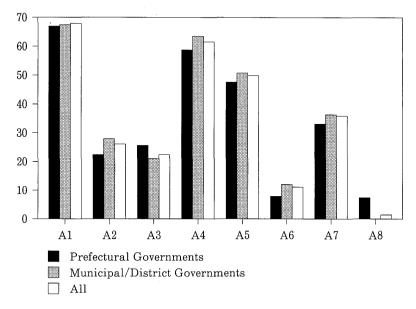
Firms of less than 50 million yen in capital outlay comprise the biggest group (27%) in responding to the survey, the scale of 10 billion yen



- A1 Economic exchange activities by export-import trade, or investment;
- A2 Dispatching or receiving groups of young people, children, or women;
- A3 Art or cultural exchange activities:
- A4 Sport exchange activities by games;
- A5 Dispatching or receiving technical trainees;
- A6 Promotion of foreign language study:
- A7 Holding of international conference or event;
- A8 Information or technical exchange closely related to way of life, such as gourmet, living, or recreation;
- A9 Sister relationships with local governments overseas;
- A10 Others

Figure 3: Local Governments: Exchange Activities Needed

Source: Keizai Kikaku Cho (1992), p. 29.

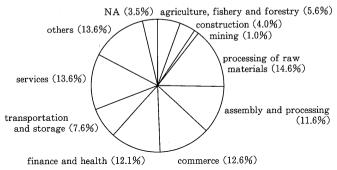


- Al To foster economic exchange activities through signing inter-governmental trade pacts or investment insurance agreements;
- A2 To hold seminars on Pan-Japan Sea Economic Zone and to provide information on other countries in the Zone;
- A3 To send mission abroad to survey on actual conditions, and/or exchange opinions with related agencies/departments;
- A4 To expand exchange flow by improving the transportation access, such as opening of new air or sea routes:
- A5 As inter-exchange concepts should relate closely with local development needs, so consideration for sustaining the initiative of localities in a kind of legal framework is needed.
- A6 Serving a coordination role among different regions, or prefectures within the country;
- A7 To foster development of the domestic interregional infrastructure framework along the Japan Sea coastal area;
- A8 Others.

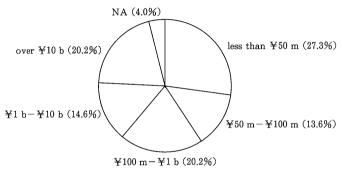
Figure 4: Local Governments: Expectations Towards the National Government

Source: Keizai Kikaku Cho (1922), p. 44.

## a) Type of industries



### b) Capital outlay of the enterprises



#### c) Address of the enterprises

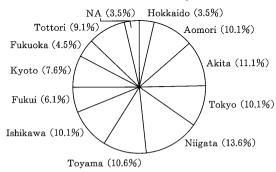


Figure 5: Responded Japanese Enterprises: Their Characteristics

Sourse: Keizai Kikaku Cho (1992), p. 58.

and 0.1 to 1 billion yen the two second groups, 1 to 10 billion yen the fourth group, and 50 million to 0.1 billion yen the fifth group.

Prefecture of origin are in general evenly distributed among the responded regions. Prefectures with over 9% of response include Niigata, Akita, Toyama, Tokyo, Ishikawa, Aomori and Tottori.

## 3.1 Expected Complementarities in Technology and Natural Resources

Enterprises view that they can offer their expertise in more practical fields such as knowhow in business administration and management, knowhow in tourist trade, water resources processing technology, machinery plant construction technology, civil and construction technologies, and etc. (Table 2).

Enterprises expect Russia to offer forest resources, water resources, mineral resources, and energy resources.

China is expected to be rich in human resources, mineral resources, water resources, forest resources, agricultural resources and products.

North Korea is expected to be rich in agricultural resources, mineral resources and human resources.

South Korea is expected to be abundant in water resources, mineral resources, capital, human resources, agricultural products and foodstuffs.

# 3.2 Regions/Cities Identified for Exchange and Cooperation

The regions or cities identified for further exchange in economic activities are Russia and its Far East region with 69 firms, a share of 35% of the total number of firms; China and its Northeast Region, with 50 firms or 25% of the total. The third region of interest is South Korea, represented by cities of Seoul and Pusan.

# 3.3 Expectations Towards Local Government

The expectations of enterprises towards local government are as follows: (1) establishment of information collection and provision system to nations in the opposite shore, with 87 firms and a share of 45%; (2) dispatching and receiving exchange groups of people, with 71 firms and a share of 42%; (3) increasing the international linkage of airports, 71 firms and 36%; (4) involving more private sector and nurturing more citizen organizations for economic exchange with nations in the opposite shore, 56 firms and 28%; (5) development of trade ports and port facilities, 51 firms and 26% (Figure 6).

(ranking on left and their number on right) Table 2: Japanese Enterprises: Views on Complementarities in Technologies and Resources

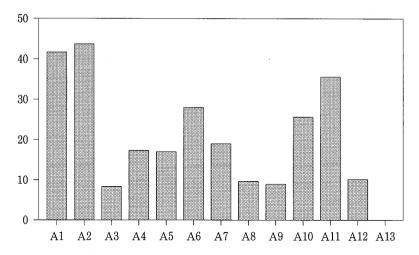
Do to manipologia	Technologies & Resources	Technolog	ies and Resources to Acc	Technologies and Resources to Acquire for Complementary Development	evelopment	
Enterprises in	to Offer	Russia	China	North Korea	South Korea	
Hokkaido	1 distribution proc. tec. 1 1 medical products 1		1 raw materials for making medicine 1		1 raw materials for making medicine	_
Aomori & Akita	1 knowhow in bus. adm. & mgt. 4 2 knowhow in commodity flow 3 3 finance & capital 2	1 forest resources 4 2 mineral resources 2 2 water resources 2 4 water res. proc. 1 4 energy 1	1 human resources 3 2 mineral resources 2 2 agr. resources 2 2 water resources 5 5 handicrafts 1 5 pottery 1	1 agr. resources 2 human resources 2 mineral resources 2 industrial product 2 water resources 2 sewing & knitting 2 tourism	1 water resources 2 human resources 2 agr. products 2 producer goods 2 pottery 2 knitwaars 2 tourism 2 raw materials	-8
Nigata, Toyama, & Ishikawa	1 knowhow in tourist ind.  1 water tes, proc. tec.  2 construction tec.  1 bus. adm.; manpower train.  2 interior decoration  6 interior decoration	1 forest resources 5 1 water resources 5 3 mineral resources 2 4 energy 1 4 tourist resources 1 4 human resources 1	1 human resources 2 forest resources 2 mineral resources 1 a mergy 2 nergy 1 3 water resources 1 3 proc. goods 1	1 human resources 2 1 water resources 2 3 water res. proc. tec. 1 3 processed goods 1	1 human resources 1 water resources 1 water proc. tec. 1 processed goods 1 industrial goods 1 processing tec.	
Other Coastal Areas	1 commodity flow knowhow 3 2 package knowhow 2 2 bus, adm. knowhow 2 2 sewing 2 2 finance & capital 2 2 producer & capital goods 2 2 water res, proc. tec. 2 2 courst industry 2 2 courst industry 2 2 food processing tec. 2	1 water resources 3 1 mineral resources 3 1 energy 4 4 human resources 1 4 forest resources 1 4 porducer goods 1	1 human resources 2 agr. resources 3 water resources 4 producer goods 1 donsumer goods 1 donsumer goods 4 iron frame, mach inery parts 1 minery aparts 1 mineral resources 1	1 water resources 2 1 human resources 2 3 producer goods 1	1 capital 1 water resources 1 human resources 4 producer goods 4 consumer goods	11222
Non-Coastal Areas	1 water res. proc. tec.  1 machinery plant const. tec. 4 manpower train. & bus. mgt. 5 fishery & culture 5 cold storage & proc. tec. 5 cold storage & proc. tec. 5 infracture development 5 energy development tec.	1 forest resources 11 2 mineral resources 13 3 water resources 5 4 energy energy 5 5 metal products 1 5 agr. products 1	1 mineral resources 12 2 water resources 8 3 forest resources 5 3 agr. products 5 5 energy 3	1 mineral resources 6 2 water resources 2 2 forest resources 4 fiber materials 1 5 agr. products 1	1 water resources 2 mineral resources 3 forest resources 3 agr. products 5 foodstuffs	54000

Abbreviations: adm.: administration; agri.: agricultural; dvp.: development; elec.: electrical; electr.: electronic; ind.: industry; inf.: information; manufg.: manufacturing; proc.: processing; res.: resources; tec.: technology.

Notes: 1) Medical goods include raw materials for making medicine and equipments for medical treatment.

Source: Keizai Kikaku Cho (1992), p. 93.

Cheung: Economic Cooperation in Northeast Asia



- Al Support for in-coming and out-going visiting groups in order to promote goodwill and friendship:
- A2 To establish an information center to collect and provide information on countries in the Economic Zone:
- A3 To hold seminars on the Pan-Japan Sea, and to publish magazines;
- A4 To provide education facility for developing language ability, and to retain people with language skills;
- A5 To expand the receiving system for usual foreign students and technical trainees;
- A6 To incubate and give support for private organizations to develop economic relationship with countries in the Economic Zone;
- A7 To consult with the economic organizations on issues of securing a trade flow/route, e. g. selecting import-export items, and establishment of trade companies;
- A8 To look into possible ways to help the partner country to attain economic independence;
- A9 To expand trade by sending economic trade missions;
- A10 To develop trade ports and port facilities;
- All To develop domestic airports so that they are capable of operating international flights;
- Al2 To foster interrelationships with other areas by establishing consultative organization for the larger region, and to foster economic exchange with more concrete results;
- A13 Others.

Figure 6: Enterprises: Expectations Towards Local Governments

Source: Keizai Kikaku Cho (1992), p. 84.

#### 3.4 Expectations Towards the National Government

Responded enterprises expect the national government to proceed with (1) signing of intergovernmental agreements on trade and investment risk insurance and promotion of economic flows and exchange, a reply of 133 firms or a share of 67%; (2) strengthening the transportation access with opening of new air and sea routes, as replied by 125 firms, 63% of the total.

The other replies are (3) strengthening the domestic network of communication within the coastal line area along the Japan Sea, 75 firms or 38%; and (4) decentralization of power from Tokyo to regions, 63 firms or 32% (Figure 7).

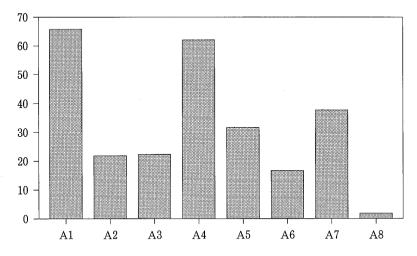
In general, the expectations towards the national government between the local governments and enterprises are very similar.

#### IV Changchun's Proposal for Tumen River Area Development

The proposals of Chinese delegates at the International Conference with the theme of "Regional Development and Cooperation in Northeast Asia and Tumen River Area Development" at Changchun, July 25–27, 1993, co-organised by the Institute for Northeast Asia Studies, Northeast Normal University and the Northern Relations Council of Republic of Korea, were summarized as the "Changchun's Proposal". Their proposals are more concrete, and they follow the line of that has been proposed by the UNDP. The proposal by UNDP suggests to develop the delta area of 10,000 sq. km. in Tumen River into an international free-trade system of cities by building 10 modern ports or cities, an international airport, a new European-Asian railway line, and several free trade zones in a period of 20 years and with investment of 30 billion US dollars. Several concrete proposals from Chinese delegates are as follows:

# 4.1 Regional Development Concept: Big and Small Triangles

Big and small triangular areas are named as "golden triangles" by Chinese colleagues and noted as development concepts for the Tumen River area (Figure 8). The big triangle stands with the vertices at Yanji in China, Vladivostok in Russia and Chongjin in Korea, covering an area of approximately 10,000 sq. km., and a population of 2.45 million persons.



- Al To promote economic exchange activities by signing inter-governmental trade pacts or investment insurance agreements;
- A2 To hold seminars on Pan-Japan Sea Economic Zone, and provide information on countries in the Zone;
- A3 Sending missions to survey the actual conditions of other countries, or to exchange opinions with counterpart agencies/departments in the Zone;
- A4 To foster flow increase by improving the transport access, e. g. opening new air or sea routes:
- A5 Further development shall relate more with the regional development issues of prefectures, so consideration should be given to enable the local initiative to develop;
- A6 Playing the role of coordinator for regions and prefectures within Japan;
- A7 To improve the national infrastructure in order to enable better interregional linkage within the coastal areas along the Japan Sea;
- A8 Others.

Figure 7: Enterprises: Expectations Towards National Government

Source: Keizai Kikaku Cho (1992), p. 85.

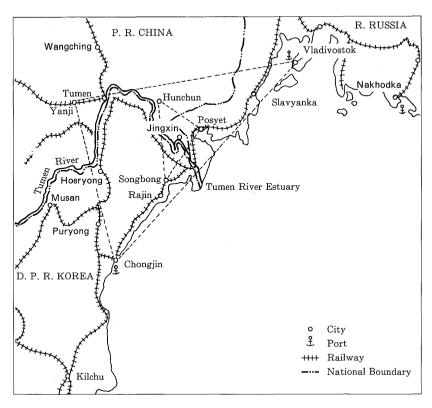


Figure 8: The Big and Small Triangles and Urban System Proposed for the Tumen River Area

Source: Wang & Wu (1993), p. 67.

The small triangle is located within the big one, with its vertices at Hunchun in China, Posyet in Russia and Songbong in Korea, covering an area of 1,000 sq. km. (Wang & Wu, 1993, p. 67).

# 4.2 International System of Cities/Ports

An hierarchical urban system of cities/ports for the small triangular area is suggested by Wang and Wu (1993: pp. 67-69) with the regional central place at Jingshin in China, with a present population of 6,000 persons now and estimated to grow into a city of 2.5 million persons in 2020 (Table 3).

The cities/towns of the second order are suggested to be vertex-cities

Cheung: Economic Cooperation in Northeast Asia

Table 3: Chinese Proposed Scenario of Urban Population Growth in Tumen River Area

(in '000 persons, %) 2000 2010 2020 Present Cities Pop'n Growth% Growth% Growth% Pop'n Pop'n Pop'n Jinshin (敬信, C) 6 100 32.5 1.200 28.2 2.500 7 6 Yanji (延吉, C) 371 500 3.0 900 6.1 1.300 3.8 Hunchun (輝春, C) 93 250 10.4 400 4.8 600 4.1 Tumen (図們, C) 91 150 5.1 300 7.2 400 2.9 Songbong (先鋒, K) 51 120 8.9 300 9.6 500 5.2 Rajin (羅津, K) 92 150 5.0 300 7.2 400 2.9 Chongiin (清津, K) 719 900 2.3 1.100 2.0 1.350 2.1 Posvet (R) 6 100 32.5 300 11.6 500 5.2 Slavvanka (R) 15 180 28.2 350 6.9 400 1.3 850 1,000 Vladivostok (R) 678 2.3 1.6 1,300 2.7 Total 2,122 3,300 6,150 9,250 4.2 4.5 6.4 P. R. China 561 900 4.8 1.600 5.9 2.300 3.7 D. P. R. Korea 862 1.170 3.1 1.700 3.8 2.250 2.8 4.9 F. R. Russia 699 1.130 1.650 3.9 2.200 2.9

Notes: C means People's Republic of China, K means Democratic People's Republic of Korea, and R means Federal Republic of Russia.

Source: Wang & Wu (1992), p. 68.

for the big triangle above-mentioned, that is to say, Yanji (China, projected to grow from 371,000 persons in 1991 to 1.3 million persons in 2020), Vladivostok (Russia, projected to grow from 678,000 persons to 1.3 million persons in the same period) and Chongjin (Korea, from 719,000 persons to 1.35 million persons in the same period).

The cities/towns of the third order are proposed to be six, namely Hunchun and Tumen in China, Songbong and Rajin in Korea, Posyet and Slavyanka in Russia. Most of these cities/towns carry a population less than 100,000 persons now, and are projected to expand to a size of 400,000 to 600,000 persons in 2020.

It is clear that this proposal will make use of the human, technological, capital and land resources of the most energetic partner—China, and allow it to play a bigger role in the Tumen River development area, with more urban places and faster growth.

## 4.3 Industrial Development Policies

Taking into the locational factors such as port, accessibility and central place theory, Wang and Wu (1993: pp. 69-70) suggest that the in-

dustrial and functional emphases of these cities should be as follows: -

The cities within Korean boundary (Chongjin, Rajin and Songbong) are nearby the sea, and bestowed with other environmental resources, they can be developed into maritime transport nodes and heavy/chemical industrial places. Chongjin can be developed to specialize in metal, cement, automobile, chemical and shipbuilding industries (Figure 9).

The cities within Russian boundary (Vladivostok, Slavyanka and Posyet) have favorable port, technological and educational conditions and can be developed to become bases for maritime trade, tourist and high technological industries. Vladivostok can specially develop in new areas such as high tech, finance and insurance, commerce and trade, and wood processing, and at the same time modernize her port and airport facilities for regional transport needs. Posyet can develop her tourist and port industries.

The cities within China's boundary (Jingshin, Hunchun, Tumen and Yanji) should develop the land transport along Tumen River as the major axis, and concentrate in light industries, agricultural products and service industries. The city Jingshin at the central place of the Tumen River delta shall develop as the main transport node and urban place with high-order central functions such as high tech, finance, trade, and information. Proposals for infrastructure development include a new airport in the proximity but inside the Russian soil and river port facilities for ships of 3,000 tons. Yanji can specialize in paper milling, chemical fiber, tobacco and pharmaceutical industries. Tumen city can put emphasis into transport node, tobacco, foodstuffs and paper milling. Hunchun can give priority to foodstuffs, commerce and tourist industries.

# 4.4 Industrial Land Development Strategy

Ding and Wang (1993) further proposed the conceptual plan for industrial corridor development for the Chinese part of Tumen River area. It included two new cities/towns (Jingshin and else) and the designated Tumen River Economic Zone with tax and other incentives, four expanded cities (Hunchun, Tumen, Yanji and Lungcheng) and the export-processing zones nearby them, and free trade zones at borders and major transport nodes. Surrounding areas were suggested to be protected greenery and farming/ranching areas. The major transport links were to be railway

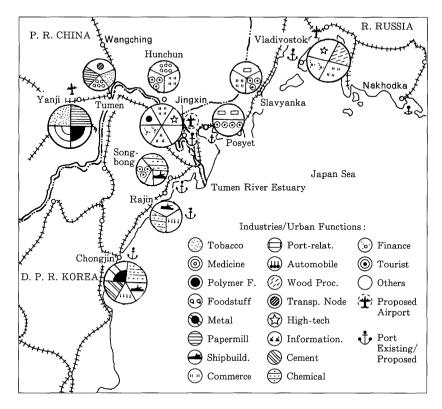


Figure 9: City Functions of the Proposed Urban System
Source: Wang & Wu (1993), p. 69.

route and highways leading into the Sea of Japan or neighboring cities in Russia or Korea (Figure 10).

## 4.5 Another Link for Asia-Europe

As it has been proposed by the UNDP, another link for Asian-European continents is possible by establishing the land bridge link, technically a double-track railway or highway, extending from the mouth of Tumen River (Hunchun and Tumen) through Changchun to Manchouli, and then to Ulan Bator in Mongolia and Semipalatinsk in Russia, running parallel to Trans-Siberian Railway (Figure 11). This will give sea and export access to the inland country Mongolia and so stimulate its urban

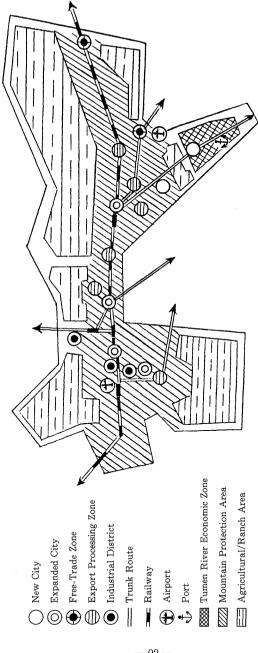


Figure 10: Industrial Land Development Strategy for Chinese Part of Tumen River Area

Source: Ding & Wang (1993), p. 33.

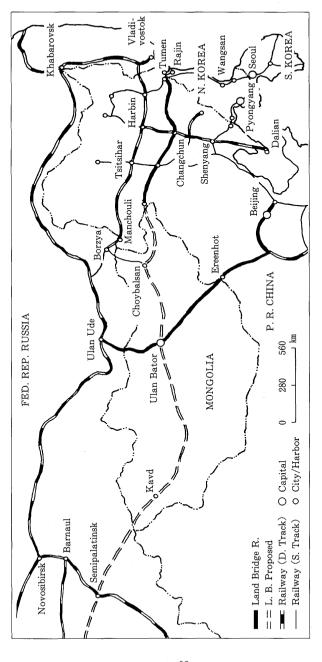


Figure 11: Land Bridge Route Proposed for Asia-Europe

Source: Gao & Liu (1993), p. 57.

and economic development along the route, and enlarge the total flow capacity of commodities and passengers between Asia and Europe.

#### V Concluding Comments

#### 5.1 Evaluating the TRADP with Other Alternatives

We shall have some critical observations of the possibilities of implementing the TRADP with other alternatives, and evaluate the real objective of each participated nation for this region.

## a. P. R. China: the dilemma among national, regional and local goals

Concerning the TRADP, the P. R. China is still ambiguous between making it a national project, or just a local/regional project as there are so many new port developments, urban and interurban infrastructure construction projects after the whole opening of the eastern coastal line (yan-an). In addition, policy has also allowed for more opening to foreign economic investment "along the Yangtze River (yanjiang)", and "along the frontiers (yanbian)". The TRADP is mainly sponsored and promoted by Jilin, among the three northeastern provinces, and for which the former-phase opening policies have not benefited at all. To the nation, an strategic outlet into the Japan Sea is certainly the goal.

What is the significance of TRADP compared to alternative projects like (1) upgrading the passenger travel and commodity flow of Dalian-Harbin line to the level of Shinkansen in Japan allowing a speed over 150 km. per hour; or (2) technological and efficiency improvement in the quality and productivity of automobile manufacturing up to an export level, like joint-venture projects in Changchun; or (3) upgrading the international and domestic air network of Changchun by increasing direct flight connections and modernizing the facilities of the airport; or (4) establishing more export processing zones at existing ports in Dalian or Yingkou in the Northeast?

The advantages from regional development's viewpoint are that the TRADP shall lead to development along the east-west dimension, provide an additional link to Europe via Mongolia and Siberia, and legitimate the international utilization of lower Tumen River course for Jilin and northeast China.

#### Cheung: Economic Cooperation in Northeast Asia

Another important issue is the ethnic dimension. Korean ethnic groups in China are concentrated in several areas in the northeastern provinces, and especially around Yanji and Tumen River area. They are of higher educational attainment compared to the Han and other minorities, but live only at lower income level due to insufficient development opportunities. It is quite true that TRADP and opening of the entire northeast region will give them more employment opportunities, infrastructure and the share of development returns. During the 1993 post-conference tour, we met several young local mayors/CCP leaders of Korean origin, and they play an active role in the vitalization and development of the region's economy.

However, large investment costs for urban development and transportation have to be analysed carefully for their benefits and returns. What Jilin province wants may be unique in the Northeast. May be what she really needs is just an open policy from the central government at Beijing for self-discretion in accepting foreign investment and upkeep of bigger percentage of industrial and development profits from development. In fact in 1992, the cities of Yanji and Hunchun have been designated as cities open for foreign investment and with certain discretion for signing joint-venture projects.

#### b. The Democratic People's Republic of Korea

North Korea has opened several towns for foreign investment. What significance does she give to opening of Rajin, Songbong, or the newly proposed port Ungsang in the northeast against those in the east coast? Is that what she wants are foreign investment, and processing factories and expanding export for exchange of hard currency? What she can contribute are at least large tracts of land for development of cities and ports in the free zone(s) and labor. Of course, her consistent efforts in development of this zone will provide evidence to other nations of her open-door policy. She has invited the overseas Koreans and Japanese scholars/entrepreneurs to study the possibilities of the TRADP, and passed new legislations for foreign investments, joint-ventures, and establishment of export processing zones. Japan and western nations are more concerned with her openness for nuclear inspection, and peaceful development of the Korean peninsula.

#### c. The Federal Republic of Russia

Russia sometimes presents a complicated picture as the Far East regional autonomies may be different in policy and pace with the central government at Moscow. However, for the regional autonomy or the central government, the continuing investment to the port-city Vladivostok to transform it into a commercial, tourist, high tech and livable city seems to be the first priority in all the alternatives. Plans to develop the greater Vladivostok into a free economic zone, including port development, import/export processing zones, bonded areas and industrial parks have been suggested by Shimazu (1992) of Japanese Development Institute. The city now holds the trunk link to Siberia and Europe. One can expect Vladivostok and its neighboring cities of Nakhodka/Partzansk and Khasansky will have the priority of development from Russia. Though she may not play so active a role at Tumen River area in terms of labor or capital, but she can contribute in leasing land for development of free trade/processing zones in TRAD.

## d. The Republic of Korea

South Korea has important political and national goals in the project of TRADP as she for the first time shall promote investment and development in a land which has once been confronted with war. Any action leading to peace and future unification of the Korean peninsula is the wish of the people of Korea as a whole, and probably for overseas Koreans too. Besides, capital in South Korea also look for cheaper land and labor somewhere else for their processing as the currency won has risen much higher than that in 1985/6. Dialogues, discussions, cultural or sports exchange activities, and trade agreements are necessary steps to help the two former parts of a nation to foster trust and understanding toward each other. South Korea, with her ethnic similarity, capital and technology, willingness and management knowhow of entrepreneurs and the bigger national goal should have a lot to offer and be benefited from the realization of this TRADP. The Northern Relations Council, Republic of Korea has played an important role in this development and co-sponsored successfully the July conference with Northeast Normal University at Changchun.

#### e. Japan

#### Cheung: Economic Cooperation in Northeast Asia

Japan has her dilemma, too. Her enterprises including shoshas have been most active in resource development and commodity trades in Asia, heavy investments are spent in Hainan Island for tourist resort development, offshore oil exploration along the South China Sea and recently at Vietnam, electrical appliances in Malaysia and Singapore, cameras and computer keyboards and drives in Taiwan, and finance and department stores to Hong Kong and other large cities in Southeast Asia. Most recently, their interests and investments head towards cities in mainland China for their economic growth and market potential. What is the significance of the TRADP for Japan's public and private sector?

From the survey results we know that the private sector in Japan are more resource-oriented, the pipeline to the oil resources in Siberia, or coal reserves in China and North Korea, and various forest, mineral and tourist resources, or a more efficient rail link with the European continent. The bigger part of their interests seem to lie in the Far East of Russia. However, they are hestated to invest much as the inter-governmental agreement on insurance of investment loss is still pending because the sovereignty problem of the four Northern Islands is not solved yet. If there exists some international body to coordinate the development or to bear the investment risk and responsibility, Japanese banks are willing to inject their financial capital for development. However, they need not hurry to be the first to participate in such programs.

To the public sector of cities and prefectures the picture is a little different. Their concerns are threefold: one is encouraging more cultural, medical, technological and economic exchange with cities/regions/nations on the opposite shore by regular exchange programs or international conferences, and establishment of think-tank organizations for this concern; the second is coordinated efforts to build up the domestic transport and communication network at the coastline along the Japan Sea; and the third being a long domestic and political issue for gradual decentralization of power and financial resources to local authorities from the central ministries in Tokyo.

# 5.2 Policy Change Required from the National Government of Japan

There are two issues for the national government, one concerns Russia, and the other North Korea.

It is the moment to decide whether to push more for the return of the four Northern Islands, or to leave them alone and change for a more realistic attitude for economic cooperation program for mutual benefits. The former alternative cannot be an immediate goal with regard to the internal political and economic situation of the Republic of Russia. As regards the latter alternative, local governments along the coast of Japan Sea and large number of enterprises are of the idea to put away the political issue at this moment and to plan for economic cooperation and trade and international transportation or communication agreement with neighboring countries in the Pan-Japan Sea. The less-developed prefectures there will then get their share and phase of infrastructure development when the Pan-Japan Sea Economic Zone development moves ahead. It is time to make a policy change for the national government of Japan in foreign policy which in return shall bring good effects on the prefectures along the Japan Sea with long neglected development.

It is also time for Japan to show more sincerity and enter into concrete procedure for establishing diplomatic relationship with North Korea. North Korea has been showing rather consistent efforts in supporting and promoting the TRADP. As South Korea has established diplomatic relations with the former Soviet Union, and P. R. China. North Korea is left alone now. She has to choose between two policy alternatives: either to continue its non-compromising and close-door policy, or to change to a market-oriented and open-door policy like China has done. In this aspect, Japan should show enough carrots for the latter by expressing its willingness to support her initiative, and move forward to normalize their diplomatic relationship.

# 5.3 Establishment of Northeast Asia Development Fund

The UNDP has been very active and effective in pushing forward the TRADP. In May 10-11, 1993 the Conference in Pyongyang the representatives of the governments from China, North and South Korea, Russia and Mongolia have agreed to set up an international corporation to promote the development of TRADP, and the three local nations (China, North Korea and Russia) agree to lease land to this body for development. This body shall seek for public and private funds for its capital outlay and operation. The vision of TRADP is grandeur. The project

shall last for about 20 years, with a goal to build another free trade port-region like Hong Kong or Rotterdam in this northern part of Asia. This agreement is certainly a step forward for the whole TRADP issue. And the Japanese enterprises will now be more willing to give loans to, to invest directly in, or to have joint-venture with, this new international corporation.

In addition, for making bigger programs a Northeast Asia Development Fund is much needed, with the participation of national and private banks in the area, and international banking bodies like World Bank, Asian Development Bank, and Official Development Aids of various countries. The public and private sectors of Hong Kong, Taiwan, United States, Canada, or European nations should also be involved for financial and technical assistance and cooperation of this project and others for the NE Asia region (Figure 12).

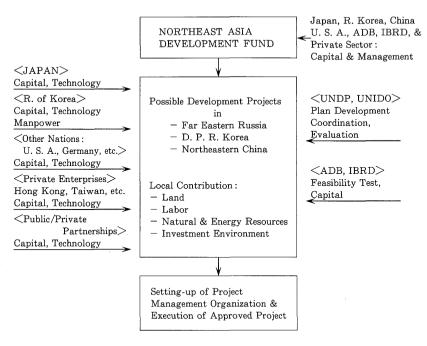


Figure 12: Setting-up of Northeast Asia Development Fund and International Cooperation

Last but not least, the environmental assessment of all programs of the TRADP should be conducted before any project approval. Is the plan too ambitious? Development should not be seen only as increase in gross domestic product, but with environment and long-term perspective. Sustainable development should not be seen as a fashionable slogan, but as a necessary and attainable goal to be pursued for all long-term projects extending into the twenty-first century.

#### Acknowledgments

The author would like to express his sincere gratitude to Professor Chen Cai, Professor Yuan Shuren and Mr. Chung Hae Hoon of the Organizing Committee at Northeast Normal University and other staffs for successfully holding the International Conference on Economic Cooperation and Regional Development in Northeast Asia, July 25–27, 1993, and the post-conference excursion to Changbai Mountains, Yanji, Hunchun, Tumen, and lower course of Tumen River. Thanks are also due to Professor Sui Xishan and Professor Zhang Jinming (President) of the Jilin Commercial College for their kindness in arranging various visits and discussions in Changchun. Needless to say, opinions expressed in this article remain the sole responsibility of the author.

#### Notes

- Pan-Japan Sea Economic Zone in this paper includes the Far East of Russia, North Korea, South Korea, the northeastern region (Heilongjiang, Jilin and Liaoniang provinces) of China, and Japanese prefectures surrounding the Japan Sea.
- 2) The term "Japan Sea" is adopted for common understanding within Japan, and has been used in the survey by the Economic Planning Agency in 1991. It is also known as "East Sea" in Korean and Chinese geographical terms. The correct name for the sea has to be discussed in international arena such as organizations under the United Nations. T. Shimakura (1992) in the Institute for Development Studies has used the term "Tohoku Ajia (Northeast Asia)" instead of "Pan-Japan Sea" in his book.

#### References

- Chen Cai, "Changes of Economic and Political Situation in Northeast Asian Region and International Cooperative Development for Tumen River Area." Renwen Dili (Human Geography), Vol. 8: 2, 1993, 1-12.
- Cheung Chiwai, "Decentralization of Power and Resources from Tokyo to Regions: a Review of Issues and Proposals," Review of Tokuyama University. No. 38, 1992, 97-124.
- Chung Jae Ho, "Sino-South Korean Economic Cooperation: an Analysis of Domestic and Foreign Entanglements," in *Journal of Northeast Asian Studies*. 1990 summer. 59-79.
- Ding Sibao & Wang Lianqin, "Industrial Development Strategy for Tumen River Area," Renwen Dili (Human Geography), Vol. 8: 2, 1993, 27-34.
- FEER, "Northeast Asia: Tumen Project," Far Eastern Economic Review, 16 January 1992, 16-20.
- Fukakawa, Yukiko, "Tohoku Ajia Keizai-ken no Keisei to Nippon no Yakuwari (The Formation of the Northeast Economic Zone and the Role of Japan)," T. Shimakura, op. cit., 267-300.
- Gao Shali & Liu Li, "The New Asian-European Continental Bridge and the Economic Development of Mongolia," Renwen Dili (Human Geography), Vol. 8: 2, 1993, 54-59.
- Hanabusa, Masao, "Kankoku no tai hokupu keizai no hatten to Tohoku-Ajia Keizai-Ken (Development of the Northern Relations of the Republic of Korea and the Northeast Asia Economic Zone)," T. Shimakura, op. cit., 227-266.
- Hasumi, Yu, "Roshia Kyokuto Chiiki no keizai hatten to taigai keizai kankei (Economic Development of the Far East of Russian and Its External Economic Relations)," T. Shimakura, op. cit., 149-192.
- Imai, Ken'ichi, "Tohoku Ajia no chiiki boeki to sogo izon (Regional Trade and Interdependence Among Countries in Northeast Asia)," in T. Shimakura, op. cit., 1992, 29-76.
- Inagaki, Kiyoshi, "Shidosuru Kan-Nippon Kai Keizai-Ken (The Emerging Pan-Japan Sea Economic Zone)," in *The Weekly Toyo Keizai*, 22 May 1992, 66-71.
- Kasai, Nobuyuki, "Kankoku no Chokusetu Toshi to Tohoku Ajia (Direct Investments of Republic of Korea and Their Impacts on Northeast Asia)," Sekai Keizai Hyoron (Review of World Economics), 1992: 7, 24-30.
- Keizai Kikaku Cho, Sogo Keikaku Kyoku (Economic Planning Agency Comprehensive Planning Bureau), ed., Kan Nippon-Kai Jidai to Chiiki no Kasseika (The Age of Pan-Japan Sea and The Vitalization of Regions), Okurasho, 1992.
- Kitamura, Hajime, "Tohoku-Ajia o meguru koteki keizai kyoryoku to minkan chokusetu toshi (Public Economic Cooperation and Private Direct Investments in the Northeast Asia)," T. Shimakura, op. cit., 301 –341.

- Komai, Masakazu, "Chugoku Tohoku keizai-ku no kaiho-kata keizaika (The Opening of the Economy of China's Northeastern Region)," Keizai Chirigaku Nenpo (Annual of Japan Association of Economic Geographers), Vol. 39: 1, 1993, 18-33.
- Kovrigin, Evgenii, "Difficulties and Outlook of the Far East of Russia," in *ICSEAD News* (International Center for the Study of East Asian Development), No. 18, 1993 spring, 4-10.
- Kuribayashi, Sumio, "Chugoku Tohokuchiku no keizai Hatten (Economic Development of the Northeastern Region of China," T. Shimakura, op. cit., 109-148.
- Lee Kuen & Lee C. H., "Trade Between Bohai of China and Korea: an International Perspective," in Journal of Northeast Asian Studies, 1990 summer. 15-35.
- Lee Kuen, Lee C. H. & Kim W. B., "Problems and Profitability of Direct Foreign Investment in China: an Analysis of the Survey Data," *Journal of Northeast Asian Studies.*, 1990 summer, 36-52.
- Li Yung, ed., Tongbei-a jiansanjiao de e-dian (The Development Spots in the Golden Triangle at Northeast Asia), Jilin Renmin, 1992.
- Ma Cheng-san, "Chugoku to Tohoku-Ajia shokoku to no keizai kankei (The Economic Relationships between China and other Northeast Asian Countries)," T. Shimakuara, op. cit., 77-108.
- Ma Hung, & Fang Weichung, eds., Zhongguo Diqu Fazhan yu Chanye Zhengce, (China's Regional Development and Industrial Policy), Chapters on Liaoniang (274-320), on Jilin (321-368), on Heilonjiang (369-427), Zhongguo Caizheng Jinji Chubansha, 1991.
- Morizawa, Mari, "Tomen-ko ni tatsu (Standing at Tumen River)," The Weekly Toyo Keizai, op. cit., 72-73.
- Nakato, Yasutoshi, "Kan Nippon-kai Keizai Ken keisei no igi to kadai (The Meaning and Issues of the Formation of Pan Japan-Sea Economic Zone," Keizai Chirigaku Nenpo (Annual of Japan Association of Economic Geographers) Vol. 39:1, 1993a, 1-17.
- Nakato, Yasutoshi, "Chugoku no keizai kaikaku oyobi kaiho seisaku to Nippon no keizai kyoryoku (The Economic Reform and Open-door Policy of China and Japan's Economic Cooperation)," Kan-Nipponkai Keizai Koryu ni Kansuru Chosa, Nipponkai Keizai Kenkyu Jo, Toyama University, 1993b, 71—92.
- Ohsono, Tomokazu, Ajia o yomu chizu (Reading the Recent Developments in Asia Through Maps), Kodansha, 1993.
- Ogawa, Kazuo, "Kan-Nippon Kai Keizai-ken no keisei (Formation of the Pan-Japan Sea Economic Zone)," in Watanabe 1992a, op. cit., 231-258.
- Ogawa, Kazuo, Saigo no Nyu-Furontia Kan Nippon Kai Keizai-ken (The Last New Frontier — Pan-Japan Sea Economic Zone, Keizai Chosa Kai, 1993.
- Ogawa, Kazuo & Komaki, Teruo, Kan-Nippon Kai Keizai Ken (The Pan-Japan Sea Economic Zone), Nippon Keizai Shimbunsha, 1991.
- Omata, Toshio, "Seiji keizai saihenka ni okeru Roshia Kyokuto keizai no chiiki hendo (Prospects for Regional Economic Changes in the Russian

- Far East under the Drastic, Politico-economic Restructuring)," *Keizai Chirigaku Nenpo*, Vol. 39:1, 1993, 34-49.
- Quan Hexiu, "Action and Position of Chinese Koreans in Development of Tumen River Area," Renwen Dili (Human Geography), Vol. 8: 2, 1993, 114-117
- Shimazu, Hideyo, "Greater Vladivostok Free Economic Zone Development Concept," paper presented to Pacific Rim Council on Urban Development, Yokohama conference, November 11, 1992.
- Shimakura, Tamio, ed. Tohoku Ajia Keizai-ken no Taido (The Quickening Development of the Northeast Asian Economic Zone). Ajia Keizai Kenkyusho. 1992.
- Son Byon-Kai, "Tohoku Ajia/Kyokuchi teki keizai togoron no tenkai senkei jiyu boeki chitai koso (Northeast Asia: Development of Local Economic Integration a Linear Free Trade Zone Concept)." Sekai Keizai Hyoron (World Economic Review), 1992: 6, 48—56. Translated by Nobuyuki Kasai.
- Sun Lihua & Yang Qingshan, "Dynamic Trends and Graphic Representation of Tumen River Area Development," Renwen Dili (Human Geography, Vol. 8: 2, 1993, 35-40.
- Taniura, Takao, "Chosen Minshu Shugi Kyowa Koku no keizai to taigai kankei (The Economy and External Economic Relations of the Democratic People's Republic of Korea)," T. Shimakura, op. cit., 193—226.
- Twu Jianw-yan, "Kan-Nipponkai-ken jidai no unyu kotsu taikei o kangaeru (Considering the Transportation System in the Age of Pan-Japan Sea),"

  Unyu to Keizai (Transportation and Economics), Vol. 52: 8, 1992, 54—62.
- Yuan Shuren & Song Deqing, "An Analysis of State Counter Measures in Tumen Triangle Area," Renwen Dili (Human Geography), Vol. 8: 2, 1993, 13-19.
- Wang Li & Wu Dianting, "A Proposal for the International Urban Development in Tumen River Area," Renwen Dili (Human Geography), Vol. 8: 2, 1993, 66-73.
- Wang Lianqin & Quan Hua, "An analysis of the Studies and Related Literanture on the Regional Cooperation in Northeast Asia and Development of Tumen River Area," op. cit., 118-125.
- Watanabe, Toshio, ed., Kyokuchi Keizai-ken no Jidai (Emerging Local Economic Zones—The Changing Map of Asia), Simul, 1992a.
- Watanabe, Toshio, "Kyokuchi Keizai-ken no jidai to Chugoku no shorai (The Age of Local Economic Zones and the Future of China)," Sekai Keizai Hyoron, 1992b: 8, 24-33.
- Zumbrunnen, Craig, "Problems and Prospects for the Development of New Commercial Structures in Russia and the Russian Far East," *Keizai Chirigaku Nenpo*, Vol. 39: 1, 1993, 50-67.