Promotion of Industry in the Tumen River Economic Development Area (TREDA): Industry Sector Development Opportutunities and Constraints 1994

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REPORT e

Promotion of Industry in the Tumen River Economic Development Area (TREDA): Industry Sector Development Opportutunities and Constraints

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INTRODUCTION

Constituting the boundary between the People's Republic of China and the Democratic People's Republic of Korea (DPRK) in its upper section and between DPRK and the Russian Federation in its lower section where it flows into the East Sea (Sea of Japan), the Tumen River assumes a central location in Northeast Asia. Acknowledging both the strategic character and considerable potential of the Tumen River Basin for international economic cooperation and resulting from a number of conferences and preliminary analyses, the three riparian countries as well as Mongolia, the Republic of Korea and (as an observer) Japan reached agreement about officially launching the UNDP-sponsored Tumen River Area Development Programme (TRADP) in 1991. While the ultimate vision behind the project is to create an international shipping, trading and manufacturing zone in Northeast Asia ("Rotterdam of the EAST"), the first phase of TRADP has been primarily targeted at the joint elaboration of an integrated strategy for economic cooperation in one of Asia's - until a few years ago - most remote regions. The initial focus of activities has been on a series of studies related to basic conceptual, infrastructural, and legal/institutional management issues, primarily of an inventory or exploratory nature.

Also in this context, UNDP has approached UNIDO under the TSS-1 facility to prepare a profile of the industrial sector in the Tumen River Economic Development Area (TREDA), defined to encompass Yanbian Korean Autonomous Prefecture in China (with Yanji, Longjin, Tumen and Hunchun as major cities), the Rajin-Sonbong area in DPRK's Northern Hamgyong Province (with the cities of Chongjin, Hoeryong, Namyong, Onsong, Saebyol, Undok, Rajin, Sonbong and Ungsang), and the southern part of Primorsky Krai in the Russian Federation's Far East (with the settlements/cities of Khazan, Kraskino, Posiet, Zarubino, Slavyanka, Vladivostok, Nakhodka and Vostochny). Emphasis was to be placed on a stocktaking of the present state of industry, the identification and assessment of present industrial development plans, an analysis of key constraints and options for future industrial progress in the region. The present report responds to this request as follows:

Chapter 1 provides the available empirical evidence on the industrial sector's size, important structural characteristics and recent economic performance for the three countries' TREDA portions.

Chapter 2 surveys major elements of industry-related strategies and policies to be identified within TREDA. The focus is put on the responsible authorities' overall orientation and continues with an in-depth account of recent key policy measures pertaining to the extension of the relevant supporting infrastructure, the establishment of special economic zones and industrial sites and the critical field of foreign investment promotion.

Chapter 3 presents and assesses major achievements of recent policies, present constraints and basic options of future industrial development in TREDA.

Finally, Chapter 4 in an attempt to synthesize the main issues which surfaced in the preceding chapters, elaborates on a number of action needs for consideration by both policy-makers in the riparian countries and the TRADP management for the programme's subsequent stages if the aimed-at industrial upturn is to be speeded up.

The report is mainly based on intensive discussions held with government officials at various levels, academics and managers of selected industrial enterprises as well as personal observations made on site visits during the UNIDO team's mission to the region in August 1993.

PROFILE OF INDUSTRY IN TREDA

PEOPLE'S REPUBLIC OF CHINA

Constituting the Chinese portion of TREDA, Yanbian Korean Autonomous Prefecture extends over the southeastern part of Jilin Province which has developed a relatively large and diversified industrial sector comprising the extraction of natural resources including mining and lumbering, the processing of agricultural goods, the manufacture of industrial products, the repair of capital goods as well as the generation and supply of utilities (electricity, water, gas).

In 1991, industry together with construction accounted for some 56 per cent of the Province's national income , well ahead of agriculture with a share of 34 per cent. In terms of gross output value some 64 per cent of the total originated in industry alone, thereby surpassing the corresponding figure for agriculture almost 3.5 times.   This basic pattern is equally valid for Yanbian Prefecture with the noticeable exception of a relatively larger commercial sector reducing agriculture to 14 per cent and 22 per cent of the gross output value of society and the national income, respectively (cf. Table 1).

TABLE 1

Provincial statistics record a total number of some 174,000 industrial enterprises in operation in 1991, the vast majority of which (88 per cent) were labelled as privately-owned businesses (Table 2). Less than 2 per cent are accounted for by state-owned enterprises, the remaining 10.5 per cent by collective-owned enterprises. Over time, private businesses have increased their numbers at above average rates showing an average annual growth of 7.1 per cent in the period 1985-91, while a clear downward trend of an average 4.7 per cent decline is to be observed in the number of collective-owned enterprises in the same period.

TABLE 2

However, in terms of gross industrial output which in current prices showed a marked rise of 23 per cent on average between 1985 and 1991, state-owned enterprises maintain their dominant role as industrial producers accounting for seven tenths of the total. Collective-owned enterprises contribute little over one fifth, private enterprises another 6 per cent of the total (Table 3). The latter's rising share in the 1985-1991 period largely coincides with a declining share of the state-owned enterprises.

Heavy industry accounts for 62 per cent and thus the bulk of industrial production, leaving 38 per cent for the light industry sector; these proportions displayed only very little change over time. In turn, a look at industrial production by size of enterprises reveals an increasing share of large businesses from 33 per cent to 40 per cent in the 1985-1991 period which is paralleled by a decline in the small industries' contribution from 50 per cent to 44 per cent.

Major industrial sub-sectors include transportation equipment, mainly the production of cars, trucks and railway carriages (equalling 15.9 per cent of gross industrial output in 1992), chemicals and pharmaceuticals (11.5 per cent), food including beverage and tobacco processing (9.0 per cent), machine building (4.9 per cent), building

materials (4.6 per cent) as
well as logging, transport and processing of timber (3.1 per cent).
In terms of the regional distribution of industry, the provincial capital Changchun and Jilin area together have emerged as major industrial centres in which some 43 per cent of all industrial enterprises are located, accounting for a total 55 per cent of gross industrial output (Table 4).
Industry in Yanbian Korean Autonomous Prefecture ranks third in the province holding shares of roughly 12 per cent and 10 per cent of the number of industrial enterprises and the provincial gross industrial output, respectively.
TABLE 3

TABLE 4

While Yanbian thus appears to have played a rather limited role in the industrial development of Jilin Province in the past, recent and ongoing policy initiatives aimed at creating a more business-conducive environment in general, and the opening up of Yanbian Prefecture to the outside world including under TRADP in particular, are likely to increase Yanbian's industrial weight considerably.
Available statistics for 1992 reveal the following major structural characteristics of industry in Yanbian Prefecture (Table 5):
TABLE 5

a total of 1,614 industrial enterprises, 73 per cent of which operate under collective and 26 per cent under (almost exclusively local government) state-ownership; foreign participation is recorded for 1 per cent of the total number;

a dominance of light over heavy industries in terms of enterprise numbers, gross and net industrial output values alike, with shares of 54 per cent, 53 per cent and 51 per cent, respectively;

a preponderance of enterprises classified as small in terms of numbers (95 per cent) contrasting with a more balanced size distribution in terms of both gross and net output;

the recorded total industrial employment of some 360,000 is largely provided by state-owned enterprises (69 per cent), the heavy industry sub-sector (72 per cent) and the section of small-scale enterprises (45 per cent);

with a total of Y 199 million, Yanbian industrial exports accounted for some 11 per cent of the Prefecture's net industrial output value. The majority of exports originate in local government-owned enterprises (69 per cent), consist mainly of light industry sector goods (78 per cent) and are largely produced in small enterprises (72 per cent).

The sectoral break-down of industrial production in Yanbian Prefecture clearly reflects a strong reliance on the local natural resource base (Table 6). For instance, a third of the net industrial output value and 48 per cent of industrial employment is related to the considerable forest resources, ranging from the logging, transport and processing of timber to downstream activities in paper making and furniture manufacturing. The processing of local tobacco adds another 15.5 per cent to the net output and an abundance of plants with a high medicinal value such as ginseng, forms the basis of the traditional Yanbian medical and pharmaceuticals production contributing a further 6 percent. Building materials (6 per cent), machine building (5 per cent) and food, including beverage production (8 per cent), are other major sub-sectors. Of the recorded exports, almost a third is made up of textiles, garments and chemical fibres, ahead of food products including grains (19 per cent), timber and related products (18 per cent) as well as metal products (8 per cent).

With respect to differences in the contribution and structure of industry within Yanbian Prefecture, in 1991 more than a quarter of the total gross output accrued in the capital Yanji, almost twice as much as the following Longjin and Tumen areas and four times the Hunchun area share, all forming part of TREDA (Table 7). Gross agricultural output accounted for between 4.8 per cent (Yanji) and 38.4 per cent (Hunchun) of the respective gross industrial output. Light industries predominate with production shares at above Yanbian level except for Hunchun where coal, gold and copper mining and the production of non-agricultural raw materials have traditionally played a major role. However, the recent drive towards the attraction of light manufacturing activities is likely to alter this pattern in their favour in the not too distant future.

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

The exclusively publicly-owned industrial sector of the DPRK portion of

TREDA, covering the most northern section of North Hamgyong Province, is characterised by some 60 enterprises in the Rajin-Sonbong area and an undisclosed number of industrial entities in Chongjin, the major industrial centre in the north of the country. Given the paucity of general economic and specific industrial data the overall position of industry in DPRK's TREDA is difficult to assess in detail.

As is the case throughout the country, large-scale companies to be found mainly but not exclusively in the heavy industry sub-sector are centrally-run, while small and medium-sized enterprises tend to be managed at local, i.e. provincial or town level. In terms of numbers, some 20 per cent of all industrial enterprises in North Hamgyong are centrally-managed which with an estimated share of 80 per cent, however, provide the bulk of total industrial capacities/output.

Overall, North Hamgyong among all provinces is considered as the largest contributor to heavy industrial production in DPRK. Major heavy industries relate to mining, metallurgical and chemical production and include the Kimchaek Iron and Steel Complex (the largest in the country), the Songjin and Chongjin Steel Works, the Chongjin Mining Equipment and Machinery Complex, the Chongjin Machine Tools Factory, the Haeryong Mining Equipment Factory, the Kimchaek Tools as well as Rock Drill Factories, the Chongjin Chemical Fibre Plant, the Rajin Sungri Chemical Plant, the Gilzu Wood Pulp Factory, the Haeryong Paper-making Factory, the Go Musam cement plant, twenty coal mines and the country's largest iron ore mine at Musam. The Province's largest industrial exports in the past have been steel products, such as steel plates, iron bars and pellets, (destined for Southeast Asia and Europe), porcelain ware (to the Russian Federation, Cuba, some southeast Asian countries) and iron ore concentrates (to China and Japan).

TABLE 6

TABLE 7

With regard to the structure of industry in the Rajin-Sonbong area, as can be seen from the inventory of industrial enterprises in Table 8, the almost 60 enterprises - divided almost equally between the two locations - cover a relatively wide range of activities both from the heavy and light industry sub-sectors. The labour force in these units is reported to range from 50 to 300 except for the few large-scale enterprises. Staff of the biggest enterprise in Rajin/Sonbong, the Sungri Chemical Plant in Sonbong, is in excess of 2,000. In spite of its name, the plant with an annual capacity of 2 million tons so far has been exclusively engaged in crude oil refining (gasoline, heavy oils, lubricating oils, etc.). At present, crude oils originate mainly from Iran and Libya with procurement from the Tjuman oil field in Russia accounting for some ten per cent of the total. Oil is reaching the plant site both via rail and a 6 kilometre pipeline linked to the Sonbong port oil terminal. Other major industrial entities are (i) the Sonbong Thermal Power Plant with some 850 staff and an installed capacity of 200 MW, operating on oil from the nearby Sungri oil processing plant, and (ii) the June 21 Ship-Repairing Factory in Rajin.

Industrial production in the Rajin-Sonbong area is predominantly oriented at domestic markets. Only four of the listed manufacturing enterprises, two of which operate on the basis of joint venture agreements are or were until recently producing for foreign markets: the two garment export factories in Rajin and Sonbong, the Rajin timber processing factory and the Rajin ironware export factory export their entire output, largely on a barter or counter-trade basis.

Whereas the official figures received for 1991 show rather high rates of capacity utilization reaching 80 per cent or more for two thirds of all production lines (see Table 8), there are also indications that some industries are having increasing difficulties in the recent past in meeting their targets. A special case is the aforementioned Rajin garment export factory which, after the Russian partner's retreat, so far has been unable to replace the previous Russian supplies of raw materials, thereby bringing production to a halt.

RUSSIAN FEDERATION

Industry has always assumed the major role in the overall economic structure of both Primorsky Krai in general, and its southern part (Southern Primorie) which constitutes the Russian portion of TREDA, in particular. While the Territory's share in the Russian Federation's total industrial production accounted for a mere 1.2 per cent in 1991, the manufacturing and construction sectors combined contributed some 67 per cent and 57 per cent to Primorsky Krai's gross national product and national income, respectively (Table 9). Agriculture is ranking second, followed by the transport and communications sector and internationally low shares of the services sector. Available data, however, reveal a marked improvement of the latter's relative position compared with 1988 which in terms of the gross national product was paralleled by a declining manufacturing share.

The structure of industrial production in Primorsky Krai so far has clearly been shaped (i) by the region's militarily strategic role with Vladivostok as home base of the then USSR's Pacific Fleet and the ensuing creation of a large defense industry, and (ii) by significant deposits of various natural resources, primarily minerals and non-ferrous metals (inter alia, coal, tin, lead and zinc), timber and marine resources. Consequently, practically all of the Territory's heavy industry plants, such as in machine building, ship-repair/shipbuilding or machine tools production were geared towards the military-industrial complex. As can be seen from table 10, in 1991 about one fifth of total industrial production originated in the machine-building and metal working sector alone, second only to food processing with 48 per cent. Within the latter sub-sector, fish processing accounted for the lion's share; generally, the region so far has been unable to reach self-sufficiency in food production.

TABLE 8

TABLE 9

TABLE 10

The construction materials and wood-processing sub-sectors also assume important roles in industry overall, whereas light manufacturing (mainly garments and footwear) with a 4.7 per cent share is of limited importance only. Preliminary data for the first half of 1993 which have to be assessed against the background of a continued decline of industrial production over a wide range of products show a marked reduction in the contribution of the machine-building, the construction materials as well as the light manufacturing industries.

Among the five major economic and geographical zones of Primorsky Krai,

Southern Primorie
has emerged as the most industrially developed district. The area extends from the DPRK border in the south along the coastline (Khazan District, 50,000 population) encompassing as main settlements Kraskino (5,000), Posiet (2,000), Zarubino (6,000), Barabash (5,000) and the administrative centre Slavyanka (18,000) up to Nakhodka and Vostochny with Vladivostok (700,000) in the centre. Nearly half of Primorsky Krai's total industrial output is produced in Southern Primorie, however, almost exclusively in the large industrial and transportation centres in and around Vladivostok and Nakhodka/Vostochny. In turn, Khazan District only accounts for one per cent of Primorsky Krai's industrial output (Table 10).
In terms of employment, the service sector is ranking first in Primorsky Krai with some 52 per cent, followed by industry (manufacturing and construction) with 41 per cent and agriculture/ forestry with 7 per cent (Table 11a). Within services, the largest employment is absorbed by the transport and communications sector (13 per cent of total) which clearly reflects the Territory's role as a major regional and international transport hub. Primorsky Krai accommodates four deep-water ports, several smaller ports, three railroad stations with ocean access and two (shortly three) railroad connections with China and DPRK. As can be expected, this employment pattern is even more pronounced in Vladivostok, where 20 per cent of employment originates in transport/communications; another 15 per cent are active in commerce (Table 11b). Again, with a share below 3 per cent employment in Khazan district is only a fraction of the Territory total and primarily related to manufacturing and fishery (Table 11c).
TABLE 11

Official statistics on the number of (not only industrial) enterprises under operation in Primorsky Krai reveal a more than doubling between January 1992 and July 1993 to 23,348 of which 68 per cent are labelled as small. While the precise nature and delineation of the types of enterprises distinguished in the statistics is not always clear, most categories show an upward tendency, particularly those of a private legal form (individual, limited liability, joint stock companies) which together account for some 44 per cent of the total number. However, the bulk of production continues to take place in public enterprises either under state (some 2,470 units) or municipal (2,326) management.

In 1992, some 600 Primorsky Krai enterprises were involved in the foreign trading of generally small consignments, largely on a barter basis. Imports exceeded exports by US$ 173 million and consisted mostly of consumer goods, automobiles, computers and some food items.

Exports totalling US$ 273.5 million were dominated by fish/seafood (unprocessed, semi-processed and canned) with a 75 per cent share, timber 7.8 per cent and fertilizers 7.2 per cent. Overall, manufactured exports played a minor and - given the turbulences accompanying the initiated macroeconomic transition - recently diminishing role.

The Territory's difficult economic situation is also reflected in negative growth rates of industry.

In the years 1990/91 and 1991/92 total output declined by 3.7 per cent and 6.9 per cent, respectively. Negative growth was recorded for the majority of sub-sectors (Table 12a). The chemical and petrochemicals (1991/92: minus 29 per cent), building materials (31 per cent), machine-building (13 per cent), flour milling and cereals production (15 per cent) and printing and publishing industries (41 per cent) were particularly hard hit. According to preliminary data, this overall downward trend continued in 1993. As of mid-year, the industrial production index was given as falling a further 18 per cent behind the preceding year's figure. Within Southern Primorie, only Khazan District recorded a positive growth reaching a remarkable 20 per cent (Table 12b) which is probably a reflection of the strong impact even small changes have given the low base level.

TABLE 12

A closer look at the current nature of industry in the sparsely populated Khazan District displays its limitation to a few activities only, inter alia:

Ship repair: Slavyanka Shipyard, with some 3,000 staff is the biggest employer in the District. It has ship repair facilities for ships up to 36,000 tons capacity, 200 metres length and 46 metres width.

Fish/seafood processing: the Far East Base Fleet of Russia for Catching and

Processing of Seafood Joint Stock Co. located in Zarubino which, following its de-commissioning as a centrally-run state enterprise, was set up in November 1992, operates three fish-processing plants (for fish canning, fish drying, fish farina production) in addition to its 31 trawler fishery fleet. The company also maintains a seafood farm in Posiet for the handling of sea shells, sea cucumbers, oysters and scallops and possesses the reportedly only processing plant for the drying of squid in the entire Russian Federation. Two smaller fish processing/cold storage companies are operational in Slavyanka, one of which as a cooperative and both with individual access to trawler facilities. Finally, two salmon breeding farms are located alongside two rivers south of Slavyanka.

Fur processing/animal husbandry: there are seven fur processing, particularly tanning enterprises in the District, five of which include intensive animal husbandry (deer breeding, deer slaughterhouse). The two major farms located in Kraskino with 240 and 400 staff, respectively, together raise and process 130,000 mink furs and 2,500 deer for antlers per annum. Half of the mink furs is exchanged directly on a barter basis with the other half being exported through centralized export companies. In addition, when Posietskaya Co. Ltd. which raised some 1,800 cows and 800 calves (old local, low quality cattle) for milk and meat production got into financial difficulties recently, it was leased out to a Siberian construction company for transporting the livestock to a Siberian slaughterhouse.

Coal mining: a small coal mine (brown coal) with 160 staff near Kraskino exploits some 5,000 tons per month for Khazan District local consumption; large deposits have been explored extending also into China.

Ports: Zarubino Port commenced operation in 1982 as a mere fishery port with an annual average turnover of 250,000 tons of fish in the period up to 1989. Having been part of a centrally-run state conglomerate under the Ministry of Fishing, the port was reestablished as Khazan Commercial Sea Port New Joint Stock Company in March 1992, now owned by a number of primarily large Russian enterprises from various branches and locations. The aim was and continues to be to expand and to diversify the port's services; currently, in terms of tonnage, fish accounts for only 5-8 per cent of port handling business with ferrous and non-ferrous metals accounting for 80-85 per cent. Total port handling capacity amounted to 1.2 million tons in 1993; there are 400 staff. The progress of TRADP speeded up the preparation of a major port modernization and extension programme in 1993.

Port Posiet was converted from a Government-owned commercial sea port into a joint stock company in November 1992 with the staff (51 per cent) and the Moscow Ministry of Transport (49 per cent) as shareholders. Being part of a further privatization move, 29 per cent of the latter's stocks were on offer at the Vladivostok Stock Exchange in late 1993. With a total 1.5 million tons, actual port handling currently exceeds its nominal capacity by 50 per cent. Two thirds are goods in transit to Kamtchatka and Magadan ports (coal: 0.5m tons, clinker: 0.3m tons, other building materials: 0.1m tons). The remainder are imports (oil pipes/tubes from Japan) and exports of steel billets and iron ore pellets (to the Republic of Korea and Japan), timber logs (Japan), clinker (Republic of Korea, Vietnam) and coal (Japan).

INDUSTRIAL STRATEGIES AND POLICIES DIRECTED AT TREDA

OVERALL ORIENTATION

China

The Chinese authorities at central, provincial and local levels alike attach great importance to the development of TREDA in general and to the promotion of industry in this area in particular. However, given the relatively short period of time since TRADP was launched, no integrated or comprehensive industrial development strategy has been formulated for the target area up to date. Desired directions of regional/local development, as voiced by the Yanbian Prefecture government and the individual city governments, are embodied into the general policy orientation of the country's current Eighth Five-Year Plan (1991-1995) and the new economic master plan on the establishment of a "socialist market economy" adopted during the Third Plenary Session of the Fourteenth CPC Central Committee in

November
1993.
These policies essentially call for a strengthening of the state's role as a macro-economic regulator providing the infrastructure necessary to create an environment conducive to the development of entrepreneurship. The stepping-up of the so far limited public enterprise reform which is seen as a major tool of raising the frequently low productivity levels as well as of reducing the budgetary burden caused by loss-making units is particularly relevant for the industrial sector. While public ownership is to be maintained as the mainstay of the strived-for modern enterprise system, everyday management is to become the exclusive domain of the enterprises themselves. The latter, being gradually exposed to an increasingly competitive environment, would be expected to respond adequately and more speedily to the respective market requirements.

Consequently, industrial restructuring has been earmarked as key objective in the field of industry by both Jilin Province and Yanbian Prefecture authorities. The upgrading and modernization of existing industrial capacities and the establishment of technologically advanced industries feature prominently in these endeavours. At the provincial level, the Eighth Plan foresees a general focus on the energy, transportation and basic industries sub-sectors on the one hand and a branch focus on the Province's two backbone industries, automobiles and petrochemicals, on the other hand, with the food and pharmaceutical industries and some light industries, especially textiles/garments as additional targeting areas.

Yanbian policy makers, who have unanimously supported the opening up of their previously remote prefecture to the outside world in the recent past, are fully aware of the area's large development potential waiting to be tapped in a situation of open borders with DPRK and the Russian Federation. In view of the aimed-at easy access to the East Sea (Sea of Japan) in the context of TRADP, Yanbian Prefecture is expected to develop into a major transportation hub for international traffic to and from the Chinese northeastern provinces easing thereby the presently overcharged domestic north-south transportation lines to Port Dalian in Liaoning

Province. At the same time Yanbian Prefecture is envisaged to become an export-oriented manufacturing centre in itself by the year 2000, with a view to a further development into a world trade centre by the year 2010.

According to the Yanbian Planned Economy Commission, in the initial phase, priority will be assigned to the extension of industries based on presently abundant resources. The building materials and food and clothing industries are considered as dominant industries in this respect which will be complemented by the enlargement of the construction, tourism and trade-related businesses. Key roles are further attributed to the production of medicines, tobacco processing and paper making. While a "moderate development speed" is foreseen for the production of soft drinks, metal, chemical, wooden and plastic goods, the present growth of the machine building, petroleum processing and textile industries is considered adequate also for the nearer future. In parallel, efforts will be made to build up the infrastructure necessary for the establishment and speedy development of high technology based industrial production in phase two, i.e. from the year 2000 onwards, such as in the fields of new materials, bio-technological goods and modern chemical produce.

In overall terms, the promotion of industry in Yanbian in the context of Tumen River Area development is considered as one contribution towards redressing the rather unbalanced speed of regional development within China and to catch up with the far more advanced eastern and southern coastal areas. Hence, the policies Yanbian relies upon in the achievement of its objectives, are based on experiences made in the advanced parts of China.

Accordingly, notwithstanding differences in a number of details, the primary policy instruments advocated by both the Yanbian Prefecture and the individual city governments are related to:

- the continued extension and upgrading of infrastructure, particularly with regard to transport and communications;
- the installation of various types of special economic zones and industrial sites; and
- the attraction and encouragement of investments, both from domestic and foreign sources.

Recent developments pertaining to these three areas are summarized in Chapter

III.2 below.

DPRK

Following the so-called Juche philosophy, industry-related policies like all policies in DPRK have been oriented towards the goal of self-sufficiency. In essence, the concept calls for the continuous horizontal and vertical diversification of the economy to be based to the maximum possible extent on indigenous resources and raw materials catering mainly for domestic markets. Reducing the economic dependence on other countries has been considered as a major prerequisite to also maintain political independence. Throughout most of the past, economic planning favoured the development of the heavy industry sub-sector with a view to providing the necessary inputs for the development of agriculture and light industrial manufacture.

The major output goals fixed in the current Third Seven Year Plan, covering the period 1987-93, refer to electricity generation and the production of coal, steel, non-ferrous metals, fertilisers, cement, textiles, grains and marine products (Table 13). The announced figures implied the rolling over of targets initially set for realization by 1989 for half of these major output categories; other distinctive features include a reduction of the previous steel target from 15 to 10 million tons as well as raised targets for foreign currency earners, such as cement, non-ferrous metals and - with more than a doubling - marine products. 1989 was proclaimed the "Year of Light Industry" and in June 1989 the 16th plenary meeting of the Central Committee of the Party adopted the "Three-Year Plan for Development of Light Industry" for the period until June 1992, with a focus on textiles, food processing and other daily consumer goods. The "National Rally for Light Industry" mounted in June 1990 was also aimed at redressing the lopsided industrial structure. When the December 1993 plenary meeting of the 6th Supreme People's Congress reportedly acknowledged the failure of the Third Seven Year Plan, again light industry together with agriculture and trade was given top priority for a two to three years adjustment period.

DPRK Government officials at central and provincial levels alike express their full support for TREDA as a means both to improve local economic including industrial performance in general and to tap the sub-region's potential as an international business, trade and transport hub in particular. The major instrument for this to materialize on the DPRK side is seen in the establishment of the Rajin-Sonbong Free Economic and Trade Zone, approved by the central government in December 1991, and the ensuing proclamation of the adjacent Chongjin Port as a free port. Work on a master plan on the envisaged infrastructural extension and the desired industrial build-up commenced in early 1992 and, upon government approval in March 1993, resulted in the publication of a zone and investment guide in two parts, entitled "Golden Triangle Rajin-Sonbong".

TABLE 13

In parallel with the above a number of laws have been promulgated for exclusive application in the Rajin-Sonbong zones: the Law on Foreigners' Investment, the Law on Foreign Enterprises, the Law on Foreign Exchange Administration, the Law on Contractual Joint Ventures, the Law on Foreign Investment Business Enterprise and Foreign Individual Tax, and the Law on the Free Economic and Trade Zone. Other laws currently under preparation are designed to further contribute to a business and investment conducive legal framework and include a joint stock banking law for Rajin-Sonbong (which will include offshore and wholly foreign-owned banking), a Free Port Law, a Company Law as well as a revision of the country's 1984 overall Joint Venture Law and of the Customs Tariff Act.

In the course of the Rajin-Sonbong zone development the present industrial structure in the region is expected to change distinctly. During talks with the mission, government officials explicitly included as a realistic option the closing down of the clearly uneconomic among the present industrial enterprises.

Russian Federation

To date there appears to exist no clear-cut specific vision or development strategy shared by Russian authorities at central, regional and local levels with respect to the development of TRADP in general and the role to be played by Khazan District in particular. Differing opinions have also been voiced within academia and the business community. However, by the time of the UNIDO mission a more uniform attitude of both Primorsky Krai and Vladivostok City Governments had emerged. In short, the general view currently held can be characterised by:

an interest and readiness in principle to foster international economic cooperation with China and DPRK as part of the strived-for increasing orientation of the Russian Far East towards the Asian and Pacific Rim countries. While this includes the progressive promotion of (transit) trade flows from/to China and DPRK through Primorsky Krai, there is a strong feeling that the untapped potential of the Vladivostok/Nakhodka/Vostochny area has not yet been fully acknowledged under TRADP. At the same time, for ecological reasons, strong resistance is voiced about deepening the Tumen River and the subsequent establishment of a river port on the Chinese side at or near Fangchuan;

considerable scepticism regarding what is seen as too ambitious a vision for TREDA. In this context, special mention is made of the core city concept or the early construction of a new international airport in the Russia/China/DPRK border area as unrealistic or at least premature for some time to come;

a relatively firm stand on the limited industrial development potential of Khazan District in general and its southern tip, the internationally recognized Khazan wetlands area (i.e. between Posiet and the DPRK border, alongside the Tumen River) in particular. The area, which according to environmental experts is considered as one of the most significant in the world, is a major breeding area for both water and terrestrial birds as well as one of the main landing areas for migratory birds in the East Asian "flyway", one of the few migration routes in the world. Also, the Far Eastern Marine Reserves off Khazan and Zarubino are two of the only three closed marine reserves existing in the entire Russian Federation and, as such, serve as major reference areas for marine scientific research on the Russian coast. As a result, the area south of Zarubino is to be entirely excluded from any future industrial or mining activity. This is to be guaranteed by the two gradually strengthened administrations of these two environmental zones. The only developments likely to take place in the Southern Khazan Region will

be
infrastructure (rail, ports, highways, bridges) for transit cargoes and tourist
development. New industries to be located further north are expected to either remain
based on local resources (fish/marine products, some intensive animal husbandry, fur
processing, some food-processing), to use clean and environment-friendly
technologies, and/or to cater for the emerging transit trade business.
Although only partly and indirectly linked to TREDA/TRADP, the June 1993 "Concept for the
Economic Development of South Primorie" presented by the Primorie Economic Development
Task Force which had been jointly set up by the Primorsky Krai and Vladivostok City
Governments in 1992, spells out the local authorities' perceptions in more detail. Dropping
earlier intentions to establish what was called the contiguous Greater Vladivostok Free
Economic Zone, the new concept distinguishes three so-called "zones of rapid growth":

the Vladivostok Region (Vladivostok, Artyom, Nadejdinsky District) considered as the
Territory's primary political, business, scientific/educational and cultural centre is
ascribed the function of a nucleus for Southern Primorie development;

the Nakhodka Free Economic Zone east of Vladivostok as a de jure and de facto
autonomously managed development centre; and

the Khazan District Economic Development Area with Slavyanka, Posiet and Zarubino
as its core settlements.

The overall aim of the Primorie Concept is described as "the intensive socio-economic
development of the interdependent industrial and port areas in South Primorie based both on
foreign investment and self-help and the establishment of close ties in market economies
between Russia, the Russian Far East and China, the Koreas, Japan and other Asian-Pacific
Rim countries" . While the need to preserve the region's natural resource base and its support
function for the Russian Pacific Naval Fleet is acknowledged as a major framework condition
for all future plans, the Territory is designed:

to function as a link for the economies of Russia and the Asian-Pacific region and
between the countries of the former Soviet Union and the Asia-Pacific Region;

to help in creating an economic community around the East Sea (Sea of Japan);

to become a national marine economic centre;

to develop a recreational industry suited to its unique natural and ecological assets;
and
to work towards cooperation in agriculture with neighbouring countries.

This overall orientation is translated into a number of priority goals related to the region's envisaged production and service functions as well as to infrastructural requirements as summarized in box 1.

The concept foresees a phased approach with crisis management absorbing most of the authority's attention during the initial phase until including 1994 and encompassing, inter alia, the maintenance of political stability, the stimulation of industrial production, the passage of market-oriented legislation and the creation of a conducive business environment for foreign investors. An economic upturn is expected for the period 1995-2000 while a standard of living comparable to industrialized country levels is hoped to be reached by the year 2005. The upgrading of infrastructure and the restructuring of the regional economy, with a view to improving and broadening the export base from largely unprocessed raw materials to a range of internationally competitive goods, are considered as crucial elements of an eventual success.

At the same time, Vladivostok's role is foreseen to change distinctly in the direction of a service centre, with a focus on financial, scientific, information and international trade-related businesses as well as on other high tech/high value added production activities. This is expected to parallel a likely reduction of industrial production capacities in the city area in line with (i) the planned conversion of defense industries and (ii) the generally envisaged decentralization and relocation of (especially heavy and polluting) industry from the city, preferably to the east and north of Southern Primorie, i.e. not to Khazan district. As to the latter, improved access to/from the outside world is fully supported which includes the extension of Zarubino and Posiet ports and the connecting rail/road network. Again, little scope is seen for broadening the district's industrial base beyond a modernization and upgrading of present activities. This does, however, encompass the idea of a highly specialized export processing zone/techno park at Zarubino and the possibility of the district developing its (limited) potential as an agro- and food-processing base for Vladivostok as well as a regional/international recreational and spa zone.

In "Primorie Economic Development Task Force", op. cit., pp. 20-21, priority goals are stated to be:

- diversify port and transport services;
- improve fish-processing techniques;
- establish efficient fish farming;
- create new biochemical and pharmaceutical products, based on local natural resources;
- convert defense plants into civilian goods production for domestic and foreign markets;
- increase range of available consumer goods;
- store and process agricultural goods;
- develop recreational and hotel/catering services;
- improve market infrastructure up to international standards;
- simplify registration and regulation of private business;
- increase linkages of R&D results and production;
- train administrative and service personnel;
- develop ecologically sound energy resources;
- modernize urban water supply and sewage systems;
- provide housing and employment opportunities for socially disadvantaged people;
- improve transportation system at a large scale;
- modernize regional telecommunications system.

SELECTED RECENT POLICY MEASURES IN DETAIL

Extension of Infrastructure

The importance of a substantial upgrading and extension of the generally poor physical infrastructure, both within and among the border regions of TREDA as a prerequisite for any meaningful initiation of the region's accelerated economic and industrial development, has been fully recognized by all participating parties. On the basis of estimates and projections of the expected future flows of goods and people within and through TREDA, the short- and long-term infrastructural needs, especially in the areas of transport and communications, have been assessed and detailed recommendations on the improvement of the few existing and installation of new road, rail, air and sea transport links have been made elsewhere under TRADP. In practice, a number of pertinent measures are at different stages of planning or implementation in the three countries with some of them having been completed or nearing completion in the near future. The latter will have a great impact on the industrialization prospects and opportunities. The following provides a brief summary account of major recent developments pertaining to the transport infrastructure at the time of the UNIDO mission.

Roads:

China:

Completion in 1989 of the new road from Tumen to Hunchun (61 km) shortened driving time Yanji-Tumen-Hunchun from 7 to 2 hours, the Tumen-Hunchun section thereof from 3 hours to 1 hour. A further upgrading to an expressway is under consideration.

China/Russia:

Completion of the 14 kilometre highway construction from Hunchun to Chenglingze (Chinese/Russian border) was due in October 1993. With the reported involvement of some 170 Chinese labourers, construction was also at an advanced stage between the Chinese and Russian border control points and was also progressing between the Russian checkpoint and Kraskino.

China/DPRK:

With the construction of a 20 metre wide road expressway from Yanji to Longjin having been completed, the 47 kilometre extension to Sanhé/DPRK border, at a cost of US$ 16 million, was underway. Upon completion, driving time from/to Yanji will greatly be reduced from presently 3.5 hours to one hour. The new road link will also add to the advantage transit trade to/from Japan enjoys (currently three days) when compared with shipment through Dalian (reportedly half a month due to longer distance and port/rail/road congestions).

Phase I of new road construction Hunchun-Shatuozi (DPRK border) was completed in 1993; phase II was expected for completion by mid-1994.

DPRK:

Works on upgrading/widening of the road Chongjin-Haeryong/Sanhé (Chinese border) were due for completion by end-1993, with pavement being foreseen by end-1994. The project is totally funded by the Yanbian Gonggyo Trading Company which will recover its outlays in return from the future collection of tolls for road usage.

The design for upgrading the road from Rajin to Saebyol (extension to 10 metres width, pavement) was to be finalized by end-1993; completion of construction was foreseen by end-1994 (widening) and mid-1995 (pavement), respectively.

Rail:
China/Russia:
Completion of the 42 kilometre Hunchun-Kraskino composite track scheduled for June 1994 (both cargo and passenger traffic) is expected to have a major impact on transport flows between China and the Russian ports. Construction work started only in March 1993, and with an estimated total investment of Y300 million was bilaterally financed by the Chinese and Russian authorities through the Golden Ring Sino-Russian Joint Stock Holding Co. The Hunchun-Chenglingze portion was due for completion in late 1993. A rail conversion station (Hunchun International Railway Transshipment Station) for changing cargo from Russian to Chinese trains is under construction opposite the Hunchun Border Economic Cooperation Zone. The Tumen-Hunchun section started operations on schedule in late September 1993.
Chinese authorities plan capacities for the Hunchun-Kraskino line of 5 and 7 million tons per year for 1995 and 1997, respectively. Works for doubling handling capacities of Tumen Railway Station have commenced.
China/DPRK:
An agreement has been signed between China and DPRK on a further 5 km railway link-up some 20 km west of Hunchun; this will encompass reconstruction of an earlier railway bridge across Tumen River.
Air:
China:
Yanji airport was reopened as an international airport after extension in late 1993, thereby improving access to TREDA considerably. A number of international destinations were added to regular domestic flights to Changchun, Shenyang, Dalian and Beijing.
DPRK:
A dirt airstrip has been constructed near the Russian and Chinese borders in the northern part of the Rajin-Sonbong area. The DPRK Government is said to have plans to develop it into a 3600 metre runway.
Environmental concerns may cause this plan to be re-considered.
Ports:
DPRK:
Chongjin Port:
By end-1994, extension underway since 1992 is to result in increasing annual handling capacities of Chongjin West Port from 7.1 to 10 million tons. Ongoing work

comprises the modernization of existing facilities (loading/unloading equipment) and linking two of the four west port terminals in order to accommodate handling of 10 million standard container units.

Actual port handling total (East and West Port) was given as 4.7 million tons in 1992, 3 million being foreign cargoes. An increase to a total 7 million tons was expected for 1993.

In the past the three terminals of Chongjin East Port, with a total capacity of 870,000 tons per year, mainly catered to general cargoes; mineral oils, pig iron and grains, almost exclusively from and to China. The four West Port terminals mainly handled sands and grains, steel products, coal and ores. In line with the expected continued progress of the Rajin-Sonbong zone, port extensions are envisaged to result in a total annual port capacity of 20 million tons by early next century.

Rajin Port:

Several measures to modernize port equipment and to upgrade storage facilities were due for completion at end-1993 with the aim to increase total port handling capacity from hitherto 3 million tons to 7.5 million tons. These included the enlargement of covered storage facilities (presently 217,000 tons) by 8,100 m2 through a new building; new train unloading facilities linking up with the already existing railway connection to/from China and the Russian Federation (composite gauge); the installation of a new 1,200 m conveyor belt for fertilizer transport; 2 conveyor type loaders, one of which for potassium. The unloading of alumina oxide from Australia destined for the Russian Federation onto smaller vessels has become the port's main business in revenue terms since the respective unloading facility became operational in 1992. Overall, port capacity use remained constant at around 50 per cent in 1992-93. The range of handled items is led by coal (400,000 tons; originating from the Kusbas basin in Russia for export to Japan), followed by fertilizer (300,000 tons), timber (200,000 tons), grains (100,000 tons) and steel products (100,000 tons, 90 per cent of Russian origin); another 400,000 tons of various items are domestic cargo.

Further port extension is planned to take place in stages with the ultimate aim to reach a total port capacity of 50 million tons per annum by 2010, designed to include 5 million standard container units. There are no container handling facilities at present which is given as the major reason why so far no attempt has been made to attract regular liner services. Capacities for 10 million tons are expected to be installed by the end of phase one in 1995, including 200,000 standard container units. Coal handling is planned to exceed one million tons annually. However, funding for investments other than the ongoing ones was not yet secured even for all phase one activities.

Sonbong Port:

Work is in progress on a second submarine pipeline from Sonbong Port oil terminal to the affiliated unloading station (floating wharf) some 3.3 km off the shore which will be used for Russian refinery products on transit. Dredging is underway at the outgoing terminal to allow servicing vessels up to 20,000 tons compared with the possible maximum of two 5,000 tons tankers presently, due for completion in 1995.

Russian Federation:

Zarubino:

Khazan Commercial Seaport Joint Stock Company which, since its establishment in early 1992 has been managing Zarubino Port, speeded up its modernization programme in mid-1993 due to (i) the progress of TRADP and (ii) an increasing interest in the port as expressed by foreign businesses. While details of the projections laid-down in a draft feasibility concept are to be put in concrete terms in a Japanese-funded full-fledged feasibility study, total capacities are earmarked to be expanded from presently 1.2 to 2.8 million tons, with two thirds of the increase to be achieved by modernizing the existing terminal, the remainder by constructing a new terminal. As to the former, newly purchased cranes for 60 ton cargo allowing direct ship-to-ship transfer were already installed in 1993. The overhaul/upgrading of the 3 kilometre railway track connecting the port with the main Vladivostok-Khazan-DPRK line (and thus due for linking up with Hunchun) was also completed by the company in 1993. Pending the outcome of initiated market analyses, preliminary future plans include the installation of container facilities as well as a bulk grain terminal. There is talk of reaching a total port capacity of 11 million tons p.a. by the end of the decade. The envisaged extensions are driven principally by Siberian metallurgical and other commercial and export interests and - to a lesser extent - by Chinese (bagged) grain, containers, metal and timber transit port requirements.

Posiet:

Intentions to increase the currently fully used port handling capacity from 1.5 to 2 million tons per year through the construction of two new terminals for steel products and possibly up to 1,000 containers were reported to be at an advanced stage of design. The project would be launched by Posietmet, a new stock company to be set-up by four metallurgical, mainly steel, companies from the Ural.

According to the port management, in 1992 two thirds of port handling accounted for domestic shipments to Kamtchatka/Magadan (split-up into 0.5 million tons of coal, 0.3 million tons of clinker, 0.1 million tons of other building materials), the remaining 0.5 million tons for imports (0.1 million tons oil pipes/tubes from Japan) and various exports (steel billets, iron ore pellets: to the Republic of Korea and Japan; wood/timber logs, coal: to Japan; clinker: to Vietnam and the Republic of Korea). There are plans to stop coal handling for environmental reasons once present contracts with the government expire in late 1995.

After receiving government approval for the port's opening to foreign flag carriers, customs-control facilities are currently being installed. Foreign ships were scheduled to be serviced from 1994 onwards.

Vostochny/Nakhodka:

The opening of a new (second) coal terminal in September 1993 doubled coal handling capacities of Vostochny Port from 6 to 12 million tons, particularly for exports to Japan, including, it is hoped, by recapturing coal handling from Rajin. A new fertilizer terminal is under construction with German funding. Construction of a new corn terminal (5.5 million tons p.a.) was under negotiation with a US company. Total port handling was reported as having declined after the USSR break-up from 12 million tons p.a. to some 9 million tons p.a. at present. Major products handled at the port are woodchips (30 per cent capacity use currently), sawn timber/logs (50-80 per cent), metals (90 per cent) and coal. A container complex is of major importance.

Construction of a new commercial port terminal at Nakhodka Port is under planning. At present, the port handles mainly grain, metals, timber and general cargo and also encompasses a fishing port and oil terminal. Zone authorities envisage a gradual extension of combined port capacities of Nakhodka/Vostochny over time from some 25 to 70 million tons per year.

Border Crossing Facilities:

Recent developments regarding the facilitation of border crossing within TREDA include:

the completion of a new customs building on the Chinese side at the Sanhé/Hoeryong border crossing south of Longjin in August 1993. Negotiations were underway with the DPRK side on a bridge extension to also accommodate container traffic once the ongoing road extension is completed;

after opening the newly erected customs building at Chenglingze border station in 1992, completion of the road control area was due in September 1993;

China and DPRK agreed to reopen an earlier border crossing point some 20 km west of Hunchun for both rail and road traffic;

a general agreement was reported as having been reached between Russia and China at provincial level concerning the opening of an additional road border crossing at Fangchuan/Khazan;

the reopening of Tumen border crossing south of Hunchun on the road to Fangchuan was expected to become effective soon. The border station had been closed in 1982 due to low traffic volumes numbering some 600 border crossings annually.

Special Economic Zones and Industrial Estates

The intended or actual installation of various types of special economic development zones and/or industrial sites together with the earmarking of certain preferred areas of investment has become the major desired mechanism for the industrial build-up within TREDA, particularly on the Chinese and DPRK sides. In general, these zones are designed to primarily attract foreign capital, technology and expertise, offering in exchange tax incentives, a tariff-free environment and low charges for land and labour.

China:

As a response to the central government's renewed emphasis on accelerating economic growth and reform, these special investment areas have increased considerably in recent years in terms of both type and number throughout the country. Following the early set-up of five Special Economic Zones and 14 open coastal cities 17 so-called Economic and Technological Development Zones and more than 50 New and High Tech Industrial Development Zones have been established. In addition to these state-level approved zones, provincial and local governments benefiting from tendencies to decentralise administrative powers have progressively initiated the installation of industrial development sites within their boundaries under different names.

Major related developments to date within TREDA are the following:

Yanji has been selected by the central government (i) as one of a total of five pilot cities earmarked countrywide for reform and industrial restructuring and (ii) as one of eleven pilot cities for the integration of science and technology/research and development into the economy. Following this, a state level-approved pilot Economic and High Tech Development Zone is under preparation as core part of a 12 square kilometre Economic and Technological Development Zone. Activities in the high tech zone are expected to focus on the production of optical fibre cables, automobiles, advanced building materials and various advanced aluminium products. Work has also commenced on setting-up two other industrial sites labelled as zones, i.e. Dongguang Industrial Development Zone and Xin Feng High and New Technology Development Zone with projected areas of 12.3 and 1.3 square kilometres, respectively. Investment invited in there is to cover a wide range of activities including the further site or property development itself, inter alia in the fields of basic new materials, non-ferrous metal processing, chemical engineering and electronics.

A business and commercial centre with an investment volume of Rmb 400 million and labelled as Northeast International City is under construction in the Yanbian Prefecture capital. The installation of tourism facilities in the form of a traditional Korean village surrounded by modern facilities (golf course, skiing centre, etc.) is aimed at with the establishment of the 17.3 square kilometre Mount Maoer Tourist Zone south of the city currently under design. Negotiations on a US$ 110 million integrated cattle raising and beef project - the largest one with foreign participation ever approved by China's Ministry of Foreign Trade and Economic Cooperation - as of August 1993 were nearing finalisation for investment in the Yilan Stock-raising Development Zone.

The whole of the Tumen area was declared an Economic and Development Zone in 1992 by the Jilin provincial government. In parallel, three sites were identified as major initial target areas by the city authorities: the Liangshui Experimental Area for Economic and Technology Development, the Nanwaizhi export-processing area, and the Tourism Development Area Riguangshan Mountain.

Having been declared an Economic Development Zone by the Jilin provincial government as early as 1988, the status of Hunchun city was raised by the State Council to an open city (November 1991) and further to an open border city (March 1992) as a means to support the increasingly busy and lucrative border trade business in this area. This status which was also conferred to three other cities in the Chinese northeast is more or less identical with the open coastal cities' status along the country's south and southeast coastline. It entails the transfer of a number of state and provincial level administrative powers to the local government including in the areas of planning, investment, foreign economic relations and trade, the use of land as well as taxation.

In late 1992 construction works started on the Hunchun Border Economic Cooperation Zone, located south-east of the old city area six kilometres off Chenglingze border crossing with the Russian Federation and with an envisaged early direct access to road and rail connections from and to Russia. Detailed plans have been drawn up to cover a 24 square kilometre planning development area by the year 2000, one fifth of which will be developed in the first phase. Site preparation, such as the construction of roads, the installation of utilities etc. is underway and partly completed for a 2.3 square kilometre initial area which will include a 80,000 square metres bonded warehousing facility. Overall, the border cooperation zone will be divided into several sub-zones, such as for agro-oriented and high tech production, and will also comprise a multitude of service facilities, inter alia office buildings, schools, a hospital and 100 residential houses. Zone development is foreseen to materialize in three stages: following the completion and full use of the initial industrial area (1993 - 1995), emphasis in stage two (1996 - 2005) will be placed on the installation of the northeast and southwest industrial zones, respectively. The gradual replacement of labour-intensive production processes by technologically innovative or high tech production lines is aimed at in stage three (from 2005 onwards).

DPRK:

The 621 km2 Rajin-Sonbong Free Economic and Trade Zone is designed to perform the three functions of (i) an international cargo transit centre, (ii) a mainly export-oriented manufacturing processing centre, and (iii) of an international tourist centre. The transformation into the envisaged cargo transport hub is to be achieved by the continuous upgrading and substantial extension of transport networks and facilities (ports, roads, rail, airports). Export manufacturing activities are expected to concentrate on light including technologically advanced industries, and tourism facilities, such as hotels, camping sites, holiday resorts and other recreational installations are intended to be primarily located along the coastline north of Sonbong.

The government plans to develop the Rajin-Sonbong Zone in three stages:

Stage one (1993-1995) is to focus on creating (i) the necessary infrastructural preconditions to internationally establish the zone as a transit hub, with the bulk of investments channelled into Rajin, and (ii) a favourable investment climate;

By the end of stage two (1996-2000) the zone is expected to be fully operational and to have assumed the role of an important northeast Asian trade centre. Large-scale export processing centres to accommodate specialised industrial production activities are planned to be established during this period, and tourism development is expected to show some first results;

Only at the end of stage three (2001-2010) the zone is foreseen to have reached its final shape. By then the total annual port handling capacity combined of Rajin, Sonbong and Chongjin Ports is planned to reach 100 million tons, up from 20 and 50 million tons foreseen for the years 1995 and 2000, respectively.

In the course of the zone's development population is thought to increase sharply; the government estimates the population in the Rajin and Sonbong urban areas to rise from the present 85,000 to 150,000 by 1995 and to 300,000 by the year 2000.

Plans of a mostly rather general nature have been drawn up for a total of nine industrial parks/sites to be located within the Rajin-Sonbong zone (see Table 14). In most of the cases, it is intended to follow-up with the detailed design once the needs and specific requirements of incoming investors have become clearer.

Russia:

The 4,600 km2 Nakhodka Free Economic Zone (FEZ) which became effective in January 1991 so far remains the only special economic zone in the Russian Federation's part of TREDA. Located some 180 kilometres east of Vladivostok, it extends almost 100 kilometres along the coastline of Vostok and Nakhodka Bays and comprises the cities of Nakhodka and Vostochny (300 km2; with a combined population of 200,000) as well as adjacent areas of Partizansky district including the city of Partizansk (4,300 km2; 30,000).

Nakhodka FEZ is governed by a set of rules and regulations promulgated in several steps over time. These include the Law on Foreign Investment in the RSFSR, the Decree of the RSFSR Supreme Soviet and the RSFSR Council of Ministers on "Top-Priority Measures for the Development of the Free Economic Zone in the Region of Nakhodka, Primorsky Krai" of 23 November 1990, the Primorsky Krai Regulations for the Free Economic Zone in the Nakhodka area, and the Presidential Decree on "Measures for the Development of the Free Economic Zones in the Russian Federation" of 4 June 1992. As a result, the FEZ which is not seen as bearing any direct relation with TRADP/TREDA by the authorities is independently managed by an Administrative Committee formed by both the Nakhodka City and Partizansky Regional Councils. The Committee is the sole responsible organ for the elaboration and implementation of FEZ policies, the screening and approval of foreign and domestic investment proposals as well as the registration of businesses operating in the zone. In 1993, central government credit amounting to Rubles 20 million were earmarked for infrastructure development within the zone.

TABLE 14

The management considers as major future directions of zone development (i) the strengthening of transport infrastructure (Nakhodka, Vostochny Port extensions, improved rail and air connections), (ii) the promotion of service businesses related to transport and trade, and (iii) the attraction of "new", i.e. previously underdeveloped industries, especially in light manufacturing, electronics assembly, etc. Recent top priority plans and projects include the establishment of a Russian-US American industrial complex including the construction of a new container terminal alongside Port Vostochny (175 ha); a Russian-ROK industrial complex/techno park near Port Vostochny (330 ha) for the production of light consumer goods, farm equipment manufacture and assembly, etc.; an electric power plant and a new water reservoir to accommodate the needs of the industrial sites under preparation. In addition, as a means to improve the FEZ's accessibility by air, dual military-civilian use of the Zolotaya Dolina military airfield 25 km off Vostochny Port was approved by the military authorities in 1993 and - after upgrading/modernization works - is due to become operational in early 1995.

Investment Promotion

The important role to be played by foreign investment in TREDA as a means to secure the foreign capital needed for the envisaged industrial and infrastructural modernization and extension, the generation of foreign exchange through increased export production as well as the influx of technological and managerial know-how has been acknowledged by all three riparian countries.

In line with country-wide policies to further encourage investments from abroad and the ensuing existing legislation, Yanbian Prefecture has opened its doors widely to foreign investors. These are invited (i) to enter into joint ventures with the whole or parts of the predominantly state-owned enterprises advertised for foreign participation, or (ii) to establish wholly foreign-owned enterprises subject to certain specified conditions, or (iii) to engage in counter-trade (or product buy-back) type of arrangements, particularly in the case of joint undertakings with investors from countries with hard currency shortages (DPRK, CIS, Mongolia, Vietnam, etc.). Reportedly, joint undertakings may also be established with private Chinese businesses since recently. Joint ventures proper may take two forms:

Sino-foreign joint ventures, also known as equity joint ventures, are characterised by joint investment and management, with the risks, profits and losses shared by both/all partners of the joint venture. Mandatorily organised as limited liability companies, equity joint ventures should in general have a foreign partner(s) share of not less than 25 per cent. There is no stipulation concerning the maximum foreign share permitted. Investment may be in the form of cash, physical assets (such as factory buildings, premises, facilities, machinery equipment, tools, raw and semi-processed materials, components and parts, warehouses and other), industrial property rights, special technology as well as - on the part of the Chinese investor - land-use rights. Profits are shared according to the proportion of investment contributed by each partner in the registered capital. Equity joint ventures are governed by the Law of the People's Republic of China on Joint Ventures using Chinese and Foreign Investment.

Chinese-foreign co-operative joint ventures, also referred to as contractual joint ventures, are less strictly defined by law and thus characterised by a higher degree of flexibility, simplicity, and ease of reaching agreement viz. an equity joint venture. The rights, liabilities and obligations of the various parties, including the investment composition, the distribution of profits and management responsibilities are set out in a contract. In most cases, the foreign party provides the capital, equipment, material and technology, while the Chinese party provides the land, premises including usable existing equipment and installations, workforce, material resources and a small amount of capital. The relevant legal base for this joint venture type is contained in the Law of the People's Republic of China on Chinese-Foreign Co-operative Joint Ventures.

The type and extent of incentives offered to foreign investors varies with the type of business, the field of investment and the location. According to state-level legislation, export-oriented and advanced technology enterprises located in special economic zones, the open coastal and border cities/zones generally enjoy the highest degree of preferential treatment, essentially in the form of tax reductions and exemptions. These are complemented by additional, as a rule more favourable incentives granted at provincial level or below. Concerning investment in TREDA, the Jilin Province as well as the Yanbian Prefecture governments and practically all the relevant city/zone authorities have promulgated such promotional schemes in the most recent past, yet some of them so far on a temporary or provisional basis only.

Investment guides introducing these promotional policies with relevance for TREDA in varied format and detail have been published since 1992 by the governments of Jilin Province, Yanbian Prefecture, Yanji City, Tumen City, Longjin City and Hunchun City. Based on this information Table 15 provides a synopsis of the major incentives applied. As can be seen, the incentives are primarily related to various tax and fees reductions and exemptions as well as to preferential treatment in areas like priority access to land or credit, the right of autonomous management or the licence- and duty-free import of the needed capital goods, raw materials etc.

While state-level stipulations offer tax rebates primarily to export-oriented enterprises and technologically advanced enterprises located in the various special zones as well as for investments in certain specified sectors (such as energy and communications), provincial and city rules enlarge this list of investment fields eligible for preferential treatment. Jilin Province, for instance, includes investments in (i) infrastructure and basic industries, (ii) the upgrade of existing enterprises, (iii) so-called "backbone" and "superior" industries, and (iv) capital and technology intensive industries.

TABLE 15

In essence, practically most if not all investment with foreign participation in TREDA is entitled to the preferential 15 per cent enterprise income tax rate rather than the standard 32 per cent rate. Depending on the sector of investment, exemptions apply for up to five years of profit-making with half rates offered thereafter up to a maximum of the tenth profitable year, or indefinitely to export-oriented enterprises meeting specified export shares.

Other salient features include exemptions from and/or reductions of local income tax, the VAT-type commercial and industrial consolidated tax, partial or complete income tax refunds for reinvestment, and tax-free profit remittances. Moreover, according to provisional Jilin provincial rules rewards amounting to between 1 and 5 thousandth of the foreign capital invested are granted to intermediaries introducing capital from Hong Kong, Macao and Taiwan Province of China.

While the aforementioned summarises the available incentives on the basis of written documentation, there are also indications of a certain scope for further (downward) negotiations concerning the terms and conditions of individual investment contracts. Also, in the light of past experience that agreed export shares were frequently not met in practice, Jilin Authorities claim to have abandoned any requirement to specify export targets in joint venture contracts since end-1992 while the encouragement of exports is maintained in more general terms. Eventually, as a means to facilitate foreign investment approval procedures, the Jilin Provincial Commission of Foreign Trade and Economic Cooperation has authorised the Yanbian Prefecture as well as all city governments to approve applications for investments up to US$ 10 million. Reporting duties, however, have to be observed and investments above the US$ 10 million ceiling continue to require state-level approval.

The promotion and thus attraction of foreign investment is at the very heart of the Rajin-Sonbong Free Economic and Trade Zone concept. With the Rajin-Sonbong foreign investment legislation showing many similarities with the Chinese stipulations, foreign capital is welcome in the form of equity joint ventures, contractual joint ventures and - unlike elsewhere in DPRK - of wholly foreign-owned ventures. Investment is particularly invited into a number of priority industries including infrastructure, generally described to encompass:

- high or modern technology industries;
- the production of goods which are in great demand or highly competitive internationally;
- industries aimed to upgrade equipment and technology applied by existing enterprises;
- the modernization and expansion of the present infrastructure;
- activities related to mineral resources development and exploration; as well as

service industries.

In turn, polluting industries unless equipped with high standard "clean" technologies and industries endangering national security will be banned from any foreign involvement.

In September 1993 the government published a list with details on some 90 investment projects, covering transport and communication infrastructure (with 19 projects), tourism including services (4) and industry (67). Total investment needs for the latter have been calculated to amount to US$ 3.6 billion, US$ 1.5 billion of which alone assigned for modernizing and extending the Sungri oil processing plant. Other major advertised investments include the assembly of annually 50,000 trucks (US$ 380 million total investment), the production of 100 million integrated circuits (US$ 220 million) and of 100,000 motorcycles (US$ 100 million). The remainder is made up of a variety of household consumer goods, food processing and electrical/electronics industries.

The incentives offered to foreign investors mainly consist of a preferential 14 per cent corporate income tax rate which may be further reduced in special cases, tax holidays, tax free profit remittances as well as preferential access to land lease (up to a 50 years maximum) and credit (Table 16). With regard to the published fees, rents and other charges applicable in the zone the authorities do see room for downward adjustments on an individual basis.

Moreover, one-stop investors' services are planned to be provided by the Rajin-Sonbong Development Promotion Centre to be established in Rajin and currently at an advanced stage of design. International advertising of the zone was initiated in early 1993 with a so far rather small number of investment promotion seminars held inter alia in Finland (March), Switzerland (May), Guangzhou/China (June), Germany (May, September) and Austria (November).

TABLE 16

With regard to Primorsky Krai, foreign investment is assigned a crucial role in the initiated economic restructuring by governments at all levels. Investment is invited in the form of joint ventures, wholly foreign-owned enterprises in certain cases, subsidiaries and affiliates of foreign ventures set up elsewhere in the country, and representative offices.

Joint ventures with paid-up capital up to Rubles 100 million must register with the Primorsky Krai Government or - in the case of Nakhodka FEZ - the Nakhodka Zone Administrative Committee, respectively. Investments above Rubles 100 million need to register centrally with the Russian Agency for International Cooperation and Development in Moscow. Registration marks the end of successful negotiations between interested foreign investors and potential local partners in the course of which advice is normally sought from local law/legal service companies concerning the respective investment regulations, procedures and documentation requirements. In view of the absence of any central foreign investment promotion or coordination office at Territory government level, little involvement of the latter appears to be witnessed at the identification and preparation stages of foreign investments. No foreign investment guides or brochures - again, with the partial exception of Nakhodka FEZ - have been made available to date. In this context, mention was made to the UNIDO mission of the presently parallel existence of different investment rules for different locations/sub-regions. As of the time of the mission there were, however, plans to set up a Division for Investment Promotion within the Primorsky Krai government as well as an Investment Promotion Office as major implementing arm of FDI policies.

While the existing legislative acts related to foreign investors provide guarantees against expropriation and other forms of government interference, non-discriminatory treatment of foreign vis-a-vis domestic investments, free remittance of after-tax profits etc., there appears to be scope for the fine-tuning of individual investment modalities. Companies with a foreign share of at least 30 per cent are entitled to certain tax privileges such as reduced tax rates on profits (7 per cent payable to the national budget, plus a maximum 3 per cent to Nakhodka/the Partizansk region) after a five year exemption period from any tax expires. Elsewhere in Russia, the tax rate for foreign investment ventures, state enterprises and private enterprises is 32 per cent.

INDUSTRIAL DEVELOPMENT IN TREDA: ACHIEVEMENTS, KEY

CONSTRAINTS AND MAJOR OPTIONS - AN ASSESSMENT

ACHIEVEMENTS

In the light of the preceding stocktaking with regard to the present shape of the industrial sector and industrial production in TREDA as well as to some major features of the relevant industrial strategies and policies pursued in the three riparian countries, in the following an assessment is made of recent achievements, major constraints and future options in the field of industry.

The evidence derived both from written information and - ever more so - from the mission's personal observations in TREDA clearly reveals different speeds with which the industrial build-up, modernization and/or extension in the target area is currently taking place. This is primarily caused (i) by differences in the basic attitudes on the parts of policy makers at different levels concerning the role to be played by industry within TREDA and TRADP in general, (ii) by the varied nature, scope and design of individual policy measures and initiatives taken so far, (iii) by the different perceptions on the side of business people as to the (industrial) development and business potential of the locations in question, as well as (iv) by the different types of constraints to be witnessed in the three countries which need to be addressed if industrial progress is to be achieved.

As shown above, given the "history" industry is already looking back on within TREDA and the major general challenge industrial policy makers face in the three riparian countries, is not to start its build-up from scratch. While it is true that industry has at best played a minute role in the core area, industrial production in the Vladivostok/Nakhodka, Chongjin and Yanji areas has for a long time assumed major economic importance. Thus, the major general challenge currently is industrial restructuring with a view (i) to reorienting the sector to actual demand in both local and international markets, particularly in favour of the long neglected light industry branches, and (ii) to improving the quality, efficiency and productivity of production, inter alia through technical, organizational and managerial upgrading. These needs are to be acknowledged and adequately reflected in the three country's industry-related policies quite independently from the precise form and modalities of a continuation of TRADP if industry is to be assigned a leading role as a future employer and income generator.

In general, while the continued participation to date of the riparian countries in TRADP and ensuing hopes to benefit from joint - or at least coordinated - action can largely be seen as an achievement in itself, this does not necessarily imply identical aspirations and expectations on the part of all countries. Rather, views vary among and even within the individual countries.

The Chinese, for instance, are clearly in favour of simultaneously boosting industry and the region's emergence as a major Northeast Asian transport hub; they rely on an increasingly open border regime and are eager to get access to the East Sea (Sea of Japan), preferably through a river port of their own. DPRK articulates its keen interest to open up the Rajin-Sonbong area as a means to import much needed capital and technological know-how. The Russians put emphasis on industrial restructuring in the Vladivostok area with a view to considerably enhancing the role of the service sector. The attraction and establishment at large scale of new industries in the southern tip of Primorsky Krai is clearly rejected. Current developments in TREDA with Russian involvement appear to be largely business/market driven and much less policy-induced.

While overall industrial achievements to be observed throughout TREDA in the recent past remain limited, progress cannot be considered negligible. As summarised below, this statement holds particularly with respect to foreign investment and border trade development.

Also, some mostly local (private) business driven moves to enter into cross-border activities only represent first signs of an emerging sub-regional industrial cooperation and integration pattern. There is, however, ample evidence that as of now the most dynamic developments are taking place or at least have been initiated on the Chinese side. This is also reflected in high growth rates for 1993 of GNP and industrial output in both Yanbian Prefecture (9.1 and 10.4 per cent, respectively) and Jilin Province overall (10.3 and 18.8 per cent, respectively).

Progress on the DPRK and Primorsky Krai sides is more limited.

Foreign Investment

China:

One indication is the sharp rise of foreign investment approved by the

Chinese authorities in Yanbian Prefecture. In view of the presently rapid changes (which is in line with the strong increase countrywide), the figures presented below only convey a snapshot information:

TABLE 17

Starting with a mere three joint venture approvals in Yanbian in 1985, the accumulated number grew from 39 in 1990 through 61 in 1991 and 212 in 1992 to reach a total 355 and 371 ventures as of June and early August 1993, respectively (Table 17). The total contracted investment amount rose almost thirteen times since 1985 reaching US$ 406 million. The August 1993 foreign investment component amounting to almost US$ 200 million was almost fifteen times the 1985 figure, representing 48 per cent of the total investment amount.

In terms of numbers, more than three quarters of the joint ventures were concluded with investors from only three countries, i.e. the Republic of Korea which accounts for 161 projects or 43 per cent of the total alone, Hong Kong with almost a quarter and Japan with another ten per cent. The absence of language barriers, cultural affinities with the Yanbian population and low wage levels clearly contribute to the high degree of attractiveness which the area enjoys with ROK investors. Investors from the neighbouring TRADP partners, DPRK and the Russian Federation, account for 5 and 3 per cent, respectively. A notable number of contracts has also been approved with partners from the USA and Taiwan Province of China, while other Asian or European countries are only about to enter the scene.

The breakdown of joint venture approvals by sectors reveals a clear focus on industry which absorbs more than three quarters of the total, both in terms of numbers and of the foreign investment component, followed by the service sector with some 11 per cent.

The eleven largest foreign direct investments approved for establishment in Yanbian Prefecture together make up for roughly 10 per cent of the total Yanbian figures, both in terms of the contracted total investment and the foreign investment component, thus reflecting a rather balanced size structure. In these companies seven of which are concluded with partners from the Republic of Korea the foreign share in the respective total investment varies from 17 per cent (Russian partner) to 100 per cent (Japanese partner) and averages at around 44 per cent (Table 18).

TABLE 18

A look at the geographical distribution of foreign investments shows the emergence of Yanji and Hunchun as prime locations:

As of June 1993, roughly half of all joint ventures approved in Yanbian Prefecture were to be located in Yanji alone, accounting for 42 and 45 per cent of the contracted total investment and total foreign component, respectively. Again, with a share of nearly 80 per cent, investments are mainly targeted at industry.

A number of foreign direct investment projects are at various stages of preparation. Inter alia, negotiations were reportedly nearing completion in August 1993 with a ROK partner on the construction and operation of a US$ 110 million animal husbandry farm project foreseen to raise 230,000 cattle with 60,000 slaughtering and 13,000 tons of beef production per year. Potential for an enlarged co-operation with ROK investors is also seen in the already started production of building materials. For instance, the production of porcelain bricks taken up in August 1993 is scheduled to increase its annual output to 0.8 and 1.5 million square meters by 1994 and 1995, respectively. The production of in-house bricks, indoor plastic windows and high-standard cement in several ventures is being negotiated and/or desired. Negotiations are also ongoing with KIA of ROK concerning investment into the manufacture of automobiles; a pre-feasibility study is said to envisage an annual output of 100,000 cars.

Hunchun as of mid-1993 had attracted some 20 per cent of foreign direct investments in Yanbian Prefecture. Of the 70 joint ventures approved (end-93: 92) 55 with partners from eight countries had been registered by August 1993 with a total registered capital of US$ 88.9 million of which the foreign component was US$ 32.4 million. Half of the registered ventures are in industry.

As of August 1993, a series of seven joint venture projects, primarily in food processing and various light manufacture, were under negotiation for establishment in the Hunchun Border Economic Cooperation Zone with a foreign investment component of a total US$ 108 million. Further 13 ventures were being advertised for investment as priority projects, representing a Y 780 million total investment amount (see Table A-4). By March 1994, 44 joint ventures were approved (thereof 22 in manufacturing) four of which as wholly foreign-owned units.

The increasing attraction of Hunchun as a promising trade and investment location is also reflected:

- in high double-digit growth rates recorded for gross industrial output in 1992 (24 per cent) and 1993 (31 per cent; preliminary);
- in the recent establishment of 369 representative offices of enterprises largely from Jilin Province (ca. 150) and other Chinese provinces (ca. 200), but also of foreign companies (19), such as from Hong Kong, the US, Macao, the Russian Federation and DPRK;
- in an expanding stream of foreign visitors seeking information about investment opportunities and facilities in the zone; more than 9,000 domestic and foreign delegations comprising some 47,000 persons were reported to have visited Hunchun for this purpose until July 1993;
- in the rapidly changing face of the Hunchun downtown area where a whole series of tall (up to 20 storey) office and commercial buildings presently under construction with capital from external sources will distinctly change the city's shape within the near future.

With around 20 joint ventures each having been approved for establishment within the boundaries of the areas of Tumen and Longjin foreign investors' interest in these locations so far has been less pronounced than elsewhere. Important joint ventures in Longjin relate to the production of ginseng, leather shoes, woollen sweaters, and of energy conservation tubes. Another five ventures including one in timber processing were reported to be under negotiation. Joint venture contracts at finalization stage in Tumen include the badly needed construction of two four-star hotels, one of which with a Hong Kong investor.

While joint venture approvals clearly need to be distinguished from their actual establishment and the start of business operations, no clarity was to be obtained on the latter. It should, however, be a safe statement to assume the implementation of a rather limited though not insignificant number up to the present. The commencement of construction activities and/or production appeared imminent in a larger number of cases, particularly in Hunchun. The few joint venture establishments visited by the mission were all looking back on a rather short period of existence, such as a garment manufacturing venture (set up in March 1992) and a plastics manufacturing company (since April 1993) in Tumen City, as well as a knitting factory in Hunchun (since July 1993). Subsequent to the mission, three joint ventures have become operational in the Hunchun Border Economic Cooperation Zone (production of socks; interior decoration; sliding doors) with a combined foreign capital input of less than US$ 1 million. The zone authorities expect 80 per cent of the approved joint ventures to have set up or commenced construction of their factories by end-1994.

DPRK:

As to foreign investments in the Rajin-Sonbong Free Economic and Trade Area no industrial joint venture agreements were reported as having been concluded by the time of the UNIDO mission. Negotiations with a number of potential investors from several countries were, however, referred to as ongoing.

Russia:

With the opening of the region to the outside world foreign investment inflows into Primorsky Krai have witnessed a sharp increase in recent years. Within a three year period, the number of equity joint ventures had grown from 24 to 364 by June 1993 with a foreign paid-up capital contribution of some US$ 208 million (table 19). However, with the Nakhodka Free Economic Zone hosting some 75 and 60 per cent of the total in terms of numbers and of paid-up capital, respectively, foreign investments display a high degree of geographical concentration. Consequently, the structural pattern of investments (countries of origin, sectors of activity) shows little difference between Primorsky Krai in total and Nakhodka FEZ (tables 19 and 20). The listing of foreign investments is headed by China, Japan, the USA, Hong

Kong and the Republic of Korea which together account for 80-90 per cent of the total in terms of both project numbers and foreign in-paid capital. In turn, investors from Europe so far assume only a marginal role. With regard to project numbers, China emerged as the single most important country of origin (54 and 44 per cent share in Primorsky Krai and Nakhodka FEZ, respectively), while Japan takes a clear lead as to the foreign investment amount (32 and 53 per cent, respectively).

TABLE 19

TABLE 20

The areas of investment extend over a wider range of activities, as is revealed in a sectoral break-down available for Nakhodka FEZ. About a quarter of all investments are related to manufacturing activities (consumer goods, technological equipment). Other major activities are reported for commerce (some 24 per cent), agriculture including forestry/wood processing (17 per cent), as well as for transport and construction (Table 20c).

Only a small number of foreign investments are under operation in Khazan District so far. For instance, two of the three shareholders of the East Base Fleet of Russia for Catching and Processing of Seafood Joint Stock Co. in Zarubino are Russian-foreign joint venture undertakings with partners from ROK (Pacifico) and Vietnam (Dalsiprico), respectively. Shops and restaurants with Chinese participation from Yanji were reported to be under construction in Zarubino. In general, however, foreign involvement to date appears to be largely limited to the extension of infrastructure (road, rail, port facilities), particularly by available Chinese labour.

Border Trade Development

Given the large untapped potential of TREDA for increased trade relations among the riparian countries on the one hand and with international markets on the other hand, the progressive opening up of borders together with the facilitation and promotion of trade flows has been identified as the key element under TRADP from the very beginning. Consequently, the establishment of free trade zones within TREDA has been acknowledged by all sides as one of the major instruments towards achieving this objective and therefore received priority attention up to the present. Any intensification of trade relations will contribute to putting the overall economic relations on a more stable basis thereby strengthening the foundation for the more ambitious TRADP components. By generating demands for the continuous build-up and upgrade of the necessary trade-related infrastructure (in physical as well as policy including legal terms) it will also foster the envisaged economic integration across borders.

Intra-subregional as well as third-country trade of TREDA has to be developed from a minimum basis. As has been well established by the 1992 ITC trade study conducted under TRADP, the riparian territories are characterised:

by a low overall trade orientation compared with the Asian standard and thus a low integration into the international division of labour in general, with estimated export ratios of 9 per cent for Jilin Province, 7 per cent for DPRK and 5 per cent for Primorsky Krai; and

by internationally equally low shares of intra-subregional trade accounting for some 6-7 per cent of the respective total trade figure.

While a detailed analysis of trade developments in 1992/93 within TREDA is beyond the scope of the present report, the scattered information received during the field mission leads to the conclusion of the initiation of a rather significant increase of bilateral Sino-DPRK and Sino-Russian trade flows. However, in spite of earlier central government decisions in China and the Russian Federation to put their countries' foreign trade on a hard currency basis, a large share of trade within TREDA continues to be effected as barter trade.

According to Yanbian sources, with an estimated total of US$ 443 million in 1993 Yanbian barter trade with DPRK and Russia (imports and exports) surpassed the 1992 figure (US$ 266 million) by two thirds and almost quadrupled when compared with 1991 (US$ 112 million).

Trade with DPRK and Russia accounted for 71 per cent of Yanbian's total in the first half of 1993, thereby surpassing the previously dominant role of Dalian in Liaoning Province through which most of the remainder was being channelled.

At the level of individual border crossings no reliable figures could be secured; yet the picture appears mixed. Increases in the freight tonnage handled from January until June 1993 compared with 1992 were reported for the Tumen/Namyang (plus 30 per cent) and Sanhé/Hoeryong (plus 100 per cent) border crossings, while the 1993 figures indicate no change for the Chenglingze and Shatuozi/Saebyol crossings. In value terms, however, Hunchun authorities claim a distinct growth of cross-border trade flows where a total Y 800 million for the first half of 1993 contrast with Y 1.2 billion for the entire 1992 period.

The degree of trade diversification so far remains limited. Major goods exported from and through Yanbian to DPRK continue to be grain, animal feeds, some daily consumer and other light industry goods; in turn, DPRK exports to China mainly consist of fish/seafood, chemical raw materials/fertilizer, steel products and timber. A new development is the import of automobiles into Yanbian in transit mainly through DPRK; reportedly more than 10,000 cars of ROK, Czech, Russian/CIS or Japanese origin were brought in during the 1992 to June 1993 period through the Saebyol/Shatuozi border station alone.

All figures quoted are likely to underrate the actual trade flows by a considerable margin since trade activities unfolded informally by individuals declaring themselves as tourists appear to be significant. The ITC study referred to "guesstimates" according to which official border trade figures would have to be increased by some 20 per cent.

Passenger traffic is assumed to reflect changes in business opportunities. For instance, when in 1992 the DPRK placed export restrictions on fish, passenger traffic with Yanbian recorded a distinct decrease.

Subregional Industrial Cooperation

While it is difficult to obtain a complete picture on the extent, direction and modalities of subregional, i.e. cross-border economic cooperation within TREDA, scattered evidence hints at a clear upward tendency in the recent past. This development is reflected in increasing border trade activities - as indicated above -, growing numbers of cross-border investments among the riparian countries as well as in other collaborative agreements between enterprises and/or public authorities. Evidently, progress at micro, i.e. enterprise level is driven by a still small but growing number of individual entities which in the seizure of recognized business opportunities enjoy the benefits as newcomers in an increasingly open working environment. Regarding the latter, the unprecedented decision in 1993 by DPRK authorities to allow the landing of ROK flag carriers at Chongjin Port (due for extension to Rajin and Sonbong ports) is to be viewed as a major achievement. Cooperation is yet often related to construction, transport/trading and other service activities, much less to industry proper.

For instance, four joint ventures with partners from Hunchun were reported as having commenced operation on the Russian side, such as in cigarette production, construction and a number of service industries (shops, restaurants, transport services). In 1993, more than 500 Chinese workers were exported to Khazan District for construction works of a various nature.

Newly established businesses in Yanbian are considering to open business offices at Primorsky Krai ports to monitor the handling of incoming and outgoing goods, such as a Tumen-based garment factory. Dalso Company of Russia which was set-up in 1991 as a stockholding company with currently some 130 companies under its portfolio is channelling large parts of its business through TREDA. This encompasses transport/trading of various goods through Rajin, such as alumina imports from Australia and India to Bratsk (which until the break-up of the USSR used to be imported through western ports), fertilizer exports as well as steel products and containers both ways. Consequently, the company has become involved in the ongoing upgrading of Rajin port.

The management of Khazan Commercial Seaport Joint Stock Company at Zarubino is also considering the rapid expansion of its TREDA-oriented activities. Inter alia, there were reports on a recent agreement with partners from the Republic of Korea to bring in 300 tourists per week by a regular boat service for a one week tour mainly into China. The Zarubino-based Far East Base Fleet Joint Stock Company recently converted its existing trading activity with a Jilin-based company (fish for food products, construction materials, garments, light industry products) from a barter to a hard currency basis. Together with an ROK partner the company also intended to establish a regular open ferry service between Phusan/ROK and Zarubino for containers, general cargo and cars by spring 1994.

DPRK-Chinese cooperation can be illustrated by the comprehensive contract package nearing conclusion between Rajin-Sonbong zone authorities and Gonggyo Co. Ltd of Yanji. The latter which opened an office in Chongjin in July 1993 was expected to provide funding and equipment for the extension and modernization of Chongjin East Port as well as the construction of the Haeryong-Chongjin road and a hotel in Chongjin. This was to be compensated by the privileged, i.e. free of charge use of Chongjin Port.

KEY PROBLEMS AND CONSTRAINTS

As was shown above, while most recent industrial development within TREDA clearly shows some advancement, it is equally true that in overall terms progress so far is only limited and at best in its infancy. This holds particularly with regard to a rather embryonic view industrial policy-makers of the sub-region so far have adopted as to the development of a more integrated and more coordinated industrial system across borders. In turn, given that until a few years ago economic exchange among the riparian countries in/through the remote and backward TREDA region was either non-existent or minimal, the very fact that by participating in TRADP a common approach towards the region's development has been acknowledged as a potential source of mutual benefits is a major achievement in itself which cannot be overestimated. However, much more needs to be done to develop a more integrated view towards industry in TREDA. The present is characterized by a substantial lack of knowledge in all the three countries (i) on current (industrial) developments in the respective other countries, (ii) on the nature and details of each others' industrial development strategies and plans, and - perhaps with the exception of DPRK - (iii) a rather incomplete knowledge at the central/national and provincial/regional government levels about developments at the respective local levels - including the business-driven ones - within TREDA. Overcoming these informational deficits would greatly facilitate the adoption of a more integrated and better coordinated policy approach.

International experience shows that economic cooperation across borders is particularly successful when participants consider the distribution of expected and actual benefits as sufficiently balanced. In this context, sceptics may hint at the rather similar industrial resource base within TREDA between the three countries and thus a lack of complementary structures. For instance, all three countries are fundamentally short of capital, dispose of limited modern enterprise management skills, have a relatively strong natural resource base and share a relatively weak position of light industries vis-a-vis heavy industries. With regard to technologies/technological knowledge, Primorsky Krai is usually seen at an advantage compared with the other two, and China and DPRK are stronger as to the size of the labour force which in DPRK is also due to the guided transfer of workers by the authorities. However, while the prevalence of more obvious complementarities would more readily indicate the profitability of cross-border cooperation, any blocking off or toning down of cooperation efforts on the grounds of the three countries' perceived position as competitors would not pay in an environment where economic reform together with open borders and an increasing reliance on market forces in any one part (particularly China, Russia) should provide enough of an incentive not to fall behind by staying outside. The most promising response, then, is not to embark on a cut-throat competition in terms of offering more and more favourable investment conditions and incentives individually, but to pursue the early establishment of a level playing field within TREDA in the form of a harmonized/ standardized and transparent investment regime. Should this be achieved in due course, there is no reason not to expect considerable synergies for all countries, i.e. benefits surpassing what could be gained in the case of isolated or uncoordinated action.

At the time of the UNIDO mission, a number of unresolved problems adversely affected TREDA's further development both as an important transport hub and an industrial base:

Border-Crossing Procedures

These were characterized by insufficient coordination of opening times. For instance, due to a three hour time difference between China and Russia in summer and different closure times at night and during midday, cross-border business at the Chenglingze/Kraskino passage was limited to three hours per day.

Third country passport holders with visas were unable to cross the Chinese/Russian and Chinese/DPRK borders easily. This problem appeared to be largest on the Russian side which did not allow the passage to passport holders other than Chinese and Russians to cross at Chenglingze. The Chinese government had made a corresponding proposal in July 1993.

Currency Exchange at or near Border Crossings

No banking and thus no foreign exchange facilities were available at border crossings.

Hunchun, Tumen and Yanji branches of the Bank of China did not accept traveller cheques (including Bank of China US$ cheques) or credit cards. Russian and DPRK banks (e.g. in Rajin) were unable to change local currencies into US dollars or Chinese FEC.

Border Area Defence Units

Military checkpoints, especially in the DPRK portion of TREDA, slowed down communication/ transport time; they are also apt to create a negative impression/image with potential foreign investors.

Foreign Investment Rules/Advertising

Foreign investment rules, regulations and incentives presently under operation in TREDA leave much to be desired. This refers both to the stipulations as such (lack of clarity/transparency, comprehensiveness, etc., particularly in Primorsky Krai), to the way foreign investment is advertised, and to the institutional support structures/mechanisms in place. For instance, using investment guides, where available, may become a time-consuming or even fruitless exercise given the frequently poor English of these publications, particularly on the Yanbian side. Also, the precise delineation of the various development zone/industrial site concepts is not always easy to understand. At Primorsky Krai level, no funds are available for the publication of investment guides and brochures. Also, the envisaged set-up of a Division for Investment Promotion within the Territory Government as well as of an Investment Promotion Office designed to work as a non-profit organization under the Administration, inter alia, is impeded by recruitment problems due to low salaries in the public service which have already led to a certain brain drain into private business activities.

Technology Level

At micro level, outdated machinery, a relatively low level of technology and correspondingly limited technological knowledge of the industrial labour force are characteristic features of the majority of existing industrial enterprises in TREDA, contributing to low quality and productivity.

Equipment is particularly obsolete in the DPRK portion. In Primorsky Krai, the picture is somewhat more differentiated. For instance, while some 65 per cent of food processing and 70 per cent of fish processing facilities still in place are in dire need of rehabilitation and modernization, the Territory's past function as a key defence industry location has produced substantial advanced technological know-how and facilities.

Industrial Integration/Networking

Industrial cooperation in the form of sub-contracting relationships within TREDA, i.e. the shared production along both horizontal and vertical lines is as yet limited to a few examples, particularly across borders. While this is to be explained, inter alia, by the still recent history of opening up borders, overcoming this constraint would constitute a stimulus for future industrial growth.

China

A possible constraint of particular relevance to Yanbian Prefecture may be seen in the replication of a (seemingly uncoordinated) spread in recent years throughout the country of various kinds of special economic zones and/or industrial sites and ensuing investment incentives set-up at all government, including provincial and municipal, levels. Too high a number of like zones has not only resulted in a lack of transparency on the side of foreign observers/investors; it also reduces the relative degree of preference to be enjoyed at any one place over the other and by this may run counter to the initial intention to spur development in a geographically confined nucleus or core area. However, central government appears to have responded to this development by reemphasising recently that the authority to approve the establishment of the various specialized zones continues to rest exclusively with the State Council. In line with this, as of mid-1993 the central government shut down 1,000 of China's 1,200 coastal development zones in order to return land with little prospect for commercial development to agricultural use resulting in a reduction of the overall coverage of zones from 7,500 km2 to 1,600 km2 countrywide. Yanbian authorities, particularly at local/city level, would thus have to keep a careful eye on the viability and economic profitability of any further industrial/business zone or estate under consideration.

DPRK

As to the Rajin-Sonbong area, the approach chosen to set up the earmarked nine industrial parks, i.e. to postpone the basic property development, such as the installation of roads or utilities until after the investors' arrival - or at least the conclusion of investment agreements - may not work in practice. While the likely rationale behind such an approach, namely to avoid the risk of spending scarce budgetary resources for what might have uncertain results is understandable, foreign investors usually do expect more than an undeveloped "open countryside" as a facilitating environment. This appears all the more relevant given the proximity of corresponding industrial sites/estates on the Chinese side as described which possess - or are about to possess in due course - these infrastructural facilities. The major challenge faced by DPRK policy-makers with regard to the industrial build-up within the zone seems to lie indeed in convincing potential investors of locating in Rajin-Sonbong rather than in Yanbian. The hitherto very limited advertising of the Rajin-Sonbong zone to the outside world if left unattended also constitutes a major development constraint.

Russia

Any progress with the envisaged industrial restructuring in Primorsky Krai in general and the assumption of a key role of the regional economy within TREDA in particular will be crucially dependent on a successful macroeconomic stabilization and the creation of a stable and reliable (economic) policy management framework. Lately, in line with Russian experience overall, in its aimed-at transition to a market economy the Territory has been confronted with a wealth of problems, such as a decline of (not only) industrial production, high inflation rates, fiscal budget crises, low levels of (mostly public) investments, unstable ruble exchange rates, rising unemployment and ensuing social problems. Due to supply shortages and/or dramatic price increases enterprises are frequently unable to procure needed raw materials, components, spare parts or energy, thereby contributing further to decreasing outputs.

With respect to the general attitude towards TRADP, a considerable degree of reluctance to support a speedy and/or "large-scale" implementation of activities on the part of many officials at Territory or local levels cannot be overlooked. This reluctance appears to be motivated by a combination of (i) geo-political (Chinese access to the East Sea (Sea of Japan)), (ii) ecological (uniqueness of natural reserve in Khazan District) and - by far most important - (iii) social/demographic reasons. The latter refer to serious political and cultural reservations as to the influx of large numbers of Chinese into Russia which is feared to result in economic imbalances given the highly uneven population numbers in the Russian and Chinese TREDA sections. For 1992, some 80,000 Chinese are claimed to have stayed on illegally in Primorsky Krai after visas expired. However, recent plans to provide land for the settlement of Kosaks on state land near Kraskino as a border fortification measure do not seem to have been put into practice. In turn, in view of the imminent opening of the Hunchun-Kraskin--Zarubino railway line Kraskino officials refer to local infrastructural facilities as being highly inadequate to cater for the expected number of daily travellers from China. There is also (iv) scepticism towards TRADP in some Primorsky Krai quarters on the grounds of misunderstanding the project as exclusively seeking access to the sea for China through a Tumen River port. Finally, (v) opposition towards TRADP is voiced by managers of individual businesses (e.g. of Nakhodka FEZ) who fear detrimental effects from increased competition once modern transportation links are fully operational in and through Khazan district. In this context, TRADP (usually called the "Tumengang Project") is seen by some as a competitor, for instance vis-a-vis the Greater Vladivostok development plan rather than a complement or an umbrella-type of approach which can and should be fine tuned so as to ensure full compatibility.

Part of the above reservations are certainly attributable to the prevailing lack of familiarity with a market economy-type business culture which seizes opportunities and reacts upon competitive threats by own efforts to improve the product and/or production process in question.

OPTIONS AND PERSPECTIVES

Policies

In general terms, future industrial development in TREDA hinges critically on the responsible policy-makers' readiness and ability:

to create and maintain a sound macro-economic and business-conducive environment where market mechanisms assume the primary function of coordinating the individual economic agents' plans; and

to strive for the establishment of an enabling industrial support infrastructure which encompasses adequate physical transport and communications facilities as well as a whole range of up-to-date business services, such as in finance (banking and insurance), marketing, modern enterprise management, human resource development, etc.

Against this background, the successful attraction of foreign capital, market-oriented management know how and technological expertise, particularly in the form of foreign direct investment, will have to play a leading role in the initiated industrial restructuring and extension throughout TREDA. Accordingly, efforts to foster industry should remain focused on investment promotion activities. It is in this domain where professional policies of a top international standard can be expected to render the most vigorous results. Investment promotion, however, cannot be considered a one-time effort which ends with the establishment of a business, let alone with the signing of a contract. Difficulties and impediments in the investment environment witnessed by the new investors before and upon start of operations need to be attended to. According to recent experience in Central and Eastern European countries, various foreign investment "teething problems" have turned out to be particularly relevant in transitional economies. These problems have to be attended to if the attracted investments are to become sustainable in the longer run.

Maintain Competitive Advantage

Recent analyses including the present investigation point to TREDA's considerable potential to develop into an important economic centre in North-East Asia, both as a transportation hub and a manufacturing base. With regard to the most promising industrial strategies for TREDA on the whole and the riparian countries' sections individually, the search for and mobilization of competitive advantages should lead the way. Major determinants in this endeavour are:

- the existing resource base (capital, natural resources, size and skills of labour force, technological capabilities, energy, management know how, etc.) as well as past industrial strengths and experiences;
- present bottlenecks and shortcomings of local industrial production; and
- the nature and size of (potential) demand for industrial goods in local, sub-regional and international markets.

Light Manufacturing Strategy

As underlined by this report's industry profile of TREDA, all three countries exhibit a distinct weakness of light vis-a-vis heavy industries. There is thus a strong evidence of large untapped domestic markets for light (consumer) goods. Together with a mounting interest in more advanced Asian developing countries (Republic of Korea, ASEAN) and developed countries (Japan) to relocate production facilities to less costly locations in the region a strong case can be made for adopting a both local market and export-oriented light manufacturing strategy. In principle, such an approach appears promising for the Yanbian, Rajin-Sonbong and Vladivostok regions alike. Export-oriented light industries frequently carry the advantages of significant employment opportunities, relatively low investment requirements, short lead times for establishment, foreign exchange earnings and technology transfer benefits. Emphasising the promotion of light manufacturing in TREDA does, however, not preclude policy-makers from pursuing the upgrading of resource-based primary production in parallel. In order to keep higher shares of value added in the domestic economy than in the past, respective efforts would have to be directed towards enlarged processing of commodities.

The Future

While a detailed forecast or projection of likely industrial developments in TREDA by sub-sectors is beyond the scope of the present report, the most likely scenario emerging from the above assessment of recent trends, policy approaches and key constraints is as follows:

Transit trade is likely to continue its rapid growth in the coming years between China and Primorsky Krai and Rajin-Sonbong-Chongjin, respectively, and (ii) between Primorsky Krai and Rajin-Sonbong-Chongjin.

In the short term, Yanbian Prefecture, particularly the Hunchun area is likely to account for the most dynamic economic and industrial development. This expectation is also being supported by the recent (January 1994) set of central government macro-economic policy reform measures in China, such as (i) a further deregulation of the foreign trade regime with the initiated unification of the foreign exchange rate system and the ensuing phasing out of Foreign Exchange Certificates (FECs), (ii) a further liberalization of the FDI regulations, and (iii) a tax reform package.

Successful attraction of investment into the Rajin-Sonbong Zone will to a large extent depend on the actual implementation of infrastructural upgrade as foreseen in the DPRK master plan as well as on the DPRK authorities' willingness to provide the seed money necessary for at least the basic property development of the earmarked industrial sites. In turn, given the continuously adverse macroeconomic conditions in Primorsky Krai and the Russian Federation generally, the chances of an early industrial upturn in the Russian part of TREDA - notwithstanding its considerable potential - appear to be more limited.

Overall, however, projections by local authorities of the expected population growth, largely through migration, in TREDA universally indicate a strong confidence into a major economic upturn in the near future. DPRK authorities predict an increase of the Rajin-Sonbong population from 130,000 in 1992 to 195,000 in 1995 and 350,000 in the year 2000. Population of Khazan District is estimated to grow from some 50,000 in 1992 to about 70,000 in 2000 and may well reach 120,000 by 2005. Hunchun authorities predict a - primarily urban - population increase in the period 1992 to 2000 from 187,000 to half a million.

In a medium and longer term perspective, provided the authorities succeed in creating the strived-for enabling environment, spread effects extending from a more vigorous economic upturn and development in all three corners or "growth poles" of the TREDA triangle (Hunchun area, Rajin-Sonbong, Vladivostok area) into their vicinities are to be expected, thereby contributing to a more integrated development across borders. If driven by market forces, some time ahead the eventual outcome might well be the "bottom-up" emergence of a core business centre inside TREDA along the lines of the international or core city discussed earlier under TRADP.

FURTHER PROMOTION OF INDUSTRY IN TREDA: RECOMMENDATIONS FOR ACTION

INDUSTRIAL INTEGRATION ACROSS BORDERS

With regard to the further promotion of industry in TREDA, on the basis of the preceding analyses a number of recommendations can be made which call for early attention and action (i) by the responsible authorities of the riparian countries, both individually and jointly, and (ii) by UNDP and the international donor community in the continuation of TRADP. In general terms, action should be directed towards the removal of disincentives and obstacles still working against the region's aimed-at emergence as a prime location of cross-border trade and international investment. For this to happen, in the design of adequate measures every effort has to be made to raise TREDA's competitive advantage to a level well above other parts of Asia.

Overcome Major Disincentives

Measures to overcome major disincentives at work include the following:

Continue to improve the limited and frequently difficult access for passengers to the region, especially by air, as well as the movement within TREDA by air and road. Install adequate road and rail transport facilities to the coast including complementary port facilities.

Facilitate and streamline visa requirements for cross-border travel in TREDA for both businessmen and tourists.

Establish financial and banking networks across borders within TREDA and extend the limited range of banking services available within TREDA.

Improve the poorly developed trading mechanisms and channels, with an over-reliance on inadequate barter trade agreements and individual traders.

Increase the highly insufficient knowledge of the foreign languages used in the region (Chinese, Russian, Korean, Japanese and English) at the levels of regional/local government bodies and institutions, the business community and other interested parties. To this end, bilateral exchange arrangements for Chinese language courses in Vladivostok and Russian language courses in Yanji/Hunchun, as well as for Russian (Korean) courses in Chongjin (Vladivostok), all with native speakers, should soon be made.

Devise confidence building measures in order to reduce the pockets of distrust to be observed in the riparian countries regarding increased economic interaction, particularly on the Russian vis-a-vis the Chinese side. This could be done, inter alia, (i) by more regularly informing the general public on the achievements and economic benefits reached under TRADP, (ii) by organizing visits of officials, business representatives and the general public alike to each other's territories at an enlarged scale, and (iii) by hosting and/or conducting awareness raising training programmes/courses to relevant sections of the Russian business community, e.g. on how to do business in/with China.

Seek the active involvement of local/concerned business representatives in the design and formulation of industry-related policies and measures within TREDA to ensure compatibility with needs as determined by market developments. This could take the form of inviting the (private) business communities' regular participation in the three countries' national teams or industry working groups established under TRADP. As to the latter two, a more stable composition than hitherto can also be expected to contribute to an enhanced continuity of work.

Country Specific Attention

In spite of the similar nature of shortcomings within TREDA their relative weight between and among the three riparian countries varies. In this connection, it is recommended that on a country-specific level special attention is being paid by policy-makers to the following:

China:

An uncontrolled spread of further special economic development zones or industrial estates within Yanbian Prefecture should be avoided unless a convincing case can be made for their expected economic viability and profitability. A gradual approach which links the decision to establish like facilities to actual market demands appears to be superior.

A joint promotion of Yanbian Prefecture as an attractive foreign investment location including a better coordination of marketing efforts is preferable to the present approach of all cities running promotion programmes of their own. This would enhance transparency of investment rules and procedures which are anyway almost identical. The available investment guides should be unified. The English language edition should be prepared with special care to ensure optimal comprehensibility.

DPRK:

Since comprehensive and up-to-date information on the business environment in the Rajin-Sonbong zone is a major prerequisite of a positive investment decision, DPRK authorities should consider to remove any remaining reservations as to more readily releasing statistical data and information on the economic and particularly the industrial situation of North Hamgyong Province on the whole. This would also facilitate an assessment concerning the possible creation of linkages between newly established (foreign) investments and local enterprises.

DPRK authorities should provide seed money for the preparation of the earmarked industrial parks according to international standards. This comprises the installation of basic infrastructural facilities, such as access roads and essential utilities. In this connection, a reduction of the number of industrial sites foreseen in the Rajin-Sonbong Master Plan from the rather ambitious nine to two or three may be a more realistic concept, at least for an initial period.

The institutional build-up for a unified and more independent management of the Rajin-Sonbong zone as foreseen by the DPRK authorities should be speeded up, i.e. merging the existing individual administrative and economic committees of Rajin City and Sonbong County on the one hand with the newly created General Corporation for Industrial Development (GCID) on the other hand into one joint administrative entity. By this the Rajin-Sonbong zone's status was meant to be raised to provincial level under the direct supervision from the General Corporation for Economic Development (GCED) in Pyongyang.

Russian Federation:

Major efforts are required to establish a clear regulatory and institutional environment for foreign investments in Primorsky Krai. This should include allowing the lease of land and competitive taxation rules. At Primorsky Krai government level, the proposed creation of a one-stop Investment Promotion Office should be pursued with vigour. Investment guides or regularly updated pamphlets with consolidated information on the Territory relevant for potential investors should be prepared.

Wherever necessary, measures should be taken to promote a more positive attitude towards TRADP in general and an ability to identify and to seize business opportunities resulting from the initiated economic upturn in the subregion in particular. Enhancing the relatively limited knowledge currently to be observed in a number of administrative and business quarters about the direction, recent achievements, future aspirations and the potential benefits of TRADP with a view to raising the concept's acceptance as an integral component of, not as a competitor to other Territory development concepts, is a case in point here. In this, emphasis should be put on seeking full compatibility with the South Primorie concept. For instance, a more positive approach on the part of Posiet Port management would greatly help to seize business chances, and Kraskino authorities would give up immense opportunities if they did not take the forthcoming stream of cargoes and passengers from China through Chenglingze as a catalyst of local development.

Strengthen Cross-Border Industrial Integration

With regard to the desired strengthening of industrial integration within TREDA across borders, any move towards (i) the facilitation of cross-border movements of people, goods and capital, i.e. the establishment of a fully functioning free trade zone, as well as towards (ii) the creation of a level playing field in TREDA can be expected to contribute to the emergence of gradually interlinked industrial structures. The more similar business and investment conditions are in the three neighbouring countries, the more likely will private business - the main engine of the expected industrial growth and activity - enter into networking activities across borders.

Important steps to achieve (i) and (ii) above would encompass the following measures :

Improvement of border-crossing procedures:

Coordinate border-crossing hours (especially Chenglingze-Kraskino border) to maximize daylight cross-border business and reduce traffic delays;

Allow third country passport holders with visas to cross the Chinese/Russian and Chinese/DPRK borders easily;

Establish on-the-spot visa issuance system for DPRK, Chinese and Russian borders for all nationalities, tourists and businessmen alike; multi re-entry visas should be easily obtained;

Introduce fast and efficient border procedures with a view to minimizing delays;

Upgrade public transport systems to/from border stations, foreign language capabilities, and install efficient customs, immigration and quarantine facilities.

Establishment of common customs procedures and concessions:

Grant concessional customs duties on border trade flows within TREDA;

Formalize and legalize duty-free access for export-processing and transit trade;

Publish customs duty rates and ensure transparency in their implementation

Currency exchange and border trade finance facilitation:

Establish foreign exchange and local currency banking facilities at each border crossing;

Upgrade available banking services within TREDA to international standards (letters of credit, telegraphic transfers, foreign exchange deposit/withdrawal services, bank guarantees/mortgage loans for foreign investment projects).

Removal or reduction of border defense forces (e.g. military checkpoints in DPRK; military administration of considerable - largely unused - sites in Kraskino).

Standardization/harmonization of investment regimes (rules, regulations and incentives) and related government stipulations:

Harmonize development plans at national, provincial and local level and convey clear message to outside world of concerted action of relevant authorities;

Harmonize foreign investment policies, legal systems, institutions as well as tax systems in order to increase the region's attractiveness as a whole to foreign investors;

Launch major effort to make investment including institutional arrangements sufficiently

clear to the international community;
Introduce standard procedures and measures common to all countries in the region aimed at the simplification of administrative processes for foreign investment projects, trade and tourism, such as investment application and approval systems; enterprise registration, accounting and financial reporting systems; land use/lease procedures, durations and rates; access to and unhindered utilization of public utilities and infrastructural facilities at competitive rates; minimum environmental protection standards and procedures; etc.
Facilitate placement of managerial and technical expatriate staff in foreign investment projects, inter alia, through the provision of long term multiple re-entry visas and residential/working permits; suitable accommodation and modern transport, medical, educational and recreational facilities; duty free imports of foreigners' vehicles and personal effects;
Standardize labour legislation including recruitment procedures; prefer direct individual recruitment over employment through labour service companies; encourage maximum labour mobility within TREDA;
Standardize land use/lease arrangements, e.g. 50-70 years lease period; identical/similar lease rates which should, however, be flexibly adjustable to competitive pressures from other parts of Asia.

INDUSTRIAL DEVELOPMENT SUPPORT UNDER TRADP

General

Industry-related activities under TRADP including the present exercise have striven to establish a first information base on TREDA's industrial past, major present industrial conditions and policies as well as key constraints of and options for industry's future role in the subregion.
Given the substantial untapped industrial potential of TREDA overall there is good reason to maintain this sector's inclusion into all future promotional activities under TRADP. UNDP's role as accepted by all participating countries should continue to be that of a catalyst and honest broker which renders impartial advice whenever requested. In this connection, the UNIDO mission got the strong impression that in order to reassure the regional Russian authorities'

continuous support of and/or renewed interest in a further active involvement in TRADP and TREDA's future more integrated development, additional efforts appear advisable to ensure a more balanced distribution in favour of the Russian share of actual benefits to be derived from TREDA's development progress. This could be achieved (i) by fully incorporating the Vladivostok and Nakhodka/Vostochny areas into all future technical cooperation activities under TRADP (e.g. military/civilian conversion, environmental pollution control of heavy industries, other industrial restructuring challenges), i.e. by dropping any focus on Khazan District as too narrow; and (ii) by accepting the Russian's firm stand to ban any large-scale industrialization from Khazan District as neither feasible nor desirable, mainly for ecological reasons. In addition, a sharper focus on what might realistically be expected from the development of TREDA in the coming decade is likely to ensure a stronger commitment not only on the Russian side. In this context, the concept of creating a core or international city at a central location within TREDA (between Hunchun and Fangchuan on the Chinese side) should not be pursued with any priority at the present time.

More specifically, whereas TRADP support measures in the field of industry should be designed in line with the priority areas identified under section V.1 above, a few activities appear to be particularly pressing in the short term and are therefore recommended for UNDP's/TRADP's early attention:

Monitoring and dissemination of industry-related developments in TREDA under TRADP

While the available evidence suggests the recent initiation of rather dynamic developments including in the industrial sector in some parts of TREDA, the precise nature and extent of these developments is not always known to policy-makers and the business community in the target area, let alone its vicinity. At present, collecting and assembling relevant information including statistical data on industry in TREDA is a cumbersome task. It is therefore suggested to establish a mechanism or focal point under TRADP to monitor current industry-related events (e.g. major industrial policy plans and decisions, foreign direct investment and trade flows, inventory of cross-border cooperation activities) on a regular basis so as to ensure an up-to-date awareness among TRADP participants at any one point in time. The proposed establishment of a Permanent Industry Committee under TRADP in addition to irregular Industry Workshops could assume the function of such a focal point where relevant data and information are disseminated among participants. Key developments should also be more vigorously advertised to the outside world than hitherto in order to raise the very limited awareness of the subregion among the international business community.

Detailed investment opportunity and feasibility analyses

After completing some initial stocktaking of industry in TREDA, in a second phase major assistance should be provided under TRADP for the preparation of detailed investment opportunity and feasibility analyses as an important instrument to identify economically viable industrial activities in TREDA. In this endeavour, UNIDO suggests a focus on the following industrial investment priorities:

- Hides and leather industry (Yanbian, Rajin);
- tanning of hides from Mongolia and Yanbian
- Fish processing (Zarubino, Nakhodka, Rajin);
- Livestock breeding, meat processing, packing and storage (Yanji, Yanbian);
- Light industries/export processing zone activities (Hunchun, Rajin, Nakhodka):
    - textiles and garments
    - light engineering and plastics/household appliances
    - light building materials and household decorations
    - food processing/beverages
    - electronics
    - toys and stationary;
- Shipbuilding and ship repair (Vladivostok, Nakhodka, Slavyanka);
- Military conversion (Primorsky Krai, especially Vladivostok/Arseniev);
- Automotive industry (Yanbian);
- Pharmaceuticals, especially traditional medicines and beverages (Yanji, Longjin, Tumen);
- Petroleum refining/petrochemicals (Sonbong);
- Tourism (Yanbian, Khazan District, Sonbong).

In all the above studies and analyses special attention should be paid to the existence or possible mobilization of complementarities within TRADP between the three countries with a view to identifying specialization niches for the participants.

Establishment of a TREDA Investment Promotion Centre or Institution

The envisaged joint and coordinated attraction of domestic and foreign investments into TREDA would be greatly facilitated by the early set-up of a specialized service institution, such as a TREDA Foreign Investment Promotion Centre. Branches should be located in Hunchun, Rajin and Vladivostok with local offices in Yanji, Chongjin and Zarubino. The tasks to be assigned to this centre should include:

the function of a one-stop investment shop (e.g. provision of information on foreign investment rules and incentives, provision/collection of investment application forms, channelling of government approvals);

investment promotion activities, such as regional/international advertising, inter alia, through the publication of investment guides/brochures and videos as well as investment promotion missions; linking with international investment information networks;

the provision of investment-related services, such as business negotiation offices and facilities, interpreters; hospitality and appointment services for visiting (inward) investor missions and business personnel; arrangement of site visits including across borders within TREDA.

Strengthening of industrial integration within TREDA and beyond

In principle, every single step towards creating level playing field conditions within TREDA will help to pave the way for a more integrated industrial development in the subregion. Any additional effort at strengthening industrial collaboration through increased networking between industrial enterprises will contribute to a higher degree of integration. Since the similarities of TREDA's resource base in the three countries may only promise limited scope for complementary industrial activity in the core area, the horizon for enhanced industrial inter-linkages should be broadened to include TREDA hinterlands. It is thus proposed under TRADP to explore and assess in detail the potential for industrial sub-contracting between industries within TREDA and with businesses outside, e.g. in Jilin Province, northern Primorsky Krai or the Chongjin area. For instance, there may well be scope for smaller enterprises to provide inputs for larger manufacturing units, such as the recently established Volkswagen-First Automobile Works joint venture in Changchun. The emergence of like market linkages may benefit from the compilation of an inventory of (sub)regional supplies for use by interested parties. In this context, the usefulness and possible modalities of setting up sub-contracting exchanges as institutional mechanisms through which to expand networking should be assessed in a separate study.

Need for further information gathering and dissemination on industrial expansion and modernization

Since TRADP encompasses the elaboration of strategies and policies for a coordinated development and promotion of industry, trade and investment in Northeast Asia in general and in TREDA in particular, the total industrial development potential should be analyzed in more detail. To this end, it is recommended to conduct a study which elaborates on industrial development options, constraints and priorities with a special focus on promising fields of cooperation with the core TREDA area.

Changes of TREDA's overall competitive position vis-a-vis other advancing regions, particularly in Asia should be carefully monitored under TRADP with a view to recommending policy responses on the part of the TRADP management. It is recommended to launch a comparative study on the experience made with other "growth triangle" concepts, such as the Johor-Singapore-Riau Islands between Malaysia, Singapore and Indonesia and the one between Thailand, Malaysia and Indonesia as well as on possible lessons to be drawn for TREDA.

Other recommendations:

TRADP should seek to include assistance in the field of modern enterprise management into its catalogue of support activities which, in line with other economies under transition, is in heavy demand within TREDA as well.

The early preparation of a multilingual (Chinese, Korean, Russian, English) map on TREDA -or a set of maps - should be pursued with priority, since existing maps, if at all available, are outdated or lack the necessary detail.

More efforts should be made to ensure a stronger involvement of local expertise/consultancy services into TRADP-related activities, particularly on the Russian side. This would not only contribute to a general strengthening of respective local capabilities, but also ensure a better mobilization and incorporation of specific local know-how.

The need and scope for specific skills improvement measures and mechanisms (e.g. vocational training facilities) in order to meet demands of invited business should be explored in detail.

UNIDO's Possible Role

UNIDO, in its capacity as a specialized agency within the United Nations system with a mandate to promote industrial development and co-operation, has acquired a wealth of knowledge and experience spanning a broad spectrum of technology acquisition options as well as technological development and application requirements in a large range of specific sub-sectors of manufacturing industries.

TREDA's recognized need to speed up the inflow of foreign capital, technology and industrial including managerial know-how clearly lends itself to focusing UNIDO's further support on foreign investment promotion. Constituting a major programme element of UNIDO's work, investment-related services essentially encompass six different yet interlinked activities which remain on offer for subsequent stages of TRADP:

Monitoring and assessment of pertinent trends in the international investment system with regard to changes in the magnitude and pattern of foreign investment flows; the determinants of investment decisions; corporate strategies; and technological and organizational innovations;

Preparation of country-specific Industrial Development Reviews containing up-to-date information on the structure and performance of a country's manufacturing sector; its industrial strategy and policies; the major institutions involved; and, specifically, its investment legislation, procedures and incentives;

Provision of active support to developing countries in the identification, preparation, screening and appraisal of investment projects so as to create a portfolio of viable and bankable investment projects suitable for subsequent promotion efforts. In this, various degrees of sophistication can be chosen ranging from a simple presentation of a project's economic and financial 'basics' with or without having been screened using UNIDO's Project Profile Screening and Pre-Appraisal Information System (PROPSPIN) computer software, to a full-fledged feasibility study based on UNIDO's own Computer Model for Feasibility Analysis and Reporting (COMFAR);

Rendering a wide range of investment-related technical cooperation services at both the institutional level (build-up and/or strengthening of national investment promotion agencies, including on-site and overseas training of staff in project appraisal and promotion techniques) and the company level (conceptualization and implementation of rehabilitation and modernization plans, frequently as a prerequisite for making a company at all 'promotable');

Organization of country-specific INVESMARTs (Investment Forums) as a mechanism of bringing together local investment project sponsors and interested foreign partners who are invited for bilateral negotiations under the forum framework.

When organizing such Forums, UNIDO draws on its worldwide resources and experience, inter alia, with the utilization of its global system of World Investment Network Services (WINS) which include UNIDO Investment Promotion Service (IPS) offices in 12 major capitals (Athens, Beijing, Cologne, Milan, Moscow, Paris, Seoul, Tokyo, Vienna, Warsaw, Washington and Zurich). In addition, two UNIDO investment promotion initiatives were established with the United Kingdom (UNIDO-UK Investment Promotion Initiative/IPI) and Australia (Trade and Investment Promotion Service/TIPS with offices in Canberra, Melbourne and Sydney). IPS and IPI offices in Hong Kong, Spain and Portugal are planned to be established in the near future.

Facilitating investment and business agreements (e.g. Letters of Intent) preliminary reached during INVESMART with Project Completion Facility (PCF) to include the preparation of feasibility, market and other studies necessary for the conclusion of investment/business negotiations, as well as expertise on technology, marketing, equipment, legal issues and financing.

With regard to TREDA, UNIDO Integrated Investment Programmes - encompassing steps (iii) to (vi) above - to include the holding of INVESMARTs are being negotiated at present with the concerned Government authorities at their request for Yanbian Korean Autonomous Prefecture (Hunchun) and the Rajin-Sonbong Trade and Economic Zone (Rajin). Likewise, the Russian Government has informed UNIDO about its intention to seek support for an investment programme for the Russian Far East, in particular the Vladivostok area. In a second phase, TRADP should work towards strengthening the joint promotion of TREDA, such as by seeking implementation of an investment promotion programme along the lines of INVESMART for TREDA on the whole. In addition, Khazan Commercial Seaport Joint Stock Company at Zarubino has voiced a strong interest in UNIDO's involvement in the envisaged full-fledged feasibility study on the port's future development.

Another line of possible UNIDO involvement is related to the conversion of defense industries into producers of civilian goods, especially in support of present policies in the Vladivostok area. The ensuing shifting of resources away from military purposes involves far reaching and integrated changes at policy, institutional and enterprise levels. UNIDO support can be rendered with respect to all three levels.

AUTHORS

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DISCLAIMER

ENDNOTES

LIST OF TABLES

REFERENCES

A.R. Holm Associates, Master Plan for the Transportation Sector prepared for UNDP,
San Francisco, April 1993.
DPRK Committee for the Promotion of External Economic Cooperation, Golden
Triangle Rajin-Sonbong, 2 vols., Pyongyang, no date (1993).
DPRK Committee for the Promotion of External Economic Cooperation, Golden
Triangle. Projects for Investment. The Rajin-Sonbong Free Economic and Trade Zone,
Pyongyang 1993.
EIU, China, North Korea. Country Profile 1992-1993, London 1992.

Far Eastern Economic Review, various issues.
Foreign Economic Relations and Trade Commission of Yanbian Korean Nationality Autonomous Prefecture, Guidebook for Investment, Yanji 1993.
Jiang, Z., The Strategy of Yanbian Industrial Development, Yanji, no date (1993), mimeo.
Jilin Province Foreign Economic Relations Bureau, A Guidebook on Foreign Investment in Jilin Province, Changchun 1993.
Kirchbach, F.V., Subregional trade expansion in Northeast Asia in the context of the Tumen River Area Development, Geneva, 4 September 1992.
Korea Institute for Industrial Economics and Trade (KIET), Study of the industrial situation in TREDA and feasibility of labour in light industry among nations of Northeast Asia, Study prepared for UNDP in the context of TRADP, Seoul, December 1993, mimeo.
Mikhailov, A., Survey of industrial development and socio-economic situation in Primorsky Krai Krai for the period 1991-1993, mimeo (background paper for present report).
Nakhodka FEZ Administrative Committee, Prospect Digest. Special Issue of "Nakhodkinsky Prospect" Newspaper, Nakhodka 1993.
Primorie Economic Development Task Force, Greater Vladivostok - A Concept for the Economic Development of South Primorie, Vladivostok, 25 June 1993, mimeo.
Statistical Yearbook of Yanbian Korean Autonomous Prefecture 1992, Yanji 1993 (Chinese).
Statistical Yearbook of Jilin Province 1992, Changchun 1993 (Chinese).
The Hunchun People's Government, A Guidebook on Foreign Investment in Hunchun, Hunchun 1993.
TREDA Investment Climate Paper, TRADP Working Paper, Informal Meeting of National Teams, New York, January 31, 1994, mimeo.
Tumen City Government, Guide to Investment in Tumen City, Tumen, August 1992.
UNIDO, Pre-Investment Study for the Establishment of a Free Economic Zone in Primorsky Krai, Final Report, TF/USR/91/001, December 1991.
UNIDO, China. Towards Sustainable Industrial Growth, Oxford/Cambridge: Blackwell, 1991.
Verolainen, S., Report on a UNIDO mission to Primorsky Krai from 18 to 26 July 1993, Vladivostok 1993, mimeo (background paper for present report).
Yanji City Economic Development Zone Administration Committee, How to invest in Yanji/China, no date.

TABLE 1

Basic economic structure of Jilin Province and Yanbian Korean Autonomous Prefecture, 1991

a) Gross output value of society

Sector	Jilin Province		Yanbian Prefecture	
	Rmb million	% share of total	Rmb million	% share of total
Total	95,749.2	100	9,140.4	100
Agriculture	18,838.3	19.7	1,263.8	13.8
Industry	61,437.9	64.2	5,798.9	63.4
Construction	7,326.0	7.6	802.1	8.8
Transportation	2,897.2	3.0	366.5	4.0
Commerce	5,349.6	5.5	909.2	10.0

b) National income

Sector
Jilin Province

Yanbian Prefecture

	Rmb million	% share of total	Rmb million	% share of total
Total	35,736.4	100	3,672.7	100
Agriculture	12,173.4	34.1	815.9	22.2
Industry	17,802.1	49.8	1,859.5	50.6
Construction	2,186.7	6.1	234.1	6.4
Transportation	1,459.0	4.1	194.8	5.3
Commerce	2,115.2	5.9	568.5	15.5

TABLE 2
Number of industrial enterprises in Jilin Province
by type of ownership, 1985 - 1991

Type of enterprises	1985	1990	1991

							Growth rate per annum in percent	
	Number	% of total	Number	% of total	Number	% of total	1990-91	1985-91
Total	135,159	100	178,592	100	173,994	100	-2.6	4.8
State-owned enterprises	2,552	1.9	2,878	1.6	2,893	1.7	5.2	2.2
Collective-owned enterprises	25,639	19.0	20,940	11.7	18,355	10.5	-12.3	-4.7
Private-owned enterprises	106,961	79.1	154,756	86.7	152,719			

87.8
-1.3
7.1
Other
7
0.0
18
0.0
27
0.0
50.0
47.6

Source: Statistical Yearbook of Jilin Province 1992, p. 318.

TABLE 3
Gross industrial output of Jilin Province 1985-1991
(Rmb 100 million, current prices)

Type of enterprises
1985

1990

1991

Growth rate per
annum in percent

Gross
output
% of
total
Gross
output
% of
total
Gross
output
% of
total
1990-91
1985-91
Total

256.8
100
552.4

100
614.4
100
11.2
23.2
By type of ownership

State-owned enterprises
191.4
74.5
388.7
70.4
439.4
71.5
13.1
21.6
Collective-owned
enterprises
58.4
22.8
124.4
22.5
133.5
21.7
7.3
21.4
Private-owned enterprises
6.6
2.6
37.5
6.8
38.7
6.3
3.2
80.9
Others
0.2
0.0
1.7
0.3
2.6
0.4
52.0
186.7

Total a

241.1
100
491.7
100
553.0
100
12.5
21.6
By type of industry

Light industry
88.1
36.5
194.4
39.5
209.0
37.8
7.5
22.9
Heavy industry

153.1
63.5
297.2
60.5
344.0
62.2
15.7
20.8
By size of industry

Large
78.5
32.6
187.7

38.2
220.9
40.0
13.6
30.2
Medium
43.1
17.9
86.4
17.6
91.2
16.5
5.6
18.6
Small
119.5
49.5
217.6
44.2
240.8
43.5
10.7
16.9

a Industrial enterprises at township level and above only.

Source: Statistical Yearbook of Jilin Province 1992, pp. 318+328.

TABLE 4
Regional distribution of industry in Jilin Province, 1991 a

Location

No. of
enterprises
Gross industrial
output (current
prices, million
Rmb)
Share of
provincial gross
industrial output
in %

Share of light
industry in gross

output
Jilin Province total
13,817
55,298.5
100
37.8
Changchun
3,065
15,529.4
28.1
36.1
Jilin
2,890
15,126.6
27.4
29.0
Si Ping
1,417
4,248.5
7.7
50.5
Liao Yuan
790
2,478.6
4.5
44.7
Tong Hua
1,607
4,540.8
8.2
45.1
Hunjiang
745
2,521.5
4.6
26.2
Bai Cheng
1,680
5,570.5
10.1
40.0
Yanbian Prefecture
1,623
5,246.6
9.5
51.6

a Industrial enterprises at township level and above only.

Source: Statistical Yearbook of Jilin Province 1992, p. 330f.

TABLE 5
Structural characteristics of industry in Yanbian Korean Autonomous Prefecture, 1992 [a]

Item	No. of enterprises	Employment	Gross output value (constant 1990 prices in million Rmb)	Net output value (current prices in million Rmb)	Exports (in million Rmb)
Total	1,614	359,235	5,739.7	1,753.2	199.0
By type of ownership					
State	414	246,687	4,565.2	1,397.9	137.2
- central government	9	35,347	977.1	294.7	

0
- local government
405
211,340
3,488.2
1,103.2
137.2
Collective
1,180
109,929
1,171.8
332.1
32.3
Foreign participation

20
2,619
102.7
23.3
29.5
By sub-sector

Light industry
876
99,072
3,056.1
898.1
154.9
Heavy industry

738
260,163
2,683.7
855.1
44.1
By size of enterprise

Large
12
103,983
2,079.3
773.8
19.4

Medium	66	94,230	1,527.4	397.4	37.2
Small	1,536	161,022	2,133.1	582.0	142.4

a Industrial enterprises at township level and above only.

Source: Statistical Yearbook of Jilin Province, p. 319f.

TABLE 6
Sectoral break-down of industrial production in Yanbian Korean Autonomous Prefecture, 1992 a

Industry Branch	No. of enterprises	Employment	Gross output value (constant 1990 prices in million Rmb)	Net output value (current prices in million Rmb)	Exports (in million Rmb)
Total	1,614	359,235	5,739.7	1,753.2	199.0
Coal mining and dressing	25	33,447	130.6		

-15.3
0
Non-ferrous metals mining and
dressing
18
10,018
109.0
32.6
0
Building materials and other non-
metal minerals mining and dressing
22
613
10.6
3.0
0
Logging and transport of timber
and bamboo
10
91,695
766.9
362.3
5.3
Purification and supply of tap water
12
1,145
9.0
7.5
0
Food processing
144
8,122
258.4
71.1
37.1
Beverage manufacturing
94
7,185
162.7
63.4
3.2
Tobacco processing
3
3,527
682.5
272.1
0.5
Forage manufacturing
16
778
41.0

5.5
0.9
Textile industry
38
14,839
214.5
52.0
25.3
Apparel industry
49
4,709
74.4
15.9
26.3
Leather, furs and other products
14
1,547
18.3
5.9
0
Timber processing, bamboo, cane,
palm fibres and straw products
201
66,585
443.9
110.9
22.1
Furniture manufacturing
30
1,728
22.7
6.7
0.7
Paper making and paper products
45
13,436
437.6
106.0
8.8
Printing
71
4,227
76.4
19.1
0.5
Cultural, educational and sports
articles
18
965
12.3
4.2

0.3
Arts and crafts articles
19
793
30.7
2.6
0.1
Power generation, steam and hot water production and supply
39
8,231
210.4
59.8
0
Petroleum processing
7
2,063
121.0
25.6
0.7
Coking, gas and coal related products
3
41
2.2
0.6
0
Chemicals (and allied products)
87
9,397
203.1
50.8
12.5
Medical and pharmaceutical products
52
7,506
280.9
100.8
8.5
Chemical fibres
3
7,390
356.7
73.1
13.2
Rubber products
11
2,025
32.5
7.4

0.2
Plastic products
50
4,134
83.6
23.5
0.7
Building materials and other non-
metal mineral products
199
18,312
323.8
108.9
10.9
Smelting and pressing of ferrous
metals
11
1,915
38.8
13.3
0
Smelting and pressing of non-
ferrous metals
7
993
50.5
11.1
0
Metal products manufacturing
109
7,577
117.1
28.7
15.2
Machine building
95
15,889
218.9
73.7
3.3
Transportation equipment
44
2,650
88.9
18.6
0
Electric equipment and machinery
41
3,384
80.8
22.4

					2.1
Electronic and telecommunications equipment	8	1,426	15.1	4.5	0
Instruments, metres and other measuring equipment	8	692	6.9	2.6	0.5
Other industry	11	251	7.3	2.5	0

a Industrial enterprises at township level and above only.

Source: Statistical Yearbook of Jilin Province, pp. 319f.

TABLE 7
Local distribution of industry in Yanbian Korean Autonomous Prefecture, 1991

Yanbian

Yanji

Tumen

Longjin

Hunchun

Jilin Province

Total
% of
total

Total
% of
total
Total
% of
total
Total
% of
total
Total
% of
total
Total
% of
total
Number of industrial
enterprises
1,623
100
370
100
165
100
191
100
137
100
13,817
100
By ownership
State-owned

412

25.4

66

17.8

44

26.7

60

31.4

29

21.2

2,893

20.9
Collective-owned
1,210
74.5
304
82.2
121
73.3
131
68.9
108
78.8
10,897
78.9
Other
1
0.1

1
0.7
27
0.2
By sub-sector
Light industry

895

55.1

221

59.7

103

62.4

111

58.1

67

48.9

7,235

52.4
Heavy industry
728
44.9
149
40.3
62
37.6
80
41.9
70
51.1
6,582
47.6

Gross industrial
output a (Rmb mn)
5,246.6
100
1,388.7
100
700.8
100
734.4
100
324.0
100
55,298.
5
100
By ownership
State-owned

4,158.8

79.3

1,149.3

82.7

583.6

83.3

613.7

83.6

266.9

82.4

43,947.
4

79.5
Collective-owned
1,086.2
20.7
239.4
17.2
117.2
16.7
120.7
16.4
57.1
17.6
11,088.
9
20.1
Other

262.2
0.5
By sub-sector
Light industry

2,708.0

51.6

1,062.4

76.5

412.3

58.8

534.4

72.8

66.7

20.6

20,900.
1

37.8
Heavy industry
2,538.6
48.4
326.3
23.5
288.5
41.2
200.1
27.2
257.3
79.4
34,398.
4
62.2
Memorandum item:
Gross agricultural
output
1,263.8

66.9

49.7

201.7

124.4

18,838.
3

% of industrial output

24.8

4.8

7.1

27.5

38.4

a Industrial enterprises at township level and above only.
Source: Statistical Yearbook of Yanbian Korean Autonomous Prefecture 1992, p. 565f.

TABLE 9
Basic economic structure of Primorsky Krai
(current prices)
a) Gross national product

Sector	1988		1991	
	million Rubles	% share	million Rubles	% share
Agriculture	1,607	13.9	3,411	13.6
Manufacturing	6,707	58.0	13,326	53.1
Construction	1,449	12.5	3,461	13.8
Transportation + Communications	1,220	10.5	2,506	10.0
Services (incl. forestry)	585	5.1	2,381	9.5
TOTAL				

11,568	100	25,085	100

b) National income

Sector	1988		1991	
	million Rubles	% share	million Rubles	% share
Agriculture	881	18.9	2,196	16.5
Manufacturing	1,951	41.9	5,652	42.5
Construction	773	16.6	1,967	14.8
Transportation + Communications	600	12.9	1,585	11.9
Services (incl. forestry)	446	9.6	1,885	14.2
TOTAL	4,651	100	13,285	

TABLE 10
Industrial production of Primorsky Krai by major sub-sectors and sub-regions
1991 and 1993 (per cent)

Industrial sector	Primorsky Krai		Vladivostok	Nakhodka	Khazan District
	1991	1993 a	1993 a	1993 a	1993 a
Power	2.5	8.1	2.6	-	-
Fuels	1.0	1.8	-	-	-
Ferrous metallurgy	0.1	-	-	-	-
Non-ferrous metallurgy	4.0	5.4	-	-	-
Chemicals and petrochemicals	3.0	2.2	0.6	-	-

Machine-building and metal
working
21.0
9.4
20.0
5.2
40.0
Logging, wood-processing,
pulp and paper
6.4
6.5
2.3
-
-
Building materials
7.7
4.3
3.2
1.5
-
Glass and porcelain/ceramics
0.4
0.5
1.0
-
-
Light manufacturing
4.6
1.7
2.5
1.5
-
Food production
 of which fish processing
47.7
..
57.4
41.2
62.6
52.7
91.7
74.0
59.8
58.4
TOTAL
100 b
100 b
100 b
100
100
Percentage share of Territory

total
-
100
39.5
8.5
0.9

a January to June only, preliminary.
b Percentage shares do not add up to total in source.

TABLE 11
Structure of employment of Primorsky Krai, 1985-1992
a) Primorsky Krai Total

Sector
1985

1990
1991
1992

'000
persons

Percentage
'000
persons
'000
persons
'000
persons

Percentage
Agriculture
78.3
7.8
75.0
68.9
71.6
6.6
Forestry
3.9
0.4
3.2
3.0
2.9
0.3

Manufacturing
310.3
31.1
301.2
300.3
314.5
29.1
Construction
79.1
7.9
104.5
125.9
130.4
12.1
Public utilities &
municipal service
43.9
4.4
44.8
50.6
52.4
4.8
Transportation
139.3
14.0
112.1
123.9
127.2
11.8
Communications
16.0
1.6
14.9
15.6
16.2
1.5
Finance and
insurance
5.9
0.6
6.3
6.5
7.2
0.7
Government services
18.4
1.8
12.0
36.0
37.0
3.4

Other services
302.6
30.3
299.6
318.6
321.6
29.8
- Commerce
95.4
9.6
92.3
90.1
89.5
8.3
- Information
services

-
1.8
1.5
1.3
0.1
- Medical services
47.5
4.8
61.3
67.5
69.1
6.4
- Education
77.0
7.7
84.4
93.4
94.8
8.8
- Science and
  scientific
  services
30.6
3.1
24.0
24.4
23.2
2.1
Others
52.1
5.2
35.8
41.7
43.7

4.0
Total employment
997.7
100
973.6
1049.3
1081.0
100

b) Vladivostok

Sector
1985

1990
1991
1992

'000
persons

Percentage
'000
persons
'000
persons
'000
persons

Percentage
Manufacturing
96.8
30.7
81.8
87.9
86.3
25.6
Construction
28.7
9.1
37.1
33.6
36.7
10.9
Transport &
communications
69.2
22.0

58.9
67.6
67.3
19.9
Other services
101.9
32.3

132.2
39.2
- Commerce
24.9
7.9
24.5
23.2
49.9
14.8
- Medical services
21.3
6.8
21.7
23.5
21.9
6.5
- Education & culture
21.6
6.9
26.8
27.1
26.5
7.9
- Science and
  scientific
  services
19.5
6.2
17.2
16.6
14.6
4.3
- Public utilities and
  municipal services
18.5
5.9
17.0
16.5
14.9
4.4
- Others
14.6

4.6
22.4
20.0
19.3
5.7
Total employment
315.1
100
317.4
316.0
337.4
100

c) Khazan District

Sector
1985

1990
1991
1992

'000
persons

Percentage
'000
persons
'000
persons
'000
persons

Percentage
Slavyanka

Agriculture

302

4.8

307

310

249

4.9
Fishery
1,269
20.1
1,634
1,608
1,654
32.2
Manufacturing
3,500
55.3
3,053
2,997
2,496
48.7
Construction
825
13.0
412
378
343
6.7
Transport &
communications
432
6.8
434
445
388
7.6
Total employment
6,328
100
5,840
5,738
5,130
100
Zarubino

Fishery

2,317

2,252

2,180

1,970

81.0
Manufacturing
n.a
-
591
459
462
19.0
Total employment

2,843
2,639
2,432
100
Posiet

Fishery

n.a

289

219

185

33.8
Manufacturing
430

386
347
362

66.2
Total employment

675
566
547
100
Kraskino

Agriculture

741

97.2

682

695

548

96.6
Manufacturing
21
2.8
16
19
19
3.4
Total employment
762
100
698
714
567
100

TABLE 12
Industrial growth of Primorsky Krai
a) By major sub-sectors, 1987-1992

Sub-sector

Growth rates (%)

	1990-91	1991-92	1987-92 p.a.
Power	-3.5	-3.3	-0.6
Fuels	-12.3	-3.1	-6.6
Non-ferrous metals	-6.1	1.6	0.7
Chemicals and petrochemicals	7.3	-29.1	-2.0
Machine-building and metal working	10.6	-12.9	-0.2
Logging and wood-processing	5.8	0.6	0.3
Building materials	-4.0	-31.1	-6.7
Glass and porcelain/ceramics	13.3	11.2	5.3
Light manufacturing	57.8	-1.8	23.6
Food production	-11.4	2.0	-1.1
thereof fish-processing	-2.8	6.6	1.5

Flow and associated products	-6.4	-15.1	-2.6
Printing and publishing	7.8	-40.5	-5.5
Others	-30.8	-0.6	-2.9
TOTAL	-3.7	-6.9	-1.5

b) By sub-region, 1990-1993

Sub-region	Industrial production index (1985 = 100)			
	1990	1991	1992	1993 a
All Primorsky Krai	111.7	109.5	98.7	80.8
Vladivostok	128.3	127.0	116.8	103.9
Nakhodka	138.0	113.1	115.3	100.3
Khazan District	162.3	181.7	145.3	174.3

a January to June only.

TABLE 13
DPRK - Long-term output goals

Sector	Goals set in 1980 (to be completed by 1989)	Results by 1986	Goals revised in 1987 (to be completed by 1993)
Electricity	100 bn kwh	60 bn kwh	100 bn kwh
Coal	120 mn tons	70 mn tons	120 mn tons
Grain products	15 mn tons	10 mn tons	15 mn tons
Steel	15 mn tons	1.9 times increase (no figures given)	10 mn tons
Chemical fertilisers	7 mn tons	5 mn tons	7.2 mn tons
Cement	20 mn tons	12 mn tons	22 mn tons
Marine products	5 mn tons	3.1 mn tons	11 mn tons
Textiles	1.5 bn metres	800 mn metres	1.5 bn metres
Non-ferrous metals	1.5 mn tons	1.5 mn tons	1.7 mn tons

Tideland cultivation	300,000 ha	(no figures given)	(150,000 ha by 1990)	300,000 ha

Source: EIU, North Korea, Country Profile 1992/93, London 1992, p. 71.

TABLE 14
Projected industrial sites in the Rajin-Sonbong Free Economic and Trade Zone

Name	Location	Size (in ha)	Preferred focus of activity
Sinhung Industrial Park	Rajin	200	various light industries, inter alia, electric appliances, light electric goods
Tongmyong Standard Industrial Park	Rajin	20	shoes/knitwear, daily necessities
Changphyong Industrial Park	Rajin	60	ship repair, machinery
Chonggye Industrial Park	Rajin City	20	garments
Paekhak Industrial Park	Sonbong	200	electronics, automation
Ungsang Industrial Park	Ungsang	250	wood-processing, bonded warehouses
Kwangok Industrial Park (incorporates Sungri oil processing plant)	Rajin	550	oil refinery, petrochemicals, building

materials
Huchang Industrial Park
Rajin
200
light machinery manufacture
Hongui Industrial Park
Hongui
180
automobile assembly, car parts and
components

Source: DPRK Committee for the Promotion of External Economic Cooperation, Golden Triangle. Projects for Investment.
The Rajin-Sonbong Free Economic and Trade Zone, Pyongyang 1993.

TABLE 16
Preferential taxation in the Rajin-Sonbong Free Economic and Trade Area

Corporate income tax
Tax rate
Standard rate

- elsewhere in DPRK
25%
- within zone
14%
Reduced rates for specially encouraged enterprises
4-13%
Exemption

Years 1-3 of profit generation
0
Years 4-5 of profit generation
up to 50% reduction
Extension possible for infrastructure investments

Source: DPRK Committee for the Promotion of External Economic Cooperation, Golden Triangle, op. cit., p. 31.

TABLE 17
Foreign direct investment in Yanbian Prefecture
a) By number and investment volume, 1990-1993 (accumulated)

Year
No. of joint venture

	approvals	Total investment in million US$	Foreign investment component	
			million US$	% share of total invt.
1990	39	32.2	13.2	41.0
June 1993	355	391.0	185.0	47.3
August 1993	371	406.0	193.6	47.7

b) By countries of origin, as of August 1993

Country	No. of joint venture approvals	% share of total
Republic of Korea	161	43.4
Singapore	4	1.1
Hong Kong	87	23.5
Macau	2	0.5
Japan	37	

		10.0
Thailand	2	0.5
Korea, DPR	20	5.4
Australia	1	0.3
USA	19	5.1
Germany	1	0.3
Taiwan	16	4.3
Indonesia	1	0.3
Russian Federation	11	3.0
Malaysia	1	0.3
Canada	7	1.9
Philippines	1	0.3
TOTAL	371	100

c) By sectors

Sector	No. of joint venture approvalsa	Foreign investment componentb

	abs.	% share	abs. (million US$)	% share
Agriculture, forestry and husbandry	7	2.0	4.07	2.1
Industry	274	77.2	148.70	76.8
Service sector	38	10.8	20.33	10.5
Real estate	14	3.9	7.36	3.8
Commerce	1	0.3	2.46	1.3
Other	21	6.0	10.71	5.5
TOTAL	355	100	193.63	100

a As of June 1993.
b As of August 1993.
Source: Yanbian Prefecture Government.

TABLE 18
Largest foreign direct investments in Yanbian Prefecture[a]

No.	Name	Foreign partner	Product	Total investment (US$ million)	Foreign investment component (US$ million)	Contract period (years)
1	Xian Xing New Building Material Co.	Republic of Korea	Wall paper/PPC pipe/PUC pipe	7.95	4.75	20
2	Yanji Er He Pottery Co.	Republic of Korea	Pottery bricks	5.47	1.90	10
3	Yanbian Jintian Wood Products Co.	Hong Kong	Wood processing products	3.92	1.33	10
4	Sheng Long Flax Spinning Co.	Japan	Flax spinning products	3.92	3.92	20

5
Helong Mineral Water Co.
Hong Kong
Mineral water
3.55
1.24
10
6
Longjing Long Qin Edible Oil Co.
Republic of Korea
Edible oil
3.46
1.46
20
7
Yanmo Welding Material Co.
Russia
Welding materials
3.09
0.51
10
8
Yanbian Korean Ginseng Food Co.
Republic of Korea
Ginseng tea/
condensed ginseng
liquid
2.57
0.54
20
9
Wang Qing Evergreen Towel Co.
Republic of Korea
Towels
2.52
0.88
12
10
Yanji Ahegn Sheng Co.
Republic of Korea
Laser disks/
disinfectant
2.42
1.45
30
11
Yanji Zhen Wei Plastic Packaging Co.
Republic of Korea
Plastic packaging
products
2.10

1.06
20

a As of August 1993.

Source: Yanbian Prefecture Government.

TABLE 19
Foreign direct investment in Primorsky Krai
a) Number of equity joint ventures over time

Year	No. of joint ventures
1990	24
1991	127
1992	247
1/6/1993	364
memorandum item: foreign paid-up capital total	US $208.4 million

b) Number of equity joint ventures by countries of origin, as per 1 June 1993

Country of origin	Number	Per cent of Total	Foreign paid-up capital (US$ '000)	Per cent of Total
PR China	197	54.1	27,221.6	13.1
Japan	41			

11.3
65,979.8
31.7
USA
33
9.1
48,729.3
23.4
Hong Kong
30
8.2
4,583.4
2.2
Republic of Korea
15
4.1
7,524.0
3.6
Germany
11
3.0
467.0
0.2
Singapore
9
2.5
300.0
0.1
Taiwan Province of China
5
1.4
180.0
0.1
DPRK

Other
3

20
0.8

5.5
10.5

53,379.1
0.0

25.6
TOTAL
364
100

208,374.7
100

Source: Primorsky Krai Government.

TABLE 20
Foreign investment in Nakhodka Free Economic Zone, as per 1 July 1993
a) By type of investment

Type	Number
Joint ventures	113
Wholly foreign-owned enterprises	45
Subsidiaries and affiliates of foreign ventures located outside FEZ Nakhodka	94
Representative offices	19
TOTAL	271

b) By country of origin

Country of origin	Number	Percentage	Foreign paid-up capital (US$)	Percentage
China	119	43.9	15,624.1	12.5
Japan	38	14.0	66,086.8	52.9
USA	23	8.5	25,819.9	20.7
Hong Kong	23	8.5	2,101.3	1.7
Republic of Korea				

12
4.4
5,628.0
4.5
Taiwan Province of China
6
2.2
100.0
0.0
Singapore
4
1.5
300.0
0.2
Germany
3
1.1
167.1
0.1
Canada
3
1.1
502.0
0.4
DPRK
3
1.1
10.5
0.01
Switzerland
3
1.1
37.2
0.03
Norway
2
0.7
4,395.0
3.5
New Zealand
2
0.7
100.0
0.1
Great Britain
3
1.1

Finland
3

1.1

Hungary
2
0.7

Kazakhstan
2
0.7

Latvia
2
0.7

Panama
2
0.7

Spain
2
0.7

Sweden
2
0.7

Vietnam
2
0.7
4,032.6

Argentina
1
0.4

Austria
1
0.4

Cayman Islands
1
0.4

Estonia	1	0.4		
Israel	1	0.4		
Italy	1	0.4		
Luxemburg	1	0.4		
Netherlands	1	0.4		
Serbia	1	0.4		
TOTAL	271	100	124,904.5	100

c) By sector of activity

Sector of activity	No. of foreign investments (% of total)
Agriculture	17.2
of which timber	5.7
Consumer goods, catering services	18.2
Transport	
Tourism	

Technological equipment
9.4

7.0
9.4
of which computers
0.8
Construction
8.2
Commerce
23.5
Other services
10.8
of which

- motor vehicle servicing
2.5
- advertising, information, marketing
4.5
- engineering consultancy
1.4
- software development
0.4
- legal services
0.4
- foreign trade services
1.0
- other
0.6

Source: Nakhodka FEZ Administrative Committee.

TABLE 8
Inventory of industrial enterprises in the Democratic Republic of Korea's Rajin-Sonbong Area

Company Name

Type of Output

Unit
Annual Production
Capacity
Actual Output
1991
Capacity
Utilization
1991 (%)
Sungri Chemical Complex

oil processing
'000 tons
2,000
1,804
90.2
June 21 Ship Repairing
Factory
ship repairing
10,000 - 20,000 tons
1,000 tons
no. of ships

18
18

14
17

77.8
94.4
Rajin Ship-Building Factory
ship-building (150 t)
ship repairing
no. of ships
70
150
56
105
80.0
70.0
Rajin Condenser Factory
condensers
'000 pcs.
2,400
1,680
70.0
Rajin Timber
Processing Factory
Cover-boards/pallets
m3
6,500
6,500
100.0
Rajin Garment Export Factory
garments
'000 sheets
1,500
1,200
80.0
Rajin Car-Repairing Factory
repairing of automobiles

repairing of engine-stands
units
160
80
112
56
70.0
70.0
Rajin Shapes and Machines
Repairing Factory
shapes
accessories
tons
3
16
2
13
66.7
81.3
Rajin Farming Tool Factory
carts
combiners
units
300
10
240
10
80.0
100.0
Rajin Paper Mill
paper
tons
500
350
70.0
Rajin Caustic Soda Factory
caustic soda
tons
30
24
80.0
Rajin Pharmaceutical Factory
tablets
fluids
'000
tons
400
10
320
8
80.0

80.0
Rajin Cement Factory
cement
'000 tons
5
4.5
90.0
Rajin China Factory
china pots
'000 pcs.
2.4
1.9
79.2
Rajin Brick Factory
bricks
'000 pcs.
1,000
800
80.0
Rajin Fabrics Factory
ordinary fabrics
'000 m
450
315
70.0
Rajin Garment Factory
clothes
'000 pcs.
1,000
960
96.0
Rajin Knitwear Factory
knitwear
'000 pcs.
300
240
80.0
Rajin Sauce Factory
bean paste
soya sauce
tons
kilos
1,500
1,000
1,398
963
93.2
96.3
Rajin Foodstuff Factory of
Honoured Disabled Soldiers
sugar

cakes
tons

700
850
560
680
80.0
80.0
Rajin Meat and Fish
Processing Factory
meat
fish
tons
1,030
760
721
608
70.0
80.0
Rajin Grain Administration
Office
grain processing
'000 tons
100
70
70.0
Rajin Iron Ware Export
Factory
hair-cutters
hair-cutting scissors
'000 sets
100
100
76
82
76.0
82.0
Rajin Upholstery Production
Cooperation
upholstery
'000 sets
3
2
66.7
Rajin Leather Processing
Factory
leather
'000 m2
2
1.6

80.0
Rajin Plastic Ware Factory
plastic daily necessities
'000 pcs.
100
70
70.0
Rajin Daily Necessities
Factory
brushes
hair oil
'000 pcs.
9
616
8
493
88.9
80.0
Rajin Glass Ware Factory
glass plate
'000 m2
13
11
84.6
Rajin Chemical Ware Factory
laundry soap
tons
1,000
800
80.0
Rajin Iron Ware
Production Factory
ironware
'000 pcs.
40
32
80.0
Tumen River Sleeper Cutting
Factory
cut timber
sleepers
'000 m3
100
62
73,4
50
73.4
80.6
Sonbong Pit Timber
Enterprise
pit timber

ordinary timber
m3
5,000
4,000
4,000
3,200
80.0
80.0
Coal Mine Pit Timber
Enterprise
cut timber
'000 m3
5.5
4.4
80.0
Sonbong Garment Export Factory
export clothes
'000 pcs.
500
400
80.0
Sonbong Ship Repairing Plant
ship repairing
ships
83
66
79.5
Sonbong Farm Machinery Plant
maize seeders
weeding machines
sets
10
55
7
55
70.0
100.0
Sonbong Mechanization Plant
tractor parts
farm machinery parts
tons
26
10
26
7
100.0
70.0

Sonbong Maintenance and Repair
Shop
machine parts

motors
tons
20
280
16
224
80.0
80.0
Sonbong Sodium Carbonate
Factory
sodium carbonate
ammonium chloride
fertilizers
'000 tons
2
2.4
1.6
1.9
80.0
79.2
Sonbong Paper Mill
paper
tons
600
480
80.0
Sonbong Pharmaceutical
Factory
injections
ampules
1,500
1,200
80.0
Sonbong Chemical Factory
soap
tons
170
119
70.0
Sonbong Cement Workshop
cement
tons
5,000
4,000
80.0
Sonbong Building Materials
Workshop
water-resistant cement
water-resistant
cement blocks
tons

m3
2,200
6,900
2,200
4,830
100.0
70.0
Sonbong Textile Factory
artificial silk
'000 m
450
315
70.0
Sonbong Garment Workshop
suits for adults
'000 pcs.
350
246
70.3
Sonbong Bean Paste and
Edible Oil Workshop
soya sauce
bean pasted
kilos
tons
1,100
1,000
880
870
80.0
87.0
Sonbong Foodstuff Workshop
sweets
cakes
tons
360
230
289
185
80.3
80.4
Sonbong Grain
Administration Office
grain processing
'000 tons
20
16
80.0
Sonbong Upholstery Workshop
plywood
upholstery

m2
pcs.
26,000
15,000
18,200
10,500
70.0
70.0
Sonbong Porcelain Workshop
porcelain
'000 pcs.
18
14
77.8
Sonbong Ironware Factory
ironware
'000 pcs.
200
140
70.0
Sonbong Honoured Disabled
Workshop
plastic goods
'000 pcs.
600
480
80.0
Sonbong Leather Processing
Workshop
leather goods
'000 pcs.
35
28
80.0
Ungsang Lunchbox Paper Factory
lunchbox paper
'000 pcs.
5,000
4,517
90.3
Tumen River Railway Honoured
Disabled Soldier Factory
electric bulbs for
signal lamps
sets
4,200
4,121
98.1

Source: Committee for the Promotion of External Economic Cooperation.

TABLE 15
Foreign investment incentives in China's TREDA

State-level
(State Law)

Jilin Province
Yambian
Korean
Autonomous
Prefecture

Yanji

Hunchun

Tumen
Enterprise income tax
Standard rate
Reduced rate

30%
Export enterprises
Tech advanced
enterprises
Investment in coastal
open cities: 24%
Investment in special
economic zones: 15%
If in energy,
communications,
harbour, wharf or other
encouraged area: 15%

If invt. > US$10 mn
and in
(i) Infrastructure,
basic industries and
resources
(ii) Technical
upgrade of existing
enterprises
(iii) 'Backbone' and
'superior' industries
(iv) Capital and
technology-intensive
industries
15%

Invt. in Yanji Reform and
Open-Door Special
Zones:15%

15%

Within zones/sites:
24%
elsewhere: 30%
In practice, general
reduction to 15%
Exemptions
If invt. period > 10 yrs
Yrs. 1+2 of profit-
making:0
Yrs. 3-5: half rate
Ù If invt (i) in
agriculture, forestry or
animal husbandry, or (ii)
in remote under-
developed areas: 13-
15% reduction for 10
more yrs.
Ù If > 70% export-
production: half rate
Ù If technologically
advanced enterprise:
half rate for 3 more yrs.
ditto., if invt. period
> 15 yrs.: another 5
yrs. exemption

If invt. period > 10 yrs.
Yrs 1+2 of profit-
making: 0
Yrs. 3-5: half rate
If advanced tech enter-
prise: Yrs. 3-8 of profit-
making: half rate.
Thereafter: 10%
If > 50% export
production: 10%
If invt. in service ind.
> Yuan 5 mn:
Yr. 1 of profit-making: 0
Yrs. 2+3: half rate
If invt. in infrastructure/
utilities and agriculture
and invt. period > 15
yrs:

Yrs. 1-5 of profit
making:0
Yrs. 6-10: half rate
If invt. period > 10 yrs.:
Yrs. 1-5 of profit-
making: 0
Yrs. 6-10: half rate
If invt. > US$ 3 mn
or high-tech:
Yrs. 1-10: 0
If invt. > US$ 1 mn in
service ind.:
Yrs. 1-2: 0
Yrs. 3-5: half rate
Thereafter, if > 50%
export production: half
rate.
Extension of exemption
period possible

Local income tax
Standard rate
Exemptions

3%
Discretion of provincial,
prefectural and
municipal authorities

If invt. period >10
yrs.
Yrs. 1-6 of profit-
making: 0
High-tech enter-
prise: Yrs. 1-11 of
profit making: 0
If >50% export
production: 0
If invt. in (i)-(iv)
above: Yrs. 7-11 of
profit-making: half
rate
If invt. in agric. etc.
or remote areas: 0
for unspecified time
period

If invt.

period>10 yrs.
Yrs. 1-6 of
profit-making:0
Thereafter
extension of
tax holiday, if
Ù > 60%
export
production
Ù Tech
advanced
enterprises
Ù Invt in in-
frastructure,
agriculture,etc

Exemption up to 10 yrs.
possible

10 yrs. exemption

Commercial and
industrial consolidated
tax
Exempted on export
products
May be reduced/
exempted

Imported machinery,
equipment, raw
materials, etc. and
goods for foreign staff's
use: exempt
Half rate
if invt. in new and high
tech areas: 3 yrs.
exemption During initial
period: further reduction
to "proper rate"
negotiable

Individual income tax
- wages and salaries
  thereof foreign
  personnel
- compensation for
  personal services;
  royalties;interest,

dividends and
bourses;lease of
property;others

5-45%
half rate

20%

5-45%
half rate

10%

(exemptions) 10%

Exemption

Reinvested profits
If reinvt. for > 5 years: income tax refund up to 40% of reinvested amount
If reinvt. for > 5 yrs.: Income tax refund up to 50% of reinvested amount
If invt. in (i)-(iv) above 100% refund, both enterprise and local income tax

If reinvt. for > 5 yrs. and export or advanced tech enterprise: Income tax refund up to 100% of reinvested amount
5 yrs. minimum reinvt. period:
Income tax refund up to 60% of reinvested amount;.
If export or high tech ventures: 100% refund

5 yrs. minimum
reinvt. period:
Income tax refund
up to 40% of
reinvested amount;
If productive or
high tech venture:
100% refund
Loss carry-over
5 yrs. maximum

5 yrs. maximum

5 yrs. maximum
Profit remittances

Tax-exemption

tax-exempt for export
and advanced tech
enterprises

Right of land use
Land use fee

40-70 yrs.
Y 0.3-10/m2 p.a.
For export and tech.
advanced
enterprises,
(i)-(iv) above:
Yrs. 1-5: 0
Yrs. 6-10: half rate
If invt. in agric. etc.
or remote areas:
exemption/
reduction for
unspecified time
period

Half rate for
export and
tech. advanced
enterprises until
1995

Y 0.1-12/m2 p.a.

Yrs. 1-10: 0
Advanced tech
enterprises:0
50-70 yrs., extension
possible
Yrs. 1-10: 0
50-70 yrs.
Y 0.1-2/m2 p.a.
If in selected
zones/sites:
reduction;
If invt. period >
20 yrs.: exemption
after yr. 10
If high tech. invt.:
0
Real estate tax
- building value
- land value
- jointly on building
  and land value

1.2%
1.5%
1.8%

Exempt. for export
tech. advanced
enterprises and (i)-
(iv)

Vehicle licence plate
tax acc. to
category/tonnage
Y 0.3 - 80 per month

Exempt (unless
transportation business)

Other
Exempt from payment
of certain subsidies to
staff and workers;
priority access to
utilities,transportation
and communication

facilities, short-term
bank loans;
Direct exporting by
enterprises permitted,
right of autonomous
enterprise management;
Licence-free import of
machinery, equipment,
raw materials, etc.
Priority access to
use of land, short-
terms bank loans

Customs tariff
exemptions and
reductions

Source
Provisions of the State
Council of the People's
Republic of China for the
Encouragement of
Foreign Investment (22
Oct. 1986).
Income Tax Law of the
People's Republic of
China for Enterprises
with Foreign Investment
and Foreign Enterprises
(July 1991)
Preferential
Provisions of Jilin
Province for
Encouragement of
Foreign Investment
(27 Oct. 1992)
Temporary
Provisions for
Foreign
Economic
Relations
Development in
Yambian
Korean
Autonomous
Prefecture

Temporary Provisions of
the Government of
Hunchun City on

Preferential Treatment in
the Economic
Cooperation Zone

Source: Jilin Province Foreign Economic Relations Bureau (1993); Foreign Economic Relations and Trade Commission of Yanbian Korean Nationality Autonomous Prefecture
(1993); Yanji City Economic Development Zone Administration Committee (n.y.); The Hunchun People's Government (1993); Tumen City Government (1992); UNIDO, op. cit., 1991, pp. 194-200.

S T A T I S T I C A L A N N E X

Table A-1. Gross industrial output of Jilin Province by sectors 1985 - 1992
(Rmb 100 million, current prices) a

Sector
1985

1990

1991

1992

Growth rate per
annum in %

Gross
output
% of
total
Gross
output
% of
total
Gross
output
% of
total
Gross
output
% of
total

1990-
92
1985-
92

TOTAL
241.1
100
491.7
100
553.0
100
855.5
1
100
37.0
36.4
Coal mining and dressing
5.63
2.3
11.8
2.4
13.85
2.5
14.49
1.7
11.4
78.7
Oil and natural gas mining
5.0
2.1
12.98
2.6
14.79
2.7
15.36
1.8
9.2
29.6
Ferrous metals mining and dressing
0.51
0.2
0.13
0.0
0.21
0.0
0.32
0.0
73.1
- 5.3
Non-ferrous metals mining and dressing

1.25
0.5
2.32
0.5
2.58
0.5
2.75
0.3
9.3
17.1
Building materials and other non-metal minerals mining and dressing
0.98
0.4
1.81
0.4
1.85
0.3
2.50
0.3
29.1
22.2
Logging and transport of timber and bamboo
7.2
3.0
15.12
3.1
16.04
2.9
16.71
2.0
5.3
18.9
Purification and supply of tap water
0.5
0.2
1.24
0.3
1.58
0.3
1.93
0.2
27.8
40.9
Food processing
thereof crop processing
19.97
8.15
8.3
3.4
40.72

11.35
8.3
2.3
45.92
12.75
8.3
2.3
48.39
16.10
5.7
2.0
9.4
20.9
20.3
13.9
Beverage production
5.2
2.2
13.8
2.8
15.09
2.7
16.45
2.0
9.6
30.9
Tobacco processing
3.79
1.6
9.58
1.9
9.74
1.8
11.17
1.3
8.3
27.8
Forage production
1.87
0.8
4.79
1.0
5.69
1.0
12.48
1.5
80.3
81.1
Textile industry
  thereof cotton textiles
11.38

5.91
4.7
2.5
22.31
12.47
4.5
2.5
22.76
13.11
4.1
2.4
21.66
12.98
2.5
1.4
- 1.5
22.1
12.9
29.2
Garments
4.34
1.8
7.67
1.6
8.08
1.5
9.05
1.1
9.0
15.5
Leather, furs and other products
1.94
0.8
3.11
0.6
3.33
0.6
2.91
0.3
- 3.2
7.1
Timber processing
4.47
1.9
8.22
1.7
9.04
1.6
9.68
1.1
8.9

16.7
Furniture manufacturing
1.41
0.6
1.88
0.4
2.01
0.4
2.17
0.3
7.7
7.7
Paper making and paper products
7.58
3.1
18.08
3.7
18.78
3.4
18.69
2.2
1.7
20.5
Printing
2.86
1.2
5.69
1.2
6.42
1.2
7.07
0.1
12.1
21.0
Cultural, educational and sports articles
0.80
0.3
1.19
0.2
1.38
0.2
1.40
0.0
8.8
10.7
Arts and crafts articles
0.80
0.3
1.20
0.2
1.32

0.2
1.52
0.2
13.3
12.9
Power generation, steam and hot water production and supply
8.32
3.4
19.14
3.9
26.86
4.9
30.65
3.6
30.1
38.3
Petroleum processing
3.14
1.3
10.01
2.0
12.52
2.3
15.76
1.8
28.7
57.4
Coking, gas and coal related products
0.43
0.2
1.36
0.3
1.66
0.3
1.93
0.2
21.0
49.8
Chemicals
  thereof organic chemicals
29.04
24.23
12.0
10.0
58.17
45.31
11.8
9.2
63.17
51.67

11.4
9.3
72.63
52.82
8.5
6.6
12.4
8.3
21.4
16.9
Medical and pharmaceutical products
6.82
2.8
21.52
4.4
24.04
4.3
25.95
3.0
10.3
40.1
Chemical fibres
2.27
0.9
7.79
1.6
7.95
1.4
81.54
9.5
473.4
498.9
Rubber products
3.69
1.5
6.79
1.4
7.26
1.3
8.13
1.0
9.9
17.2
Plastic products
3.12
1.3
7.26
1.5
7.90
1.4
9.92

1.2
18.3
31.1
Building materials and other non-metal mineral products
  thereof cement production
13.87
2.77
5.8
1.1
25.53
5.60
5.2
1.1
28.72
7.78
5.2
1.4
31.10
11.14
4.3
1.3
10.9
49.5
17.7
43.2
Smelting and pressing of ferrous metals
10.68
4.4
26.96
5.5
28.04
5.1
35.39
4.1
15.6
33.0
Smelting and pressing of non-ferrous metals
1.46
0.6
4.98
1.0
5.25
0.9
6.90
0.1
19.3
53.2
Metal products manufacturing
6.62
2.7
11.49

2.3
11.84
2.1
13.52
1.6
8.8
14.9
Machine building
20.89
8.7
31.04
6.3
35.50
6.4
47.18
4.9
17.9
14.6
Transportation equipment
32.05
13.3
75.15
11.0
69.20
12.5
136.2
2
15.9
40.6
46.4
Electric equipment and machinery
5.29
2.2
12.34
2.5
12.93
2.3
14.96
1.7
10.6
26.1
Electronic and telecommunications equipment
3.07
1.3
6.10
1.2
6.06
1.1
6.01
0.7
- 0.7

13.7

Instruments, meters and other measuring equipment	1.47	0.6	2.14	0.4	2.26	0.4	2.88	0.3	17.3	13.7

a Industrial enterprises at township level and above only.
Source: Statistical Yearbook of Jilin Province 1992, pp. 328f.; 1993, pp. 66f.

TABLE A-2:
Key Industrial Outputs of Primorskiy Territory, 1991-1992

Products (t = tonnes) (thous. = thousands) (R = Rubles)	Output 1991	Output 1992	% change 1991-92
Steel, t	6,527	7073	+8
Coal, thous. t	14,412	12,986	-10
Chemical machinery and spare parts, thous. R	4,890	12,144	+148
Engg. equipment for farm product processing and spare parts, thous. R	74,390		

57,606
-23
Crop production machinery, thous. R
3,000
1,993
-34
Animal breeding and fodder production machinery, thous. R
71,870
50,692
-29
Sulfuric acid in monohydrate, thous. t
435
341
-22
Synthetic resins and plastics, t
10,122
8,417
-17
Microbiological feed protein, prefab, t
16,171
13,945
-14
Cement, thous. t
3,392
1,939
-43
- of which, "dry" clinker cement
2,958
1,881
-36
Powdered lime and dolomite for liming of acid soil, thous. t
350
208
-40
Building bricks, million units
197
135
-31
Prefabricated reinforced concrete, thous. cu.m.
988
670
-32
Panels and other parts for large-panel construction, thous. sq.m. total area
443
371
-16
Asbestos slate (roofing shingle), million equiv. slates
277
171
-38
Asbestos tubing and sleeve pipes, km. equiv. pipe

1,310
666
-49
Mineral cotton, thous. cu.m.
295
225
-24
Heating radiators and convectors, thous. kW
497
549
+10
Lumber, thous. cu.m.
1,935
1,573
-19
Construction wood, thous. cu.m.
2,381
1,916
-20
Rail sleepers, thous. units
153
171
+12
Wooden bars for rail switches, sets
25
24
-4
Timber/wood planks, thous. cu.m.
649
396
-39
Prefab wooden panel houses, thous. sq. m. total area
118
16
-86
Glued plywood, cu.m.
7,000
5,419
-23
Wood fiber slabs, equiv. sq.m.
1,063
1,249
+17
Splint-slab, equiv. sq.m.
94,200
69,800
-26
Carpets and rugs, thous. sq.m.
4
4
-

Hosiery, thous. pairs
18
61
+238
Tricot garments, thous. units
9,983
4,574
-54
of which - underwear
9,941
4,511
-55
- clothes
42
63
+50
Wool and felt footwear, thous. pairs
101
102
+1
Footwear, thous. pairs
1,850
857
-54
of which - children's footwear
695
25
-96
Leather, thous. dm.- stiff
45,152
6,589
-85
- chromium-treated, soft
42,900
47,003
+10
Cost of garment sewing, thous. R
706,312
565,040
-20
Fish and seafood catch, t
1,585,92
4
1,345,15
4
-15
Meat and prime organ meats, t.
36,438
21,595
-41
Sausage, t

27,826
18,632
-33
Prefab meats, t
5,578
1,962
-65
Cream butter, t
732
2,830
+286
Fat cheese, t
389
115
-70
Dairy products in whole milk, equiv. t
210,039
100,646
-52
Low-fat dairy products in fat-free milk equiv. t
7,381
7,340
-.6
Canned food, thous. equiv. tins/cans
572,658
434,785
-24
of which - fish
554,928
420,644
-24
- fruits and vegetables
17,730
14,141
-20
Granulated sugar, t
134,088
170,456
+27
Grain flour, t
204,338
204,124
-.1
Cereals, t
75,408
44,062
-42
Baking yeast, t
2,247
2,088
-7

Confectionery, t
35,541
26,415
-26
Macaroni, t
24,988
17,501
-30
Vegetable oil, t
10,080
12,359
+23
Margarine, t
19,776
17,646
-11
Mineral water, thous. half-litres
11,826
10,846
-8
Soft drinks, thous.dal
4,107
1,201
-71
Beer, thous. dal
7,219
5,478
-24
Vodka and spirits, thous. dal
2,137
1,987
-7
Grape wines, thous. dal
1,092
554
-49

Brandy, thous. dal
47
22
-53
Dry animal fodder, t
5,149
3,032
-41
Powdered whole milk, t
460
49
-89
Combined animal fodder, t

347,481
227,338
-35
Protein and vitamin admixture, t
40
-
-
Oil cake, t
57,181
64,434
+13
Fish meal, t
133,521
89,014
-33
Synthetic detergents, t
2,212
1,235
-44
Toilet soap, t
6,785
5,097
-25
Laundry soap, t
16,319
12,166
-25
Refrigerators and freezers, units
148,580
65,431
-56
of which - household refrigerators
148,580
65,431
-56
Washing machines, units
133,529
83,812
-37
Electric vacuum cleaners, units
-
136
-
Tape recorders, units
1,101
516
-95
Radios, units
260,000
108,730
-58

Furniture in actual prices, thous. R
3,236,01
8
3,235,16
2
-.3
Toys and Christmas tree decorations, thous. R
45,466
32,363
-29
Dishes, porcelain and chinaware, thous. R
785,607
967,679
+23
Wall paper, thous. equiv. pieces
28,165
21
-
Stationery paper and notebooks, thous. R
31,799
21,114
-34
Paints and varnishes in small cans, t
5,262
3,745
-93
School copy-books, thous. units
26,220
21,435
-18
Electric mixers, units
35,454
32,451
-8
Aluminium pots, thous. R
556
6
-99
Chemicals for household in small cans, actual prices, thous. R
486,011
328,024
-33

Table A-3. Foreign direct investment approvals in Yanji City, as of June 1993

a) By type of investment

Total

of which with Republic of Korea investors

Type of investment	Number of investment approvals	Total investment (US$ mn)	Foreign investment components (US$ mn)	Number of investment approvals	Total investment (US$ mn)	Foreign investment component (US$ mn)
Equity joint ventures	136	141	64	64	62.009	31.318
Contractual joint ventures	28	27	20	12	7.105	4.607
Wholly-foreign-owned ventures	10	4	4	10	4.019	4.019
TOTAL	174	172	88	85	73.133	

39.944

b) By sector

Sector	Total			of which with Republic of Korea investors		
	Number of investment approvals	Total investment (US$ mn)	Foreign investment components (US$ mn)	Number of investment approvals	Total investment (US$ mn)	Foreign investment component (US$ mn)
Agriculture/Fishery	6	2.326	1.05	-	-	-
Industry	134	125.357	58.790	71	63.125	33.545
of which food processing	19	20.279	8.833			

				7	4.483	2.874
Real state	7	13.795	6.784	3	4.836	3.096
Healthcare/Sports	3	2.481	1.526	2	1.971	1.391
Education/Culture	1	0.245	0.120	1	0.245	0.120
Research/Services	3	0.952	0.578	2	0.397	0.271
Other sectors	20	27.630	19.642	6	2.739	1.521
TOTAL	174	172.78	88.589	85	73.133	39.944

Source: Yanji City Government.

Table A-4. Pipeline and priority projects for joint ventures within the Hunchun Border Economic Cooperation Zone (as of August 1993)

a) Pipeline projects under negotiation

Product	Capacity p.a.	Origin of Partner	Total Investment (US $ million)	Foreign Investment Component (US $ million)
Plastic canvas	1,200 million tons	Taiwan	1.7	0.65
Computer tags	2 million dozens	Hong Kong	1.45	0.435
Carpets	384,000 m2	Hong Kong	1.2	0.42
Vegetable and fruit processing	100,000 kilogrammes	Hong Kong	0.52	0.364
Instant Noodles	1.5 million bowls	Taiwan	1.3	0.52
Heat and Power Plant, Phase I	2x21,000 kilowatts	USA	RMB 300 mn	42.1
Leather products and computers	Hong Kong	Hong Kong	RMB 8 mn	0.56

b) Priority projects (advertised for investment)

Product	(Planned) capacity	Total investment (million Yuan)
Gas factory	60,000 m3/day	52
Waste water treatment	50,000 m3/day	200
Plastic energy-saving film	3,000,000 m2/year	28.5
30,000 Telephones	3,900 exchange lines	86.39
Fiber plank	30,000 m3/year	130
Hunchun River Bridge	480x30 metres	52
Hunchun River Flood-protecting Dyke	Length: 32.9 km	16.4
Aluminium alloy pipes	2,000 tons/year	45
Light pottery grains	188,000 m2/year	60
Leather processing	100,000 pieces	6.26
High-quality furniture	650,000 units/year	24.4
Vitamin C	1,000 tons/year	47
Carbon Paper	1,000 tons/year	31.20

Source: Hunchun City Government

Table A-5: Joint Venture Approvals in the Hunchun Border Economic Cooperation Zone

Origin of Partner

Total Investment
Product
1. HK
Y10m
Housing
2. HK
Y27.45m
Silver foil; plastic wrap
3. HK
Y4m
Winter clothing
4. HK
$0.5m
Interior decoration (operational 12/93)
5. HK
Y20m
Construction engineering
6. Taiwan
$4.5m
Motorcycle tyres
7. HK
$3.0m
Integrated circuits
8. HK
Y14.69m
Socks (operational 11/93)
9. HK
$1.2m
Carpets
10. HK
Y58.81m
Wood floorboards
11. Taiwan
$1.9m
Plastic tarpaulins
12. HK
Y17.28m
Sweaters
13. ROK
Y5.66m
Coats and bags
14. ROK
Y230m (?)
Hi-tech wood product (for furniture)
15. Japan
Y8.57m
Villas (BECZ Area 10) - under construction
16. ROK
Y10m
Housing
17. Macao

Y450m
Recreation zone in BECZ
18. Macao
Y1.5m
Sliding doors (operational 2/94)
19. HK
Y120m
Mountain villas (outside BECZ) - under construction
20. Taiwan
Y5.04m
Computer equipment
21. Japan
Y6m
Villas - under construction
22. HK
Y2.32m
Clothing - WFO
23. Japan
Y4.456m
Computer treatment equipment (?) - WFO
24. Japan
Y30m
Housing
25. HK
Y5m
Construction engineering
26. Japan
Y1.2m
Railway & port equipment (Japanese partner also invested $50 m in the railway station)
27. DPRK
Y29.5m
Construction engineering
28. HK
Y30m
Housing
29. HK
Y10m
Housing
30. HK
Y5m
Recreation
31. HK
Y6.67m
Electric heaters, irons - WFO
32. Japan
Y1.5m
Health food (from local mountains)
33. Japan
$0.5m
Office appliances

34. Russia
Y26.68m
Trade
35. Taiwan
Y7.53m
Convenience noodles
36. Russia
Y1.33m
Assembling construction equipment
37. ROK/HK
Y30m
Transport (NK, SK, Yianji, Changchun
38. HK
Y12.6m
Machinery
39. HK
$0.5m
Fluorescent lights
40. HK
$3m
Housing - WFO
41. Macao
Y55m
Recreation
42. ?
Y80m
Housing
43. USA
Y3m
Decoration
44. Macao
Y5m
Recreation
WFO = wholly foreign-owned

Table A-6
Industrial investment proposals for Rajin-Sonbong Free Economic and Trade Zone

Multi-page tables such as this one have been grouped together at the end of this annex section.

Table A-7: Type of foreign investment in Jilin Province, contracted and utilized, 1985-1991

(US $ million; units)

Foreign investment

1985
1986
1989
1990
1991
CONTRACTED

Number of projects
27
38
80
70
121
Total value
24.54
43.18
80.99
65.59
78.87
- Foreign credit
7.95
5.54
39.01
34.91
21.14
- Direct investment
14.24
8.20
22.62
21.65
39.26
- Other foreign investment
2.36
29.44
19.36
9.03
18.47

UTILIZED
4.88
25.76
33.66

60.69
161.55
Foreign credit

1.54
23.03
41.00
129.91
- Foreign government loans

1.54
13.22
18.25
12.08
- Loans from international
    banking organizations

8.28
12.55
10.55
- Commercial bank loans

1.26
1.27
72.38
- Seller's credit

0.27
8.93
34.90

Direct investment
2.52
0.57
3.35
16.94
18.02
- Equity joint ventures
2.52
0.57
1.43
16.34
17.23

- Co-operative joint ventures
0.00

1.92
0.57
0.73
- Fully foreign-owned ventures

0.03
0.06

Other foreign investment
2.36
23.66
7.28
2.75
13.62
- International leasing

18.19
0.70

- Compensation deals
2.04
4.64
6.58
2.71
13.45
- Processing and assembly
0.32
0.83

0.04
0.17

Source: Jilin Province Statistical Yearbook 1992.

Table A-8: DPRK: Output of selected important products, 1991
(million tons unless otherwise indicated)

Electricity (bn kwh)

50.0
Coal
60.0
Steel
5.9
Machine tools ('000)
11.0
Tractors ('000)
13.0
Trucks
8.0
Excavators ('000)
0.5
Electric locomotives (units)
50.0
Electric generators ('000 kv Amp)
442.0
Coal mining machinery (units)
21.0
Waggons ('000)
2.6
Synthetic plastics ('000 t)
54.9
Chemical fertilizers
4.5
Agricultural chemicals ('000 t)
45.8
Cement
11.4
Refractory bricks
0.4
Magnesia clinker
1.3
Timber (million m3)
7.94
Textiles (bn m)
6.8
Knitwear goods (mn pcs.)
97.0
Marine products
2.0
Grains
8.9
Fruits
0.67
Vegetables
6.5

Source: CPEEC.

ANNEX B.I.
MAP OF THE TUMEN RIVER ECONOMIC DEVELOPMENT AREA (TREDA)

Refer to the Preface of this publication.

ANNEX B.II
COST OF FOREIGN INVESTMENT IN HUNCHUN BORDER ECONOMIC COOPERATION ZONE

1. Rent of Standard Factories for terms of 10 years and above:
RMB 13/m2 per month
or
RMB 156/m2 per annum

2. Land Lease for terms of 50 years to 70 years: The price covers land lease and land exploitation fee.
Land lease for industry for 50 years term RMB 185/m2
Land lease for commerce for 40 years term: RMB 280/m2
Land lease for commercial residents for terms of 70 years: RMB 260/m2

3. Electricity
Production electricity (including industry and commerce): RMB 0.34/kwh
Household electricity: RMB 0.18/kwh

4. Water supply
Water supply for production (industry and commerce): RMB 1.2/m3
Household water supply: RMB 0.6/m3

5. Hot-gas supply for production: RMB 47.77/ton
(Parameters: 300 degree temperature
13 kg atmospheric pressure)

6. Average Income (Wages and Bonus) for labours:
The average wages of state-owned enterprises:
Skilled worker: RMB 400/m
Unskilled worker: RMB 300/m
Manager: RMB 600/m
Technician/Engineer: RMB 600/m

The average wages in joint ventures will be calculated at 20% higher than that of state-owned enterprises.

The standard of bonus are varied up to different enterprises which can be worked out according to their economic benefits.

7. Labour insurance
Labour insurance fund: 18.6% of the total wage

Welfare and incentives, such as medical insurance, heating and housing allowances): 3-10% of after-tax profits

8. Heating (will be charged according to total construction area)
Heating supply for production-related houses: RMB 3/m2
House heating supply: RMB 2/m2
Duration of heating supply: November 1 - April 10 every year

Source: Administration Committee, Hunchun Border Economic Cooperation Zone

ANNEX B. III.

TARIFFS AND FEES TO BE ENFORCED IN THE RAJIN SONBONG
FREE ECONOMIC AND TRADE ZONE
(Won: US$ = 2.2:1)

1. Land Lease Rents

No.
Purpose
Location
Unit
Rent
1.
Commercial, service, hotel, multi-
storey buildings
- city centre
- suburb
- rural area
won/m2year
7.00
6.00
3.50
2.
Residential, public buildings
- city centre
- suburb
- rural area

"

6.00
4.50
2.60
3.
Industrial
- city centre

- suburb
- rural area

"

4.50

3.50

Note: 1) For land to be used by enterprises investing in priority industries including high technology industries, no rents shall be paid for the first 3 years and rent shall be reduced by 50% for the following 3 years.

2) Should a lump sum payment of rent (premium) be made within 6 months from the conclusion of a land lease contract, the amount of rent payable shall be reduced by 15-30% in consideration of the period of the lease.

2. Land Development Fee

No.	Classification	Unit	Fee
1.	Land for commercial use, services, hotel and villas	won/m2	130
2.	Land for ordinary flats, offices and public buildings	"	120
3.	Land for industrial use	"	110

* Land development fees include the cost of the installation of water supply, sewage, electricity, telecommunications, heating, roads, etc.

3. Rents for Buildings

No.	Classification	Unit	Monthly Rent
1.	Plant buildings	won/m2month	

			5.00
2.	Residential buildings	"	6.00
3.	Offices, public buildings	"	8.00
4.	Warehouses	"	4.50

4. Fees for Construction on Contract

No.	Classification	Unit	Fee
1.	Plant buildings	won/m2	450-500
2.	Residential buildings	"	650-790

5. Water Rates

No.	Classification	Unit	Rate
1.	Household water (drinking water)	won/m3	0.12
2.	Industrial water	"	0.12

6. Electricity Rate

No.	Classification	Unit	Rate

1.
For lighting
won/kwh
0.10
2.
For industrial use
"
0.12

7. Telecommunications Rate

No.
Classification
Unit
Rate
1.
Telephone
installation
use of line (in offices)
" (in residence)
reinstallation

won/telephone
won/month
"
won/telephone

1000
24
15
100
2.
Telex
installation
use of line
rent
reinstallation

won/machine
won/month
"
won/machine

1000
48
90
115
3.
Fax
installation

use of line
rent
reinstallation

won/machine
won/month
"
won/machine

1000
24
65
115

8. Lorry Rent

No.	Classes of Goods	Unit	Rent
1.	Grain (bulk)	won/ton/km	0.17
2.	" (packed)	"	0.23
3.	Fertilizers (bulk)	"	0.17
4.	" (packed)	"	0.23
5.	Timber	"	0.31
6.	Coal	"	0.46

9. Rail Freight

Section

Classes of Goods	Unit	Freight
Rajin-Namyang:		
grain (packed)	won/ton	2.58
coal	"	2.52
fertilizers	"	2.58
Rajin-Tumengang:		
grain (packed)	"	1.68
coal	"	1.62
fertilizers (packed)	"	1.68
Chongjin-Namyang		
grain (packed)	"	2.70
coal	"	2.64
fertilizers (packed)	"	2.70
Chongjin-Tumengang:		
grain (packed)	"	1.80
coal	"	1.74
fertilizers (packed)	"	1.80

10. Free Trade Port Tariff Rates

No.	Item	Unit	Tariff

1.
Port dues (anchorage)
won/R.N.T.
0.50
2.
Light dues
"
0.10
3.
Pilotage
won/R.N.T.
per journey
0.16
4.
Shifting
"
0.07
5.
Mooring and unmooring charge
Up to 5,000 t ship
8,001 - 10,000 t ship
over 10,000 t ship
won/operation
"
"
"

25.00
35.00
50.00
6.
Fees for opening and closing of hatches (wooden hatch cover)
Up to 5,000 t ship
8,001 - 10,000t ship
over 10,000 t ship

won/hatch
"
"

30.00
50.00
60.00
7.
Hold cleaning fee (bulk cargo)
Up to 5,000 t ship: broom
sawdust
8,001 - 10,000 t ship: broom

sawdust
over 10,000 t ship: broom
sawdust

won/cleaning
"
"
"
"
"

70.00
120.00
90.00
180.00
95.00
200.00
8.
Skilled Labour remuneration
Worker
Technician

won/man/hour
"

2.50
4.00
9.
Waste disposal fees
Wharf (501 - 3,000 t)
Open anchorage (501 - 3,000 t)

won/disposal
"

70.00
110.00
10.
Fee for use of harbour craft
won/use
30.00
11.
Water supply fee
Price of water
Supply at wharf
Supply through waterboat

won/ton
"
"

2.50
1.00
1.50
12.
Oil supply fees
  Supply at wharf
  Supply at open anchorage

    "
    "

2.00
4.00
13.
Tonnage dues
won/R.N.T.
0.20
14.
Ship agency fee
    "
0.20
15.
Freight due
    %
1.5
16.
Cargo inspection fee
  Cement
  Metal (sheet) product
  Frozen cargo

won/ton
    "
    "

0.30
0.40
0.70
17.
Tariff for use of port facilities and installations
1. Tug boat
2. Barge
3. Cargo ship
4. Floating crane

5. Oil tanker (water tanker)
6. Lorry
7. Trailer
8. Loader (power shovel)
9. Bulldozer
10. Crane car

11. Fork lift
12. Excavator
13. Crane

14. Tarpaulin
15. Pallet

won/hp/hr
won/D.W.T./hr
"
won/each ton of
hoisting capacity/hr
won/D.W.T./hr
"
"
"
won/hp/hr
won/each ton of
hoisting capacity/hr
won/hp/hr
"
won/each ton of
hoisting capacity/hr
won/m2/hr
won/piece/day

0.15
0.08
0.40
2.00

0.30
2.00
2.50
3.00
0.30

2.00
2.00
0.20
2.00

0.20
0.20
18.
Fire engine service fee (inflammable, combustible
and explosive cargoes)

won/hr

4.00

19.
Storage charge (packed goods)
  Warehouse:
   1 - 10 days
  11 - 30 days
  31 - 45 days
  more than 45 days
  Open yard
   1 - 10 days
  11 - 30 days
  31 - 45 days
  more than 45 days

won/ton/day
"
"
"

"
"
"
"

free
0.05
0.10
0.50

free
0.03
0.05
0.25

20.
Loading and unloading charges (any part either at the side or in the hold of a ship, either levelling or piling)

1. Bulk cargo

   i) Coal (soft)
   ii) Fertilizer
   iii) Cryolite
   iv) Grain

2. Packed cargo

   i) Fertilizer
   ii) Chemical products
   iii) Grain

3. Loading and unloading

i) Bulk goods

Coal
Fertilizer
Cryolite
Grain

ii) Packed goods

Fertilizer
Chemical products
Grain

won/ton
"
"
"

"
"
"

"
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3.80

5.15
4.90
5.00

6.65
7.75
6.45

0.74
0.90
0.80
0.80

0.95
1.05
1.05

Source: DPRK Committee for the Promotion of External Economic Cooperation, Golden Triangle Rajin-Sonbong, Pyongyang, no date (1993), pp. 32-36.

Table A-6: Industrial investment proposals for Rajin-Sonbong Free Economic and Trade Zone

Type of investment sought

Location
Manufacturing branch/
product
Proposed capacity
Total
investment
US$
Equity joint
venture
Contractual
joint

venture
100 %
foreign-owned

Chonggye Industrial Park, Rajin
Garments
lady dresses:
1.4 mn pcs.
2.1 mn
X
X

Garments
jumpers: 1.5 mn pcs.
heavy coats: 2 mn pcs.
21.4 mn
X
X

Garments
springcoats: 1 mn pcs.
8.6 mn
X
X

Garments
fur overcoats:1 mn pcs.
19.3 mn
X
X

Sinhung Industrial Park, Rajin
Knitwear
shirts: 70 mn pcs.
29.8 mn
X
X

Socks
pantyhoses: 1.5 mn pairs
8 mn
X
X

Socks
1 mn pairs

450,000
X
X

Towels
7 mn pcs.
4.3 mn
X
X

Zippers
adhesive zippers:
3 mn metres
14.5 mn
X
X
X

Zippers
plastic zippers:
3 mn metres
3.2 mn
X
X
X

Embroidery
150,000 pcs.
2 mn
X
X
X

Bags
400,000 pcs.
2.6 mn
X
X
X

Umbrellas
500,000 pcs.
2.1 mn
X
X
X

Toys
3 mn pcs.

4 mn
X
X
X

Home refrigerators
200,000 pcs.
33 mn
X
X
X

Sewing machines
100,000 pcs.
4 mn
X
X
X

Electric bulbs
110 mn pcs.
83 mn
X
X
X

Fruit juice
10,000 kl
6 mn
X
X

Brand printing
30 mn pcs.
4 mn
X
X

Tongmyong Industrial Park, Rajin
Shoes
3 mn pairs
3.3 mn
X
X
X

Footwear
3 mn pairs
3.5 mn
X

X
X

Leather shoes
1 mn pairs
1.7 mn
X
X
X
Huchang Industrial Park, Rajin
Soyabean oil
20,000 t
15 mn
X
X
X

Corn starch
processing of corn 100,000 t
56 mn
X
X
X

Noodles
10,000 t
7.1 mn
X
X
X

Huchang Industrial Park, Rajin
Dry batteries
5 mn pcs.
3.4 mn
X
X

Numerically-controlled machine
tools
1,000 units
55 mn
X
X
X

Electric motors
small- and medium-sized motors: 150,000
pcs.

11 mn
X
X

Electrical apparatus
3 mn pcs (AC contactmakers, relays,
converters, on-and-off switches
8.7 mn
X
X

Micro-sized motors
100,000 pcs
30 mn
X
X

Kwangok Industrial Park, Rajin
High purity reagent
1,000 t
40 mn
X
X

Packing materials
10 mn pcs. (cardboard boxes)
10 mn pcs. (plastic packing material)
5.5 mn
X
X
X

Oil refinery
2 mn t
1.5 bn (1 bn for equipment
X
X

Changpyong Industrial Park, Rajin
Automobile parts
1,000 t (lorry & passenger car parts)
11 mn
X
X

Ship repair

80 large vessels
10 mn

X

Ship disassembling
10 vessels/year
1.5 mn

X

Anju-dong, Rajin
Vegetables processing
10,000 t
11 mn
X
X

Marine products
2,500 t
1.7 mn
X
X

Jewels
60,000 mn pcs.
1 mn
X
X

Paekhak Industrial Park, Sonbong County
Electronic computers
500,000 pcs.
23 mn
X
X
X

Printed boards
100,000 m2
9 mn
X
X
X

Loudspeakers
4.5 mn pcs.
10 mn

X
X

Numerical control units
7,000 units (machine tools: 6,000 units;
robots: 1,000 units)
59 mn
X
X
X

Brown tubes (color)
2.5 mn pcs.
190 mn
X
X
X

Television sets assembly (color)
2 mn
150 mn
X
X
X

VTRs
300,000 pcs.
54 mn
X
X
X

Tape recorders
1 mn sets
58 mn
X
X
X

Electronic timepieces
1 mn pcs.
8.4 mn
X
X

Electronic elements
1 bn pcs. (carbon-coated resistors)
11 mn
X

X
X

Electronic elements
200 mn pcs. (metal-coated resistors
7 mn
X
X
X

Electronic elements
100 mn pcs. (plastic condensers)
6 mn
X
X
X
Paekhak Industrial Park, Sonbong Country
Electronic elements
300 mn pcs. (ceramic condensers)
13 mn
X
X

Electronic elements
300 mn pcs. (electrolytic condensers)
14 mn
X
X

Semiconductors
200 mn pcs.
48 mn
X
X
X

Integrated circuits
100 mn pcs.
220 mn
X
X
X

Liquid crystals
30 mn pcs.
4.2 mn
X
X
X

Communication equipment
100,000 (lines of program-controlled
automatic exchange)
57 mn
X
X
X
Paekhak sub-country, Sonbong county
Spring water processing
50,000 kl
1.9 mn
X
X

Ungsangku Industrial Park, Sonbong
Packing materials
10 mn pcs. (wooden packing materials)
60 mn
X
X
X

Furniture
30,000 pcs. furniture
100,000 m2 fixture
3.3 mn
X
X

Pallets
15,000 m3
1.6 mn

X

Heat insulation material
3,000 t
1 mn
X
X

Hongui Industrial Park, Sonbong
Car-assembly
50,000 units (trucks - over 8-10 ton-class)
380 mn
X
X

Motorcycles
100,000 units
100 mn
X
X
X
Sonbong county seat
Soft drinks
beer: 10,000 kl
56 mn
X
X
X

Ceramics
8mn pcs. (glassware)
17 mn
X

Sahoi sub-county, Sonbong county
Fish processing
30,000 t
17 mn
X
X
X
Wolpo-ri, Songpyong District, Chongjin City
Containers
10,000 pcs.
11.4 mn
X

Source: DPRK Committe for the Promotion of External Economic Cooperation, Golden Triangle, op. cit.

Return to Top . The national income is defined as the sum of net output values of the economy's five material production sectors (agriculture, industry, construction, transportation, commerce), while the value added in the "non-material production sectors" is excluded. . Gross output values are defined as sums of output values (list price x quantity produced) of each enterprise in any given non-material production sector. The value of intermediate products is thus double counted. . For a detailed breakdown see annex table A-1 . Industrial enterprises at township level and above only. .

All figures referred to in this section are taken from two background papers provided by A. Mikhailov and S. Verolainen, respectively. . For a more detailed listing of key industrial outputs of Primorsky Territory see annex table A-2. . See Jiang Zaihuan, The Strategy of Yanbian Industrial Development, mimeographed paper. . See EIU, China, North Korea. Country Profile, 1992-93, London 1992. . See Korea Institute for Industrial Economics and Trade (KIET), Study of the industrial situation in TREDA and feasibility of division of labour in light industry among nations of Northeast Asia, Study prepared for UNDP in the context of TRADP, Seoul, December 1993, mimeo, pp. 64-65. . DPRK Committee for the Promotion of External Economic Cooperation, Golden Triangle Rajin-Sonbong, Pyongyang, no date (1993). For details, see section III. 2.(ii). . Cf. the emphasis made in the April 1994 TRADP Environmental Workshop in Beijing. . See Primorie Economic Development Task Force, Greater Vladivostok - A Concept for the Economic Development of South Primorie, Vladivostok, 25 June 1993, mimeo. . See UNIDO, Pre-Investment Study for the Establishment of a Free Economic Zone in Primorsky Krai, Final Report, TF/USR/91/001, December 1991. . Primorie Economic Development Task Force, op. cit., p. 17. . See, for instance, Master Plan for the Transportation Sector prepared for UNDP by A.R.Holm Associates, San Francisco, April 1993. . For details on the zone, see section III.2.(ii) below, pp. 29f. . See UNIDO, China. Towards Sustainable Industrial Growth, Oxford/Cambridge 1991, pp. 188-189. . DPRK Committee for the Promotion of External Economic Cooperation, Golden Triangle Rajin-Sonbong, op. cit., p. 25. . For details, refer to annex table A-6. . A detailed list of fees, rents and charges levied in the Rajin-Sonbong zone is reproduced as annex B-II. . Cf. Regulations for the Free Economic Zone in the Nakhodkha area, Primorye Territory, quoted from Nakhodkha FEZ Administrative Committee, Prospect Digest, Special Issue of "Nakhodkinsky Prospect" Newspaper, Nakhodkha 1993, p.7. . According to information received after completing the present report, utilized foreign investment in Yanbian Prefecture amounted to a total US$ 25 million in 1993 after a mere US$ 3.6 million the year before. . See F.v.Kirchbach, Subregional trade expansion in Northeast Asia in the context of the Tumen River Area Development Programme, Geneva, 4 September 1992. . For a recent more detailed analysis cf. Korean Institute for Industrial Economics and Trade, op. cit., pp. 98ff. . See Far Eastern Economic Review of 26 August 1993. 27. Since the results of UNIDO's observations with the involvement of one mission member were largely incorporated into a working paper discussed during recent (Jan/Feb 1994) TRADP meetings in New York, the following partly draws on the recommendations made therein. See TREDA Investment Climate Paper, TRADP Working Paper, Informal Meeting of National Teams, New York, January 31, 1994, mimeo. . For the following, see TREDA Investment Climate Paper, op. cit. . The most recent Industrial Development Reviews include India, Poland, Pakistan, Malaysia, Thailand, China, Lao PDR, Mongolia, Indonesia, Lithuania, Hungary and Mexico. . In Asia, examples of recent or imminent investment forums include China (Xi'an/Northwest Provinces, 1992; Yingkou, 1993; Kunming/Southwest Province, Sep/Oct 1994), Nepal (1992), Viet Nam (March 1991), Sri Lanka (1991), Fiji (1991), and India (1994). E-91 TREDA Collected Papers E-93 TREDA Collected Papers E-95 TREDA Collected Papers E-99 TREDA Collected Papers E-105 TREDA Collected Papers

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