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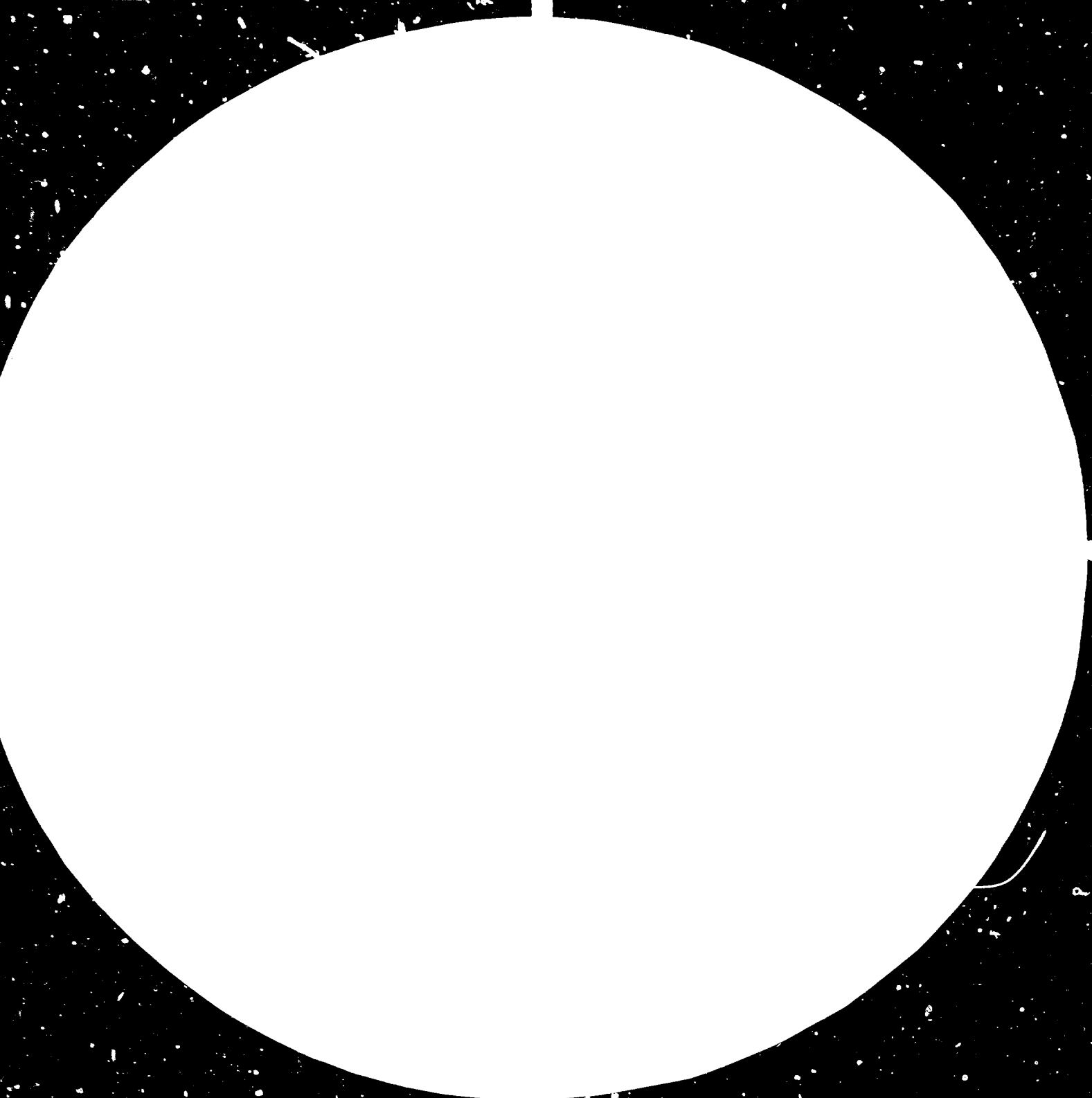
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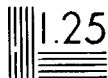
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COUNTRY INDUSTRIAL DEVELOPMENT BRIEF,
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA*

Prepared by the
Division for Industrial Studies
Regional and Country Studies Branch

903000

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PREFACE

The Division for Industrial Studies, Regional and Country Studies Branch, has undertaken under its work programme the preparation of a series of Country Industrial Development Briefs. These Briefs are desk studies, providing statistical and economic analysis of the industry sector, its growth, present status and future prospects. It is hoped that this Brief will provide information of use to programming technical assistance, industrial re-deployment and investment co-operation activities.

The Brief of the Democratic People's Republic of Korea is based on documents, studies and reports available at UNIDO Headquarters. No field survey has been undertaken and some of the data on industry are either incomplete or not up-to-date.

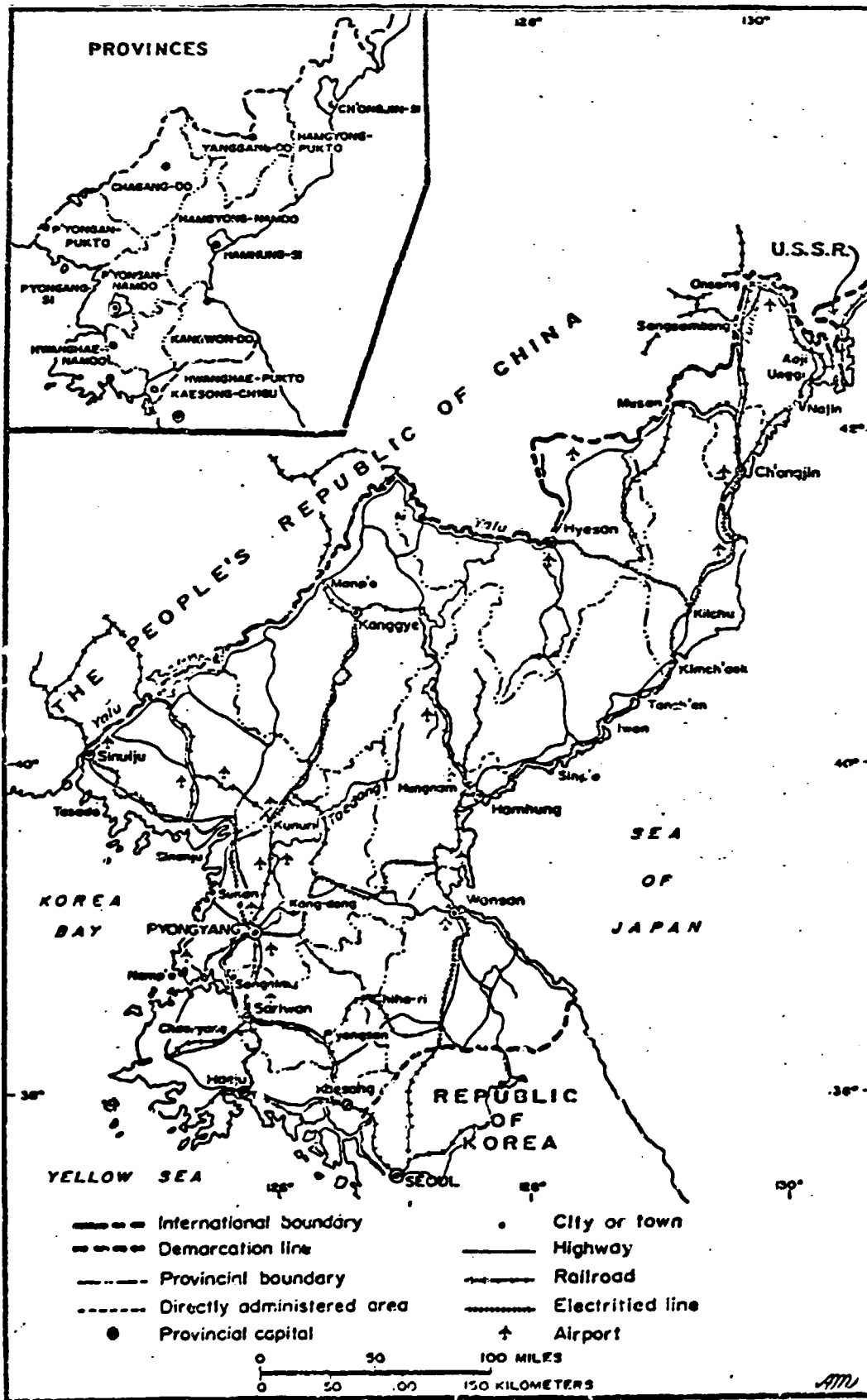
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Democratic People's Republic of Korea

EXPLANATORY NOTE

References to dollars (\$) are to the United States of America dollars, unless otherwise indicated.

The monetary unit in the Democratic People's Republic of Korea is the Won.

Exchange rate US \$ 1 = Won 0.97 (end June 1975).

Different sources of statistical data and information have been used and as such, comparisons between tables may not in all cases provide coherent and consistent information. Some figures may not add up due to rounding.

Chapter I

GENERAL ECONOMIC BACKGROUND

The Democratic People's Republic of Korea was formally established in 1948. The country borders the People's Republic of China on the north and the Republic of Korea on the south. The country covers around 47,000 square miles or just over half of the total area of the Korean peninsula. About three-fourths of the country is mountainous. The arable area covers just over 2 million hectares, or 17 per cent of the total land area. The average farmland per household is 1.6 ha. The harsh climate restricts agricultural output to one crop per year.

The population in 1979 is estimated at 17.5 million, of which 42 per cent is under 14 years of age (Table 1). The population grew at a rate of 2.6 per cent per year from 1970-1977 which ~~is almost equal to~~ the regional average of 2.56 per cent during the same period (Table 2). The largest city, Pyongyang, had a population estimated at 1.3 million in the early 1970s.

The labour force in the Democratic People's Republic of Korea, estimated at 7.4 million in 1977, has been growing more rapidly (2.9 per cent 1970-1977) than in other developing countries of Asia and Pacific (2.1 per cent); its relative size to total population (44.2 per cent) was also somewhat higher than the regional average (36.9 per cent). Since 1960 there has been a significant decline in the relative labour force engaged in agriculture, from 62 per cent in 1960 to 49 per cent in 1978, and an increase in the relative labour force in the industrial sector from 23 per cent to 32 per cent, and in the service sector from 15 per cent to 19 per cent (Table 3).

Gross national product, estimated at \$11,380 million in 1977, grew at a slightly higher rate (7.2 per cent) than the regional average (6.2 per cent) from 1970-1977. Industry and mining is estimated to account for more than two thirds of GNP while agriculture and services accounted for around one-sixth each. GNP per capita is estimated at \$683 in 1977 which compares with a regional average of \$261.

Table 1. General economic indicators, Democratic People's Republic of Korea, and Developing Asia and the Pacific, 1977

Indicator ^{a/}	Unit	Democratic People's Republic of Korea	Developing Asia ^{b/} and the Pacific	Ratio of North Korea to developing Asia and the Pacific
				(Percentage)
Population	mill.	16.661 ^{d/}	1,191.82	
Labour force	mill.	7.366	439.80	
Labour force/population	Percentage	44.21	36.90	120.0
GDP	US\$. mill.	11,380 ^{c/}	311,347.0	
GDP per capita	US\$.	630.0 ^{c/}	260.1	270.0
Exports of goods and services	US\$. mill.	675.0	83,722.0	
Imports of goods and services	US\$. mill.	781.0	84,540.0	
Exports/GDP	Percentage	5.9	25.82	22.8
Imports/GDP	Percentage	6.8	25.18	27.0

Source: UNIDO data base. The Far East and Australasia, 1980-81. UNCTAD, Handbook of International Trade and Development Statistics, 1979 and Supplement, 1980.

a/ Population and labour force in millions, values in millions of US dollars (except GDP per capita in US dollar), at constant 1975 prices, ratios expressed in per cent.

b/ Afghanistan, Bangladesh, Burma, Fiji, Hong Kong, India, Indonesia, Iran, Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand.

c/ GNP.

d/ United Nations estimate mid-year 1979 17,489 million.

The goal of rapid economic growth through industrialization has placed a considerable burden upon the country's limited labour and capital resources. The state has channelled substantial capital investment into the industrial sector, mainly in heavy industry. As a result there has been a profound transformation of the economy which was previously predominantly agrarian and rural in character. The relative importance of agriculture and industry has been gradually reversed; the industrial sector continued to expand during the 1970s and underwent major structural changes.

The economy of the country is centrally planned. The public sector plays a predominant role in national and industrial development. The State provides the bulk of investment. Rigid controls are exercised on prices, wages, exports, imports and the banking system. The Government advocates economic self-reliance and has sought to achieve economic self-sufficiency. The economy is relatively closed, the significance of exports and imports relative to GDP being much lower than the average of other developing countries of Asia and the Pacific (5.9 and 6.8 per cent respectively compared with the 1977 regional average of 25.8 per cent and 25.2 per cent).

Table 2. Growth of population, labour force and GDP, Democratic People's Republic of Korea, and Developing Asia and the Pacific, 1970-77^{a/}

(Average annual growth rates in per cent.)

	Population	Labour force	GDP
Democratic People's Rep. of Korea	2.6	2.9 ^{b/}	7.2 ^{c/}
Developing Asia and the Pacific	2.56	2.14	6.16

Sources: UNIDO data base,
World Development Report, 1980

a/ Growth rates for GDP at constant 1975 US \$

b/ 1970-1980

c/ GNP.

Table 3. Growth and distribution of labour force, Democratic People's Republic of Korea, 1960-1978

Average annual growth of labour force (per cent)			Percentage of labour force in:					
			Agriculture		Industry		Services	
1960-70	1970-80	1980-2000	1960	1978	1960	1978	1960	1978
2.3	2.9	2.7	62	49	23	32	15	19

Source: World Development Report, 1980.

Chapter II

RESOURCE ENDOWMENTS FOR INDUSTRIALIZATION

The Democratic People's Republic of Korea is relatively richly endowed with mineral resources and water power potential. The country's mineral resources encompass: metals such as iron, lead, zinc, copper, tungsten, nickel, silver, gold and cadmium; non-metals - barite, crude fertilizer, phosphates, flourspar, graphite, magnesite, salt, and cement; mineral-fuels - coal. Table 4 provides information on the production of major mineral commodities from 1960 to 1975.

The Democratic People's Republic of Korea is the world's largest producer of magnesite. The country accounts for 5-7 per cent of world output of tungsten. Coal deposits are estimated at 7,900 million tons. Major coal reserves are located to the north of Pyongyang and efforts are being made to exploit resources to the south capable of producing 15 million tons annually. Iron reserves are estimated at 2,000 million tons and plans exist to expand existing mines at Musan, Hasong, Chaeyong, Toksong and Tokhyon while new mines are being developed at Toksong and Sohaeri. Nickel and copper mines exist at Booyoor and Manduk with annual concentrating capacity of 280,000 tons and 560,000 tons respectively. In recent years exploration activities have increasingly favoured non-ferrous minerals.

The country has limited arable land resources. Major agricultural crops include rice, maize, potatoes, millet, barley, wheat, soybeans, pulses, sorghum, oats and others. Table 5 provides information on the production of principal crops during the period 1974-1978. Information relating to grain production tends to be somewhat optimistic. Recent estimates for grain production in 1979 were set at 9 million tons with a target of 9.5 million tons for 1980. This compares with official output estimate of 8 million, 8.5 million and 8 million respectively in 1976, 1977, and 1978. The growth in grain production has enabled the country to become a net exporter of grain. In view of the limited arable land resources available and due to the shortage of labour, extensive water and

Table 4. Democratic People's Republic of Korea, estimated output of selected mineral commodities, 1966-1975
(in thousand of metric tons unless otherwise specified)

Commodity	1966	1967	1968	1969	1970	1971	1972	1973	1974 ^{b/}	1975 ^{b/}
Metals										
Cadmium, smelter output	100	105	105	110	110	110	110	110	-	-
Copper										
Mine output, metal content	10	10	12	12	13	13	13	13	13	13
Metal, refined primary	12	12	12	12	13	13	13	13	-	-
Gold, mine output, metal content ^{a/}	160	160	160	160	160	160	160	160	-	-
Iron ore concentrate	6,000	6,500	7,000	7,500	8,000	8,500	8,700	8,900	9,400	9,400
Lead										
Mine output, metal content	60	65	70	70	70	80	90	95	100	100
Metal, primary	50	55	55	55	55	65	75	80	-	-
Nickel, primary	1	1	1	1	1	1	1	1	-	-
Silver, mine output, metal content ^{a/}	650	700	700	700	700	700	700	700	-	-
Tungsten, mine output, metal content	2,150	2,150	2,150	2,150	2,150	2,150	2,500	2,750	-	-
Zinc										
Mine output, metal content	105	115	120	125	130	135	140	145	-	-
Metal, primary	75	80	80	80	90	100	120	130	-	-
Non-metals										
Barite	100	110	120	120	120	120	120	120	-	-
Fertilizer materials, crude, natural phosphates	250	250	300	300	300	300	300	350	-	-
Fluorspar	30	30	30	30	30	30	30	30	-	-
Graphite	75	75	75	75	75	75	75	83	-	-
Magnesite										
Crude ore as mined	1,000	1,250	1,400	1,500	1,600	1,700	1,800	1,900	2,000	1,700
Clinker	450	600	700	700	700	800	900	1,000	-	-
Salt, all types	550	550	550	550	550	550	550	550	-	-
Mineral fuels										
Coal										
Anthracite	15,500	17,000	18,500	20,100	21,800	24,300	27,300	30,000	38,900	40,000
Bituminous	3,800	4,200	4,300	4,700	5,500	6,000	6,500	7,000	-	-
Other	200	200	200	200	200	200	200	200	-	-

Source: Area Handbook for North Korea, Washington, 1976, DA PAM 550-81.

a/ In thousands of troy ounces.

b/ Source (for years 1974 and 1975): US Department of Interior, Bureau of Mines, Mineral Yearbook (latest issue).

soil methods are being applied and agricultural mechanization as well as the use of chemical fertilizers are being given high priority. The number of tractors in agriculture increased substantially from 12,500 in 1960 to 70,000-80,000 in 1974. There are around 1 million agricultural co-operatives which accounted for around 90 per cent of arable land and produce some 85 per cent of agricultural production.^{1/} Around 5-8 per cent of cultivatable land is allocated to private farming. Additionally, farmers and workers are encouraged to raise livestock and produce at least 100 kilogramme of meat per year. Table 5 illustrates the number of livestock for 1974-1978, primarily pigs, cattle, sheep and goats. Livestock production is largely the responsibility of the large state farms.

The development of energy resources is given high priority in the national economy and considered an important prerequisite for the creation and growth of a modern industrial sector. The industry in the Democratic People's Republic of Korea relies mainly on hydro-electric, coal and thermal power. The electric power industry was largely destroyed during the War (1950-1953), but has been reconstructed and is now one of the most highly developed in Asia. Per capita production is second in East Asia only to Japan. In 1970 the production originated mainly from a network of over 1,000 newly built small- and medium-sized power stations; subsequently the construction of a number of large power plants raised installed electricity capacity to over 4 million kwh at the end of 1973. Production of electric power was estimated at 30 million kwh in 1976, and a large proportion was allocated in support of the industrial sector.

The road and rail network was almost completely destroyed during the Korean War. Electrification of the new railway system is proceeding rapidly and there are direct links with Moskow and Peking. In 1974 it was claimed that over half of the rail system of 4,380 kilometres had been electrified. Electrification of the railway continues to be a dominant feature; 500 kilometres were completed in 1978 and 1979, and

^{1/} Source: The Economist Intelligence Unit, Quarterly Economic Review, China, Hong Kong, North Korea, Annual Supplement 1980.

Table 5. Democratic People's Republic of Korea, production of principal crops and livestock, 1974-1978

	('000 tons)				
	1974	1975	1976	1977	1978
Wheat	136	142	340	310	350
Rice	3,500	3,700	4,150	4,610	4,500
Barley	350	380	350	340	350
Maize	2,000	2,058	1,780	1,820	1,850
Rye			1	1	1
Oats	65	66	115	120	125
Millet	410	410	427	418	430
Sorghum	60	60	117	120	120
Potatoes	1,100	1,110	1,300	1,400	1,450
Sweet potatoes	320	320	344	360	365
Pulses	215	215	260	270	274
Soybeans	256	263	300	310	320
Seed cotton	6	6	9	9	9
Cotton lint	3	3	3	3	3
Tobacco	40	40	41	41	42
	('000 head)				
Horses	31	33	33	34	35
Asses	3	3	3	3	3
Cattle	771	781	850	875	900
Pigs	1,485	1,520	1,700	1,800	1,900
Sheep	205	211	268	275	280
Goats	194	253	200	210	220

Source: FAO Production Yearbook, 1979.

the target for 1980 was 440 kilometres. Over two-thirds of goods carried by the railways are now hauled by electric locomotives. Roads have also been rebuilt to take the increasing traffic but have a low priority to avoid over-dependence on imported fuel.

Chapter III

STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

Few quantitative indicators are available on the performance and structure of the manufacturing sector. After 1965 the Government ceased to issue statistics on manufacturing production. Available estimates are primarily published in the Area Handbook for North Korea, 1976, (DA PAM 550-81), and limited to a few selected manufactured goods. In 1975 manufacturing production included, inter alia, 2.7 million tons of pig iron and ferroalloys; 2.6 million tons of crude steel; 2.4 million tons of steel semi-manufactured; and 5.8 million tons of cement (Table 6).

According to industrial statistics available prior to 1966, the Democratic People's Republic of Korea produced a variety of manufactured goods including textiles, chemical fertilizers, glass, paper, machine tools, internal combustion engines, electric motors, transformers, tractors, trucks, leather, footwear, clothing, marine products, vegetable oils, bean paste, soy source, bicycles, and sewing machines.

In 1974 the Government indicated that the country had moved beyond the stage of raw material production for exports (such as iron ore) and that a shift in production towards technologically more complex industrial products was taking place. The new emphasis on a more sophisticated industrial structure implied more careful planning and resource utilization as well as larger inputs of capital goods. In reviewing the progress achieved in 1974, the President referred to new and enlarged facilities at some of the major steel plants; the construction of a large-scale chemical complex; the expansion of certain fertilizer factories; the construction of a new cement factory and expansion of existing cement factories, as well as new and expanded machinery and machine-tool plants. The President asserted that by 1974 the country had become able to produce: 2,500 horsepower medium-speed engines; 3,500 horsepower high-speed engines; 2,500 horsepower diesel locomotives; cargo ships as large as 14,000 gross register tons; and 200,000 kilovolt-ampere large-size transformers.

Table 6. Democratic People's Republic of Korea, estimated production of selected manufactured goods, 1966-1973

(in thousands of metric tons)

Year	Iron and steel			Cement	Coke
	Pig iron and Ferroalloys	Crude steel	Steel semi-manufactures		
1966	1,500	1,300	1,100	2,500	1,500
1967	1,750	1,450	1,300	2,600	1,800
1968	2,000	1,750	1,500	2,700	2,000
1969	2,250	2,000	1,750	3,000	2,000
1970	2,400	2,200	1,900	4,000	2,200
1971	2,500	2,400	2,200	4,800	2,200
1972	2,600	2,500	2,300	5,300	2,200
1973	2,700	2,600	2,400	5,800	2,200

Source: Area Handbook for North Korea, 1976, page 279.

Ambitious plans were announced by the Government in 1974 to expand the light industrial sector. A number of new factories, mainly export oriented, were to be established in the fields of shoes, wristwatches, furniture and other consumer goods. By the end of 1974, more than 120 modern light industrial enterprises were reported to be under construction in the fields of fabrics, knitwear, processed food and other daily necessities. In order to raise textile production and upgrade quality, new equipment and technology was imported for a number of textile factories. In the President's 1975 New Year Address reviewing the progress during 1974, it was stated that new textile, knitwear, clothing, shoes and other factories had been built during 1974 and that in each province a modern cornstarch factory had been built and begun production. Despite increased attention and services, it appeared that light industry failed to adequately meet the needs of consumers, and the quality of consumer goods remained poor.

The industrial sector was socialized in 1946 with the nationalization of former Japanese-owned industries. At that time the northern half of the Korean peninsula was more industrialized than the southern. In 1975 the industrial sector consisted of two categories of ownership: state enterprises and industrial co-operatives. Private enterprises had already been absorbed into co-operatives by government decree. In 1963, the last year for which data is available, state enterprises accounted for over 90 per cent of total industrial output, their importance have increased in recent years. Although information is lacking, it has been assessed^{1/} that industrial co-operatives existing in the mid-1970s were probably small local ventures in the field of food processing, handicrafts and cottage industries, accounting for a small proportion of gross industrial output.

There are two types of state enterprises operating according to size, market served and nature of product. Central state enterprises operate on a large scale and produce products of national importance which are

1/ Area Handbook for North Korea, 1976, page 226.

distributed throughout the country. Local state enterprises are small in scale, utilizing locally-available materials and primarily serving local demand. With a view to improving the performance of state enterprises, the Government adopted two important measures: the "TAEAN" system of industrial management involving worker participation in management, and an independent cost accounting system for state industrial enterprises.

Manufacturing activities in the country tend to be located around certain mining complexes and in proximity to transportation and communication facilities (Figure 1). Along the eastern coast of North Hamgyong and South Hamgyong provinces, industrial complexes include chemicals, iron and pulp industries. In the West, major industrial concentrations include chemicals, machines, and textile industries in the Sinuiju area; chemicals, electronics, machines and textile industries in the Pyongyang area; and shipbuilding and cement industries located around Haeju. Iron and steel plants are also located southwest of Pyongyang at Kongso, while Nampo, a major port, is a centre for chemicals, electronics, non-ferrous metals and shipbuilding industries.

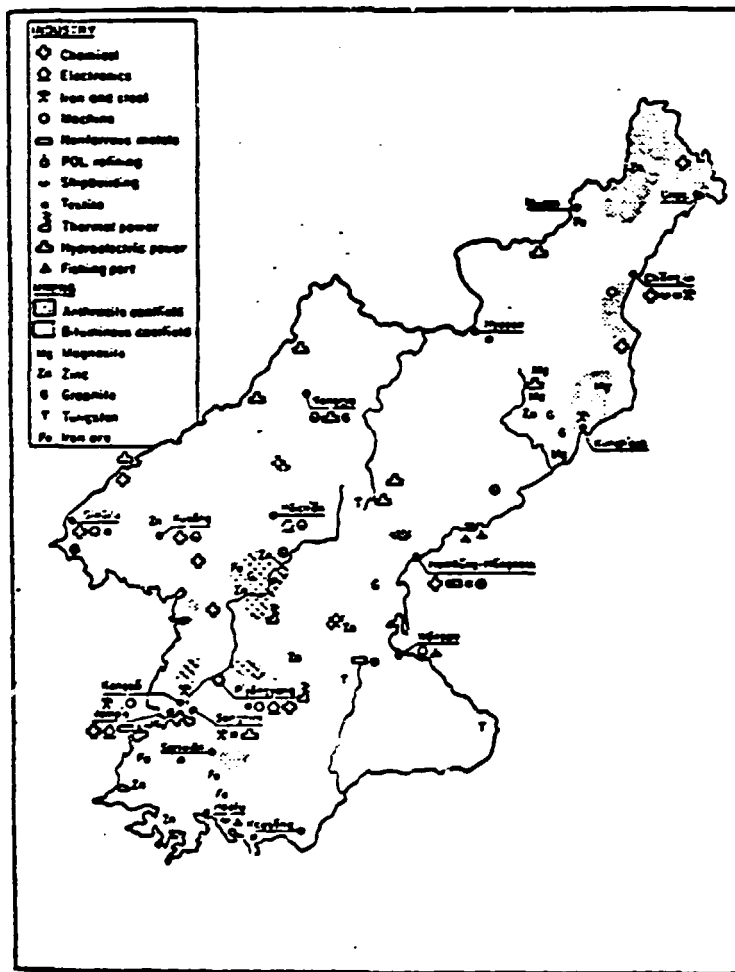


Figure 1. Democratic People's Republic of Korea, location of industrial activity

Source: Area Handbook for North Korea 1976, page 273.

Chapter IV

MAIN CONSTRAINTS ON INDUSTRIAL DEVELOPMENT

The main problems and constraints faced by the industrial sector in the Democratic People's Republic of Korea may be summarized as follows:

- a) Despite relative abundance of mineral resources, the country lacks certain raw materials and fuels required by the heavy industrial sector such as metallurgical, metal smelting, chemicals and other industries.^{1/} With greater emphasis upon higher stages of industrial processing and structural change in industry, the country is becoming increasingly dependent upon imported raw materials. The Government's policy is to become 60-70 per cent self-reliant in industrial raw materials.
- b) The Government is determined to maintain the high rates of economic growth achieved in the past, but in circumstances different to those prevailing during the immediate post-Korean war period. The rapid growth witnessed in the past has gradually slowed down during the 1970s, and structural changes have taken place in industry towards higher stages of processing requiring more advanced technology, planning, management and training. Since the mid-1970s, the country has increasingly turned to the developed market economies to provide the advanced technology and credit required for achieving planned industrial growth, diversification and quality.
- c) A major obstacle is the severe external debt problem of a relatively closed economy. Frequent postponements of repayments and concern over the possibility of default have been reported. The Government has recently made tentative approaches to a number of developed market economies with a view to setting up joint ventures in the Democratic People's Republic of Korea, particularly in mineral-based industries, and in return for a

^{1/} Area Handbook for North Korea, DA PAM 550-81, page 221.

portion of the output. Thereby capital and modern technology may be acquired without incurring hard currency debt.

- d) A bureaucratized economy under central control and planning tends to constrain the efficient operation of industrial enterprises. Problems of co-ordination in the supply of industrial products and raw materials persist throughout the country. There is a lack of incentives for factory workers to increase productivity. To overcome some of these problems the Government has introduced certain organizational and managerial innovations which have led to rationalization, some decentralization, production incentives and improved technical guidance.
- e) The problems associated with imported technology and domestic bureaucracy are compounded by inadequate management skills which tend to further accentuate the constraints on industrial development. Managers and technicians are insufficiently trained to cope with the new and unfamiliar imported technology. The related symptoms of managerial inefficiency are poorly maintained machinery and equipment, low capacity utilization or idle capacity.
- f) Skilled labour is another critical area. Two major solutions advanced by the Government to alleviate the labour shortage are improved allocation and regulation of labour. An example of such a policy is to increase the use of female labour in light industries while relocating male youth from these to heavy industries. The other major solution is labour saving through technical improvements. In this connexion, increased mechanization and introduction of automation are emphasized, especially in the heavy industry sector.
- g) Transport difficulties appear to be another factor impeding the development and decentralization of mining and manufacturing. Most industrial products and raw materials, especially in heavy industry, are bulky. Upgrading and expansion of the transport

system on a large scale is needed to meet the requirements of industrial growth.

- h) Finally the gap between agriculture and industry has resulted in rural-urban disparity in income distribution. Few non-farm employment opportunities are available to augment farm incomes. Industry has been largely capital intensive. Heavy industries were located in a few selected industrial centres. Efforts to develop local small-scale industries, mainly consumer goods based upon local resources, have partly rectified the existing rural-urban dichotomy. Narrowing the gap was one of the major goals of the Sixth Plan (1971-1976). However, due to continued emphasis on heavy industry, the disparities undoubtedly persisted in the 1970s.

Chapter V

INDUSTRIAL PLANS, POLICIES, AND STRATEGIES FOR INDUSTRIALIZATION

The economy of the Democratic People's Republic of Korea is highly centralized, socialized and planned. Since 1947, the country has institutionalized eight economic development plans. Through these the country has made progress towards industrialization. The structures of the economy and institutions have undergone significant changes. Important among these are changes in patterns of ownership and control of productive enterprises and a shift in the composition of national output, employment and international trade. Recognizing the strategic importance of the machinery industry, the Government pursued a strategy of priority development of heavy industry.

The Seven-year Plan which commenced in 1961 and ultimately extended to 1970 reflected a transition from reconstruction of the economy towards a programme of full-fledged industrialization. During the first part of the Plan, emphasis was laid on improvements in the standard of living through development of light industry, agriculture and fisheries supported by development in chemical and machine-building industries. In the latter part of the Plan, major emphasis was placed upon the development of heavy industry - mining, power, metallurgy, metal working and other key industries. Altogether 58 per cent of total state capital investment was earmarked for the industrial sector - 75 per cent thereof for heavy industry and 25 per cent for light industry.

The achievements of the extended Seven-year Plan were mixed. Industrial production was higher at the end of the decade than at the beginning, yet slower than planned and less than achievements during the 1950s. Very few of the original production targets were met even in the three-year extension of the Plan period. The entire period of the 1960s was characterized by production setback and actual decline of industrial production in 1966.

The main thrust of the subsequent Six-year Plan (1971-1976) was one of consolidation and balance with virtually no new development features.

Planned growth rates were more modest than in the previous plan and close to the actual rates achieved by the end of the 1960s. Industrial production was expected to grow by 14 per cent per year. Certain constraints were expected to be overcome by technological advances and improved labour management. Some 70 per cent of the expected gain in industry was envisaged to come from improved labour productivity. The Plan also stressed improved quality of industrial consumer goods. Around half of total state investment was expected to be allocated towards the industrial sector of which 83 per cent to heavy industry and 17 per cent to light industry. Table 7 contains information on selected targets of the Plan. A significant feature of the Six-year Plan was the government recourse to foreign technology, which appeared to be a major element in the effort to increase productivity and quality as well as technological advance. However, payment difficulties arose in the mid-1970s; imports were drastically curtailed and plant construction in many industries came to a virtual halt. In 1974 a shift of emphasis towards consumer goods became apparent. This was to be achieved by importing industrial plants for production of consumer goods. Some 120 such plants were set up to produce a range of items including fabrics, knitwear, footwear and processed foods. Although in 1976 it was announced that the Six-year Plan had been successfully fulfilled, speculation that this was not the case was heightened by the designation of 1977 as a year of readjustment, rather than the start of another plan period.

Under the current Seven-year Plan (1978-1984), industrial output is expected to increase by 12 per cent annually. Tables 7 and 8 contain data on selected targets of the current development plan, compared with previous plan targets and a forecast for 1989.

Table 7. Democratic People's Republic of Korea, major targets (annual)
of recent economic development plans, 1971-1984

	Unit	Six-Year Plan 1971-76	Seven-Year Plan 1978-84
Steel	mn. tons	3.8-4.0	7.4-8.0
Non-ferrous metal ores	mn. tons	1	1
Iron ore	mn. tons	8	16
Machine tools and ships	mn. tons	5	5
Electricity	bn. kwh	50	56-60
Coal	mn. tons	50-53	70-80
Chemical fertilizer	mn. tons	2.9	4.8-5.0
Textiles	mn. metres	500	800
Footwear	mn. pairs	...	100
Grain	mn. tons	10	10
Marine products	mn. tons	5	3.5
Fruit	mn. tons	...	1.5
Sugar	'000 tons	...	300
Livestock	'000 tons	...	800-900

Sources: Quarterly Economic Review of China, Hong Kong, and North Korea, 1980
Far Eastern Economic Review, June 26, 1981.

Table 8. Democratic People's Republic of Korea, selected economic targets for the 1980s

	1979 Output	1984 Target	1989 Target	Annual average ^{a/} growth 1979-1989 (%)
Electricity (billion kmh)	28	56-60	100	9.6
Coal (million tons)	44	70-80	120	6.4
Steel (million tons)	3.77	7.4-8.0	15	11.4
Other metals (million tons)	0.225	1	1.5	...
Cement (million tons)	9.25	12-13	20	6.3
Fabrics (million metres)	500 ^{b/}	800	1,500	...
Grain (million tons)	8.5	10	15	5.3
Marine products (million tons)	1.6	3.5	5.0	6.5
Reclaimed land (hectares)	24,000 ^{c/}	10,000	300,000	...

^{a/} Based on Japan External Trade Organization (Jetro) figures.

^{b/} 1978.

^{c/} Total for 1954-79.

Source: Far Eastern Economic Review, June 26, 1981.

Chapter VI

FOREIGN TRADE AND AID^{1/}

The Democratic People's Republic of Korea is becoming increasingly dependent upon external trade for obtaining raw materials and technology required for economic and industrial development. The foreign trade sector, however, is still small relative to GDP (exports 5.9 per cent, imports 6.8 per cent in 1977), especially in comparison with other developing countries of the Asian and Pacific region. Foreign trade in the country is the monopoly of the State.

Table 9 shows the rapid expansion of both exports and imports for the period 1970-1979. The general rising trend in imports reflects the growing demand for capital equipment and raw materials needed to implement long-term development programmes and to meet the requirements of a growing economy. The trade deficit which prevailed throughout this period, except in 1978, was particularly critical in 1974 due to massive imports of capital equipment. The sudden fall in world prices of non-ferrous metals following the oil crisis and the subsequent world recession precipitated the trade deficit problem in 1974 and 1975. A disruption in the country's debt service emerged; the situation was rectified by drastic cuts in imports in both 1975 and 1976. In spite of efforts made to reduce imports and expand exports, the foreign debt service burden continues to hamper economic and industrial development.

Table 10 reveals that the major proportion of the country's exports consists of fuels, minerals, metals and other primary commodities. The share of manufactures in total exports is limited to around 18 per cent. Manufactured exports consist primarily of textiles, clothing, machine

^{1/} An analysis of foreign trade is hampered by the fact that the government of the Democratic People's Republic of Korea does not publish foreign trade data; however, estimates have been published in the Far Eastern Economic Review and in the Economist Intelligence Unit Quarterly Economic Review of China, Hong Kong and North Korea. For the purpose of this Brief, the latest estimates available, published in the Far Eastern Economic Review, June 26, 1981, have been used in the analysis.

Table 9. Foreign trade, Democratic People's Republic of Korea, 1970-1979

(US \$ million)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Exports	315	316	386	482	700 ^{a/}	755	555	675(231)	1,027(396)	1,270(510)
Imports	395	552	617	779	1,300 ^{a/}	1,075	825	781(299)	950(416)	1,300(570)
Balance	-80	-236	-230	-296	-600	-320	-270	-106(-68)	+77(-20)	-30(-60)

Source: Far Eastern Economic Review, June 26, 1981

^{a/} Approximate.

Figures in parentheses are for trade with non-socialist countries.

tools, transformers, magnesium (clinker), talcum powder, porcelain ware, glass products, light industrial goods, electromotors, steel alloy and chemicals. The bulk of the country's exports, 73 per cent, was directed towards centrally-planned economies, in particular the USSR. Other major destinations of exports include Japan, the Federal Republic of Germany and Indonesia. Imports were primarily from the USSR, Japan, Saudi Arabia, the Federal Republic of Germany, Singapore and Rumania.

The country is dependent upon imports of fuel to meet its energy requirements. The establishment of long-term contracts with some of the oil producing countries (Saudi Arabia, Iraq, Iran, Algeria) implies that the country will not rely exclusively on the USSR and the People's Republic of China for sources of energy.

The Government of the Democratic People's Republic of Korea recently approached the UNDP for development assistance. A UNDP office was established in Pyongyang in late 1980. Recently the first UNDP/UNIDO project was approved with a total budget of \$ 5.6 million. The objective of this project is to provide assistance in the establishment of a pilot plant and training centre for integrated circuit systems.

Table 10. Composition and destination of merchandise exports,
Democratic People's Republic of Korea, 1977

(Per cent of total)

Composition				
Fuels, minerals and metals	Other primary commodities	Textiles and clothing	Machinery and transport equipment	Other manufactures
51	31	6	1	11

Destination			
Industrialized countries	Developing countries	Centrally planned economies	Capital-surplus oil exporters
5	13	73	9

Source: World Development Report, 1980.

