KOREA

Physical and Social Geography

JOHN SARGENT

The total area of Korea is 223,337 sq km (86,231 sq miles), comprising the Democratic People's Republic of Korea (North Korea), the Republic of Korea (South Korea) and the demilitarized zone (DMZ) between them. North Korea has an area of 122,762 sq km (47,399 sq miles) and South Korea an area of 99,313 sq km (38,345 sq miles). The DMZ covers 1,262 sq km (487 sq miles). The Korean peninsula is bordered to the north by the People's Republic of China, and has a very short frontier with the Russian Federation in the north-east.

PHYSICAL FEATURES

Korea is predominantly an area of ancient folding, although in the south-east, where a relatively small zone of recent rocks occurs, a close geological similarity with Japan may be detected. Unlike Japan, the peninsula contains no active volcanoes and earthquakes are rare.

Although, outside the extreme north, few mountains rise to more than 1,650 m, rugged upland, typically blanketed in either pine forest or scrub, predominates throughout the peninsula. Cultivated lowland forms only 20% of the combined area of North and South Korea.

Two broad masses of highland determine the basic relief pattern of the peninsula. In the north the Changpai Shan and Tumen ranges form an extensive area of mountain terrain, aligned from south-west to north-east, and separating the peninsula proper from the uplands of eastern Manzhou (Manchuria) in the People's Republic of China. A second mountain chain runs for almost the entire length of the peninsula, close to, and parallel with, the eastern coast. Thus, in the peninsula proper, the main lowland areas, which are also the areas of maximum population density, are found in the west and south.

The rivers of Korea, which are short and fast-flowing, drain mainly westwards into the Huang Hai (Yellow Sea). Of the two countries, North Korea, with its many mountain torrents, is especially well endowed with opportunities for hydroelectric generation. Wide seasonal variations in the rate of flow, however, tend to hamper the efficient operation of hydroelectric plants.

In contrast with the east coast of the peninsula, which is smooth and precipitous, the intricate western and southern coasts are well endowed with good natural harbours, an asset which, however, is partly offset by an unusually wide tidal range.

CLIMATE

In its main elements, the climate of Korea is more continental than marine, and is thus characterized by a wide seasonal range in temperature. In winter, with the establishment of a high pressure centre over Siberia and Mongolia, winds are predominantly from the north and north-west. North Korea in winter is extremely cold, with January temperatures falling, in the mountains, to below −13°C. Owing to the warming influence of the surrounding seas, winter temperatures gradually rise towards the south of the peninsula, but only in the extreme southern coastlands do January temperatures rise above freezing point. Winter precipitation is light, and falls mainly in the form of snow, which, in the north, lies for long periods.

In the southern and western lowlands summers are hot and humid, with July temperatures rising to 26°C. In mid-summer violent cloudbursts occur, often causing severe soil erosion and landslides. In the extreme north-east summers are cooler, and July temperatures rarely rise above 17°C.

Annual precipitation, of which more than one-half falls in the summer months, varies from about 600 mm in the north-east to more than 1,500 mm in the south.

NATURAL RESOURCES

Although 70% of the total area of Korea is forested, high-quality timber is virtually limited to the mountains of North Korea, where extensive areas of larch, pine and fir provide a valuable resource. Elsewhere, excessive felling has caused the forest cover to degenerate into poor scrub.

Korea is fairly rich in mineral resources, but most deposits are concentrated in the north, where large-scale mining operations were begun by the Japanese before the Second World War. In North Korea the main iron-mining areas are located south of Pyongyang, and in the vicinity of Chongjin in the extreme north-east.

Throughout Korea many other minerals, including copper, sulphur, lead, zinc, tungsten, gold, silver and magnesite, are mined.

POPULATION

At mid-2001 the estimated population of North Korea was 22,428,000, while that of South Korea was 47,343,000, giving a combined total of some 70m. The population of the Korean peninsula has thus more than doubled since 1954, when the combined total was 30m. The population of South Korea was estimated at 47,640,000 at mid-2002.

Population density is higher in South Korea (479.5 per sq km in 2001) than in North Korea (an estimated 182.7 per sq km in 2001), but mean density figures conceal the crowding of population on the limited area of agricultural land, which is a salient characteristic of the geography of South Korea.

In 1970 about 40% of the population of South Korea was concentrated in cities with populations of 100,000 and over. According to the final results of the census of 1 November 2000, Seoul, the capital of South Korea, had a population of 9,853,972, while Busan, with 3,655,437 inhabitants, was the second largest city, followed by Daegu (2,473,990) and Incheon (2,466,338). In 1985 the urbanization rate was 65%, with 24% of the population concentrated in Seoul.

According to the 1993 census results, the population of Pyongyang, the capital of North Korea, was 2,741,260. The other two principal cities are Hamhung, with a population of 709,730, and Chongjin, the leading port of the north-east coast, with 582,480.

History up to the Korean War

ANDREW C. NAHM

HISTORICAL BACKGROUND

Political History

Tribal units of the Puyo people (later known as Koreans) emerged in c. 3000 BC, when the Tungusic people migrated into south Manzhou (Manchuria) and the Korean peninsula, bringing with them their Ural-Altaic tongue, shamanistic religion and a palaeolithic culture. A mythological figure named Tan'gun is said to have consolidated tribal units into a 'kingdom' named Choson in the northern part of Korea in 2333 BC. Ancient Choson of the Tan'gun, the Kija and the Wiman dynasties lasted some 2,225 years, but it was overthrown by the Chinese in 108 BC. The Chinese colonies in the north-western region of Korea lasted until the fourth century AD.

A new kingdom of Koguryo, which emerged in 37 BC in the southern region of Manzhou, along the Yalu River, and later extended into the Korean peninsula, ended Chinese domination in Korea and successfully defended its territory against Chinese aggression in the late sixth and early seventh centuries. Meanwhile, tribal federations which existed in the central and southern regions of the peninsula were consolidated into the kingdoms of Paekche and Silla in 18 BC and 57 BC respectively, ushering in the 'Three Kingdom' period in Korean history.

Silla destroyed Paekche in AD 663 and Koguryo in 668, in collaboration with China, so unifying Korea. However, the kingdom of Koryo, which rose in the central region in 918, brought about the demise of Silla in 935. Korea (Corea) is the Western version of Koryo. During the Koryo period the political system became similar to that of China, and in the 13th century Korea became a vassal to China, then ruled by the Yuan dynasty (established by the Mongol conquest).

In 1392 Gen. Yi Song-Gye overthrew the Koryo dynasty, which had suffered invasions by the Khitans in the 10th century and by the Mongols in the 13th century. He established the Yi dynasty and renamed the kingdom Choson, with Seoul as the new capital. The Yi dynasty brought the entire Korean peninsula and the island of Jeju (Cheju) under its rule, and it governed the kingdom with a Confucian bureaucracy manned by an élite class of scholar-officials. Korea became increasingly Confucianized as a vassal to China, then under the Ming dynasty.

While the power struggle among scholar-officials and between the monarchy and bureaucracy weakened the foundation of the nation, Korea suffered much from Japanese invasions in the late 16th century and Manzhou invasions in the early 17th century. Following the opening of Korea to the West in 1882, an international power struggle developed in Korea, initially between China and Japan, and then between Russia and Japan. The Japanese victories in the Sino-Japanese War of 1894–95 and the Russo-Japanese War of 1904–5 virtually sealed the fate of Korea, although nationalistic reformists made gallant efforts to save the sinking nation.

Despite the repeated invasions of foreign aggressors, Korea maintained its independence and preserved its national territory. However, in 1905 Korea became a Japanese protectorate, and in 1910 was annexed by Japan, ending the rule of the Yi dynasty as well as Korea's independence. The Japanese colonial rule in Korea was highly repressive and exploitative. Freedom of speech and press was non-existent, human rights were completely disregarded, farm lands were confiscated under various pretexts, economic and educational opportunities were extremely limited, and Korean workers and peasants alike were exploited under the repressive rule of the Japanese.

The Koreans retaliated in various ways. On 1 March 1919 some 2m. Koreans demonstrated peacefully, expressing their desire to be free from Japanese colonialism and to restore national independence under the principle of self-determination and the concept of 'one people, one nation.' A provisional government of Korea in exile (established in Shanghai in April 1919), and various non-violent as well as militant organizations of overseas Koreans, kept alive hopes for the eventual restoration of the Korean nation.

Economic and Social Development

An agricultural life developed during the bronze and iron ages (c. 2000 BC–AD 200), and a fully-fledged agricultural economy grew during the 'Three Kingdom' period, when land was monopolized by the aristocrats and cultivated by peasants who constituted the majority of the population. Domestic commerce did not develop until after the 10th century, but foreign trade with China and Japan had flourished during the 'Three Kingdom' and the unified periods.

The anti-commercialism of Confucianism did not encourage commercial economy to grow. However, as cities and towns expanded during the Yi period, government-approved commercial enterprises, as well as rural markets and fairs, increased in number, and cottage industries developed rapidly. Land continued to be owned by the gentry class (*yangban*), and cultivated by peasants and slaves.

Social evolution brought about the stratification of the people into the landed gentry and the toiling masses. The toiling masses were classified into 'good people' or 'common people,' who were engaged in agriculture, and 'the low-born', who were engaged in trade, manufacturing of goods and other lesser occupations. The *yangban* formed the educated and land-owning class of the Yi period, and provided all high-ranking government officials. The 'middle people' class provided the middle- and lower-ranking officials. Only those who passed the civil service examinations were qualified to be government officials during the Yi period.

Modern commerce and industry developed during the Japanese colonial period. Food production was accelerated to feed the ever-growing number of Japanese as an increasing amount of Korean rice was exported to Japan. Rapid industrial growth came after the Japanese invasions of Manzhou and China proper in the 1930s. With this, the number of industrial workers increased rapidly as the influence of the gentry class diminished.

Cultural History

During and after the period of Chinese domination of the north-western region of Korea, the sinification of Korean culture occurred. Buddhism, which migrated from China to Korea during the third century AD, reached its zenith following the unification of Korea by Silla. Many historic and renowned Buddhist temples, pagodas, statues of Buddha and Buddhist writings were produced by the Koreans during the 'Three Kingdom' and the unified Silla periods.

Buddhism became the state religion of Koryo. With the growing influence of Buddhism, book-printing techniques became advanced and sophisticated. *Tripitaka Koreana*, a Buddhist text of over 81,000 pages, and other Buddhist works were printed in Korea with movable type (wooden and metal blocks) in the 13th and 14th centuries.

Confucianism spread slowly but, after the establishment of the Tang dynasty in China in the early seventh century, Confucian influence grew strong in Korea. The increasing influence of Chinese culture had led to the development of native songs, called *hyangga*, as well as the creation of a system of writing Korean words in Chinese, called *idu*, during the unified Silla period. During the Koryo and Yi periods, scholarship grew rapidly as more books on early Korean history, geography and other subjects were published by Confucian scholars. All scholarly books were written in the Chinese language.

The adoption of neo-Confucianism as the state creed and rapid Confucianization of political and social patterns and institutions during the Yi period brought about a sudden decline of

Buddhism. At the same time, the growing number of public and private schools of Confucian and Chinese learning, and the introduction of the Chinese civil service examination system, resulted in the rise of an educated élite.

The adoption and promulgation of a new Korean script, commonly called *han'geul* ('Korean Letters'), by King Sejong in 1446 constituted an important milestone in the cultural history of Korea. With this, the Korean form of poetry, called *sijo*, flourished, as it enabled more Koreans to become literate.

The *Sirhak* ('Practical Learning') school of reformist Confucian scholars not only stimulated the development of a new interpretation of Confucianism, but also Korean studies, including historical and geographical studies, during and after the 17th century. Genre and folk painters, together with folk musicians, dancers and players, contributed greatly, not only to the preservation, but also to the growth, of a distinctive Korean folk culture during the Yi period, as novels and travelogues, written in *han'geul*, appeared.

The arrival and growth of Roman Catholicism and the 'Western Learning' after the 18th century, and the establishment of contacts with the West after 1882, led to the modernization of Korea. The creation of a modern educational system and the introduction of Western culture during the late Yi and Japanese colonial periods brought about a rapid increase of an educated population, and the growth of modern culture and the number of Christians.

The Japanese endeavoured to impose their culture on Korea by forcing Korean people to adopt Shintoism and to change their names to read like Japanese names. Efforts made by the Japanese to destroy the language and the racial and cultural identity of the Koreans were to no avail.

Liberation and Partition

On 15 August 1945 the Japanese surrendered to the Allies. The Cairo Declaration of December 1943, issued by the British and US leaders and Chiang Kai-shek of China, had stated that 'in due course Korea shall become free and independent'. The USSR accepted the Cairo agreement, but proposals made by the USA in 1945 led to the division of Korea into two military zones: the area south of the 38th parallel line under US occupation and the northern area under Soviet control.

The Japanese Governor-General in Korea had persuaded Yo Un-Hyong, a prominent left-wing nationalist (socialist), to form a political body to maintain law and order at the end of the Japanese colonial rule. The Committee for the Preparation of the National Construction of Korea was thus organized. After Japan's surrender, Korean political prisoners were freed and the committee began to function as a government. Provincial, district and local committees were organized to maintain law and order. On 6 September 1945, two days before the arrival of US occupation forces, the committee called a 'National Assembly' and established a 'People's Republic of Korea', claiming jurisdiction over the whole country. Meanwhile, Soviet troops, which had entered Korea in early August, quickly moved southward as they crushed Japanese resistance, and within a month the entire northern half of Korea had come under Soviet occupation.

The US occupation authority accepted the surrender of Korea from the Japanese Governor-General, but, unlike the Soviet authorities in the North, refused to recognize the legitimacy of either the 'People's Republic' or the provisional Government of Korea, based in China. The United States Army Military Government in Korea (USAMGIK) was established and operated until the proclamation of South Korea's independence in August 1948.

Exiled political leaders returned to Korea toward the end of 1945—Dr Syngman Rhee from the USA, Kim Ku and Dr Kim Kyu-Sik from China, and Kim Il Sung and other communists from the USSR and China. Pak Hon Yong, a communist who had been released from Japanese imprisonment, quickly formed the communist South Korean Workers' Party in the US-occupied zone. Freedom of political activity permitted by USAMGIK resulted in a proliferation of political parties and social organizations of all political orientations, each vying for prominence. USAMGIK attempted in vain to bring about a coalition of moderate nationalists and the non-communist left wing.

In December 1945 representatives of the UK, the USA and the USSR entered into the Moscow agreement, providing for a five-year trusteeship for Korea under a four-power regime (China was the fourth power), with a view to establishing an independent and united nation of Korea. Despite violent anti-trusteeship demonstrations, the Allied occupation authorities resolved to implement the Moscow plan. Then, abruptly, the communists throughout Korea changed their attitude in favour of the Moscow plan, splitting the Korean people into two opposing camps. In the US-occupied zone left-wing organizations created serious political and economic problems. Communist-directed labour strikes became widespread, and terrorism of both right- and left-wing organizations became rampant.

A joint US-Soviet commission was formed to establish a national government of Korea in consultation with Korean political and social organizations. The first session of the joint commission was held in Seoul, the capital of the South, in March–May 1946. The Soviet delegate insisted that only 'democratic' organizations should participate and that only organizations which supported the Moscow agreement were 'democratic'. It became clear that the USSR sought to establish a national government of Korea dominated by the communists. In May 1947 the second session of the joint commission, held in the northern capital Pyongyang, similarly failed to achieve any agreement and in June the commission's business was suspended indefinitely.

Realizing that the establishment of Korean unity and of a national government was a remote possibility, USAMGIK adopted new plans for South Korea. The Soviet occupation authority likewise proceeded to establish a client regime under Kim Il Sung. All anti-Soviet and anti-communist organizations were either dissolved or placed under communist leadership. A centralized, communist state began to emerge in the North, as Kim Il Sung formed his own party in defiance of Pak Hon Yong, head of the South Korean Workers' Party, whose headquarters were in Seoul.

The USA established a South Korean interim Legislative Assembly in late 1946, and in May 1947 an interim Government was created, both under moderate nationalists. These actions were bitterly criticized by right-wing leaders such as Dr Rhee and Kim Ku. The relationship between the USA and the right-wing nationalists worsened, while terrorist activities created an extremely uneasy situation. Several prominent politicians were assassinated. Neither the interim Legislative Assembly nor the interim Government was effective, for both were regarded by the conservative nationalists as US protégés attempting to prolong the US military occupation of Korea.

In September 1947 the US Government discarded the Moscow plan and placed the Korean question before the UN. The UN General Assembly formed the UN Temporary Commission on Korea in November and authorized it to conduct a national election in Korea to create a national government for the whole country.

The UN decision was welcomed by the USA and by most people in South Korea. The Soviet occupation authority and the Korean communists in the North, however, rejected the UN plan, and did not allow the UN Temporary Commission to visit North Korea. It soon became apparent that the UN plan would not work in the whole of Korea, and the Commission adopted an alternative plan to hold elections in those areas where it was possible, namely in South Korea only. It was assumed by the Commission that UN-sponsored and supervised elections would be held in the North in the near future, that a National Assembly created by the first democratic elections in Korea would represent the entire country, that the government to be established would be that of all Korea, and that the people in the North would elect their representatives to the National Assembly at a later date.

Whereas the right-wing nationalists welcomed such an alternative plan, the moderate and progressive nationalists, such as Kim Kyu-Sik, the head of the Democratic Independence Party, as well as Kim Ku, an extreme right-wing nationalist, vehemently opposed it, fearing that it would turn the temporary division of Korea into a permanent political partition. They visited North Korea and talked with Kim Il Sung and other communists, but failed to achieve their objective.

The Soviet authorities in the North had already begun to transfer power to the Supreme People's Assembly and the Central People's Committee, both established in early 1947. Dr Rhee's organization, the National Society for the Acceleration of Korean Independence, advocated the immediate independence of South Korea. The UN-sponsored elections held in the South in May 1948 created a National Assembly, heavily dominated by the right wing. About 7.5m. people, or 75% of the electorate, elected 198 of 210 representatives from the South, while 100 unfilled seats in the 310-member Assembly were reserved for North Korean representatives. The National Assembly drew up a democratic Constitution for the Republic of Korea. Dr Rhee was elected the first President of the Republic of Korea, whose legitimacy was immediately recognized by the UN. On 15 August 1948 the Republic of Korea was inaugurated, and the US occupation came to an end.

In August 1948 the communists in the North held an election and established the new 527-member Supreme People's Assembly of the Democratic People's Republic of Korea (DPRK), which was proclaimed on 9 September.

THE KOREAN WAR, 1950–53

(This section was contributed by the Editor)

US forces were withdrawn from South Korea in June 1949, leaving only a small military mission. South Korea's own forces were weaker than those of the North, which had been built up with Soviet help. Increased tension between the North and the South culminated in the Korean War, beginning on 25 June 1950, when a North Korean force of over 60,000 troops, su ported by Soviet-built tanks, crossed the 38th parallel a invaded the South. Four days later the North Koreans captur Seoul; US forces, whose assistance was requested by the Seo Government, arrived on 30 June.

In response to North Korea's attack, the UN mounted collective defence action in support of South Korea. Armed forc from 16 UN member states, attached to a unified commar under the USA, were sent to help repel the invasion. Meanwhil the North Koreans continued their drive southwards, advanci so rapidly that they soon occupied most of South Korea, leavi UN troops confined to the south-east corner of the peninsul Following sea-borne landings by UN forces at Incheon, ne Seoul, in September 1950, the invaders were driven back a UN troops advanced into North Korea, capturing Pyongyang October and reaching the Chinese frontier on the Yalu River November.

In October 1950 the People's Republic of China sent troops assist North Korea: 200,000 Chinese crossed the Yalu Riv into Korea, forcing the evacuation of South Korean and U troops. The Chinese advanced into South Korea but were drive back by a UN counter-attack in April 1951.

Peace negotiations began in July 1951, but hostilities co tinued until an armistice agreement was concluded on 27 Jul 1953. The war caused more than 800,000 casualties in Sout Korea and enormous damage to property. The 1953 cease-fi line, roughly along the 38th parallel, remains the boundar between North and South Korea, with a narrow demilitarize zone (DMZ) separating the two frontiers.

THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

History

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Updated by AIDAN FOSTER-CARTER

INTRODUCTION

Strong nationalist leadership, with potentially large popular support, was available in North Korea when the Second World War ended. It consisted chiefly of democratically-inclined, Western missionary-educated individuals, of whom the most outstanding leader was Cho Man Shik. In August 1945 the Japanese Governor in Pyongyang relinquished control to Cho and a newly-formed Provincial People's Committee. In the same month Soviet troops reached Pyongyang, accepted the legitimacy of the committee, and approved Cho as Chairman of the Five Provinces Administrative Bureau, formed to act as the indigenous government organ for North Korea.

In September 1945 Kim Il Sung, a young communist, who had led a guerrilla group of Korean communists in south-eastern Manzhou (Manchuria), returned to Korea with Soviet troops. Kim, however, had to cope with the 'domestic' communists who challenged his 'Kapsan' or 'partisan' faction. Two further groups of communists returned to North Korea following its liberation from the Japanese: one associated with the Soviet Army known as the 'Soviet faction', the other from Yanan, China, under the leadership of Kim Tu Bong of the Korean Independence League. In the early power struggle among the communists, Hyon Chun Hyok, the leader of the 'domestic' faction, was assassinated in September 1945. In the following month Kim Il Sung formed the North Korean Central Bureau of the Korean Communist Party (KCP) in order to consolidate his political position. In this he received covert support from the USSR.

Cho Man Shik organized the Korean Democratic Party (KDP), which received the support of the majority of the people, but his uncompromising stand against the Moscow plan for a five-year trusteeship of the Allied powers led to his downfall in January 1946. He was promptly placed under house arrest, and many members of the KDP fled to South Korea.

After the departure of the nationalists, a North Korean Provisional People's Committee was established in February 1946, with Kim Il Sung as Chairman and Kim Tu Bong as Vice-Chairman. The USSR accorded government status to the Committee. Kim Tu Bong formed the New People's Party (NPP) in March, to expand his power base, and managed to increase his party's membership. In July the North Korean Central Bureau of the KCP and the NPP merged to form the North Korean Workers' Party, with Kim Tu Bong as its Chairman and Kim Il Sung as Vice-Chairman. Real power, however, was in the hands of the latter.

In early 1947 the Supreme People's Assembly (SPA) was established as the highest legislative body in North Korea, and the Assembly, in turn, established a Central People's Committee to exercise executive authority. The Committee's first major act was to direct land reforms. No real attempts were made to establish collective farms, and the land which was distributed to landless peasants became the private property of the cultivators. It was not until the end of the Korean War, in 1953, that the agricultural 'co-operativization' programme was inaugurated. Land reform was followed by the nationalization of industry, transport, communications and financial institutions.

In early 1948 Pak Hon Yong, with other leaders of the communist South Korean Workers' Party, fled from the South when the party was outlawed by the US occupation authority. Pak, who enjoyed strong support from the 'domestic' faction, felt that he, instead of Kim Il Sung, should lead the movement in Korea. However, he was unable to achieve his objectives, and he grudgingly accepted a position subordinate to that of Kim.

THE ESTABLISHMENT OF THE DEMOCRATIC PEOPLE'S REPUBLIC

After refusing to allow the United Nations Temporary Commission on Korea to visit North Korea and to conduct elections there, Kim Il Sung established a separate, pro-USSR state. In August 1948 elections were held in the North for a new SPA. The newly-created Assembly drafted a Constitution, ratified it on 8 September and proclaimed the Democratic People's Republic of Korea (DPRK) on the following day. Kim Il Sung was named Premier, while Pak Hon Yong was made Vice-Premier and Minister for Foreign Affairs. In June 1949 the merger of the North Korean Workers' Party and the South Korean Workers' Party brought about a unified communist party, the Korean Workers' Party (KWP), with Kim as its Chairman and Pak as its Vice-Chairman. The establishment of the DPRK entrenched the temporary military division of Korea as a permanent political partition. The USSR announced the withdrawal of its troops from North Korea, completing the process in December 1949. However, a large number of Soviet advisers in various fields remained.

During 1950 North Korea substantially increased the size and strength of its armed forces with Soviet supplies. In June the North Korean invasion of the South precipitated the Korean War (see p. 652), inflicting great damage on both sides. During and after the unsuccessful attempt to conquer South Korea, Kim Il Sung purged many of his enemies, including Pak Hon Yong. Conflict among the surviving communist leaders, however, did not end, and Kim Tu Bong remained a formidable figure. Kim Il Sung's economic reconstruction programme, which emphasized the development of heavy industry, met strong opposition. The debate lasted until 1956, when Kim Tu Bong fell from power. Meanwhile, the 'Yanan' faction attacked the growing personality cult of Kim Il Sung; he counter-attacked, forcing some 'Yanan' communists to flee to China. The USSR and China effected a temporary reconciliation, but leaders of the 'Yanan' faction were systematically relegated to less important posts or eased entirely out of power. By 1958 it had ceased to pose any further threat, and Kim Il Sung continued to consolidate his position of unassailability during the following decade.

DEVELOPMENTS DURING THE 1970s

Following the announcement of the 1972 joint North-South agreement to open dialogue for the peaceful unification of the peninsula, the KWP proposed amendments to the Constitution. General elections to the fifth SPA were held in December. The newly-elected representatives adopted a socialist Constitution, and elected Kim Il Sung and Kim Il as President and Premier, respectively. For the first time, the North Korean Constitution stated the capital to be Pyongyang, not Seoul. It also elevated the Central People's Committee, headed by the President, to become the highest organ of state, while an Administration Council, headed by the Premier, was established as the DPRK's cabinet.

In 1973 North Korea gained observer status at the UN. This status nullified both the branding of North Korea as an aggressor in 1950 and the view that the Government of South Korea was the only lawful government in Korea. Both Koreas were invited to the UN General Assembly in November 1973

for a debate on the Korean question. North Korea was also given membership of the UN Conference on Trade and Development in May 1973.

In February 1974 the Central Committee of the KWP launched the 'Three Great Revolutions': ideological, technical and cultural. It emphasized the promotion of a self-orientated, self-reliant and independent ideology, or *juche* thought. The KWP also reorganized the structure of the Administration Council and reshuffled its membership twice in 1974. Kim Yong Ju, younger brother of Kim Il Sung, who had been regarded as heir apparent, was demoted in the party hierarchy, while Kim Il Sung's son, Kim Jong Il, rose in rank as a possible successor to his father. Significantly, a military leader, Gen. O Jin U, also rose in rank within the KWP.

One of North Korea's major objectives in the mid-1970s was the intensification of diplomatic activity to strengthen ties between non-aligned nations. The ministerial conference of the Non-aligned nations in Lima, Peru, in August 1975 voted to accept North Korea's application for participation.

Economic problems increasingly troubled the Pyongyang regime. Critical shortages of food and commodities were reported in the mid-1970s. In 1977 North Korea signed a new trade pact with the People's Republic of China, and an economic and technical co-operation agreement with the USSR. It was reported that the USSR had made large shipments of military goods to North Korea and had sent technical advisers in 1977.

During 1978 an important ideological-political campaign was undertaken to strengthen *juche* thought. A renewed drive to promote the 'Three Revolutions' was reportedly led by Kim Jong Il. In April a new socialist labour law was promulgated, which called for a change in the way of life for workers—eight hours of work, eight hours of rest, and eight hours of study of Kim Il Sung's *juche* thought.

The visits to Pyongyang by China's then Premier, Hua Guofeng, and his Vice-Premier, Deng Xiaoping, in 1978, and the trade agreement between Pyongyang and Beijing, seemed to have improved Sino-North Korean ties. China reportedly promised to supply more petroleum and greater economic assistance. Pyongyang dealt cautiously with the new Sino-US relationship and, while criticizing the Vietnamese invasion of Kampuchea (now Cambodia), eschewed any comments on China's punitive war against Viet Nam.

The new trade agreement between Moscow and Pyongyang, Vice-President Pak Song Chol's visit to Moscow in January 1979, and increasing contacts between Soviet and North Korean military leaders appeared to indicate a growing solidarity between the two countries. North Korea provided special privileges to the USSR in the port of Rajin on the north-eastern coast, making it a Soviet 'leased' territory and a Soviet naval base.

THE EMERGENCE OF KIM JONG IL

After conducting intense campaigns to select reliable and loyal supporters of Kim Il Sung's son, Kim Jong Il, as delegates, the Sixth Congress of the KWP met in early October 1980, the first such congress since 1970. Many significant structural and personnel changes in the party hierarchy were made. Although Kim Jong Il was not officially designated as successor to his father, as anticipated, he became a key member of several crucial committees in the party. A new five-member Standing Committee of the Political Committee (Politburo) of the Central Committee of the KWP was established, and Kim Il Sung became its Chairman, thus strengthening the concentration of power in the hands of a few. Many new members of the Central Committee and its subcommittees were supporters of Kim Jong Il, and it was reported that those who opposed his succession to power were removed from other key positions in the party, Government and military.

In April 1981 elections were held for members of provincial, city and county people's assemblies in the usual manner: one candidate named by the KWP for each position and a 100% turn-out of voters. In February 1982 elections were held to the SPA, and the Seventh Assembly emerged in early April. It approved the reappointment of the President, three Vice-Presidents, the Premier and 13 Vice-Premiers, but, contrary to expectations, it failed to name Kim Jong Il as a Vice-President.

Shortly before the convening of the SPA, the Central Committee of the KWP met, followed by a joint conference in mid-April 1982 of the Central Committee and the SPA. Both meetings failed to resolve the question of succession. Meanwhile, the power struggle intensified between the respective supporters of Kim Jong Il and his half-brother, Kim Pyong Il, son of Kim Il Sung's second wife. While the political turmoil surrounding the issue of succession increased instability in North Korea, several armed clashes between the military and workers occurred in Chongjin, in the north-east, in September 1981, followed in June 1982 by civil disturbances in Nampo, near Pyongyang, involving Koreans who had come to North Korea from Japan. Some 500 workers were reported to have been killed in the clashes in the north-eastern regions, while many fled into Soviet territory. For undisclosed reasons, an emergency meeting of the Central Committee of the KWP was convened in April 1982, and it was reported that some 12 generals and a large number of party leaders were purged in July. Furthermore, Choe Hyon, an experienced politician and a key member of the Central Committee of the ruling KWP, died in April, amid rumours that he had been murdered. However, Gen. O Jin U, a staunch supporter of Kim Jong Il, was retained as Minister of the People's Armed Forces.

It became known in April 1982 that there were several concentration camps for political dissidents and 'undesirables' in north-east Korea. More than 100,000 persons, including 23,000 Koreans who emigrated from Japan to North Korea, were reported to have been among the internees. (A report issued in January 1992 by the US Department of State estimated there to be a total of 12 concentration camps in North Korea, in which between 105,000 and 150,000 political prisoners were being detained.)

THE 1980s: SURVIVAL OF THE STALINIST REGIME

Elections were held in March 1983 to choose members for the local people's committees. The second session of the Seventh SPA met in April and elected Rim Chun Chu as Vice-President, succeeding Kang Ryang Uk. At the same time, it elected Yang Hyong Sop as Chairman of the SPA. Both were believed to be trusted supporters of Kim Jong Il.

The defection of a North Korean airman, in his fighter aircraft, to South Korea in February 1983, a labour uprising in Yanggang (North Hamgyong Province) and mass riots among workers in Wonsan (Kangwon Province) in April created serious domestic problems. It was reported that some 500 air force officers were purged on charges of disloyalty. As a result of the Rangoon (Yangon) bombing incident of October 1983 (see below), which was allegedly planned by North Korean agents, the intra-party struggle between moderates and radicals intensified.

In January 1984 Ri Jong Ok was dismissed from the premiership, a post he had held since 1977, and replaced by Kang Song San. Ri became a Vice-President. In early March 1984 Vice-President Kim Il, who had been critical of the junior Kim, died after a long illness. His death effectively marked the conclusion of the period of dominance by the 'old guard' of political leaders who had been associates of Kim Il Sung before he came to power.

The Government took a significant economic step in September 1984, announcing a new joint-venture law. It sought capital investment in North Korea on the part of foreign nations, particularly those of the West and Japan. This action was regarded as an admission of the failure of North Korea's 'self-reliant', closed economic policy. According to a Chinese source, the North Korean Government allowed some farmers to have private plots and fishermen to have private shops on a limited basis.

In August 1984 North Korea's official radio station confirmed, for the first time in a public broadcast, that Kim Jong Il would succeed his father as President, claiming that the transfer of power had been 'internationally acknowledged'. When the Central Committee met in early December, Kim Il Sung resumed direct control over economic and international affairs, including policy toward South Korea, which had been under the direction of Kim Jong Il. It was reported that there was conflict between the hard-line, pro-Soviet faction of the junior Kim, and the moderates who had been pro-China.

Frequent changes of personnel in the KWP Politburo and the Administration Council, effected during 1985 and 1986, were interpreted as an indication of North Korea's complex economic problems. In November 1986 unfounded reports that Kim Il

Sung had been assassinated focused international attention on Pyongyang, and led to speculation that there had been an attempted *coup d'état*. However, stability was apparently restored promptly, and, after elections to the Eighth SPA, held in the same month (when its 655 members were elected unopposed), Kim Il Sung was re-elected President, and a new Administration Council was formed. Ri Kun Mo, a member of the Central People's Committee, became Premier, replacing Kang Song San.

In February 1988 Gen. Choe Kwang replaced Gen. O Kuk Ryol as Chief of General Staff of the Korean People's Army (KPA). Gen. O was regarded as a close ally of Kim Jong Il. His replacement by Gen. Choe, a veteran associate of Kim Il Sung, led to speculation among foreign observers that the President had strengthened his position to the detriment of his son, owing possibly to a series of economic failures for which the latter was allegedly responsible.

In December 1988 Ri Kun Mo resigned as Premier, reportedly because of ill health, and was replaced by Yon Hyong Muk, a former Vice-Premier and a member of the KWP Politburo. In late 1988 suspicions increased that Kim Il Sung was reclaiming much of Kim Jong Il's power in favour of Kim Pyong Il. However, in April 1989, when the then General Secretary of the Chinese Communist Party, Zhao Ziyang, visited Pyongyang, Kim Jong Il played a conspicuous diplomatic role.

In July 1989 North Korea hosted the 13th World Festival of Youth and Students, both in an attempt to enhance the country's international image, and, it was surmised, as a rival event to the Olympic Games held in Seoul in 1988. More than 15,000 delegates from 165 countries (including one student from South Korea) participated in the festival, which was the largest international event ever staged in North Korea.

The announcement in February 1990 that elections to the SPA would be held on 22 April, six months ahead of schedule, led to renewed speculation that Kim Il Sung was preparing to transfer presidential power to Kim Jong Il. In the event, however, Kim Il Sung was re-elected President, although the junior Kim did acquire his first state (as distinct from party) post: in late May he was elected First Vice-Chairman of the National Defence Commission, a body responsible to the Central People's Committee.

Following the elections to the SPA, the number of seats in the Assembly was increased from 655 to 687. In a concession to statistical impossibility, the electoral turn-out was put at only 99.78%, rather than the usual 100%, excluding those abroad or at sea. All 100% of those who did vote, however, were claimed to have supported the single approved list of candidates.

CRACKS IN THE MONOLITH

Compared with the momentous developments in inter-Korean and foreign relations in the early 1990s (see below), North Korean domestic politics showed few overt signs of change during the same period. Recurrent speculation that Kim Jong Il would formally take over from Kim Il Sung reached a peak in early 1992, when father and son celebrated, respectively, their 80th and 50th birthdays, but once again proved premature. The younger Kim's role did, however, become more emphasized, and there was a noticeable intensification of 'loyalty campaigns' for the promotion of his personality cult. In December 1991 Kim Jong Il was appointed Supreme Commander of the KPA, a post hitherto constitutionally reserved for the President. One month later, a major policy statement issued in the junior Kim's name declared North Korea's unwavering allegiance to socialism (notwithstanding its demise elsewhere), including an explicit rebuttal of any market-orientated economic reforms.

Such public continuity and defiance, however, scarcely concealed the pressures for change in a country increasingly isolated and impoverished. Defectors (including the first diplomat ever to do so) revealed that even major enterprises were often inoperative owing to shortages of power and raw materials, and that senior officials were now openly critical of party economic policy. Rumours of unrest also continued. Japanese press reports that young Soviet-trained army officers had, in February 1991, attempted a coup against Kim Jong Il were predictably denied in Pyongyang. Better attested were demonstrations in the north-western border town of Shinuiju in August by some 7,000 people, protesting against food shortages and working conditions.

During 1992 several measures, seemingly designed to quell discontent, were adopted by the Government. In February, immediately before Kim Jong Il's customarily lavish birthday celebrations, it was announced that wages were to be increased by an average of 43.4%. Two months later, the SPA approved the budget for 1992, which included an increase of 11.6% in expenditure on social welfare (compared with an increase of only 3.5% in the 1991 budget). Efforts to placate the armed forces were also apparent. In April 1992 the celebrations of Armed Forces Day were given an unusually high profile, and included the first military parade in seven years and promotions for several hundred senior officers. In the same month Kim Il Sung was given the title of Grand Marshal, while his former rank of Marshal was conferred on Kim Jong Il and on O Jin U, Minister of the People's Armed Forces and hitherto Vice-Marshal.

There was a minor reshuffle of the Administration Council in December 1992, which included the replacement of Yon Hyong Muk as Premier by Kang Song San, an economist who had previously held the post in 1984–86. His appointment was interpreted by foreign observers as an attempt to provide fresh stimulus for economic reform. However, the fact that Kang was neither seen in public nor mentioned for several months subsequently led to speculation that his reputed reformist tendencies had fallen foul of close confidants of Kim Jong Il.

Two further promotions at the same time raised hopes of a liberalization in Pyongyang. Both Vice-Premier Kim Tal Hyon and Kim Yong Sun attained candidate (alternate) membership of the Politburo. Moreover, the former, who had impressed his hosts during a business-orientated visit to South Korea in July 1992, relinquished responsibility for external economic affairs to become Chairman of the State Planning Commission. In April 1993 Kim Yong Sun, who (as the KWP's international secretary) had also impressed foreign opinion, replaced Choe Tae Bok as the party's secretary for reunification. Initial hopes for a new openness proved unfounded, however, since from late 1992 North Korea reverted to more hardline positions.

Legislative changes showed a similar ambivalence. In October 1992 the SPA adopted three new laws on foreign investment and joint ventures. However, the overall commitment to centrally-planned socialism remained unchanged, and indeed was constantly reaffirmed. Meanwhile, certain constitutional amendments had been made in April 1992, although they were not published (except several months later in South Korea). Principal among the changes were the deletion of the last remaining references to Marxism-Leninism, and the upgrading of the National Defence Commission (now chaired by Kim Jong Il, and the highest military organ of state power) to become the most senior executive body below the President.

The first party youth congress in 12 years was held in February 1993, amid fulsome pledges of loyalty to both the 'Great Leader' (Kim Il Sung) and the 'Dear Leader' (Kim Jong Il). No full KWP congress had been convened since 1980, possibly because North Korea's crises were by then so deep that such a gathering could not be successfully staged. Furthermore, the country's growing economic hardships were reflected in the budget for 1993, which envisaged substantially-reduced increases in expenditure as compared with 1992. Both Kim Il Sung's birthday and that of his son were much less lavishly celebrated in 1993 than in the previous year.

Kim Jong Il was not seen in public between late April and late July 1993, when he re-emerged for the 40th anniversary of what North Korea proclaims as its 'victory' in the Korean War. There were reports that he had been treated for a heart condition (related to his alleged unhealthy lifestyle). An intriguing alternative version was that he had suffered a nervous breakdown after an upbraiding by his father on account of various policy errors, above all North Korea's threatened withdrawal from the Treaty on the Non-Proliferation of Nuclear Weapons (see below).

Important economic and political changes took place at the end of 1993. In what may have been the first admission ever of failure by Pyongyang, the KWP Central Committee announced, in early December, that the Seven-Year Plan (1987–93) had not been fulfilled. It was to be followed by a three-year 'adjustment period', giving priority to agriculture, light industry and foreign trade. As scapegoat for these economic failures, Kim Tal Hyon was removed from his post of Chairman of the State Planning

Commission and reportedly allocated the even more onerous task of directing the Sunchon Vinalon Works—a perennially underperforming favourite project of Kim Il Sung. His replacement was the previously unknown Hong Sok Hyong, who formerly managed the Kimchaek Iron and Steel Complex (the largest in the country).

What attracted most attention was the return to political life of Kim Il Sung's younger brother, Kim Yong Ju, after a 17-year absence, as both a full member of the Politburo and one of four state Vice-Presidents. Kim Yong Ju's reappearance now, however, was interpreted less as the emergence of a rival to Kim Jong Il than as evidence of a continuing need to bolster the 'Dear Leader' as successor with the overt backing of such a senior figure. Also appointed as Vice-President was Kim Pyong Shik, a returnee from Japan, who earlier in 1993 had assumed the chairmanship of the 'puppet' Korean Social Democratic Party.

The hardships of ordinary North Koreans, meanwhile, intensified, and in 1994 the trickle of defectors increased both in quantity and 'quality', the latter including two sons-in-law of government ministers. All painted a grim picture of deteriorating economic conditions and tight political control. The former was confirmed by the 1994 budget, which for the second successive year anticipated only modest increases in expenditure. It was revealed, however, that actual spending on social services in 1993 had needed to be greater than that originally budgeted for.

THE DEATH OF KIM IL SUNG AND BEYOND

Questions as to how long the world's last remaining Stalinist regime could endure unchanged acquired a sharp new focus in mid-1994. On 8 July, after almost 46 years in power, Kim Il Sung died, reportedly of a heart attack. Amid extraordinary scenes of mass mourning, Kim Jong Il was named as head of the funeral committee and, as in the past, he was generally referred to as the inheritor of his father's work. North Korea's first year without its founding 'Great Leader' presented a mixture of continuity and ambiguity. Continuity was evident in the style of the regime, where internally the cult of Kim Il Sung continued unabated, culminating in his embalmed body being placed on display in his former palace, now referred to as the 'holy land of *juche*'. There was continuity, too, in personnel, with few major new appointments among the ruling élite. The second most powerful figure in the regime, Marshal O Jin U, died in February 1995; his successor as Minister of the People's Armed Forces, Marshal Choe Kwang, was announced only in October. North Korea's stance toward the wider world also displayed elements of continuity, with characteristic militancy of rhetoric shown toward South Korea, Japan and the USA.

However, there was also growing ambiguity in North Korean political life. More than a year after the death of Kim Il Sung, his son and heir-presumptive, Kim Jong Il, had still not been officially appointed to any of the three top posts: General Secretary of the KWP, state President, and Chairman of the party's Central Military Commission. This was not the only failure of due process. General elections to the SPA (due to have been held by April 1995) did not take place, and the Assembly (still operational, albeit technically unconstitutional) failed to hold its annual meeting to consider the state budget. Amid increasingly unconvincing excuses of the need to observe a period of national mourning, the official media continued to treat Kim Jong Il as *de facto* leader, particularly in 1995, referring to him as the 'Great Leader'. Kim, however, remained as reclusive as ever, invisible to public view for long periods at a time. His appearances were confined mainly to army units and military occasions, which suggested that Kim's acceptance by the armed forces was not yet complete. The rise to prominence in early 1995 of several Vice-Marshals of the KPA, who were believed to be sympathetic to Kim, was interpreted as a further attempt by Kim to enhance his prestige among the military. Meanwhile, speculation continued that Kim Jong Il was in poor health. As in the past, there were rumours of coup attempts and popular unrest.

At the same time, however, there were signs of attempts to change. These included an international sports festival, held in Pyongyang in April 1995, which was attended by several thousand foreign visitors. More substantially, the nuclear agreement with the USA, signed in October 1994 (see below), gradually began to be implemented in the ensuing months, despite many difficulties. North Korea also expanded efforts to attract foreign (including South Korean) firms to invest in its only free economic and trade zone, at Rajin-Sonbong, in the north-east of the country. However, hopes for a more general turn toward economic reform, as in China and Viet Nam, remained unfulfilled. Rather, works by Kim Jong Il continued to inveigh against private ownership, pluralism and any effort to 'pollute' pure socialism.

The impression that North Korea was lacking in any form of effective leadership continued into 1996. Despite several occasions when Kim Jong Il might have been officially inaugurated, no ceremony took place. Kim Jong Il continued to be treated by the media as *de facto* leader, and to appear periodically, both at major state occasions and local 'guidance' visits. As before, these visits were confined mainly to army units.

Analysts' opinions were divided as to whether the 'Dear Leader' was quietly consolidating his grip on power, was the hesitant arbiter of an ongoing struggle between hardliners and reformers, or merely a figurehead for senior officers in the KPA. There were several indications that the military were in the ascendant. In October 1995 the 50th anniversary of the KWP was celebrated more as an army than a party affair. At official events, senior Vice-Marshals were given higher precedence than party and state representatives. One of these, Kim Kwang Jin, made two extremely bellicose speeches in March and July 1996, warning that it was only a matter of time before an inter-Korean war broke out, and threatening that North Korea would be the first to attack. In other respects, however, such as the nuclear issue (see below), North Korea was pragmatic and co-operative.

There was little overt sign of the problems attendant upon any political succession. Two senior figures, Vice-President Kim Yong Ju and Premier Kang Song San, hardly appeared in public in the first half of 1996; yet in July both were cited as still in office, with their membership of the Politburo intact. Kim Jong Il was said to favour some Vice-Ministers, such as the First Deputy Minister of Foreign Affairs, Kang Sok Ju, who seemed to be acting as Minister—for example, with regard to nuclear negotiations—while his nominal superior, Kim Yong Nam, appeared on ceremonial occasions.

The uncertainties over the situation in North Korea were not confined to the higher echelons of society. Ordinary citizens saw their already spartan living standards further eroded as the economy, still unreformed, contracted throughout the 1990s. Furthermore, the main farming areas in the west of the country were badly damaged in August 1995 by the worst floods of the century, forcing the 'hermit kingdom' to appeal for help from the international community. Foreign aid workers were given unprecedented access to the country, and were impressed by the degree of organization of the Government and the stoicism of the people, in the face of ever-worsening living conditions. Further flooding in mid-1996 threatened to exacerbate an already critical situation.

It was also clear, however, that, apart from the natural disaster, North Korea's major problems—both in agriculture, and on a more general level—were structural, and thus demanded bold new policies of reform. Without such steps, then even in this most controlled of societies there can be no guarantee that an ever more impoverished citizenry will remain quiescent indefinitely; the growing numbers of defectors, albeit still perhaps surprisingly few, are an indication of the worsening situation.

This curious combination of political uncertainty and economic decline persisted well into 1997. Despite earlier indications, the third anniversary of Kim Il Sung's death passed in July without the formal inauguration of Kim Jong Il. However, the mourning period was officially declared to be over, prompting renewed speculation that the junior Kim would soon succeed his father officially, although some analysts regarded it as too risky to essay the pomp and circumstance of a 'coronation' while the country was gripped by famine. Nevertheless, in April 1997 Kim Jong Il presided over a typical parade in Pyongyang, taking the salute (in front of Western television cameras, for the first time) from goose-stepping soldiers who did not appear to be noticeably underfed.

None the less, questions persisted as to who, if anyone, was really leading North Korea. A 'leaked' speech by Kim Jong Il, published in Seoul in April 1997, revealed him to be well aware of his country's plight (not least, the food shortages) and its vulnerability. Yet he disavowed any responsibility for the economy, declaring that his job was to guide the party and army. The latter aspect was clearly more in evidence: most of Kim's appearances were still on military occasions and the role of the KPA (both symbolic and real) continued to increase, including the drafting of soldiers to assist with farming.

The long-delayed reshuffle seemed to be under way in February 1997, when the defection of the senior leader, Hwang Jang Yop (see North-South Relations), appeared to precipitate a spate of morbidity. Both the Minister of the People's Armed Forces, Marshal Choe Kwang, and his deputy, Kim Kwang Jin, died within a week of one another. The latter was replaced by the head of the navy, Vice-Marshal Kim Il Chol, who by late 1998 had also assumed the responsibilities of Choe Kwang. The most powerful man in the military was evidently Vice-Marshal Jo Myong Rok, head of the KPA Political Bureau and Kim Jong Il's constant companion.

Meanwhile, North Korea's condolences on the death of the Chinese leader, Deng Xiaoping, in February 1997 were sent by Hong Song Nam as acting Premier, implying that Kang Song San had been dismissed. The impression of a purge was strengthened by Choe Kwang's funeral committee, from which several senior, pro-reform figures were absent. Besides Kang, these included the former Premier, Yon Hyong Muk, and the Minister of the Metal Industry, Choe Yong Rim. Perplexingly, however, all these absentees subsequently reappeared (if briefly) at major ceremonies in April and July. To mark the third anniversary of the passing of the 'Great Leader', North Korea introduced a new 'Juche' calendar, starting from 1912, his year of birth. If Pyongyang's aim was to keep the world guessing as to its true intentions, it certainly succeeded.

From late 1997 there were some signs of moves towards political normalization, at least by North Korea's own standards. The official rationale was that, following the end of the three years of official mourning for Kim Il Sung, normal life could now resume. Thus, on 8 October, Kim Jong Il at last assumed one of his late father's two vacant posts, becoming General Secretary of the KWP. The manner of his elevation was, however, unorthodox, being by acclamation at a series of provincial party conferences, rather than through election by the Central Committee, as laid down in the KWP's rules. There is still no sign that the Central Committee has actually met since Kim Il Sung's death, and there is no immediate prospect of a full party Congress, none having been convened since 1980. The legislature, however, has been revived. The elections for the SPA, which should have been held in 1995, finally took place on 26 July 1998. As ever, the electorate was presented with a single list of candidates, which it reportedly endorsed unanimously: some 99.85% of electors voted (that is, all North Koreans except those who were abroad or at sea), and fully 100% of voters supported the candidates.

The 10th SPA was duly convened in September 1998, the 50th anniversary of the foundation of the DPRK; the expected and long-awaited appointment of Kim Jong Il as President did not, however, occur. In a surprise move, the Constitution was amended to elevate Kim Il Sung posthumously to the rank of 'Eternal President' and thus perpetual Head of State. The chairmanship of the National Defence Commission (the highest military office, to which Kim Jong Il had been re-elected, having stood for election in a military constituency) was defined as the most senior position in the state hierarchy. Kim Jong Il consequently assumed the role of *de facto* Head of State, while remaining in the shadow of his father. The 10th SPA, like the Ninth, had 687 members. Usually the number increases at each election, so there was speculation that famine had taken its toll on population growth. Of the 687 members, as many as 443 (or 64%) were new, indicating that Kim Jong Il was at last able to promote his own generation and supporters. Military predominance was striking, with some 50 younger generals included among the new deputies. The composition of the assembly was also a guide to the ongoing power struggles in Pyongyang. Absentees included Kim Song Ae, Kim Il Sung's widow (and Kim Jong Il's stepmother); Kang Song San, at last officially replaced as Premier by Hong Song Nam (as part of the extensive government reorganization of September 1998); and several officials who in the past had handled relations with South Korea, including Kim Tal Hyon (who had been regarded as a possible candidate for the premiership). On the other hand, Vice-President Kim Yong Ju, Kim Jong Il's uncle and once his rival for the succession, retained an SPA seat despite being all but invisible since the death of his brother, Kim Il Sung.

Politics in North Korea also proceeded behind the scenes and by harsher means. Several reports claimed that So Kwan Hi, the long-serving Party Secretary for agriculture, was executed during late 1997, presumably as a scapegoat for the ongoing food crisis. The head of the youth league, Choe Ryong Hae (a friend of Kim Jong Il since childhood), was purged in January 1998 after reports that several youth league officials had been executed for spying for South Korea. It was reported in October that Kim Jong U, formerly the reformist Chairman of the DPRK Committee for the Promotion of External Economic Co-operation, had been executed.

In April 1999 the SPA resumed the annual sessions to consider the budget, which had lapsed since the death of Kim Il Sung in 1994. Unusually, some 50 of the newly-elected members were absent, prompting speculation of continuing purges. The budget itself gave only broad magnitudes, but these revealed that both revenue and expenditure had declined by one-half in the five years since figures were last published: a fact that passed almost without comment. The SPA approved a new economic planning law during the same session. Several other economic laws were also announced during 1999, covering specific areas such as agriculture, forestry, and even fish-breeding. Most of this legislation appeared to codify rather than alter existing arrangements, and gave the impression of a 'rearguard action' by the centre, to try to exert control over an economy which *de facto* had become increasingly anarchic, as the old planned economy had broken down. The revised Constitution of September 1998 gave slightly more scope to private enterprise and market forces, but the amendments failed to keep pace with the actual situation, even though in theory the DPRK remained bonded to communism and hostile to any explicit market reforms. In June 1999 a major policy statement proclaimed a 'military-first' policy, giving defence absolute priority.

Kim Jong Il himself remained elusive, although his 'on the spot guidance' broadened from visits to military bases to include more economic sites (many of them run by the military). He continued to delegate the head of state's task of meeting foreigners to Kim Yong Nam, the former Minister of Foreign Affairs, in his new capacity as President of the SPA Presidium. From mid-2000, however, Kim Jong Il adopted a less reclusive attitude and a startling change of image, if only for the purposes of external display. Within two months he met the heads of state of China, South Korea and Russia, while his polite but affable manner at the North-South summit, which took place in mid-June, impressed television viewers in South Korea. His behaviour was also revealing when entertaining South Korean media executives, whom he had invited to Pyongyang in August. Accounts of this lengthy luncheon, accompanied by much alcohol, showed the North Korean leader as effusive, yet still enigmatic and somewhat eccentric.

How, when, or even whether North Korea's apparent new openness to the outside world (see below) would be translated into domestic political and/or economic change remained ambiguous. Hitherto Kim Jong Il had explicitly and frequently inveighed against reform as a betrayal of socialism. He hinted to his Southern guests, however, that a long-overdue KWP Congress would be held in late 2000, at which the Party's statutes might be changed to excise the goal of communizing South Korea, despite the fact that this would necessitate the purging of officials loyal to his late father, Kim Il Sung. By late 2002 no Congress had yet been held or further mentioned. While the KWP formally remained the ruling party, its real power in relation to either the military or Kim Jong Il's circle was not evident. Nor was it clear who served on the Politburo, or even whether the Central Committee meets regularly. It was possible that the Party might gain a new lease of life if relaunched as a harbinger of 'Dengist' reforms, without which any South Korean or other foreign aid would have only limited revitalizing effects.

Whether the 'Dear Leader' was ready to commit himself irreversibly to a path of reform remained to be seen in late 2000.

The ambiguity continued in 2001, which began promisingly with a clearly business-orientated visit by Kim Jong Il to Shanghai, China (see below), and the publication by him of maxims emphasizing the need to adapt to new times. However, by late 2001 none of this had been translated into action. In fact, the year was largely devoid of overt domestic political activity of any kind. In April 2001 the SPA met for just one day, instead of the usual three. As well as passing a budget, the few figures of which suggested that the economy might have levelled out, the SPA ratified laws on copyright and the processing trade, although no details of these were given. This failure to change suggested fierce debate behind the scenes. Seoul press sources reported that Kim Yong Sun, the party secretary in charge of dialogue with South Korea, spent a week under arrest in March 2001, before Kim Jong Il ordered his release. The implication was that the initial hostility of the new US administration under President George W. Bush undermined North Korea's more reform-minded figures and strengthened the position of its hardliners: this interpretation was supported by the suspension of talks with South Korea (see below). Meanwhile, the world had its first glimpse of yet another Kim, the 'Dear Leader's' son and reputed heir, Kim Jong Nam, in an incident that did little to improve North Korea's reputation for bizarre behaviour. In May 2001 the young Kim and his family were detained on entering Japan at Narita airport, having been found to be travelling under false names and on fake Dominican Republic passports. They admitted their identity, stated that they hoped to visit the Disneyland theme park, and were swiftly deported to Beijing. This embarrassment seemed a set-back to possible plans to appoint Kim Jong Nam as his father's official successor.

In March 2002 the Kim Il Sung Socialist Youth League met for the first time in six years. Amid much mention of the need to inherit revolutionary traditions, no details were announced. In April it became known that Shin Il Nam, hitherto a Vice-Minister of Public Security, had been appointed Vice-Premier and Chairman of the Commission for Capital Construction. In August Japanese sources reported that a different son, Kim Hyon (also known as Kim Hyon Nam), had been appointed head of the KWP's propaganda and agitation department. If confirmed, this was the same route by which the young Kim Jong Il had begun his ascent to power, and might herald Kim Hyon's position as heir-apparent.

The year 2002 also witnessed two major anniversaries: Kim Jong Il's 60th birthday—in Korea a key event, called *hwan'gap*—in February, and the 90th anniversary of his late father's birth, in April. Both were celebrated with the usual lavish displays. This ceremonial mode continued with North Korea's largest-ever mass arts and gymnastics festival, called *Arirang*, held from May to August. Despite denials, this appeared as if it was intended to counter the football World Cup in South Korea; yet poor marketing meant that few foreign visitors attended. Substantive politics was harder to discern. As in 2001, the SPA convened for just a single day, in March. Besides approving the budget, it discussed an (unrevealed) 'organizational matter', and approved a law on land management, thought to be aimed at curbing illicit private use of land and resources, a practice that had spread since the famine of the late 1990s.

The latter part of 2002, however, brought radical changes in economic management, possibly auguring a long-awaited definitive turn to reform. No formal announcements had been made; officials, when pressed, spoke of 'perfecting socialism'. Thus, the full scope of the innovations was unclear. Their core consisted of drastic increases in prices, broadly to match those in the 'black market', and concomitant—but lesser, and uneven—wage increases. Some subsidies remained, but in general people and firms alike were thenceforth required to pay, and firms allowed to charge, the real cost of goods and services.

Sceptics suggested that the aim was to curb, not enhance, the free market: for instance to get household savings, often held at home in dollars or yuan, back into won and into banks. Yet other reports implied deeper change, including rumours of experimental private farm projects (the form in which market reform began in China). Remarkably, downsizing of unproductive labour was said to extend even to the Party, at least at the 'grass roots'; with drastic cuts in the hitherto ubiquitous and intrusive apparatus of political and guidance secretaries, agitprop teams, and the like in enterprises and even in the KPA. Such measures were highly likely to have political repercussions. If successful and well received, they may be extended, and in due time proclaimed as a new turn; perhaps at the long-awaited KWP Congress. If the measures were to prove unsuccessful, however, some analysts feared hyperinflation and that the result might destabilize the regime. If Kim Jong Il was prepared to take that risk, this suggested a belated realization that to take no action was not an option, and no less perilous.

NORTH-SOUTH RELATIONS

(AIDAN FOSTER-CARTER)

Relations (or the lack thereof) between North and South Korea must be understood against a very particular and, indeed, unique background. Both the Democratic People's Republic of Korea and the Republic of Korea still claim, as they have done ever since their founding in 1948, to be the sole legitimate government on the peninsula. Constitutionally and legally, each still defines the other as an enemy. Indeed, they remain technically at war, inasmuch as the Korean War (1950–53) concluded only with an armistice, not a peace treaty (and South Korea did not even sign the armistice).

Against that background, for most of the subsequent four decades both regimes not only eschewed all mutual contacts but also forced their citizens, on pain of draconian penalties, to do likewise. Quite unlike former East and West Germans, North and South Koreans have never been able to write to or telephone one another, let alone visit. Several million people have thus spent almost half a century utterly cut off from close relatives, not knowing if they are alive or dead. Each regime has also suppressed all but negative information about the other. As a result, over the years the two Koreas (unlike the two former Germanys) have become strangers as well as enemies, a fact that has added to the already huge incubus of mutual mistrust.

Only since the early 1990s have there been real signs of change, although as yet no substantial breakthrough has occurred. In earlier years there had been several attempts at dialogue, all abortive. The first began with secret visits in 1971, at which time both Korean states were alarmed by the recent US-Chinese *rapprochement*. This led to a joint statement on 4 July 1972, and the establishment of a South-North Co-ordinating Committee (SNCC). Red Cross talks also began, with the aim of arranging family reunions. Although SNCC meetings continued until 1975 and Red Cross talks until 1978, neither produced any result. The same was true of a further brief round of dialogue in 1979–80, during the democratic interlude in South Korea between the assassination of President Park Chung-Hee and Chun Doo-Hwan's coup.

Meanwhile, North Korea did nothing to enhance its trustworthiness, committing regular acts of aggression against the South. In August 1974 a North Korean resident of Japan shot at President Park, killing his wife. In the late 1970s South Korea discovered the existence of several tunnels, dug under the demilitarized zone (DMZ) separating the two countries, large enough for an invading force from the North. In October 1983, while on a visit to Rangoon, Burma (now Yangon, Myanmar), President Chun Doo-Hwan narrowly escaped an assassination attempt, which, however, killed 17 members of his entourage, including four cabinet ministers. The attack was believed to have been perpetrated by North Korean agents.

Perhaps because of the opprobrium incurred by the Rangoon bombing incident, North Korea subsequently adopted a different approach. What may have been intended only as a propagandist offer of 'aid' to South Korea, after severe floods occurred there in late 1984, was shrewdly accepted by Seoul. This led to a year of three-tiered dialogue in 1985, comprising economic, parliamentary and Red Cross talks. Only the last bore fruit, in the first reunion of separated families, which took place in September.

North Korea suspended all dialogue in early 1986 in protest against the annual 'Team Spirit' US-South Korean military exercises, and resumed its duplicitous policy: negotiating (unsuccessfully) with the International Olympic Committee to host part of the 1988 Seoul Olympic Games, only to bomb a South Korean civilian airliner in November 1987, causing the loss of 115 lives. None the less, South Korea's growing economic

and diplomatic strength (symbolized by the full participation in the 1988 Olympics by China, Eastern Europe and the USSR, even though, at that point, none recognized Seoul) brought the North back into the negotiating process, albeit sporadically. Red Cross talks resumed in 1988, although planned family reunions in late 1989 failed to take place. There was, however, some progress in the sporting arena. The first ever inter-Korean football matches were held in Pyongyang and Seoul in late 1990, and in the following year joint Korean teams participated in two international sporting events. However, North and South Korea sent separate teams to the 1992 Barcelona Olympics.

Meanwhile, although there was no resumption of economic talks, in 1988 South Korea initiated indirect trade with the North. Direct inter-Korean trade, which began in late 1990, increased rapidly in 1991, and was equivalent to some US $210m. annually by 1992, when the South became the North's fourth largest trading partner (after China, Russia and Japan).

In the political arena, the first ever talks between the countries' heads of government finally took place in September 1990. The three such meetings in that year were largely symbolic, and the premiers did not meet again until October 1991. However, progress was made in mid-1991, when North Korea withdrew its long-standing objection to both Korean states joining the UN as separate entities (if only because it became clear that neither the USSR nor China would any longer veto South Korea's unilateral application). Both Koreas were thus admitted to the UN in September 1991. (They were already members of most of its specialized agencies, including the FAO, WHO and UNESCO.)

At the resumption of the prime-ministerial talks in October 1991, both parties agreed on the title, and envisaged provisions, of an accord governing future inter-Korean relations. Under the 'Agreement on Reconciliation, Non-aggression and Exchanges and Co-operation', which was signed in December and ratified in February 1992, North and South pledged, *inter alia*, to desist from mutual slander and sabotage, and to promote economic and other co-operation, as well as the reunion of separated family members. The accord was widely hailed as a milestone, and subsequent premiers' meetings, in May and September 1992, resulted in agreements to fulfil its provisions, as well as to establish several joint commissions.

Thereafter, however, relations worsened and the agreement remained largely unimplemented. In late 1992 South Korea was angered by the discovery on its territory of a large-scale northern espionage operation, while North Korea criticized the South's decision to resume in 1993 the 'Team Spirit' exercises (which had been suspended in 1992). The projected ninth meeting of premiers in December 1992 was cancelled, and such meetings were not subsequently resumed.

The main impediment to a real improvement in inter-Korean relations was the question of suspected nuclear ambitions (see below). Although the accord of December 1991 omitted any reference to nuclear issues, a separate agreement was signed later that month to create a bilateral Joint Nuclear Control Committee (JNCC). This made no progress, however, with North Korea opposing the South's demand for unannounced inspections, while Seoul resisted Pyongyang's demand to open all the US bases stationed on its territory to northern scrutiny.

The visit to South Korea of Kim Tal Hyon, the North Korean Vice-Premier in charge of trade and investment, who toured a range of factories and met prominent business leaders as well as the then President, Roh Tae-Woo, in July 1992, brought hopes of a breakthrough. While North Korea desperately needed southern aid and investment, it still seemed reluctant or unable to convince the South (and indeed the world) that it had unequivocally abandoned any nuclear ambitions; indeed, prior to October 2002, it had always denied ever having had a military-nuclear programme. Such suspicions were only enhanced by Pyongyang's announced intention, in March 1993, of withdrawing from the Treaty on the Non-Proliferation of Nuclear Weapons, which it had signed in 1985 (see below). The nuclear issue continued to blight inter-Korean relations throughout the remainder of 1993, not least because of Pyongyang's insistence on negotiating with Washington rather than Seoul. There were contacts in the 'peace village' of Panmunjom (in the DMZ) in October 1993 and March 1994, but both proved abortive; at the latter, the chief northern delegate threatened to reduce Seoul to 'a sea of fire'. This was on a par with other North Korean rhetoric, which included regular denunciations of the southern President, not to mention a call by the Chief of General Staff of the KPA, Vice-Marshal Choe Kwang, in a speech to soldiers in late 1993, for 'reunification with guns'.

Despite tense relations between the two Governments, however, their companies continued to do business. Inter-Korean trade in 1993 totalled some US $195m., slightly less than in 1992. With over 90% comprising southern purchases, this represented an important source of revenue for Pyongyang. Although Seoul still banned its companies from strengthening these ties by investing in the North, the fact that businessmen from both Koreas were now in regular contact (mainly in China) provided some hope—as with Taiwan and the People's Republic of China—of a slow improvement in their political relationship, too.

Just such an improvement became dramatically apparent in June 1994, when the former US President, Jimmy Carter, returned from Pyongyang (see below) with an offer from Kim Il Sung for a summit meeting with his South Korean counterpart. Kim Young-Sam accepted with alacrity, and two highly successful planning meetings were held at Panmunjom. Following the death of Kim Il Sung on 8 July, however, the summit (which had been arranged for 25–27 July) was postponed. Not only did the summit not take place in the ensuing months (technically North Korea remained without a Head of State), but North-South relations became markedly worse. Pyongyang professed outrage when Seoul failed to issue any condolence on the death of Kim Il Sung and acted harshly against the few southern radicals who did so. Northern denunciations of Kim Young-Sam, former dissident though he was, were, if anything, more virulent than they ever had been against the generals who preceded him.

The new bilateral relationship with Washington, engendered by the Geneva nuclear agreement of October 1994 (see below), had the advantage, from Pyongyang's viewpoint, of excluding Seoul—at least formally. Although this remained the North's official position, in practice by mid-1995 North Korea had accepted South Korean light-water reactors and engineers to build them. The North also continued business links with South Korean companies (if not with their Government), and in July 1995 13 technicians of the Daewoo conglomerate became the first southerners since 1953 to settle in the North with both Governments' approval. The technicians were to supervise Daewoo's new export factory at the port of Nampo, a pioneer venture which other southern firms were thought likely to emulate.

Yet the North's policy of ignoring or bypassing the South Korean Government was hardly sustainable as a long-term strategy, particularly in the light of the agreements signed in 1991–92 (albeit only partially implemented). In June 1995 North Korea appeared to have changed its tactics, accepting an offer of rice aid from the South, following a request for similar aid from Japan in the previous month (see below). However, the first ship was forced to fly the northern flag on its arrival in the port of Chongjin (for which Pyongyang later apologized), while in August another southern vessel was detained on spying charges. South Korea was aggrieved that its generosity did not elicit a similar spirit on the part of the North.

Such incidents embittered both the public and official moods in Seoul. When the floods of 1995 (see above) led to fresh appeals by the UN and the Red Cross for food aid to North Korea, South Korea was reluctant to oblige. The Government gave US $3m. in June 1996 and allowed small shipments from the Red Cross, but tried to prevent church groups and other private organizations from sending food aid to the North independently.

In so far as the rice aid of 1995 failed to herald the desired improvement in inter-Korean relations, both states must share the responsibility, albeit not equally. North Korea, which was willing to hold discussions and even sign agreements with the South in the early 1990s, had no convincing reason for its subsequent refusal of such dialogue. Its professed insistence on signing a peace treaty with the USA with the exclusion of South Korea, was patently unrealistic, while its continuous denigration of former President Kim Young-Sam was unacceptable practice by international standards. Yet the South Korean President was widely seen as having no clear or consistent

strategy towards Pyongyang, oscillating between an uncompromising attitude and a more relaxed stance.

As ever, spies and refugees enlivened inter-Korean relations in the mid-1990s, while doing nothing to improve them. The report of Kim Dong Sik, a northern agent captured after a gun battle in October 1995, was worthy of any spy novel; he landed by midget submarine after a decade of training, which had included the use of full-scale models of areas of Seoul. In July 1996 another alleged spy was arrested after living for more than a decade in South Korea disguised as a Lebanese-Filipino history professor. Two dramatic incidents affected inter-Korean relations during 1996–97. In mid-September 1996 a North Korean submarine ran aground off South Korea's east coast. In the ensuing manhunt, all but two of its crew of 26 died (some by their own hands, apparently; one was captured alive and one escaped). Seoul's fury was only assuaged in December when, pressed by the USA, Pyongyang perfunctorily apologized for what, it still claimed, was an accident caused by engine trouble. Then in mid-February 1997 Hwang Jang Yop, one of North Korea's most senior leaders, sought asylum in the South Korean embassy in Beijing, China, while returning from a visit to Japan. Ranked 25th in the hierarchy, Hwang was the main theorist of North Korea's official ideology of *juche*, and was currently serving as party secretary and Chairman of the SPA foreign affairs committee. This defection was awkward for China, but the situation was eventually resolved by sending Hwang first to a third country, the Philippines, before allowing him to enter South Korea. Once in Seoul, Hwang warned that his former comrades were serious in threatening to attack the South. Even before Hwang's arrival, an earlier high-ranking defector had been assassinated near Seoul by unknown gunmen.

While both these events were set-backs for inter-Korean relations, there were also more positive signs. In particular, nuclear co-operation through KEDO reached the stage where groundbreaking for construction of the new light-water reactors (LWRs) began in mid-August 1997. Several dozen South Korean engineers were already on site at Shinpo, southern ships had delivered machinery and materials, and a telephone link with South Korea was in service. KEDO's office at Shinpo included the first South Korean diplomats ever to be based in North Korea.

In 1997 South Korea also appeared to be easing its restrictions on southern businesses wishing to invest in North Korea. In May five more companies received permission to explore joint ventures. Though the parlous state of the northern economy dampened optimism somewhat, in April North-South trade reached US $37.4m., its highest-ever monthly total. While infinitesimal to South Korea, annual trade of some US $200m.–$300m. in recent years suffices to make it North Korea's third-largest trading partner, after China and Japan. South Korea also announced its support for the North's bid to join the Asian Development Bank, which, however, was obstructed by Japanese opposition. Meanwhile, negotiations concerning the opening of North Korean airspace—if only maritime, so far—to flights to and from Seoul finally yielded results in April 1998, so that the tiny numbers of North and South Koreans in regular contact with one another now include air traffic controllers.

In general, North Korea continued its venomous diatribes against the South and, in particular, Kim Young-Sam during 1997, while South Korea, for its part, appeared ambivalent, not to say inconsistent, over how to approach the North. This was particularly evident over the issue of North Korea's food shortage. Although South Korea did give some relatively small amounts of aid, both in response to UN appeals and bilaterally through the Red Cross (the latter including actual visits by southern officials to the North, from China, to deliver 50,000 tons of grain), it often seemed more concerned either to play down the severity of the North's suffering, or to suggest that Pyongyang should help itself by spending less on the military and by privatizing the country's farms. This uncompromising approach placed Seoul somewhat at odds with the USA, where the Clinton administration remained committed to seeking engagement with Pyongyang and, in particular, to persuading it to enter four-way talks (see below).

The prospects for inter-Korean relations improved markedly with the election of Kim Dae-Jung as South Korea's President in December 1997. Kim Dae-Jung had long preached, and once in office immediately began to practise, a so-called 'sunshine' policy towards Pyongyang, involving consistent openness towards the North (while maintaining a strong security posture), in the belief that this would eventually elicit a positive response. The policy entails a distinction between governmental and private (including business) contacts, and a much more relaxed attitude towards the latter whatever the vicissitudes of the former. The acknowledged model here is relations between China and Taiwan. The first official North-South talks since the death of Kim Il Sung (there had been others which were quasi-governmental) took place in April 1998. Held in Beijing to discuss a northern request for fertilizer, the talks failed when South Korea linked this issue to its own demands for progress on family reunions. Yet, in a break from the past, Seoul made no effort to prevent the transfer of private southern aid to the North. The pace of civilian and business contacts thus increased in 1998, even though the South's economic crisis took its toll on inter-Korean trade, which declined in the first half of the year by almost 50%, to US $77m.

During mid-1998 inter-Korean relations were dominated by dramatic, if contradictory, developments. In mid-June, Chung Ju-Yung, the founder of the Hyundai group, South Korea's largest conglomerate, crossed the normally impenetrable DMZ at Panmunjom, bringing 500 cattle as a gift for his home town near Wonsan. During his week-long visit, Chung Ju-Yung also discussed a wide range of potential joint ventures between Hyundai and North Korean interests. The most dramatic involved a plan to run daily tour boats to Mount Kumgang, just north of the DMZ; this commenced in November 1998 and represented the first opportunity for South Korean tourists to set foot in the North. This breakthrough seemed jeopardized, however, when, during Chung Ju-Yung's visit to North Korea, a southern fishing boat caught a small northern spy submarine in its nets. When the submarine was eventually towed to port, its crew of nine were found to have killed themselves (or each other). Then in July, a dead North Korean frogman was found on a southern beach. In the past such provocations would certainly have led Seoul to forbid Hyundai to continue with its plans. It was indicative of Kim Dae-Jung's imagination and courage that on this occasion no such linkage was made, and, after a short delay, Hyundai was allowed to proceed.

During 1999 Hyundai's tourism project proved a major advancement for the 'sunshine' policy, with more than 80,000 southern tourists making the journey north in the first eight months alone. There was, however, criticism that Hyundai's payments to Pyongyang—which were to total almost US $1,000m. over six years—might be funding the North's military. The growing scepticism in Seoul reflected the failure of 'sunshine' to generate wider warmth. In June 1999 fresh talks in Beijing on fertilizer and family reunions broke down, even though South Korea softened its stance and sent fertilizer without preconditions. Meanwhile, on 15 June the two Koreas' navies fought a brief gun battle for the first time since the Korean War. North Korean boats were fishing for crab in the Yellow Sea south of the Northern Limit Line (NLL), which Pyongyang did not accept and, unusually, held their positions when challenged by southern patrol boats. After several days of confrontation the South resorted to ramming, and the North opened fire; however, one of its boats was sunk (with a reported 80 dead) and three others were badly damaged. Remarkably, both the Beijing talks and fertilizer deliveries—by sea, close to the combat area—continued throughout, and despite, this contretemps. The gun battle may have reassured Kim Dae-Jung's domestic critics that 'sunshine' did not mean appeasement, and the policy remained in place. In August a workers' team from the militant Korean Confederation of Trade Unions was allowed to travel north to play soccer with northern counterparts.

The 'sunshine' policy finally achieved results in 2000. In March Kim Dae-Jung's offer in his 'Berlin Declaration' of Southern aid to rebuild Northern infrastructure led to secret talks in China, and the announcement in April of the first ever North-South summit meeting. This momentous event duly occurred on 13–15 June, after a last-minute 24-hour delay. Kim Dae-Jung made the first ever official direct flight between Seoul and Pyongyang. Kim Jong Il met him at the airport with a full honour guard of the KPA's three services. South Korean

television viewers—but not their Northern counterparts, who saw only the formalities—marvelled at the friendly persona of a man hitherto viewed as a completely evil figure. After two days of public affability and private tough negotiations, the two leaders signed a brief declaration pledging further progress. The document's only substantive stipulation was the reunion of separated families, duly held on 15–18 August when two sets of 100 elderly Koreans flew in each direction to meet relatives whom they had not seen for 50 years. Two further reunions took place in December 2000 and February 2001 (but a third, scheduled for October, was cancelled). In the following month the first (and by mid-2002 the only) exchange of personal mail—involving some 300 letters from each side—was permitted between North and South Korean families.

The bilateral summit meeting and family reunions ushered in a wider inter-Korean peace process. Ministerial meetings to follow the summit began in Seoul at the end of July 2000, with a second round held in Pyongyang at the end of August and two further sessions thereafter. The first session agreed to reconnect railway lines across the DMZ: a goal endorsed by Kim Jong Il soon afterwards, with work inaugurated by Kim Dae-Jung in September. In a related development, Hyundai won Kim Jong Il's approval to build a vast industrial estate in, and run tour buses to, Kaesong, the ancient Korean capital just north of the DMZ. If this project were to materialize, it would be comparable to the relationship between Shenzhen, in the People's Republic of China, and Hong Kong: serving both to link the two economies and as a basis for growth in the North. There were also positive security implications if the DMZ were to become a thoroughfare, instead of an all but impassable barrier. Economic talks were also held, during which a basic framework for business co-operation was agreed. North Korea's Minister of the People's Armed Forces, Vice-Marshal Kim Il Chol, visited Seoul in September, but would only discuss railways (the re-linking of which is being carried out by the army on both sides); no return visit was arranged.

These promising beginnings ground to a halt in 2001. In January economic talks broke down when the South refused a technically unfeasible northern demand for the immediate supply of electricity. In the following month North Korea agreed, but failed to ratify a protocol on joint railway building within the DMZ; construction work on its side had barely begun. In March the North pulled out of the fifth ministerial talks only hours before they were due to start. Thereafter it refused all official contact with South Korea for six months, seemingly as a corollary of its annoyance with the new US administration, except for sending a condolence delegation on the death of the Hyundai patriarch, Chung Ju-Yung. A further southern donation of fertilizer in May did not soften this stance. Indeed, June saw a reversion to provocation, when several northern merchant ships took short cuts through southern waters. The restrained response of the South Korean navy angered hard-liners in the South; as did a later incident, when a few members of a South Korean unification activists' delegation, allowed to visit Pyongyang for Liberation Day celebrations on 15 August, appeared to support DPRK positions. The controversy that this generated brought down South Korea's ruling coalition (see below).

All this gravely weakened the position of Kim Dae-Jung. By late 2001 most South Koreans endorsed the opposition's criticism of the 'sunshine' policy as appeasement. North Korea's erratic behaviour did not help matters. It accepted a fifth round of ministerial talks in September, only to cancel family reunions, at short notice in October, on the pretext of South Korea's heightened state of alert after the 11 September terrorist attacks on the USA. A sixth round of ministerial talks in November, held (at the North's insistence) at Mount Kumgang, ended with no agreement to meet further; the South's unification minister was dismissed soon after. Official relations thus remained suspended; although, in a major change from past policy, business and private contacts continued. So did links through KEDO: an unpublicized northern team inspected South Korean nuclear facilities in December, and other delegations followed in 2002. In December 2001 also, Hyundai sharply reduced its Mount Kumgang tours because of falling demand.

In February 2002 North Korea cancelled a joint celebration of the Lunar New Year for which the southern civic delegates had already arrived at Mount Kumgang. President Bush's designation in January of North Korea as part of an 'axis of evil' alarmed Kim Dae-Jung; in April he sent his adviser Lim Dong-Won, the sunshine policy's *eminence grise*, to try to persuade Kim Jong Il to agree to talks with the USA. This visit also revived North-South dialogue: April witnessed a fourth round of family reunions, now at Mount Kumgang (on the North's insistence, again) rather than in the two capitals. In May, however, North Korea withdrew from economic discussions at a day's notice. It also disregarded all entreaties to share in the football World Cup co-hosted by South Korea and Japan, but did broadcast highlights of some matches held in the South.

Yet private and semi-official contacts burgeoned. Official subsidies revived Mount Kumgang tourism. South Korean firms established several business and educational joint ventures in information technology (IT), including a college and Pyongyang's first internet café. In June 2002 South Korea's assistant Minister of Information and Communication led a delegation from major companies to Pyongyang; but North Korea later denied reports that agreement had been reached to install mobile telephone services in Pyongyang and Nampo, and no further detail emerged from this. Provincial links continued: Jeju sent oranges, and Gangwon (divided by the DMZ, and later to be badly hit by typhoon Rusa in late August) jointly sprayed against pine pests. In June 320 members of a South Korean Christian aid NGO, when denied a promised church service in Pyongyang, held their own impromptu worship in a hotel; however, they were not impeded. In May, in an encounter that would have startled their parents, Kim Jong Il hosted a dinner for Park Chung-Hee's daughter Park Geun-Hye, herself a possible presidential candidate. Kim also agreed to a friendly football match in September.

On 29 June 2002 relations sharply deteriorated when North Korean warships without warning fired on and sank a southern patrol boat in the Yellow Sea, killing five crew members. As in the 1999 incident, for which this may have been revenge, this occurred in disputed maritime border seas during the crab-fishing season. Yet it was wholly unexpected, prompting further criticism of the 'sunshine' policy and of the South Korean navy's lack of preparedness; the southern Minister of National Defence was dismissed a fortnight later. Within a month, however, North Korea expressed 'regret', and this sufficed for dialogue to resume. The seventh ministerial talks, held in Seoul in August, arranged a full roster of further meetings in specific areas. Economic discussions later that month set a timetable to open two cross-border road and rail links: not only the previously agreed route near Seoul, work on which had stalled, but a second corridor near the east coast. North Korea also agreed to take part in the Asian Games to be staged in Busan in October—the first time it had ever participated in an international event held in South Korea—in contrast to its eschewal of the football World Cup. Nearly 700 North Korean athletes took part in the event. There were even rumours that Kim Jong Il might attend the opening ceremony, to make a long-awaited return visit, regarding this as less risky—politically and otherwise—than a full second summit meeting in Seoul.

Caution was in order regarding how much or how soon any of this would be realized, given the intermittent pattern and disappointments of the past. Yet North Korea's economic changes and its wider diplomatic outreach suggested that this time Kim Jong Il might be serious: not least, to act before Kim Dae-Jung's departure from office in February 2003. Cross-border links were the touchstone. If these were to proceed, allowing the Kaesong project to go ahead, the security, economic and political climate on the peninsula would be definitively transformed. On a positive note, ceremonies were held on both sides of the DMZ on 18 September 2002 to mark the beginning of the reconstruction of rail links between the two Koreas—with the first reconnection possible as early as November. However, if the North were to retreat again, a probably less sympathetic new President in South Korea, combined with intensified US pressure, would presage a further deterioration in relations.

FOREIGN RELATIONS

(AIDAN FOSTER-CARTER)

Despite (or, perhaps, because of) North Korea's roots in Soviet military government, it has been the regime's consistent goal

to emphasize and maximize what its own slogans call *chaju, chalip, chawi*: independence in politics, economics and defence. In practice, this has largely meant a refusal to be beholden to—let alone a satellite of—either of its giant neighbours and erstwhile sponsors, the USSR and China, while simultaneously exhibiting unremitting hostility towards the USA, Japan and, of course, South Korea. Although the Sino-Soviet dispute enabled Kim Il Sung for many years to play off Moscow against Beijing and receive aid from both, the end of the Cold War and the collapse of the USSR have exposed Pyongyang's vaunted self-reliance as ultimately self-defeating isolation and friendlessness.

North Korean foreign policy has undergone several phases over the years. During the 1950s Pyongyang emphasized its adherence to the communist bloc, receiving both military aid during the Korean War (1950–53) and assistance for reconstruction thereafter from the USSR, China and Eastern Europe. Yet already there were quarrels with Moscow over how best to use Soviet aid, with North Korea preferring to develop its own heavy industry rather than join the Council for Mutual Economic Assistance (CMEA). Meanwhile, although Japan had relations with neither Korean government at this stage, more than 75,000 pro-communist Koreans in Japan (mainly of southern origin) emigrated to the new socialist fatherland in the late 1950s.

In the wake of the public Sino-Soviet split in the early 1960s, Pyongyang demonstrated broad sympathy with Beijing's more revolutionary position, which led to the temporary suspension of Soviet aid. North Korea's own bellicosity peaked in 1968, with its seizure of the *USS Pueblo* and its dispatch of a commando unit to attack the presidential mansion in Seoul.

By contrast, the 1970s were an era of broadening contacts. Suspicious of China's amenability to US 'ping-pong diplomacy', North Korea not only repaired relations with Moscow but sought new allies, particularly in the Third World and the Non-aligned Movement (which it joined in 1975). Other initiatives were less successful. Pyongyang's breakthrough in establishing diplomatic relations with the four Nordic countries (its first such ties in the West) was marred shortly thereafter when, in 1976, all four of its ambassadors were expelled, their staff accused of systematic smuggling (a practice in which North Korean diplomats have allegedly been engaged ever since). Similarly, what seemed a useful development of economic ties with Japan and Western European countries came to an abrupt halt when it became clear that Pyongyang had no overt intention of paying for several hundred million dollars' worth of capital equipment imported in the early 1970s. These debts still remain unsettled.

By the early 1980s North Korea's relations with many of its communist allies showed signs of deterioration. Neither Moscow nor Beijing approved at first of the official designation of Kim Jong Il as his father's successor, although China at length relented and, in 1983, invited the 'Dear Leader' on his first known trip there.

This did not, however, prevent a distinct inclination towards the USSR in the mid-1980s, inspired perhaps by suspicion of Deng Xiaoping's reforms, yet continuing into the Gorbachev era. In 1984 Kim Il Sung visited Moscow for the first time in 23 years, and also spent several weeks touring Eastern Europe. He returned to meet Gorbachev in 1986, in which year joint Soviet-North Korean naval exercises were undertaken. In addition, the North Korean Government granted port facilities and overflying rights to the Soviet fleet and air force, reportedly in return for the supply of Soviet MiG-23 fighters and surface-to-air missiles. Soviet-North Korean trade grew rapidly, with North Korean imports more than quadrupling in the four years between 1984 and 1988.

However, within a period of less than five years, a series of set-backs comprehensively undermined North Korea's foreign policy orientations of the previous four decades. It was inevitable that the lure of South Korea's far greater economic prospects (coupled with the skilful diplomacy of Seoul's 'nordpolitik') would eventually lead pragmatists such as Deng and Gorbachev to qualify their inherited Cold War loyalties towards a Pyongyang which they increasingly considered a political and economic liability. Although China moved first to begin trading with Seoul, it was the USSR under Gorbachev's leadership that dealt both the diplomatic and financial *coup de grâce*: first by establishing full diplomatic relations with South Korea in September 1990, and then by stipulating that, from January 1991, its trade with North Korea would be conducted in convertible currencies at world market prices. This caused Pyongyang's total trade volume to decline by more than US $1,100m. (almost one-quarter) in 1991. Although the demise of the USSR itself afforded a certain grim satisfaction, Russia's President Yeltsin had no vestige of comradeship with the Pyongyang regime.

The cooling of relations with Moscow left China as North Korea's only major ally, although even this relationship was qualified by increasing impatience in Beijing, as much over Kim Il Sung's failure to embrace economic reform as for his suspected nuclear ambitions (see below). With reformers once again dominant in the Chinese leadership, economic ties with Seoul rapidly increased and, in August 1992, full diplomatic relations were established between China and South Korea, much to the consternation of Pyongyang. Since then Sino-North Korean relations have deteriorated significantly. Although China has opposed UN action against North Korea over the nuclear issue, its support has been tenuous at best.

In the light of these shifts of allegiance, North Korea has had no option but to try to repair relations with its traditional enemies. In late 1990 a breakthrough with Japan seemed likely, after a highly successful visit to Pyongyang by Shin Kanemaru, the senior mediator of the ruling Liberal-Democratic Party. Yet, eight rounds of talks, held in 1991–92, on the possible normalization of diplomatic relations between North Korea and Japan made no progress, due to intransigent demands from both sides. None the less, regular charter flights between the two countries led to an increase in unofficial contacts and visits, although not yet to the aid and investment which North Korea desperately needs. Relations with Japan were severely strained in May 1993, following North Korea's successful testing of the Rodong-1 medium-range missile in the Sea of Japan. According to US intelligence reports, the missile would be capable of reaching most of Japan's major cities (and possibly of carrying either a conventional or a nuclear warhead).

Contacts with the USA also increased considerably in the early 1990s, although diplomatic relations have yet to be established. North Korea on four occasions returned the remains of US soldiers who went missing in action during the Korean War, and several high-level US delegations, including retired senior political and military figures (and even the evangelist, Rev. Billy Graham), visited Pyongyang. In January 1992 the KWP's international secretary, Kim Yong Sun, visited New York for discussions with the US Under-Secretary of State (although one year later he was refused a visa to attend ceremonies marking the inauguration of President Clinton). US-North Korean discussions did, however, resume in mid-1993 over the nuclear issue.

For both Washington and Tokyo, a major obstacle to better relations with Pyongyang was and remained their suspicion that North Korea was seeking to develop nuclear weapons. In July 1991, after several years of prevarication, North Korea finally agreed a draft Nuclear Safeguards Agreement (NSA) with the International Atomic Energy Agency (IAEA), permitting the outside inspection of North Korean nuclear facilities. Following the announcement by President Bush of proposals to withdraw all US tactical nuclear weapons world-wide, and President Roh Tae-Woo's confirmation that none remained in South Korea, North Korea signed the NSA in January 1992. Moreover, Pyongyang subsequently submitted an unexpectedly detailed report on its nuclear facilities, almost one month ahead of schedule. The IAEA Director-General visited North Korea in May 1992 and formal IAEA inspections began later that month.

Yet, despite this unprecedented progress, suspicions were not allayed. Indeed, one large building at the Yongbyon installation, north of Pyongyang, was believed by some outside observers to be a nuclear-reprocessing plant. Likewise, North Korea's apparent attempts to obstruct the separate inter-Korean mutual nuclear inspections (see below) aroused widespread mistrust. Finally, though not part of the nuclear issue as such, the fact that North Korea sold improved *Scud* missiles to Iran and Syria in exchange for petroleum, did nothing to enhance relations with the West.

All these issues came to a head in 1993. In January North Korea refused to allow special inspections (as demanded by the IAEA) of two sites at Yongbyon, which were thought likely to

reveal that more plutonium had been extracted than Pyongyang had admitted. Then, in an unprecedented move, on 12 March North Korea announced that it was to withdraw from the Treaty on the Non-Proliferation of Nuclear Weapons (the Non-Proliferation Treaty—NPT), which it had signed with the IAEA in 1985. This led to protracted diplomatic activity between Washington, Seoul and Tokyo, as well as muted criticism by the UN Security Council (in part because China would not support decisive action at this stage). However, the main channel for defusing the crisis was the holding of two rounds of direct talks between North Korea and the USA in mid-1993, which resulted in North Korea suspending implementation of its withdrawal from the NPT.

Despite this hopeful sign, the nuclear crisis continued for a further year. In May 1993 international concern about North Korea's weapons programme was heightened following the successful testing of an intermediate-range missile, the Rodong-1 (see above). Negotiations between North Korea and the USA, and separate inter-Korean talks, continued during the latter part of the year, but with no tangible results. Although some IAEA monitoring and intermittent inspection activities at Yongbyon were permitted, it remained uncertain whether North Korea had already succeeded in producing a nuclear weapon. Alarm was aroused again in May 1994, when North Korea began replacing spent fuel rods without effective supervision, prompting the IAEA to suggest the imposition of international sanctions. The situation deteriorated further on 13 June, when North Korea retaliated by announcing its complete withdrawal from the IAEA (and not merely the NPT), although in fact inspectors subsequently remained at Yongbyon. Meanwhile, the USA began to lobby the UN Security Council to impose sanctions on North Korea, despite objections by China and Russia and an unenthusiastic response from Japan.

The rising sense of crisis was defused in mid-June 1994, when the former US President Jimmy Carter visited Pyongyang. After 10 hours of talks with Kim Il Sung, he returned with two offers: a summit meeting with South Korea (see above), and a pledge to suspend North Korea's nuclear programme. While the latter was vague, it sufficed for Washington to resume high-level talks. When the third round commenced in Geneva on 8 July, however, Kim Il Sung was already dead—although the announcement of his death came only on the following day. The talks were duly postponed. None the less, following several subsequent rounds, a 'framework agreement' between North Korea and the USA was signed in Geneva in October. In essence, Pyongyang agreed to close down its nuclear site at Yongbyon in exchange for substantial compensation, principally in the form of new light-water reactors (LWRs) worth some US $4,500m., as well as up to 500,000 tons of heavy fuel oil annually during the estimated 10 years' construction period of the LWRs.

Although not written into the agreement, it was understood that South Korea would play a key part, both as supplier and main financier of the LWRs, and as a core member, with the USA and Japan, of KEDO, the consortium that was to supervise the entire project. North Korea initially protested bitterly against Seoul's involvement, and for several months it seemed as if the Geneva accord might collapse. By August 1995, however, Pyongyang tacitly abandoned its opposition to the South's *de facto* participation.

The Geneva nuclear accord perhaps set the pattern for a new development in North Korean foreign policy, which might be termed 'militant mendicancy'. Thus, in May 1995, a North Korean delegation visiting Japan made an unprecedented request for rice as aid. Not only was this granted, but South Korea insisted that the North should also, and first, accept free rice from fellow Koreans (see above). This has produced the remarkable spectacle of the North Korean regime being in effect sustained by its three oldest and bitterest foes—whom it continues to denounce—without any proviso requiring Pyongyang to reform or mend its ways. Such a contradictory mix can only be transitional. If aid is to continue, Kim Jong Il will soon have to prove more widely accommodating than his father was.

One test will be the quest for a peace treaty on the peninsula. North Korea has continued to undermine the existing armistice agreements. In March 1995 it expelled the Polish observers of the Neutral Nations Supervisory Commission at Panmunjom, following which it closed its side of the Joint Security Area to all comers from the South. The North's professed aim was a bilateral peace treaty with the USA, excluding the South. Pyongyang continued to pursue this quixotic quest in 1996, declaring on 4 April that it would no longer observe protocol in the DMZ, and raising tension with a few symbolic incursions into the southern half of the zone. This prompted the USA and South Korea to propose four-way talks with North Korea and China.

In any case, Pyongyang had *de facto* achieved the direct line of communication to Washington which it had long sought. While there were no formal ties, and talks on an exchange of liaison offices stalled, there were now regular contacts between the US State Department and the North Korean UN mission in New York. Discussions on missile control were held in Berlin, Germany, in April 1996, albeit without result. Progress was also made on 'missing in action' (MIA) issues: the USA paid US $2m. (in cash, at Panmunjom) for remains that had already been returned, and US investigators were, for the first time, allowed to search directly inside North Korea. In early 1996 there were also many visits to the USA, including separate delegations led by two leading reformists, Kim Jong U and Ri Jong Hyok.

However, all this was regarded as appeasement in some quarters, both in Seoul and in the Republican Party in the USA. In June 1996 Congress granted barely one-half of the modest US $25m. sought by the White House as the US contribution to KEDO's oil shipments. This was regrettable, since KEDO has achieved the remarkable feat of turning what had been the peninsula's worst risk into its best hope. Not only has North Korea abandoned its initial hostility to the South's leading role in the project, but for much of 1995–96 its delegates were in New York taking constructive part in negotiations over the text of the agreement. South Korean engineers now travel routinely to the LWR site at Shinpo, albeit via Beijing, and in August 1997 construction work began at the site.

Pyongyang also made overtures to Tokyo about resuming negotiations towards establishing diplomatic relations. Cautious as ever, Japan insisted that North Korea must first accept the four-way talks with South Korea and the USA. None the less, regular contacts continued. In July 1996 Kim Jong U toured several Japanese cities to try to encourage investment in the Rajin-Sonbong free zone, but had little success. (Kim Jong U subsequently fell from favour, and in 1998 was reported to have been executed; other reports denied this.)

With its old (and former) allies too, North Korea experienced mixed fortunes. China's avowed support for inter-Korean dialogue annoyed the North, but China, for its part, is equally irritated at Kim Jong Il's refusal of economic reform, not least because Beijing has been continually obliged to offer the country vital assistance. In July 1996 the 35th anniversary of the Sino-North Korean friendship treaty was marked by the exchange of middle-ranking delegations, as well as by a rare visit to Nampo by a Chinese naval flotilla.

Meanwhile, Moscow, which created North Korea and sustained it until the beginning of the collapse of the USSR in 1990, occupied a much less significant position in North Korea's foreign relations. In April 1996 a Deputy Chairman of the Russian Government, Vitalii Ignatenko, led the first major delegation from the new Russia to Pyongyang. There was talk of resuming economic co-operation: most major North Korean industrial installations were originally Soviet aid projects; but since both countries are in economic difficulties, not to mention Pyongyang's huge debts to Moscow, prospects for co-operation are not bright. They did not improve in 1997, when North Korea criticized Russia for supplying ultra-modern armaments (including tanks) to South Korea, in payment of debts.

North Korea's foreign relations neither changed nor advanced greatly during 1996–97. With no Head of State yet inaugurated, there were few high-ranking visitors either to or from Pyongyang, which appeared more isolated than ever. Only with China were there regular exchanges of delegations, and most of these were low-level. Still, as seen in the defection of Hwang Jang Yop (see above), Beijing remained concerned for North Korea's sensitivities, even as its economic and other links with South Korea continued to progress smoothly. China was also the biggest provider of food aid to North Korea. This was so, despite China's displeasure at the somewhat unlikely warming of rela-

tions between North Korea and Taiwan: worlds apart ideologically, yet perhaps united in their pariah status. In January 1997 an agreement was signed, whereby North Korea would dispose of low-grade nuclear waste from Taiwan, in a contract believed to be worth more than US $100m. South Korea protested vociferously, and this project seems to have been abandoned.

Elsewhere, in the first half of 1997 Japan began to adopt a more rigid policy towards North Korea than it had previously. The seizure in April of amphetamines worth US $90m. on a North Korean ship in a Japanese port did not improve relations. Unlike the USA, or even South Korea, Japan declined to respond to the UN's increasingly desperate appeals for food aid for North Korea. (It had supplied 500,000 tons of rice in 1995, and received scant gratitude.) Japan insisted that improved relations, including aid, would depend on Pyongyang making concessions, including the disclosure of details of the alleged kidnappings of Japanese citizens in the 1970s. In late August, however, agreement was reached between the two countries, whereby some now-elderly Japanese wives of Koreans who settled in North Korea in the 1950s and 1960s were to be allowed to visit their native land for the first time. Only with the USA, ironically, did North Korea enjoyed improving relations. Washington was swift to respond to UN appeals for food aid, and bilateral contacts continued in areas ranging from further joint digging for MIA remains, to talks about Pyongyang's missile development and sales. Several senior US politicians visited North Korea, usually by military aircraft, which would have been unthinkable in the past. Washington's main aim was to persuade North Korea to agree to attend the four-way talks first proposed in April 1996. After much prevarication by Pyongyang, preliminary discussions were held in New York, USA, on 5 August 1997. China, the fourth party (which was also initially hesitant), became much more positive about the proposal during 1997.

Full four-way talks finally commenced in Geneva, Switzerland, in December 1997, and were followed by more substantial discussions in March 1998. These were, however, unsuccessful, owing to wide differences over the agenda, with North Korea demanding that this should include the withdrawal of US troops from the peninsula. Further four-way talks took place in October; agreement was reached on the establishment of two subcommittees, with a view to instituting a permanent peace mechanism. Otherwise, North Korea's foreign relations remained fairly constant during 1998. Of the four major powers, Russia continued to count the least, in stark contrast to its predominance in the Soviet era. Efforts to revise the 1961 friendship treaty, not least in order to strike out its commitment to mutual military assistance, stalled for several years, until 1999 (see below). China, by contrast, continued to shore up Pyongyang with aid, even as its ties with Seoul become ever closer. Senior-level dialogue with the North went into abeyance for a decade, whereas Chinese and South Korean leaders exchanged regular bilateral visits as well as meeting in multilateral fora such as Asia-Pacific Economic Co-operation (APEC) and Asia-Europe Meeting (ASEM). Beijing's long-term aim is to displace the USA as the broker of choice between the two Koreas.

Relations with Japan continued to follow an uneven course. The first ever home visits of two groups of elderly Japanese-born wives of North Koreans were finally realized in late 1997 and early 1998. Thereafter, however, the kidnap issue—in particular, anger in Japan at what was seen as a perfunctory 'investigation' of the matter by Pyongyang—once again cast a shadow, preventing the resumption of talks towards restoring diplomatic ties. At the end of August 1998 relations deteriorated, when Japan accused Pyongyang of test-firing an unarmed Taepo Dong medium-range missile over its territory. In a strange twist, the North Korean regime subsequently claimed that the object launched had, in fact, been a satellite intended to broadcast patriotic music. That rocket launch, whatever its purpose, has had a lasting effect on North Korea's relations with its main foes. Japanese opinion and policy have hardened, both towards Pyongyang and on defence issues more generally; all the more so after a further provocation in March 1999, when the Japanese navy pursued and fired on two intruding boats, which were later traced to the North Korean port of Chongjin. Unlike South Korea and the USA, Japan still gave no food aid to the DPRK, and considered further sanctions such as banning remittances sent by pro-North Koreans living in Japan. The possibility, widely canvassed in mid-1999, that Pyongyang might test another missile carried a real risk that Japan would withdraw from KEDO; which in turn threatened to reopen the North Korean nuclear issue and reactivate the tensions of mid-1994.

The USA shared Japan's alarm at the DPRK's missile activities, albeit more with regard to proliferation: purchasers include Libya, Syria, Iran and Pakistan. In the past Pyongyang had hinted it might be 'bought off', as with its nuclear programme; but this seemed less likely after the NATO bombing of Yugoslavia in early 1999. Missiles were only one cause of US concern during 1998–99; the other being a large construction site at Kumchang-ri, near the disused nuclear site at Yongbyon, which was feared to be a covert continuation of nuclear activity. Kumchang-ri dominated US-North Korean relations for many months, until in May 1999 a US inspection team pronounced it 'clean'. While denying any link, Washington simultaneously announced a further 400,000 metric tons of grain in aid. The USA continued to be the mainstay of the UN World Food Programme's aid to North Korea, this operation being its largest ever, prior to Afghanistan in 2001–02. Meanwhile, under pressure from Republican critics in the US Congress, in November 1998 the Clinton Administration appointed William Perry, a former Secretary of Defense, to carry out a full review of US policy towards North Korea. Perry visited Pyongyang in May 1999, and his report was published in September of that year. It offered substantial incentives, in exchange for a definitive and verifiable end to the DPRK's nuclear and missile ambitions. During talks in Berlin, Germany, in mid-September the USA lifted sanctions on trade and travel in return for a promise by the DPRK that it would refrain from testing long-range missiles until 2003. As for allies (past or present), in March 1999 a new treaty with Russia was at last agreed, to replace that of 1961 with the former USSR. This was assumed to exclude the military support provided for in the old version. The treaty was signed during a visit to Pyongyang by the Russian Minister of Foreign Affairs, Igor Ivanov, in February 2000; it was ratified by North Korea in April of that year. With China effectively remaining North Korea's sole ally and source of finance, a high-level delegation visited Beijing in June 1999 for the first time in eight years. Led by Kim Yong Nam, the delegates included the Premier and the Ministers of Defence and Foreign Affairs—but no economic cadres, to China's reported annoyance. Multilaterally, the quadripartite talks involving the two Koreas, China and the USA continued to be held in Geneva, the sixth round taking place in August 1999, but with no obvious progress. As of late 2002, this particular forum had not reconvened.

From the latter part of 1999 onwards North Korea's diplomacy took a striking new turn, with conscious efforts made both to restore old relationships and foster new alliances. The first sign was a wide range of meetings held at the UN in September 1999 by the North Korean Minister of Foreign Affairs, Paek Nam Sun. In January 2000 Italy became the first G-7 country to establish full diplomatic relations with the DPRK. Later in the year Kuwait, the Philippines and Australia followed suit; the latter resuming ties first forged in 1975 but abruptly severed by Pyongyang soon after. In October 2000 the United Kingdom announced that it planned to normalize diplomatic relations with North Korea, and duly did so in December. Meanwhile, in July, Paek travelled to Bangkok, Thailand, for North Korea's admission as the 23rd member of the ASEAN Regional Forum (ARF), at which Canada and New Zealand also announced plans to establish relations. Paek also held unprecedented meetings with his South Korean, US and Japanese counterparts.

With the USA, progress continued. In October 2000 Vice-Marshal Jo Myong Rok, North Korea's most powerful military figure, visited Washington as a special envoy of Kim Jong Il. This led in the same month to a visit to Pyongyang by the US Secretary of State, Madeleine Albright. President Clinton was ready to follow to sign an agreement on missiles, but this foundered on verification difficulties. Agreement also eluded high-level bilateral talks with Japan, in abeyance since 1992, of which three rounds were held in 2000. Despite a show of cordiality, the two sides' agendas remained far apart. North Korea demanded compensation of up to US $10,000m. for Japanese colonial rule prior to 1945, whereas Japan continued

to prioritize its missile and abduction concerns. There was no obvious way to overcome this impasse. However, in 2000 Japan gave 100,000 tons of food aid to the DPRK for the first time in several years, and was permitted to monitor its distribution. A third visit home by Japanese wives of North Koreans—the first since 1998—took place in September.

The most important development was a new effort to improve relations with the DPRK's original major allies. In May 2000 Kim Jong Il made an unofficial, and initially secret, visit to China, his first overseas trip since 1983. As well as meeting President Jiang Zemin and other leaders, he toured a computer factory and was quoted—for the first time—explicitly praising China's reform programme. This visit prepared Kim Jong Il for hosting Kim Dae-Jung a fortnight afterwards. One month later the 'Dear Leader' welcomed the President of the Russian Federation, Vladimir Putin, as the first ever Russian or Soviet leader to visit the DPRK. By this simple gesture, in a trip lasting less than 24 hours, Putin reversed a decade of hostility which had begun when the then President of the USSR, Mikhail Gorbachev, hastily forged ties with Seoul in 1990; and reconfirmed Moscow's importance with regard to the possible reunification of Korea, later presenting the G-8 with an offer by Kim Jong Il to abandon his missile programme in return for access to satellite-launching facilities. The 'Dear Leader's' later comment that this was said in jest left Moscow unamused, and was a reminder that rebuilding ties might not be straightforward. Furthermore, North Korea owed the Russian Federation some US $3,000m.

The year 2001 was also an active one for DPRK diplomacy, but with more mixed results. Ties with the USA suffered a setback when the new Republican administration under President George W. Bush expressed mistrust towards North Korea, prompting Pyongyang to suspend inter-Korean dialogue as well. By June the USA decided that it would, after all, talk to North Korea, but by late 2001 the latter had yet to respond. No further talks were held with Japan, which Pyongyang denounced (as did Seoul) for a new schools' history textbook that glossed over pre-1945 atrocities, and for Prime Minister Koizumi's visit to the Yasukuni shrine which commemorates (among others) convicted war criminals. With other Western countries, however, there was more progress. By June 2001 13 of the 15 member states of the European Union (EU), and the organization as such, had restored full diplomatic relations with the DPRK; the exceptions were France, which cites human rights concerns, and Ireland. In May a high-level EU delegation led by the Swedish Prime Minister, Göran Persson, had visited Pyongyang and met Kim Jong Il, in what was interpreted as a prompt to President Bush to resume dialogue. It was reported that the DPRK leader had pledged to maintain his country's moratorium on missile testing until 2003. Other states establishing relations with North Korea during 2001 included Brazil and Turkey.

As in 2000, however, the main trend was restoring good relations with old allies. In January 2001 Kim Jong Il paid his second visit to China in nine months. Again nominally secret, this was mainly to Shanghai and clearly business-related: the week-long itinerary took in several joint-venture factories and even the Stock Exchange, raising hopes (as yet unfulfilled) that North Korea may at last adopt market reforms. In September President Jiang Zemin reciprocated, with the first visit to Pyongyang by a senior Chinese leader in over a decade. Behind the formal warmth, Jiang would have pressed the case for reform (not least to save Beijing the cost of supporting the DPRK's economy, and coping with an outflow of hungry North Korean refugees); and openly called on his hosts to resume dialogue with South Korea, which they promptly did.

Relations with Russia also deepened. An expected visit by Kim Jong Il in April 2001 did not materialize, but his defence minister returned from Moscow with reported pledges of unspecified new military co-operation. The 'Dear Leader' finally made the journey to Russia in August: by special train, taking over three weeks and causing many complaints as stations along the route were cleared of normal traffic as he passed. A joint statement with President Putin referred to Russian 'understanding' of the DPRK's demand for US troops to leave South Korea. Reports also suggested that a deal had been concluded to repay the DPRK's Soviet-era debts, mainly by sending contract labour (whose working conditions the *Moscow Times* likened to serfdom). As this implies, not all Russians endorse their Government's efforts for renewed friendship with this relic of Stalinism.

The events of 11 September 2001 cast an especially long shadow for North Korea. The country remained on the US State Department's list of nations alleged to sponsor terrorism; if mainly for sheltering a number of Japanese hijackers since 1970, rather than any recent transgressions. No links to the Islamist militant group Al-Qa'ida were seriously alleged, and the DPRK swiftly condemned the terrorist attacks on the USA—but went on to criticize the US war in Afghanistan. For its part, Washington for the first time cited North Korea's suspected biological weapons programme as a major threat, in addition to its nuclear and missile concerns. Besides such weapons of mass destruction (WMD), the Bush Administration also gave notice that the DPRK's conventional force posture was unacceptably threatening. In January 2002 President Bush notoriously grouped North Korea with Iraq and Iran as an alleged 'axis of evil'. Pyongyang replied in kind, making any resumption of talks unlikely. None the less, MIA co-operation and US food aid continued. In December 2001 the pursuit and sinking by the Japanese navy of a suspected North Korean spy ship, later salvaged, did nothing for either Pyongyang's relations with Tokyo or its wider reputation.

The DPRK's image also suffered from a growing diplomatic problem in which it was, curiously, both cause and bystander. North Korean fugitives in China—numbering up to 300,000, none of whom Beijing acknowledged as refugees—became more militant in 2002; aided by foreign NGOs, several sought asylum in foreign embassies. Chinese police intrusions to seize them caused disputes with both South Korea and Japan; yet in the end all, including those arrested—numbering more than 80 as of September 2002—were allowed to travel to Seoul via third countries. The price of freedom for the few was a campaign of suppression in the border region, with many more migrants arrested and deported to an uncertain fate. It was doubtful if signs of reform in North Korea, or repression there and in China, could stem this tide from swelling over time, to destabilizing effect.

In early 2002 DPRK diplomacy temporarily turned away from the major powers, and seemed mainly to be motivated by economic needs. The Minister of Foreign Trade toured western Europe, while the titular Head of State, Kim Yong Nam went to Thailand and Malaysia, securing rice and palm oil on generous terms. At home Kim Jong Il hosted Indonesia's president, Megawati Sukarnoputri (their late fathers were close associates), who then travelled on to Seoul. The ever less reclusive 'Dear Leader' also visited the Russian embassy in Pyongyang three times in as many months. In July Russia's Minister of Foreign Affairs, after visiting both Koreas, declared Kim Jong Il ready for dialogue 'without preconditions'.

This duly ushered in a new bout of North Korean goodwill diplomacy. In Brunei in July, Paek Nam Sun returned to the ARF, having been absent in 2001. An informal meeting with the US Secretary of State, Colin Powell, was the first high-level contact with the Bush Administration. Paek professed eagerness for a visit by the US Assistant Secretary of State for East Asian and Pacific Affairs, James Kelly, on which Pyongyang had earlier stalled; but in October 2002 the visit finally took place, the discussions being described as useful. In August, however, a less senior envoy, Jack Pritchard, represented the USA at KEDO's LWR ground-breaking ceremony in Shinpo; he urged North Korea to submit to full IAEA inspections. The timing of these was contentious—the USA wanted them to proceed immediately, but the DPRK—like the former Clinton Administration—maintained that they were not mandatory until at least 2005.

With Tokyo there was faster movement. In Brunei Paek signed a joint statement with his Japanese counterpart, Yoriko Kawaguchi. Within a month, bilateral Red Cross and diplomatic talks were held in Pyongyang, cordially, but with no visible progress. However, Junichiro Koizumi made an historic visit to Pyongyang on 17 September 2002, becoming the first Japanese Prime Minister ever to do so. This seemed to represent a considerable risk, in view of the outstanding disputes between the two countries. The most significant outcome of Koizumi's summit meeting with Kim Jong Il was the latter's admission that North Korean agents had indeed kidnapped 11 or 12

Japanese nationals in the 1970s and 1980s, and of these, only five were still alive. Pyongyang's long silence on the issue had been an obstacle to the resumption of talks on the normalization of diplomatic relations, and the revelation shocked the Japanese public. Kim apologized for the kidnappings, blaming rogue military elements, and agreed to return the surviving Japanese; Koizumi apologized for Japan's colonization of the Korean peninsula. Kim also told Koizumi that he would allow international inspections of North Korea's nuclear facilities, and would maintain the moratorium on missile-testing beyond 2003. However, Tokyo's immediate response was unclear.

Koizumi's sudden enthusiasm for summit meetings might have been inspired by Vladimir Putin, who in Vladivostok in August met Kim Jong Il for the third time in as many years. The Russian President pressed for inter-Korean rail links, which could create an 'iron silk road'—a freight route from South Korea to Europe via Siberia, which Putin hoped would encourage economic development in Russia's depressed Far East. For his part, Kim Jong Il reportedly sought modern weapons, and visited factories in the region as well as a Russian Orthodox church. (Although not officially acknowledged, Kim was born in Khabarovsk in 1942, where his father was in exile.)

With inter-Korean links also improving, as of late 2002 prospects looked propitious once more for détente and dialogue. Past precedent, however, warned that the peninsula's political situation could quickly deteriorate again. Much had depended upon Koizumi's visit, any solid progress, threatening to leave the USA isolated in an aggressive stance. Yet if Kim Jong Il were to renege once again, the likely election in December 2002 of a more hard-line President in South Korea might leave North Korea facing sceptical or hostile leaders in all three of its main foes. With the USA displaying greater militancy, and a host of WMD and other issues awaiting discussion (much less settlement), there could be no guarantee in late 2002 that the DPRK's relations with the wider world would necessarily proceed more smoothly or normally in the future, particularly following the country's unexpected confirmation of the existence of its nuclear programme in October.

Economy

ROBERT F. ASH

Based on an earlier article by JOSEPH S. CHUNG

Following the introduction of a highly centralized planning system based on the former Soviet model, and radical economic initiatives introduced during both the interim post-war Soviet occupation of North Korea (1945–48) and the formal establishment of the Democratic People's Republic of Korea (DPRK) on 9 September 1948, the economy has been characterized by a strong orientation towards the socialization of production and productive relationships. By the end of 1958, the full socialist transformation of North Korea had been completed, laying the foundations of what was one of the world's most highly centralized and planned economic systems—and what has become, since the implementation of market-orientated reform in the former USSR, China and other previously socialist countries, the most monocratic and autarchic economic regime left in the world.

There is a consensus that, even allowing for the impressive rate of economic growth that was sometimes achieved, central planning systems have generated severe problems of waste and inefficiency. In the case of North Korea, there is no doubt that the Government's rigid adherence to central planning has inhibited economic growth and constrained its long-term economic performance. Until the early 1960s, it is true that economic expansion was rapid, but this performance owed more to recovery from a war-ravaged economy (following Japan's surrender and withdrawal in 1945, and, subsequently, the Korean War truce agreement in 1953), than to net growth. Even so, the rate of economic expansion in North Korea (averaging some 12% annually) exceeded that of the South until the late 1960s, and not until around the middle of the following decade did South Korea's aggregate GNP surpass that of North Korea. In per caput terms, the emerging pre-eminence of the South occurred even later.

Economic growth in all communist regimes has been driven by the physical accumulation of resources (especially capital), rather than by qualitative improvements. In this respect, North Korea is no exception, a capital accumulation rate—and its corollary, minimal consumption improvements—rather than productivity gains having facilitated economic expansion. Over time, infrastructural bottlenecks and associated difficulties have grown increasingly serious, highlighting the need to enhance efficiency through the better use of resources and the adoption of more advanced technology in order to maintain and increase the growth momentum.

Throughout its existence, North Korea's development strategy has been guided by the ideology of *juche*, or 'self-reliance' (a notion whose application has extended also to the realm of politics). *Juche* has quasi-mythical overtones, although the idea of '*juche* for economic development' was first articulated by President Kim Il Sung in December 1956. It dominated the formulation and implementation of economic development until well after Kim's death in 1994 and, under the pretext of making working people the masters of agricultural and industrial undertakings, facilitated a continuing emphasis on the need to generate an independent, self-reliant economy. Indeed, despite a willingness to embrace modest market-orientated policies in recent years, the notion of *juche* has remained a dominant economic organizational principle in North Korea.

Following the death of his father, Kim Il Sung, North Korea's new paramount leader, Kim Jong Il continued to defend socialist ownership and the consolidation and development of a socialist economic system embodying the *juche* ideal of self-reliance, while emphatically rejecting the introduction of capitalist methods. These principles were echoed in various official pronouncements, and underlined in the advocacy of reliance on exhortations, mass social mobilization and production campaigns designed to increase output.

The flexibility with which *juche* can be interpreted does not, however, necessarily make it incompatible with economic liberalization. From this perspective, it is salutary that a constitutional amendment, introduced in 1998, made reference to privatization, material incentives and profitability, while also apparently endorsing North Korea's pursuit of a planned, socialist and self-reliant economy. In the same year Pyongyang sought advice from the World Bank on the establishment of a market economy. It remained premature to speculate about the outcome of such initiatives: on the one hand, the North Korean Government has shown itself eager to expand foreign trade, encourage foreign investment and embrace modern technology; on the other hand, it has also continued to show considerable determination not to allow market-orientated reforms to jeopardize central control over key national assets.

At the beginning of the 21st century, North Korea faces severe economic problems. These are largely attributable to the inward-looking policies of the past, which, as in other former socialist countries, placed undue emphasis on heavy industry at the expense of welfare-enhancing consumer goods and services, as well as downgrading the role of foreign trade and inhibiting technology transfer. The outcome was to offer protection to domestic industries behind artificial barriers, and thereby prevent the emergence of internationally competitive industries driven by the principle of comparative advantage. This, in turn, led not only to a serious shortage of foreign exchange, but also

exacerbated North Korea's growing foreign indebtedness. In the first half of the 1970s, for example, North Korea's outstanding foreign debt doubled to well over US $500m., resulting in it becoming the first communist country to default on its debt. More than three-quarters of this debt was owed to non-communist countries and an important consequence was that from 1975, North Korea was, for many years, cut off from access to advanced Western technology. Notwithstanding the critical need to maintain imports of foreign technology and capital in the interests of economic modernization, North Korea's isolation only served to underline the emphasis on self-reliance.

North Korea has also faced shortages in skilled labour, modern equipment and technology, which have persisted to the present day. Capacity under-utilization, reflecting congestion in the energy, transport and mining sectors, and inadequate infrastructural investment, have further impeded development. In addition, excessive bureaucracy, a shortage of fertile arable land and the absence of modern farming methods and equipment have resulted in a disappointing agricultural performance, giving rise to persistent food shortages, widespread malnutrition and starvation. After persistent reports of food supply problems and rationing for several years, North Korea officially acknowledged that, as a result of damage caused in 1995 and 1996 by the heaviest floods of the century, the country faced serious food shortages. To date, such shortages have not been eliminated (see below).

Many would argue that North Korea's economic salvation lies in the direction of gradual, if not radical economic reform, embracing Chinese-style market-orientated reforms and an opening of the economy to the outside world. As a long-term goal, this is a process that may be facilitated by Korean unification, although the potential short-term economic and social costs of integration are likely to be considerable. Yet to say this is not to ignore important initiatives to encourage foreign investment in North Korea. For example, as early as 1991, the Government in Pyongyang urged the creation of special economic zones and designated the 621-sq km Rajin-Sonbong Strip on the north-eastern coast as a 'Free Economic and Trade Zone', in imitation of the Chinese model. Whether, however, the North Korean Government will prove itself capable of using reform to turn around its economy, it remains impossible to say and the possibility of wholesale collapse still cannot be ruled out.

RESOURCE BASE, ECONOMIC GROWTH AND STRUCTURAL CHANGE

North Korea occupies about 55% of the total area of the Korean peninsula. Of its total surface area, only about 14% is arable. A generally harsh climate restricts the output of arable farming to one crop per year, although a high irrigation ratio helps offset the high summer concentration of rainfall, as well as providing relief in the face of frequent spring droughts. Natural soil fertility is less favourable than in South Korea and the average 'natural' farm size is small (probably less than 2 ha—and more likely 0.55 ha per member of the agricultural labour force). Yet the emergence of serious food shortages in recent years cannot simply be attributed to a lack of fertile land, nor, as the experiences of other Asian countries demonstrate, is small farm size necessarily inimical to the achievement of high yields and sustained agricultural growth.

Serious demographic losses (estimated at around 1.5m. persons) during the Korean War (1950–53) and migration to the South, as well as a relatively low population density exacerbated labour scarcities in North Korea. The average rate of natural increase of total population was close to 2% per annum in the 1990s, although there is also evidence of a declining trend rate. As of July 2001, the total population was estimated to be 21,968,228 and growing at 1.2% p.a. (birth rate, 19.1 per 1,000; death rate, 6.9 per 1,000). Recent data point to a remarkably low age dependency ratio, with 68% of the total population between the ages of 15 and 64. The share of the total population under 15 was 25.5% in 2001, compared with 6.9% aged 65 years and above.

The maintenance of large armed forces (with more than 1m. members in 2002—the fifth largest army in the world) has increased the shortage of civilian labour in North Korea and encouraged the involvement of armed personnel in civilian projects. The labour force in 2000 was estimated at 9.6m. (of whom 36% were employed in agricultural work).

North Korea is well endowed with mineral resources, compared with the South, although its mineral industry remains under-developed and primitive because of the lack of modern equipment and technology. Telecommunications too have remained seriously under-developed. The shortage of modern equipment and vehicles appears to be the main problem facing both land and marine transport. In the absence of known deposits of petroleum, North Korea's electricity production (about 32,000m. kWh in 1998) derives from fossil fuel (34.4%) and hydropower sources (65.6%). The implied energy constraint—especially stagnating coal production—has inhibited industrial expansion. The development of the mining, power and metal industries, as well as rail transport, was given the highest economic priority by the Government in the late 1980s and early 1990s. However, in the mid-1990s emphasis was switched to agriculture, light industry and foreign trade: a somewhat surprising development and an implicit admission of past economic policy having failed.

The pursuit of an unbalanced development strategy, geared towards maximizing heavy industrial growth, has been reflected in significant structural change within the North Korean economy. At the time of partition, agriculture (including fishing and forestry) generated almost two-thirds of GDP, compared with an industrial contribution of under 20%. By 1999 the agricultural share had fallen to 30%—or even less—while that of industry had risen to 42%. (Services, meanwhile, accounted for an estimated 28% of GDP.) Such figures certainly attest to substantial industrial growth—above all, the expansion of heavy and military industries. From a comparative perspective, they also reveal the agricultural and, especially, industrial contributions to GDP to be higher in North Korea than in low-income countries taken as a whole, but point to a seriously lagging tertiary sector performance.

However, underlying this superficially impressive industrial growth performance, qualitative indicators suggest a much less buoyant picture. For example, industrial plants—most of them under strict state ownership and control—reportedly operated at an average 30% below capacity for years prior to Kim Il Sung's death, and, by the late 1990s, were believed to be functioning at about 20% of capacity. In any case, high industrial growth in North Korea was not translated into significant improvements in living standards, owing to the disproportionately high allocation of resources to heavy industry and military sectors of the economy.

Judged by its record of published economic data, North Korea is one of the most secretive countries in the world. The questionable reliability and ambiguities of limited official data pose additional problems in assessing the country's economic performance. Despite such problems and other difficulties associated with estimating the national output of a communist country on a US dollar basis, quantitative insights are available into North Korea's recent economic performance. The general picture that emerges is one of long-term positive growth (compared with average national income growth of some 9% per annum during 1960–90) followed by a serious contraction after 1991, when economic ties with the USSR and Eastern bloc countries collapsed. Negative growth during this period was exacerbated by problems of energy shortages, the poor maintenance of existing industrial facilities, technological backwardness and inadequate investment. (Some suggest that by the second half of the 1990s, investment had fallen below the replacement level, leading to a contracting capital stock.) Thus, the period 1991–98 saw a steady contraction in economic output (by 5.1% in 1991, 7.1% in 1992, 4.2% in 1993, 1.8% in 1994, 4.6% in 1995, 3.7% in 1996, 6.8% in 1997 and 1.1% in 1998)—a trend that was only reversed in 1999, thanks mainly to higher farm production and, more significantly, foreign aid (estimated at US $650m. in 1999). In 1999 and 2000, real GDP growth was estimated to be 6.2% and 1.3% respectively. On the basis of purchasing power parity (PPP), a recent figure puts North Korean GDP in 2000 to have been about US $19,000m—perhaps 1% above that of the previous year. Implied in this figure is an average per caput income, measured on a PPP basis, of around US $1,000 (contrasting with US $757, based on the World Bank Atlas approach).

With its goal of achieving self-sufficiency and its pursuit of an inward-looking developmental policy that has rejected integration into the international economic order, North Korea's strategy most closely resembles that of China under the leadership of Mao Zedong. North Korea is also one of the world's most highly defence-constrained economies. Official estimates suggest that the share of spending on defence has fallen steadily, from a peak of 32% in 1968 to under 15% today (a planned figure of 14.5% was given for 2000). However, defence expenditure is notoriously difficult to assess, and Western sources suggest that more than 25%—even up to 33%, according to some—of GDP (US $5,600m.) may be allocated to the military sector.

In 1984, in order to stimulate the economy, North Korea made an unprecedented change to its previously rigid insistence on self-sufficiency, by announcing its willingness to implement joint ventures with foreign companies (including those from capitalist countries). This development was a logical progression from the new foreign economic policy that had been contained in the January 1984 decision of the Supreme People's Assembly (SPA), in which reference was made to the need to expand economic co-operation and technical exchange, as well as trade, with Western countries. Some have viewed this readiness to accept foreign direct investment as the clearest indication of North Korea's slow but steady progression towards a modernization of its economy. It remains to be seen, however, to what extent recent diplomatic initiatives and co-operative commercial projects reflect Pyongyang's readiness to accept the limits to national self-sufficiency.

PLANNING

As early as the interim post-war Soviet occupation of North Korea (1945–48), the North Korean Interim People's Committee introduced a series of radical economic reforms (including land reform and the nationalization of major industries) which signalled a strong orientation towards the socialization of productive relationships and the introduction of a centralized planning system on the Soviet model. Following the formal establishment of the DPRK on 9 September 1948, the new Government launched its first Two-Year Plan (1949–50), by which it sought to consolidate the foundations of a self-reliant national economy. This process was, however, interrupted by the Korean War (1950–53).

From the end of the Korean War until 1984 North Korea's economic policy was conducted within the framework of five development plans. As a result of revisions, early fulfilment and delays, the dates of these plans are somewhat confusing and discontinuous: a Three-Year (Post-war Reconstruction) Plan (1954–56); a Five-Year Plan (actually 1957–60); the first Seven-Year Plan (actually 1961–70); a Six-Year Plan (1971–76); and, with the designation of 1977 as a year of readjustment, the second Seven-Year Plan (1978–84). Following a two-year adjustment period, the third Seven-Year Plan (1987–93), was announced by President Kim Il Sung in 1986. However, the process of orderly planning has been seriously undermined as a result of the severe economic problems of the 1990s and beyond.

The division of Korea after Japan's defeat in 1945 left North Korea in possession of about two-thirds of the peninsula's heavy industrial facilities and infrastructure. With post-war economic rehabilitation completed during the 1954–56 Plan, the country made substantial progress under the 1957–60 Plan towards establishing a firm foundation for industrialization, as envisaged in Plan targets. During this period the 'socialization' process was completed, and the *chollima* movement (which took its name from a legendary flying horse, symbolizing rapid progress) was introduced. Not until the first Seven-Year Plan, however, did the process of industrialization begin in earnest. This was the period in which economic and infrastructural bottlenecks first emerged, forcing the Government to extend the Plan and to adjust its policy in order to accommodate economic and military needs. As a result, some of the planned targets for 1961–70 remained unfulfilled. In the subsequent 1971–76 Plan, the basic objectives were unchanged, although greater emphasis was now placed on technological up-grading, the attainment of self-sufficiency in industrial raw materials, the development of energy industries, raising the quality of products and restoring sectional balances.

The Six-Year Plan (1971–76) was notable for its attempt to revise North Korea's policy of self-reliance in favour of seeking greater access to foreign capital and technology. The success of this strategy was reflected in the fulfilment of major economic targets ahead of plan. At the same time, however, increased capital and technology imports generated increasing foreign debts, which, in turn, led to problems of debt repayment. As a result, North Korea became the first communist country to default on its debt, preventing further purchases of advanced Western technology and forcing it to return to the previous strategy of self-reliance.

Thus, the major thrust of the 1978–84 Plan was the achievement of self-reliance—an associated aim being the lessening of dependence on Soviet economic aid—modernization, and 'scientization', as well as the promotion of the export of manufactured goods. Modernization meant increasing mechanization and automation, while 'scientization' was the North Korean term for introducing more modern production and management techniques. Available evidence suggests that the results of the 1978–84 Plan were disappointing—all the more so, given that major targets were set no higher than those of the previous Plan. The seriousness of continuing economic problems was reflected in the paucity of public official statements or proclamations on the 1978–84 Plan. Even North Korean officials recognized that the targeted growth of net material product (NMP) and several major commodities had not been fulfilled, and their suggestion that NMP growth had averaged 8.8% per annum has also been widely questioned. Nor is it likely that the total industrial output increased at an average rate of 12.2% per annum, as claimed, compared with a planned rate of 12.1%. The fact that three years elapsed before the formulation of the next economic plan is another indicator of the failure of the 1978–84 Plan and of the severity of the economic problems that already confronted North Korea in the mid-1980s.

The targets of the third Seven-Year Plan (1987–93), announced in April 1987, were generally less ambitious than those of previous Plans, reflecting persistent economic shortcomings and a more realistic approach by economic planners. Modernization and 'scientization' were again at the heart of the Plan, which called for average annual industrial growth of 10% (compared with 12% said to have been achieved in 1978–84). The country's NMP was targeted to increase by 70% during the Plan period, compared with the alleged 80% under the previous Plan. Annual production of crude steel was projected to reach 10m. metric tons—significantly lower than the previous target of 15m. tons per year, announced in 1980. By contrast, the projected annual production of non-ferrous metals and aquatic products, two of North Korea's most important export commodities, was increased to 1.7m. tons and 11m. tons, respectively, compared with earlier goals of 1.5m. tons and 5m. tons.

At the conclusion of the Plan, in December 1993, it was officially conceded that the Plan's targets had not been fulfilled, as a result of the difficulties associated with the demise of the USSR and the former socialist bloc. Gross industrial output was said to have expanded by only 50% over the Plan period (an average annual growth rate of 5.6%), although even this disappointing figure was questioned by Western sources. The only other production figures released by the North Korean authorities for 1987–93 were: power (an increase of 30%), coal (40%), non-ferrous metal ores (60%), steel (30%) and chemical fertilizers (50%). Significantly, all five were below the planned growth rates.

The enormity of North Korea's economic problems—the result of years of planning deficiencies, and now exacerbated by developments taking place elsewhere in the communist world—were reflected in the Government's inability to formulate a new long-term economic programme. After 1994 formal economic planning was replaced by greater emphasis of rhetoric, urging the workforce to 'rally under the Red Banner, continue on their arduous march and demonstrate their revolutionary zeal'. At the same time, the years 1994–97 were designated a 'period of adjustment in socialist economic construction'. Few quantitative targets were announced for this transitional period, other than planned increases in textile production (20%), fruit and meat output (both by 30%), chemical fibre and synthetic resin production (10%) and power output (30%). In recognition of North Korea's need to produce more and better consumer goods and

to solve its increasingly severe food problem, greater emphasis was to be given to agriculture, light industry and foreign trade, while efforts would be made to maintain the development momentum of the coal and power industries, and to expand rail transport.

This transitional programme must be judged as another failure, for rather than consolidation taking place, the mid-1990s witnessed further economic decline. Potentially significant developments were the introduction of constitutional amendments (in September 1998), providing for greater private enterprise and market reform, and (in early 1999) the Government's adoption of a new economic planning law, which codified the principles and system of the centralized economy. As the experience of China shows, efforts to integrate reform into a socialist system pose huge difficulties. From this perspective, North Korea's simultaneous commitment to planning—much greater than that of the Chinese Government—and a degree of economic liberalization lie uneasily with one another. The seriousness of Pyongyang's reformist ambitions have yet to be demonstrated and in the meantime there is evidence that the Government may be using diplomacy (not least, the external desire to bring peace and stability to the Korean peninsula) in order to obtain secure foreign exchange and maximize additional resources under the pretext of humanitarian assistance. It is, for example, significant that North Korea has become the main recipient of US aid in Asia.

ECONOMIC PROSPECTS AND KOREAN REUNIFICATION

The economic implications for North Korea of reunification with the South have been the subject of much speculation. So opaque is the screen behind which North Korea operates that interpreting its motives vis-à-vis recent diplomatic initiatives—the most important of which include normalization of relations with various countries and the June 2000 Pyongyang Summit between the two Korean Presidents, Kim Dae-Jung and Kim Jong Il—is extremely difficult.

In the wake of the summit meeting in Seoul, discussions by working-level groups subsequently began to discuss matters such as the settlement of payments, mutual investment protection, the avoidance of double taxation and the arbitration of disputes. It would be premature to predict the outcome of such talks, and even two years after the Pyongyang Summit, there is no guarantee of deepening bilateral economic co-operation, through trade liberalization—let alone the establishment of a free-trade area or some other form of economic union. Perhaps the most promising development has been the agreement of the two Governments to resume contacts, following the visit to Pyongyang, in April 2002, by the South Korean presidential envoy, Lim Dong-Won.

In any case, Pyongyang's verbal commitment to economic reform—a clear prerequisite of inter-Korean economic integration—has been greeted by widespread scepticism. Some, for example, have argued that the true motive behind North Korean diplomatic activity in recent years has been to enhance its economic advantage by maximizing foreign exchange and foreign aid. The difficulties of interpreting developments in North Korea were exemplified by the different reactions to reports in July 2002 to the effect that tax measures abolished in 1974 were to be revived. Suffice to say that authoritative sources that regarded such moves as evidence of Pyongyang's determination to introduce market elements into its economy were matched by those that remained convinced that the North Korean Government's true intent was to reinforce state control over an expanding 'underground' economy.

Also effective from July 2002, prices and wages were simultaneously increased in an effort to enhance economic management and thereby improve living standards. Thus, alongside major rises in prices of basic goods, including staple foods (rice up from 0.08 to 44 won per kg.), transport (bus fares up from 0.1 to 2 won), accommodation and energy (electricity rates up from 0.035 to 1.8 won/kWh), workers' basic wages were also raised from 110 won to 2,000 won. The underlying rationale of the price increases was to eliminate the serious fiscal drain resulting from the use of state subsidies and to allow prices to reflect the true cost of production.

Even if market-orientated reforms were proven to be lasting, China's experience since the early 1980s is a warning of the high risks of such a strategy—not least, in terms of widening income differentials and the emergence of attendant economic and social strains. Furthermore, so serious were the shortages of essential raw materials and energy that it cannot simply be taken for granted that even a genuine reformist commitment by Kim Jong Il would be translated into the successful implementation of economic reform. China may appear to be, and probably is, the most obvious model for North Korea to follow (in January 2001 a delegation from Pyongyang, led by Kim Jong Il himself, visited Beijing and Shanghai in order to familiarize itself with the Chinese reformist development strategy). However, the political obstacles to market-orientated reform faced by North Korea—not least, the existence of a fundamental ideological challenge from Seoul—are much greater than those that have confronted Beijing. Nor are North Korea's base economic conditions as favourable as those enjoyed by China at the end of the 1980s. In short, it is not impossible that, far from facilitating sustained growth, insurmountable barriers could lead to economic collapse in North Korea.

To date, clear expressions of co-operation between North Korea and the outside world are few. However, two deserve recognition: first, the establishment, in 1991, of the Rajin-Sonbong Special Economic Zone (SEZ); and second, the 1998 agreement with Hyundai to develop the tourist potential of Mount Kumgang and—potentially far more important—to create a new industrial park in North Korea (probably at Kaesong). If the target of attracting 1.5m. visitors to Mount Kumgang by 2005 is fulfilled, associated revenue could reach US $450m. per year—sufficient, if not misappropriated for party purposes, to pay for vital food imports.

Attempts have been made to estimate the cost of rehabilitation programmes in the North, designed to facilitate economic integration between the two Koreas. Thus, rural energy rehabilitation has been costed at US $2,000–$3,000m. over five years, while the corresponding figure for a more comprehensive programme aimed at stimulating energy improvements throughout the economy has been estimated at US $20,000m.–$50,000m. over a 20-year period. A South Korean source has suggested that some US $6,000m. would be required in order to upgrade North Korea's economic infrastructure to South Korea's 1990 level. Elsewhere, it has been suggested that unification could require the expenditure of more than 8% of South Korea's national product in order to bring per caput income in the North to about the South's level.

What seems certain is that the nature of North Korea's state system (and for that matter, that of South Korea too) will make the process of economic integration as difficult, if not more so, than that of the reunification of Germany, and integration within the European Union (EU). The income disparities between North and South Korea are, for example, much greater than those between the former West and East Germany, and the costs of reunification are likely to be much higher. At the beginning of the 1990s, the Korea Development Institute (KDI) estimated that total reunification costs would be US $240,000m. In view of South Korea's subsequent growth and the North's economic stagnation, that figure doubtless should nowbe revised considerably upwards. The clear message contained in all these estimates is that the economic challenge facing Pyongyang and Seoul should not be underestimated.

AGRICULTURE, FORESTRY AND FISHING

About 80% of North Korea's total surface area consists of mountains and uplands, which extend close to the east coast. Plains are mainly concentrated in the west of the country and constitute the major agricultural base. The arable land ratio is about 14%.

In the far north, summer lasts only about two months, shortening the growing season considerably, but further south a typical growing season lasts a minimum of four months. North Korea's moist climate is conducive to forest growth, but high-quality timber is limited to the northern interior, where extensive forests of larch, spruce, fir and pine provide the basis of the timber industry. Domestic timber shortages are offset by substantial imports from the eastern territories of the CIS. Years of clearing forest lands for farming have reduced the total

forest area from 9.9m. ha in the 1970s to 9.2m. ha in 2000. In an attempt to meet the increasing demand for timber, as well as to conserve forest resources, a new forestry law was enacted in December 1992 since when the Government has consistently implemented mass mobilization afforestation campaigns. Even so, it would be premature to claim any significant improvement yet in reforestation efforts.

The Land Reform Act of March 1946 sought to abolish tenancy and redistribute land to the farmers. The outcome was further to reduce the average size of the already small farms, while improving the distribution of land ownership. Private farming persisted until the end of the Korean War, but thereafter, as collectivization intensified, fell into decline until, by August 1958, it had completely disappeared. Since then, farming has been conducted within the framework of co-operative farms (collectives) or state farms. In the 1980s it was estimated that North Korea had about 3,800 co-operative and 180 state farms, the former managing more than 90% of the total cultivated land. One impact of collectivization was to increase average farm size. In the mid-1990s, however, the Government began to advocate the gradual transfer of collective farms to state ownership, which is considered to be more ideologically sound. Recent estimates by the Food and Agriculture Organization (FAO) suggest that North Korea's total arable area is about 1.9m. ha, of which 0.4m. ha comprise high-quality, permanently-irrigated land, 0.7m. ha. medium-quality, semi-irrigated land capable of supporting rice production, and 0.8m. ha low-quality land suitable for cultivating other cereal crops.

In 1976, in an effort to extend the arable area, North Korea launched a so-called 'nature remaking programme'. Its major objectives were to complete the irrigation of non-paddy lands, to reclaim 100,000 ha of new land, to build 150,000 ha–200,000 ha of terraced fields, to reclaim tidal land, and to conduct work on afforestation and water conservation projects. Subsequently, the third Seven Year Plan (1987–93) set out the goal of reclaiming some 300,000 ha of tidal land, most of it to be used for growing rice. In fact, subsequent reclamation work was slow and according to South Korean estimates, only 28,400 ha had been reclaimed by March 1995.

Central to North Korea's agricultural strategy has been the extension of irrigation. Following success in providing permanent irrigation for rice farmers, the focus of irrigation projects shifted to non-paddy fields, where, even allowing for a 40% rise in irrigated non-paddy fields, irrigation provision has remained less well-established. In early 1994 there were reportedly 40,000 km of irrigation waterways, which, together with 1,770 reservoirs and 26,000 pumping stations, supplied water to about 70% of the country's agricultural land. In 1989 a project was initiated to build a 400 km-long canal, by diverting the flow of the Taedong River along the west coast of North Korea. As part of the irrigation system, the canal was intended to provide water to rural areas and newly-reclaimed tideland in South Hwanghae and South Pyongan provinces. By late 1990 a total of 800 km of large and small irrigation waterways had been completed; in December 1995 the Kangryong Waterway (40 km) was the latest to be constructed.

If improved irrigation provision has been central to North Korea's farm strategy, the Government has also sought to raise farm yields through an expansion of mechanization (rice planting was already basically—95%—mechanized in the 1980s) and electrification, deep ploughing, close planting and the intensive use of fertilizers. In the face of recent declines in food production, there have also been attempts to introduce double cropping. The extent of technological backwardness in North Korean agriculture is reflected in the finding that in 1984, there were only seven tractors per 100 ha in the plains and six in the intermediate and mountainous areas—a situation which seems unlikely to have significantly changed in subsequent years. The average application of fertilizers was 1.3 tons and 1.2 tons per ha, respectively, for paddy and non-paddy fields in 1977, but although the 1984 target of 2.0 tons per ha is claimed to have been achieved, the plan to raise this figure to 2.5 tons by 1993 was not fulfilled. Such figures do not, however, indicate the distribution of fertilizer use, and in 1991 the UN warned that North Korea's intensive use of farm chemicals was causing substantial land degradation and water pollution.

North Korea claimed to have fulfilled the planned annual output of 10m. tons of grain (cereals and pulses) in 1984 (the last year for which such data were made public)—a figure that, according to Western estimates, rose to over 12m. tons by 1989. Some would argue, however, that such estimates considerably exaggerate the reality of North Korea's grain production during these years. In any case, the Government's stated goal was to raise annual grain output to 15m. tons by 1993. Nevertheless, such was the severity of agricultural decline in the wake of severe natural disasters (mainly flooding) and structural constraints associated with the central planning system that, according to Western estimates, average annual output fell to 4m. tons in 1993–94, and to a mere 3.7m. tons in 1996–98. The Government itself conceded that the destruction, by 1996, of 330,000 ha of arable land (18% of the total) had generated a loss of 1.9m. tons of grain (US $1,500m., in financial terms). By 1999 North Korean sources indicated that total grain output had recovered to around 4.3m. tons (8.6% more than in 1998)—still well below the 6.2m. tons needed to satisfy domestic requirements. Worse still, South Korean sources suggested a 15% decline in production in 2000, to 3.6m. tons, generating a food deficit of more than 2m. tons.

Paddy rice and maize are the two most important crops in North Korea, followed by wheat, barley, millet, sorghum, oats and rye. The output of potatoes is usually sizeable (estimated by FAO at 1.6m. tons in 1997, but subsequently revised downwards, probably conservatively, to 510,000 tons). Although an inferior 'grain', potatoes have high calorific yields and it is significant that recent years have seen an emphasis on the expansion of the sown potato area. It is estimated that total potato output registered a rise of 390,000 tons in 2000. Preferred cereals for consumption include rice and maize (and, to a lesser extent, wheat), while beans are an important source of energy. Rice was an important export item until the mid-1980s, although in recent years North Korea has begun to import rice (from Thailand, South Korea and other countries), as well as some wheat. FAO estimated that, between 1997 and 1998, rice imports rose from US $104m. to US $112m. (the value of wheat imports, meanwhile, having fallen sharply from US $80.5m. to US $48m. In 2000 domestic production of rice and maize was 1.42m. and 1.44m. tons (down, respectively, by 12.9% and 25% below the levels of 1999). The output of beans, wheat and barley also registered declines.

The consequence of deteriorating grain production in the 1990s has been increasingly serious food shortages that have persisted to the present day. The response of the North Korean Government was to urge its people to follow a 'two-meals-a-day' campaign and, unprecedentedly, to request assistance from various UN and other international organizations, as well as from developed countries. During the two-year period of 1992–93, grain imports are estimated to have already reached 1.9m. tons (almost a third of food requirements). Meanwhile, as the crisis deepened, policy-makers sought to accord a higher priority to agriculture, not least through more frequent 'on-the-spot guidance' sessions by senior officials. In early 1996 the authorities reportedly also began to allocate additional resources to affected farms, providing fertilizer, farm machinery and manpower (including members of the armed forces). However, despite some temporary amelioration, the underlying situation remained critical and, during 1997, resulted in further famine, which continued in 1998 and 1999. Between May and August 2000, insufficient rainfall and unseasonably hot weather caused the worst drought for 50 years; and in September strong tropical storms destroyed more crops. An official statement later confirmed that 1.4m. tons of grain had been lost from the annual harvest.

In 2001 FAO estimated that, in 2001/02, North Korea's total cereal demand would be 5.01m. tons. Given a predicted cereal harvest of 3.54m. tons—incidentally, the best harvest since 1995/96— FAO's projected deficit was 1.47m. tons. After deducting likely imports, food aid and concessional food imports were expected to total 1.37m. tons.

In short, since the mid-1990s, severe food shortages have persisted, resulting in malnutrition, starvation and famine-related diseases. According to Hwang Jang Yop, a senior diplomat who defected from North Korea in 1997, some 2.5m. people died as a result of famine in 1995–98, a figure that is in

line with the more generally cited estimate of around 2m. deaths. Such figures suggested that over 10% of the population could have died from starvation or malnutrition-related disease. What was certain was that food aid notwithstanding, malnutrition rates were among the highest in the world. Food shortages also gave rise to large-scale emigration, so that by 1998 between 100,000 and 400,000 were estimated to have tried, mainly unsuccessfully, to flee across the Tumen River border into China.

Although climatic factors have played their part in generating food deficits in recent years, structural defects have been a more significant contributory factor. Until systemic changes have been introduced that can address such problems, food aid was likely to be needed for many years to come. Meanwhile, the continuing severity of food shortages was confirmed in a report by the UN World Food Programme (WFP), which indicated in 2001 that most North Koreans were seeking to survive on a daily rice ration of 150–200 grams. Indeed, shortages were reported even to have spread to Pyongyang itself.

In addition to increased grain imports, food aid has played a critical role in preventing even more dire consequences of famine. The importance of such aid was emphasized by a report in April 2002, which stated that North Korea would run out of food if further international food donations were not immediately made available. It was estimated that the international community extended US $1,080m. of relief aid to North Korea between mid-1995 and the end of 1998. In late 1999 UN officials announced plans to generate US $331.7m. in aid donations to North Korea (of which the majority was to be allocated to food aid, especially among children under six and agricultural restoration). In January 2001 agreement was reached whereby the International Fund for Agricultural Development (IFAD) would provide US $41.7m. ($24.4m. in the form of a loan, and $17.3m. as free aid) in order to help raise grain production. The following month, the WFP announced its intention to grant 810,000 tons of food and US $93m. for the purposes of humanitarian famine relief to an estimated 7.6m. North Koreans thought to be suffering from hunger. Bilateral assistance has also been important, the most important donors being the USA and Japan.

With a coastline of some 17,000 km, a mixture of warm and cold ocean currents, and many rivers and streams, North Korea has considerable potential for fishery development. The principal fishing grounds are in the coastal areas of the Sea of Japan to the east, and the Yellow Sea to the west. The catch from the Sea of Japan includes pollock, octopus, anchovy, sardine, flatfish, cod, sandfish, herring and mackerel. Species caught in the Yellow Sea include yellow corbina, hairtail stingray, sand eel and shrimp. Deep-sea fishing, which was first undertaken on a large scale in the 1970s, includes catches of herring, mackerel, pike and yellowtail. The main fishery ports are Shinpo, Kimchaek and the deep-sea fishery bases of Yanghwa and Hongwon. Besides the fishery stations, smaller fishery co-operatives are located along both coasts in traditional fishing centres. North Korea claimed to have achieved the 1978–84 Plan annual output target of 3.5m. tons of marine products. The 1987–93 Plan envisaged the modernization and expansion of the fishery industry. Instead, however, the total catch in 1995 was a mere 0.3m. tons, declining to 0.2m. tons in 1997. In early 1995 North Korea possessed an estimated 40,000 fishing vessels, including 3,750-ton vessels for deep-sea fishing and 450-ton vessels for offshore fishing. In the wake of emerging energy shortages (see below), sea-fishing and associated fish-processing activities declined, with repercussions for exports of marine products.

MINING

With 80%–90% of the important mineral deposits of the peninsula concentrated within its borders, North Korea is relatively well endowed in natural resources. Most important among the minerals are coal, iron ore, lead, magnesite, zinc, tungsten, mica, fluorite and precious metals. According to South Korean estimates, output in the mining sector decreased by 6.6% in 1998.

North Korean petroleum exploration began as long ago as 1965, but to date has yielded zero output, necessitating reliance on imports. Nevertheless, petroleum exploration continued, although it was severely constrained by high drilling costs. The most likely locations of petroleum deposits were the West Sea Bay and Anju Basin. However, Swedish, British, Japanese and Australian petroleum companies owned petroleum exploration concessions off the west and east coasts of North Korea. Joint explorations with South Korea's Korean National Oil Company (KNOC) might be expected to expand in the foreseeable future. North Korea's deposits of coal have been estimated at 12,000m. tons, of which about 80% are anthracite, bituminous coal requirements being imported, mainly from China. The country's coal mines, located largely in South Pyongan Province, produced 27m. tons of anthracite in 1995. Despite a steady increase in the 1980s, coal production has lagged behind the growing energy needs of the industrial sector, creating a persistent energy shortage. In the absence of petroleum and natural gas reserves, more than one-third of North Korea's electricity output is generated by coal-powered thermal plants (the remainder being derived from hydro power sources), so that the relatively weak performance of the coal industry has been a significant constraint on North Korean economic growth—a situation compounded by falling petroleum imports during the 1990s, caused by shortages of foreign exchange. Inadequate transport facilities have only aggravated the energy problem, while ageing mining equipment, inefficiencies associated with the need to mine deeper seams, the low level of mechanization and the lack of advanced equipment have also contributed to the comparative stagnation in the output of coal and other minerals. Efforts since the 1978–84 Plan have mainly centred on the reconstruction and expansion of the Anju District Coal Mining Complex, constructed in the 1970s with Soviet aid. In early 1991 a second mining facility, with a potential of 300,000 tons per year, was added to the complex, as part of a plan to increase the annual capacity to 650,000 tons. Despite these efforts, recent estimates indicate that the production of anthracite continued to decline in the second half of the 1990s (with falls of 11.4% in 1996 and 1.9% in 1997).

Iron ore, with known reserves of about 3,000m. metric tons, is very important to domestic industry and has also been a major source of foreign exchange. According to Western estimates, output increased from 8m. tons in 1985 to 10m. tons in 1988, but thereafter stagnated. Indeed, in the mid-1990s output declined significantly, from 4.6m. tons in 1994 to a mere 2.9m. tons in 1997. In the 1980s new mines at Tokson and Sohaeri were added to the earlier mines at Musan, Unryul, Tokson, Tokyon, Chaeyong and Hasong, all of which have benefited from large-scale state investment. The Chongpyong mine in South Hamgyong Province was commissioned in 1991.

North Korea is especially rich in magnesite, with reserves—mainly concentrated in the Tanchon District in the north-east—estimated at 6.5m tons. It remains the second-largest producer of magnesia products after China, having previously been the largest producer in the world. Mining of magnesite and production of its derivative, clinker, are important both for supporting the domestic refractory industry and for exports. The completion of expansion projects at the Tanchon magnesia plant, and the construction of the Unsong crushing and screening plant in the Tanchon District in 1987, raised the production capacity of clinker to 2m. tons per year. The 1994 agreement by North Korea and the USA to lift restrictions on bilateral trade offered an important new market for clinker, facilitating a large-scale expansion of North Korea's magnesite production capacity. In June 1995 the first North Korean trade mission to visit the USA concluded an agreement to export 100,000 tons of magnesite to a US company. In August 2000 a US mining company announced that it had formed a joint venture with the Korea Magnesia Clinker Industry group to mine, process and export magnesia products from North Korea. The first phase of the project envisaged the export of 200,000 metric tons of magnesia products to the USA and Asia.

Other minerals produced in large quantities by North Korea are lead, zinc, tungsten, graphite, mercury, phosphates, nickel, gold, silver, fluorspar and sulphur. Both zinc and lead ore are smelted domestically (at Tanchon, Nampo, Komdok, Haeju and Mungyong) and zinc and lead ingots are major exports. In 1994 North Korea produced an estimated 200,000 tons of high-grade electrolytic zinc and 80,000 tons of lead. A joint-venture project to redevelop the Unsan gold mine began operation in April 1987,

and the first shipment of gold to Japan (totalling some 100 kg) was reported three months later. Unsan is potentially one of the world's major gold mines, with deposits estimated at more than 1,000 tons. The 1990 target was 2 tons, with an eventual annual production target of 10 tons.

MANUFACTURING

Under the impact of its Soviet-style planning system, North Korea has prioritized the development of heavy industry, in the ostensible belief that this would ultimately benefit light and domestic consumer industries. As a development strategy this approach has been a failure and even when rapid heavy industrial growth has taken place, quantitative expansion has often been at the expense of major qualitative deficiencies. In particular, excessive emphasis on machine-building (the basis for the munitions industry) generated a distorted industrial structure, and the orthodoxy that rapid heavy industrial development would enhance living standards through its ultimate promotion of agricultural and consumer goods industries has proven wholly unfounded. In general, the inwardly-orientated nature of North Korea's industrial strategy for many years contributed to inefficiency and low productivity. Hence, recent reform initiatives, whereby the Government has indicated a willingness to embrace a greater role for prices, markets and other 'orthodox' economic criteria, such as profitability, in order to enhance manufacturing production efficiency. At the beginning of the 21st century, heavy industry accounted for one-half of total production in North Korea.

Notwithstanding North Korean claims to have fulfilled the second Seven-Year Plan (1978–84) target of increasing industrial gross value output by 120%, it is unlikely that the implied average annual growth of 12.2% was really achieved, given that most major industrial commodities expanded by much less than this during the same period (for example, output increases of 78% for electric power, 50% for coal, 85% for steel, 78% for cement, 50% for tractors, 45% for textiles, and 80% for chemical fibres). In the third Seven-Year Plan (1987–93), official claims that industrial growth rose by 5.6% per annum were contested by Western sources, which suggested that industrial output had, in fact, declined. In any case, the years from 1994 to 1997 were designated a period of 'adjustment in socialist economic construction', with emphasis shifted from mining, power and metallurgical industries to agriculture, light industry and trade. The readjustment of economic priorities, which incidentally mirrors those undertaken by China in the wake of its own 'great famine' (1959–61), no doubt reflects the severity of North Korea's agricultural crisis and the urgent need to restore food supplies. That difficulties facing farmers had severe knock-on effects on industry can hardly be doubted: even official estimates indicate a fall in industrial output of almost two-thirds between 1992 and 1996. Construction is likely to have been similarly hit, some sources suggesting that investment had fallen below replacement level, thereby causing a contraction in the capital stock. In 1997 and 1998 manufacturing output fell, respectively, by 16.8% and 3.3%. Subsequently, however, heavy industrial development was re-emphasized, although Bank of Korea estimates that heavy and chemical industry expanded by 11.6% and construction by 24.3% in 1999 have been questioned by sceptical observers.

Machine-Building and Metallurgy

The machine-building industry is central to any strategy aimed at achieving industrial self-sufficiency, supplying machinery for domestic industry and agriculture (notably tractors and other farm machinery). In North Korea, it has also made available an extensive range of military equipment, including rifles, mortars, machine-guns, multiple rocket launchers, artillery, anti-aircraft weapons, tanks, personnel carriers, patrol craft and frigates, missile-equipped fast attack craft and amphibious vessels, submarines, medium-range *Scud*-type surface-to-surface missiles, and long-range *Taepo Dong* missiles. The industry accounted for only 5.1% of total industrial output in 1946, but its contribution had expanded to about one-third of the total by the early 1980s. In more recent years, however, production levels have declined.

The machine-building industry is capable of producing 5,000-metre boring machines, 300-hp bulldozers, 10,000-ton power presses, 50,000-kilovolt-ampere generators, 200,000-kilovolt-ampere transformers for power production, 3,000-hp locomotives, 20,000-ton ships, 7,000-hp electric locomotives, 100-ton freight cars and 10-cu m excavators for construction and mining. Such impressive quantitative measures are, however, belied by the poor quality of North Korean machinery, the technological level of which is well below international standards. From the mid-1970s North Korea began to import advanced machinery and equipment from developed Western countries. The 1987–93 Plan sought to modernize the machine-building industry by introducing high-speed, precision machines and equipment, and in early 1990 the Huichon machine-building complex was claimed to have initiated a flexible manufacturing process by adding robots to its numerically-controlled machine tools—an example expected to be followed by other plants. From the present perspective, accelerated economic reform and, in particular, the extension of joint ventures would appear to offer North Korea's best opportunity to pursue technological upgrading in its machine-building industry.

With an annual production capacity of 10m. tons of steel, the Kimchaek Iron Works replaced the Hwanghae Iron Works (in Songrim) as the largest North Korean centre for the production of iron and steel. Kimchaek is located in Chongjin, near the Musan iron ore mine, and has estimated deposits of 100m. tons. Other steel mills are found elsewhere in Chongjin, as well as at Taean. The disappointing performance of the metallurgical industry is highlighted in estimates for 1995, made by the US Bureau of Mines, which showed total output of pig iron, crude steel and rolled steel to have been, respectively, 6.6m., 8.1m. and 4m. tons—figures that can be compared with the unfulfilled targets for 1984 of 6.4m.–7m. tons (pig-iron and granulated iron), 7.4m.–9m. tons (crude steel) and 5.6m.–6m. tons (rolled steel). Outdated technology, shortages of coking coal and the low purity of domestic iron ore have posed serious constraints on the growth of the iron and steel industry. In the past, in addition to the construction of new and/or extension of existing facilities, mass mobilization campaigns to collect scrap iron have also been used in order to alleviate the steel shortage. At best, however, such efforts have been only partially successful, and in 2001 Kim Jong Il himself spoke of the need for technological modernization of the steel industry. It is significant too that in March 2001 Yonhap (the South Korean News Agency) quoted North Korean sources to the effect that South Korean steel firms should be encouraged to set up steel mills in the North. Meanwhile, in 2000 steel imports from China rose from 9,600 tons to 24,000 tons (a rise of 150%—but up 70% in value terms).

Chemicals

Because of its importance to agriculture, the chemical fertilizer industry has been the beneficiary of large-scale investment. Most fertilizers are produced by the giant Hungnam fertilizer plant, which has an annual capacity of 1m. tons, generating 770,000 tons in 1997. Official sources in Pyongyang suggest that chemical fertilizer output rose from 3m. to 4.7m. tons between 1976 and 1984 (an average annual increase of 5.9%), and increased further to 5.6m. tons by 1989 (3.6% per annum). Yet such figures are viewed sceptically in the West, where North Korea's annual production capacity was estimated to be only 3.5m. tons in 1995. It is clear too that industrial collapse in the 1990s had serious implications for fertilizer supplies: in particular, oil shortages have impacted seriously on the production of urea and ammonium sulphate (the main fertilizers used in North Korea). Imports have helped to a limited extent in offsetting domestic shortages and in 2000, in a gesture intended to demonstrate its support for economic rehabilitation in the North, South Korea sent 300,000 tons of fertilizer, valued at about US $90m. Other international donations of fertilizers, designed to enhance food production, have also assisted in increasing supplies of this vital input. The impact of fertilizer use on farm production depends on generating the right mix and quality, not just the increasing the physical volume of fertilizers. From this perspective, completion of the Sariwon complex, the construction of which began in 1998, will be a significant event, raising national potassium fertilizer production capacity to 510,000 tons.

Important integrated chemical plants include the Chongyun Works (located in the Anju District, north of Pyongyang), the construction of which began, with French assistance, during the Six-Year Plan (1971–76). It is the country's first petrochemical complex, designed to produce ethylene, polyethylene, acrylonitrite and urea, using crude petroleum supplied by the nearby refinery at Sonbong (formerly Unggi). In addition to building two large-scale vinalon plants, for more than a decade North Korea has also produced chemical fibres based on petrochemistry, at Chongnyun and other more recently-built plants. The annual production target for chemical fibres in the terminal year of the 1987–93 Plan was 225,000 tons, while that for synthetic resins and plastics was set at 500,000 tons. Annual production of chemical fibres in 1989–93 was estimated by foreign observers to be 177,000 tons.

Textiles

At the heart of North Korea's textile industry is the Pyongyang integrated textile mill, built with Soviet assistance in the late 1950s. Its production derives mainly from locally-produced synthetics, such as vinalon and petrochemically-based fibres, as well as cotton and silk. Although Pyongyang remains the centre of the national textile industry, plants in Shinuiju and Sariwon have become increasingly important in recent years. North Korea's output of textile fabrics increased by 78% during the 1978–84 Plan (an average annual growth rate of 8.6%), thereby supposedly fulfilling the 1984 target of 800m. m of cloth. Meanwhile, a combination of machine imports from Japan and upgrading of existing equipment facilitated an expansion of knitwear products, derived from domestically-produced orlon. The intention was to increase the annual output of textile fabrics to 1,500m. m by 1993. This target is, however, unlikely to have been fulfilled, and overseas estimates indicate that textile production at the beginning of the 1990s was no more than 680m. m. A much more salutary reminder of the severity of economic conditions in more recent years is the suggestion, made by South Korean sources, that North Korea's textile production had fallen to a mere 120m. m by the late 1990s. Nevertheless, textiles remain one of the most important sources of foreign exchange.

SERVICES

Until 1984 all outlets for the provision of services and the distribution of goods, including retail shops, were either state-owned or run as co-operatives. Following the introduction in 1984 of the so-called '3 August Consumer Goods Movement', local governments were permitted to establish, within their districts, direct sales outlets for the distribution of consumer goods produced locally with locally available resources. By the early 1990s, the total number of shops, service establishments and 'food-processing and storage bases' was estimated to be 130,000. However, outside the special economic zones, markets, in which farmers were allowed to sell surplus farm products, products raised on private plots, and a range of non-farm products at free-market prices reflecting scarcity values, have been the only exception to monopoly powers exercised by the State. The expectation is that such outlets will expand and increase in number, if and as economic reforms continue. Meanwhile, South Korean estimates indicate that at the end of the 1990s tertiary sector output was growing, on average, by about 1% a year.

INFRASTRUCTURE

Transport

By the 1970s transport bottlenecks were blamed for the failure to fulfil major targets under the Six-Year Plan (1971–76), when difficulties in delivering raw materials (especially coal) and semi-finished goods were already inhibiting expansion of the mining and manufacturing sectors, adversely affecting the energy situation and impeding foreign trade. The existence of such problems was reflected in renewed emphasis on modernizing and extending the freight capacity of railway, road and marine transport. The expansion and renovation of port facilities also benefited from large-scale investment funding in order to alleviate problems in the handling of cargo at North Korea's ports. Even so, transport problems persisted during the 1990s, the development of rail services being singled out for special attention.

With a total route length of 5,214 km at April 2000, the railway system has remained North Korea's principal means of transport, handling about 90% of the country's freight, and 70% of its passenger traffic. Most of the rail system comprises only single track and much of it would be widely regarded as obsolescent. Nevertheless, recent statistics indicate an electrification ratio of about 70% (but in excess of 85% for standard gauge railways, which account for some 80% of the total). This is important for a mountainous country like North Korea, since electrification enhances the traction capability of railways. Meanwhile, efforts continue to improve rail access to remote areas, and to areas near the Chinese border.

During 2000 and 2001 construction work continued in an effort to reconnect the 486-km inter-Korean Kyongui railway line, which, prior to the division of the Korean Peninsula, ran from Shinuiju in the North through Pyongyang to Seoul in the South. The two sides have also agreed to construct a highway to run parallel to the railway and such work is also under way. To these ends, the South Korean Government decided in February 2001 to allocate US $143m. to associated construction. Once opened, the railway was expected to facilitate not only inter-Korean travel, but also to enhance rail links with Russia, China and Japan. During a visit to Pyongyang in March 2001 the Russian President, Vladimir Putin, spoke of his Government's interest in assisting in a project that would reconnect the Trans-Korean and Trans-Siberian railways. Subsequently, the two countries signed an agreement on railway transport co-operation.

Fuel constraints and the near-absence of private automobiles have relegated road transport to a secondary role. Recent estimates suggest that the total road network is 31,200 km, although a mere 6.4% of this (just under 2,000 km) is paved. There also exists a network of some 682 km of multi-lane highways, the construction of which began in the 1970s. This includes an expressway, connecting Pyongyang and Kaesong (a distance of 170 km), which was completed in April 1992. Other expressways link Pyongyang and Nampo (53 km), Pyongyang and Wonsan on the east coast (172 km), Pyongyang and Sunan (15 km), and Wonsan and Mount Kumgang (114 km). A 135-km highway, known as the Tourist Expressway, connecting Pyongyang and Hyangsan, via Anju, was also completed in October 1995. Local transport between villages is provided by rural bus services, while bus and tram services operate in towns and cities. In 1973 an extravagantly-furbished, 32 km-long underground railway system was completed in Pyongyang.

Water transport plays a minor but growing role in freight and passenger traffic. The total length of inland waterways is 2,253 km, most of which is navigable only by small craft. In November 1995 the creation of a marine transport system in the port of Rajin-Sonbong Free Economic and Trade Zone was announced, as part of the Tumen Delta development project. This initiative, jointly implemented by North Korea and China's Yanbian Sea Transport Corporation, may be seen as part of North Korea's economic reform efforts, designed to connect Rajin with Yanji City (China) and Busan (South Korea) and thereby save shipping time and transport costs in the interests of enhancing inter-Korean trade. No less important as a sign of the modest opening of the North Korean economy—and perhaps a portent for the future—has been the opening of container operations between Incheon (South Korea) and Nampo in the north. As of 2001, North Korea's merchant fleet comprised 176 ships (1,000 grt or over), including more than 90 cargo vessels, four bulk carriers and one oil tanker.

North Korea possesses 87 airports, only 39 of which have paved runways, and its international air connections remain largely undeveloped. Regular flights (once or twice a week) connect Pyongyang to Moscow and Khabarovsk (Russia), Beijing, Macao and Shenyang (China), Nagoya (Japan), Bangkok (Thailand), Berlin (Germany) and Sofia (Bulgaria). In addition, there are irregular flights between Pyongyang and Eastern European, Middle Eastern and African destinations. Internal flights are very restricted, serving mainly to connect Pyongyang with the port cities of Hamhung and Chongjin. A significant development was the signing in Bangkok, in October 1997, of an agreement with South Korea, allowing foreign com-

mercial flights through North Korean airspace. In March 2001 it was also revealed that DHL Korea was offering delivery services for parcels—not letters or cash—to selected destinations (including Pyongyang, Rajin-Sonbong, Hamhung and Nampo). Only corporations authorized to do business with North Korea are, however, able to take advantage of such facilities.

Energy

North Korea's importance as a producer of fuel and energy emerged in the pre-partition period, when the North, through the Japanese-built Sup'ung hydroelectric plant, supplied more than 90% of electricity in the peninsula. Following partition, several large hydroelectric plants, as well as smaller localized power plants (both thermal and hydroelectric) were constructed. From the 1970s, North Korea sought increasingly to use coal as an energy source (by 1999, coal accounted for 77% of primary energy consumption, the rest coming from hydropower). This major shift in energy policy was a response to the perceived disadvantages of hydroelectric plants, such as high initial costs, the long construction period and instability engendered by prolonged drought. However, against the advantage of being able to site coal-based power plants close to industrial and heavily populated areas are disadvantages associated with the poor quality and inaccessibility of coal deposits. In 1999 coal production was an estimated 85.5m. short tons, compared with consumption of 87.6m. short tons.

In the 1980s widespread construction of small and medium-scale hydroelectric plants got under way, especially in the mountainous provinces of Hamgyong, Jagang and Ryanggang. Some 1,300 of such plants were reported to be operational by the end of 1994. Such construction continues, a recent North Korean report (of December 2000) revealing that some 250 small and medium-scale power plants, with a generating capacity of 50,000 kWh, had been constructed in the previous few years, thereby facilitating the attainment of electricity self-sufficiency in Jagang Province.

In 1999 North Korea's electricity production was estimated to be 28,600m. kWh. Of this, 34.6% was derived from fossil fuel and 65.4% from hydroelectric sources. Electricity consumption was estimated at 26,598m. kWh. This surplus notwithstanding, electricity shortages persisted and power failures remained common.

Overall, an unfavourable domestic energy balance has necessitated petroleum imports in order to offset supply shortages. For the time being, oil accounts for a mere 10% of total primary energy consumption, supplies being wholly imported. For example, crude petroleum is imported from Russia to supply the Sobong (Unggi) refinery, near the Russian border, which provides fuel oil to the nearby 200-MW thermal power station—the country's only oil-fired electricity plant. North Korea's other petroleum refinery, built with Chinese aid at Bonghwa—receives crude petroleum from China and produces petrol (motor spirit) and industrial oils. In 1990 North Korea and the USSR concluded an agreement, at the latter's insistence, under which, from 1 January 1991, bilateral trade was to be conducted in convertible currencies and payments for Soviet petroleum were to be made at world market prices. As a result of the agreement and in the face of deteriorating relations between the two countries (at least, until the mid-1990s), between 1990 and 1992 North Korean imports of crude petroleum declined from 500,000 tons to 30,000 tons. The outcome was to make China the single most important source of petroleum imports, although when, in late 1992, Beijing imposed similar trading regulations, North Korea was forced to turn to the Middle East for crude petroleum supplies. Such temporizing manoeuvres were not, however, wholly successful and, in March 1996, worsening energy shortages prompted Kim Jong Il to instruct all factories and enterprises to reduce their use of coal and other energy sources, emphasizing that the deficit in raw materials and energy supply had become the most urgent problem facing the country.

A Soviet-designed nuclear research reactor, with a generating capacity of about 3 MW, was reportedly installed in Pyongyang as early as 1959. However, it is believed that a North Korean-Soviet agreement signed in 1985, whereby the USSR would construct a 1,760-MW nuclear power plant in North Korea, was never fulfilled (for more details of North Korea's nuclear installations, see History). In October 1994 North Korea and the USA signed a 'framework agreement' whereby Pyongyang agreed to suspend the development of nuclear weapons in exchange for the construction of two light-water reactors (LWRs) worth US $4,500m., in addition to receiving as much as 500,000 tons of petroleum annually for the duration of the construction period (forecast at 10 years). The project is managed by a consortium known as the Korean Peninsula Energy Development Organization (KEDO), whose three core members are Japan, the USA and South Korea. South Korea's state-run Korea Electric Power Corpn is the prime contractor for the project. Initial construction work commenced in August 1997, with some 5,000 South Korean engineers expected to work on the project. Progress towards its completion has, however, all too predictably been bedevilled by political disagreements. In May 2000, for example, North Korea demanded compensation in the form of food aid from the USA (which the latter refused to grant) for the delay in building the reactors, which, it argued, had exacerbated North Korea's already acute energy crisis. Because of such problems, the original completion date of 2003 of the first LWR was revised to 2008. An interesting question was whether the 1994 agreement could really meet North Korea's economic needs (rather than accommodate international concerns about its nuclear weapons programme). It was, for example, argued that a better approach might be to abandon the agreement in favour of upgrading the existing electrical grid and constructing new, efficient electricity-generating systems that ultimately might facilitate exports to the South. The 1994 agreement was placed in serious doubt following Pyongyang's admission in October 2002 that it had maintained a secret nuclear programme.

Such problems highlight the peculiar obstacles that make progress towards enhancing energy supplies in North Korea. As a result, even allowing for continuing domestic construction of small- and medium-scale facilities, increased investment in the power industry (for example, investment under the 2000 budget was intended to rise by 15.4%) and higher imports, improvements in the provision of energy will be slow. Large-scale infrastructural construction will also be necessary (North Korea possesses a mere 37 km and 180 km of pipelines to carry crude petroleum and its products). In short, it is safe to suppose that energy constraints will continue to impede North Korean economic growth into the foreseeable future.

Telecommunications

Telecommunications remain seriously under-developed in North Korea. In 1997, only 1.1m. main telephone lines were estimated to be in use and even today, the development of mobile phones has yet to begin. International connections are mainly made through Beijing and Moscow, although since the second half of the 1990s a direct telephone line has been established with South Korea. In March 2001 a Chinese source cited an official of the North Korean Central Science and Technology Information Agency to the effect that North Korea possessed a national e-mail network, known as 'Kuang Myong'. The report revealed, however, that the network only allows users to log on from within North Korea and that its content was limited to providing science and technology information.

Recent estimates suggest that there were about 3.36m. radios and 1.2m. television sets available to the North Korean population in 1997—an average of 15.5 and 5 per 100 persons, respectively.

In 2000 there was just one Internet Service Provider in North Korea. However, by 2001 North Korea had established six official websites, and in May of that year it joined Intelsat (the international commercial satellite telecommunications organization). In October 2001 North Korea launched its first e-mail service provider, known as 'Silibank'.

FINANCE

In the absence of a private sector, public (or government) finance in a planned economy plays the principal role in seeking to mobilize domestic savings for investment purposes and ensure financial equilibrium in the economy. There exist in North Korea a central government budget and local government budget—the two being consolidated into the national (state) budget. By the late 1980s central government revenue accounted for 85% of total revenue. The central government budget is largely financed

from the central government's net income, transfers from local governments and other revenue sources. Revenue for the local government budget derives from local industrial and other sources, as well as from central government subsidies.

In 1995 government expenditure was estimated to constitute about 91% of GNP. The principal sources of revenue under the state budget were turnover (sales) taxes and state enterprise profits. The largest share of budget expenditure is allocated to economic development (officially put at 67.8% of total spending in 1994), followed by socio-cultural services (19%) and defence (11.6%). In reality, however, defence spending is much higher than these figures (for example, US and Australian government agencies have suggested such spending to have been as high as 25%–30% of the national budget), constituting a major fiscal drain. Peaceful reunification—or even simply political accommodation between North and South Korea—should permit a reduction in military expenditure and thereby allow a significant reallocation of resources to more productive economic ends. Apart from fiscal benefits, demobilization would also, by making more labour available, boost the expansion of labour-intensive light industrial manufactures, perhaps along the lines of China's township and village enterprises.

Like other formerly socialist countries, North Korea has traditionally pursued a conservative budgetary policy, through the maintenance of a balanced budget or generation of a budget surplus. In 1993, for example, official estimates pointed to a surplus of 328.2m. won. Notwithstanding a contraction in revenue of 3.2%, plans for 1994 looked to the attainment of a balanced budget. Because of the deepening economic crisis, the publication of budgetary data ceased in 1995, and only fragmentary information was subsequently made available. The combination of planned increases in revenue (by 3.1%) and spending (by 1.9%) together with a projected balanced budget (20,405m. won) implied that North Korea had suffered a budget deficit of 234m. won in the previous year. Data released in April 2001 suggest that a small surplus (of some 61m. won) was in fact achieved in 2000. Plans for 2001 looked for further increases in revenue (by 3.2%) and spending (by 2.9%)—figures which, if fulfilled, would generate another balanced budget of 21,571m. won. The same plans provided for a 16% rise in capital construction in 2001, as well as a 14.5% increase in military expenditure. It was not known to what extent these plans had been fulfilled.

Another way of improving North Korea's financial viability is to seek integration in international financial institutions. Thus, in 2000 North Korea submitted an application to join the Asian Development Bank (ADB). Hostility to such membership from the USA is one factor that has impeded efforts to improve North Korea's international financial profile.

FOREIGN TRADE AND FOREIGN INVESTMENT

A corollary of North Korea's self-reliant development policy has been, at least until recently, a downgrading of the role of foreign trade. As in other communist countries, the Government has pursued an essentially conservative and passive trade policy that emphasizes import-substitution in support of its programme of heavy industrialization. In other words, using its foreign relations merely to provide the goods trade has been primarily orientated towards importing the machinery, equipment and raw materials necessary to fulfil the output targets of successive economic plans, and to relieve unplanned shortages. Exports have been used mainly to pay for such imports, as well as to dispose of unplanned surpluses. This passive strategy has been reflected in a level of foreign trade that is much smaller than might have been expected of a country of North Korea's size and structure. The trade share, having peaked at 29.4% of GNP in 1975, thereafter fell sharply to 20% in 1985—and a mere 10% 10 years later. By way of comparison, at the end of the 1990s, the corresponding figure for South Korea was 50%–55%.

Even allowing for an expansion in trade with capitalist countries, these figures also reflected the declining role of foreign trade resulting from the onset of economic difficulties in the 1990s. Thus, having grown on average by 9.4% per annum during 1960–90 to reach US $4,800m. in 1990, the combined value of exports and imports subsequently declined sharply. By 1996, for example, exports had fallen to an estimated US $730m. (from US $1,700m. in 1990)—a downward trend which, despite being halted in 1997, was subsequently intensified (with exports of US $680m. and US $515.0m. in 1998 and 1999 respectively). Exports subsequently increased to US $565.8m. and US $650.2m. in 2000 and 2001 respectively. The decline in imports was less marked, but still significant (a fall from US $2,900m. in 1990 to US $964.6m. in 1999). However, imports increased to US $1,406.5m. and US $1,620.3m. in 2000 and 2001 respectively. In 1998 North Korea's trade turnover was estimated to be a mere US $1,400m. Implied in these figures was a foreign trade deficit of US $450m. in 1999. This deficit worsened, to US $840.7m. in 2000, and US $970.1m. in 2001. The estimates could usefully be compared with the corresponding figures for South Korea in 2000 (exports US $172,267.5m.; imports US $160,481.0m.) and 2001 (exports US $150,439.1m.; imports US $141,097.8m.).

In support of its economic modernization programme, in the early 1970s North Korea sought to use massive imports of advanced machinery and equipment from Western Europe and Japan. During the first half of the 1970s its trade balance steadily deteriorated and, unable to repay loans incurred as a result of such imports, in January 1976 it attracted world-wide notoriety when it became the first communist country to default on its foreign debt. Declining prices for North Korea's principal exports, rising import costs associated with the 1973 oil price rise, global recession and domestic transport difficulties—all contributed to the growing trade deficit and debt problem. In any case, the default resulted in a severe curtailment of Western credits to North Korea. Thereafter, its debt position continued to worsen, rising to US $5,200m. in 1988, and US $11,900m. in 1997. After the decision, in early 1999, by the Dutch investment bank, ING Barings, to cease operations in North Korea, the Government was forced to conduct international banking transactions through a limited number of banks in Japan and Macao.

Ideological and economic imperatives ensured that until the 1990s, North Korea's principal trading partners were other communist countries. Between 1955 and 1988, for example, trade with other communist countries rose, on average, by 11% per annum to reach US $3,290m. (compared with a trade turnover of US $600m. in 1995). Most important of all was the former Soviet Union, which in 1990 still accounted for 57% of North Korea's total foreign trade. The subsequent collapse of the USSR was a major watershed and in a single year, the former USSR's share had fallen to a mere 17.3% (in 1991). Nor has this decline been halted: by 1995 Russia was the source of 5% of North Korea's imports, and the destination for a mere 1% of its exports. An earlier watershed had, however, occurred in the 1970s, when North Korea began to purchase much-needed capital goods from capitalist countries (especially Japan). Between 1965 and 1975 bilateral trade vis-à-vis Japan rose by 23% per annum (North Korean imports increasing by 27% annually)—and during the next decade, by a further 6% per annum. Japan's leading role has been maintained to the present day, absorbing almost over one-third of North Korea's exports in 2000 and 2001, and about 15% of its imports during the same period.

For the 20 years after 1965 bilateral trade between North Korea and China rose by over 5% per annum, until it reached US $2,100m. (almost 15% of the DPRK's foreign trade). Thereafter, China's importance as a trading partner declined: by 1990 the value of bilateral trade had fallen to US $545m. (about 10%), and by 1999 to US $370m. Such, however, was the impact of the dramatic contraction in trade with the former USSR that China, meanwhile, emerged as North Korea's largest trading partner (in relative terms), accounting for about 30% of its total trade in 1999. In January 2001 a Chinese source reaffirmed China's role as North Korea's main trading partner, citing the shipment of exports worth US $438m. during January–November 2001 (in the same period, border trade with China's Liaoning Province was valued at US $75.6m.—54% more than during the same period of 1999). Overall, China was North Korea's principal trading partner in 2000 and 2001, accounting for 24.7% and 32.6% of North Korea's total trade in those years respectively. Other important trading partners, accounting for nearly 10% of total trade, were India and Thailand, the latter having only recently increased trade with North Korea.

In November 1988, for the first time since the Korean War, limited indirect trade with South Korea was resumed. Just two

years later direct inter-Korean trade got under way, its value rising to US $210m. by 1992. By the end of the decade—and notwithstanding the temporary negative impact of the Asian financial crisis—inter-Korean trade had reached a record level of US $333.4m. (including some US $200m. in tour fees associated with the Mount Kumgang project), making South Korea the North's third largest trading partner. In 2000 bilateral trade increased further, to US $425m., pushing South Korea into second place after China. In the first seven months of 2002 inter-Korean trade rose by a reported 8.6%. Processing trade, especially of textile products, accounted for over half of such trade, although processed electronic imports from North Korea are expected to assume increasing importance in the coming years. Since 1991 North Korea has recorded an average annual surplus of about US $115m. in inter-Korean trade.

The fall of communist regimes in Eastern Europe and the dissolution of the USSR, as well as the insistence by both Russia and China on abandoning barter trading systems in favour of charging international prices for oil and other products, and the rapid expansion of inter-Korean trade, all suggest that a significant realignment of North Korea's economic relations is under way. At the same time, inefficiencies and infrastructural constraints (for example, low product quality and lack of variety, poor packaging, failure to meet delivery dates, and limited transport and harbour facilities) have continued to impede North Korean efforts to expand exports and increase much-needed foreign exchange earnings.

North Korea's principal exports include non-ferrous metals (mostly zinc, lead, barytes and gold), iron and steel, textile yarn and fabrics, military equipment, cement, vegetables and fishery products. The main imports are advanced machinery, transport equipment, high-grade iron and steel products, crude petroleum, coking coal, grain, chemicals and some consumer goods.

Throughout its existence, North Korea has almost consistently suffered an unfavourable trade balance. This remained the norm throughout the 1990s, although, despite falling farm exports, the deficit is estimated to have declined from US $700m. in 1991 to around US $300m. in 1998. This improvement was interrupted in 1999, when North Korea's global deficit rose to US $450m. (US $260m. in January–June alone). In recent years North Korea's current-account deficit and foreign debt difficulties have been alleviated by inflows of convertible currency from pro-Pyongyang Koreans living in Japan. Such contributions and remittances reportedly ranged from US $600m. to US $1,000m. per year—the latter figure approximating to total annual North Korean exports in the early 1990s.

The introduction, in 1984, of a joint-venture law (revised in 1994) signalled North Korea's willingness to use—by its own standards—radical means in order to acquire Western capital and technology. Initially, such efforts achieved only limited success. Indeed, the Ministry of Joint-Venture Industry, established in 1988, was closed down in 1990 and its responsibilities transferred to the General Bureau of Joint Venture, under the External Economic Affairs Commission. Of an estimated 140 joint ventures under way by 1994, about three-quarters involved companies owned by pro-Pyongyang Korean residents of Japan. Most of them were small, with an average capitalization of under US $1m.

Meanwhile, it was expected that government plans to establish special economic zones would stimulate further joint-venture activities, as well as encourage involvement by South Korean companies. Attempts to attract foreign capital into the Rajin-Sonbong Free Economic and Trade Zone, which was established in the Tumen River delta in 1991, were initially largely unsuccessful. By the end of 1997, for example, it was reported that although 111 contracts (worth some US $751m.) had been agreed, only 77 of them were under way, with associated utilized investment of US $57m. The Tumen River project was sponsored by the UNDP and the first specifically inter-Korean joint-venture agreement—with the South Korean Daewoo conglomerate—was concluded in January 1992, when the North Korean Government began to enact new laws designed to offer even more preferential treatment to foreign investors than that available under Chinese laws. In practice, foreign-exchange shortages, infrastructural deficiencies, uncooperative bureaucrats and low levels of skilled labour have prevented North Korea from realizing any significant benefits from the Rajin-Sonbong project, leading some to judge it to be a failure. Its future, according to some outside observers, may lie more in the direction of acting as a regional, trans-shipment base for North Korean exports to China.

The construction, in the late 1980s and early 1990s, of an international telecommunications centre, a new international airport and international hotels is a clear expression of North Korea's willingness to open the country to foreign tourism in order to improve its invisible trade balance. The most significant initiative in this context was the commencement, in November 1998, of a joint venture involving the South Korean conglomerate, Hyundai, to send daily tour boats to Mount Kumgang, representing the only ever opportunity for South Korean tourists to visit the North. By May 2000 North Korea had earned some US $180m. from the project, and in July of that year the Pyongyang authorities put forward the suggestion that Hyundai should develop a high-technology zone in the same area—a proposal unlikely to be realized in the near future. Indeed, in the face of major losses on the project, in January and February 2001, it was revealed that Hyundai was seeking to halve its monthly royalty payment on the Mount Kumgang project from US$12m. to US $6m.—this in spite of well over a quarter of a million tourist visits to the region.

Such difficulties notwithstanding, it was likely that North Korea would persist in its efforts to encourage greater foreign involvement in its economic development. In 2001 a South Korean source reported that China and North Korea had reached agreement on the creation of a 'second Shenzhen' through the establishment of an economic zone based on Shinuiju and Dandong, which would act as a distribution centre for light industrial goods. (In 1999 Shinuiju had already been proposed to Hyundai as a special economic zone and industrial complex.) In late September 2002 Yang Bin, a wealthy Chinese-born businessman with Dutch citizenship and Chairman of the Euro-Asia Group, was appointed Chief Executive of the Shinuiju Special Administrative Region, seemingly confirming Pyongyang's commitment to Chinese-style economic reforms. In addition, since 2000 Pyongyang has made extensive efforts to establish diplomatic relations with wealthier nations such as the United Kingdom, Italy, Australia, the Philippines and other countries—initiatives clearly not unconnected with its desire to accelerate economic growth and development. In July of the same year North Korea also became a member of the ASEAN Regional Forum (ARF).

Statistical Survey

Area and Population

AREA, POPULATION AND DENSITY*

Area (sq km)	122,762†
Population (census results)	
31 December 1993	
Males	10,329,699
Females	10,883,679
Total	21,213,378
Population (UN estimates at mid-year)‡	
1999	22,110,000
2000	22,268,000
2001	22,428,000
Density (per sq km) at mid-2001	182.7

* Excluding the demilitarized zone between North and South Korea, with an area of 1,262 sq km (487 sq miles).
† 47,399 sq miles.
‡ Source: UN, *World Population Prospects: The 2000 Revision.*

PRINCIPAL TOWNS (population at 1993 census)

Pyongyang (capital)	2,741,260	Wonsan	300,148
Nampo	731,448	Pyongsong	272,934
Hamhung	709,730	Sariwon	254,146
Chongjin	582,480	Haeju	229,172
Kaesong	334,433	Kanggye	223,410
Shinuiju	326,011	Hyesan	178,020

Source: UN, *Demographic Yearbook.*

BIRTHS AND DEATHS (UN estimates, annual averages)

	1985–90	1990–95	1995–2000
Birth rate (per 1,000)	20.6	20.8	18.6
Death rate (per 1,000)	5.8	7.0	10.4

Expectation of life (UN estimates, years at birth, 1995–2000): 63.1 (males 60.5; females 66.0).

Source: UN, *World Population Prospects: The 2000 Revision.*

ECONOMICALLY ACTIVE POPULATION
(ILO estimates, '000 persons at mid-1980)

	Males	Females	Total
Agriculture, etc.	1,484	1,870	3,355
Industry	1,654	719	2,373
Services	1,103	1,007	2,110
Total labour force	4,241	3,597	7,838

Source: ILO, *Economically Active Population Estimates and Projections, 1950–2025.*

Mid-2000 (estimates in '000): Agriculture, etc. 3,439; Total labour force 11,421 (Source: FAO).

Health and Welfare

KEY INDICATORS

Fertility (births per woman, 2000)	2.1
Under-5 mortality rate (per 1,000 live births, 2000)	30
HIV/AIDS (% of persons aged 15–49, 1994)	<0.01
Health expenditure (1998): US $ per head (PPP)	30
% of GDP	3.0
public (% of total)	83.5
Access to water (% of persons, 2000)	100
Access to sanitation (% of persons, 2000)	99

For sources and definitions, see explanatory note on p. vi.

Agriculture

PRINCIPAL CROPS
('000 metric tons)

	1998	1999	2000
Wheat*	165	97	50
Rice (paddy)	2,307	2,343	1,690
Barley	90	55*	29*
Maize	1,765	1,235	1,041
Rye†	70	75	75
Oats†	10	10	11
Millet†	10	20	45
Sorghum†	5	10	10
Potatoes	1,269	1,473	1,870
Sweet potatoes*	423	490	290
Pulses†	280	280	280
Soybeans (Soya beans)	340*	340*	350†
Cottonseed†	22	23	23
Cabbages†	625	625	630
Tomatoes†	61	62	62
Pumpkins, squash and gourds†	83	83	85
Cucumbers and gherkins†	64	64	64
Aubergines (Eggplants)†	42	42	42
Chillies and green peppers†	54	55	55
Green onions and shallots†	85	90	90
Dry onions†	80	82	82
Garlic†	73	75	80
Other vegetables†	2,205	2,206	2,406
Apples†	640	650	650
Pears†	125	125	130
Peaches and nectarines†	100	110	110
Watermelons†	103	103	104
Cantaloupes and other melons†	108	108	110
Other fruits and berries†	455	460	460
Tobacco (leaves)†	62	62	63
Hemp fibre†	12	12	13
Cotton (lint)†	11	11	11

* Unofficial figure(s). † FAO estimate(s).

Source: FAO.

LIVESTOCK ('000 head, year ending September)

	1998	1999	2000
Horses*	44	45	45
Cattle	565	577	579
Pigs	2,475	2,970	3,120
Sheep	165	185	185
Goats	1,508	1,900	2,276
Chickens	9,427	11,200	15,733
Ducks	1,372	1,624	2,078
Rabbits	2,795	5,202	11,475

* FAO estimates.

Source: FAO.

LIVESTOCK PRODUCTS ('000 metric tons)

	1998	1999	2000
Beef and veal	19.5	20.0	20.0
Goat meat	6.8	9.0	9.9
Pig meat	111.5	133.8	140.0
Poultry meat	20.4	23.4	26.8
Cows' milk*	85.0	86.0	90.0
Poultry eggs*	83.0	95.0	95.0
Cattle hides (fresh)	2.7	2.8	2.8

* FAO estimates.

Source: FAO.

Forestry

ROUNDWOOD REMOVALS
(FAO estimates, '000 cubic metres, excl. bark)

	1998	1999	2000
Sawlogs, veneer logs and logs for sleepers	1,000	1,000	1,000
Other industrial wood	500	500	500
Fuel wood	5,356	5,429	5,503
Total	6,856	6,929	7,003

Sawnwood production ('000 cubic metres, incl. railway sleepers): 280 (coniferous 185, broadleaved 95) per year in 1970–2000 (FAO estimates).

Source: FAO.

Fishing

('000 metric tons, live weight)

	1997	1998*	1999*
Capture	236.5	220.0	210.0
Freshwater fishes	20.0	20.0	20.0
Alaska pollock	66.6	60.0	55.0
Other marine fishes	120.3	114.9	109.9
Marine crustaceans	15.3	15.0	15.0
Squids	14.2	10.0	10.0
Aquaculture	70.2	68.5	68.5
Molluscs	66.6	65.0	65.0
Total catch	306.6	288.5	278.5

Note: Figures exclude aquatic plants ('000 metric tons, aquaculture only): 419.1 in 1997; 413.0* in 1998; 413.0* in 1999.

* FAO estimate(s).

Source: FAO, *Yearbook of Fishery Statistics.*

Mining

(estimates, '000 metric tons, unless otherwise indicated)

	1998	1999	2000
Hard coal	55,000	50,000	50,000
Brown coal and lignite	30,000	30,000	30,000
Iron ore: gross weight	700	700	700
metal content	300	300	300
Copper ore*	14	14	14
Lead ore*	70	70	70
Zinc ore*	200	190	190
Tungsten concentrates (metric tons)*	800	700	700
Silver (metric tons)*	45	40	40
Gold (kg)*	4,500	4,500	5,000
Magnesite (crude)	1,500	1,000	1,000
Phosphate rock†	450	350	350
Fluorspar‡	30	25	25
Barite (Barytes)	100	70	70
Salt (unrefined)	550	500	500
Graphite (natural)	35	33	30
Talc, soapstone and pyrophyllite	150	120	120

Note: No recent data are available for the production of molybdenum ore and asbestos.

* Figures refer to the metal content of ores and concentrates.
† Figures refer to gross weight. The phosphoric acid content (estimates, '000 metric tons) was: 142 in 1998; 105 in 1999; 105 in 2000.
‡ Metallurgical grade.

Source: US Geological Survey.

Industry

SELECTED PRODUCTS
('000 metric tons, unless otherwise indicated)

	1995	1996	1997
Nitrogenous fertilizers *	75	72	72
Motor spirit (petrol)†	960	950	930
Kerosene†	205	200	190
Gas-diesel (Distillate fuel) oils†	1,040	1,035	1,025
Residual fuel oils†	605	600	590
Coke-oven coke (excl. breeze)†	3,500	3,450	3,400
Cement†‡	17,000	17,000	17,000
Pig-iron†‡	500	500	450
Crude steel†‡	1,500	1,000	1,000
Refined copper (unwrought)†‡	27	28	28
Lead (primary metal)†‡	75	75	75
Zinc (primary metal)†‡	200	200	200
Electric energy (million kWh)†	36,000	35,000	33,990

* Output is measured in terms of nitrogen.
† Provisional or estimated figures.
‡ Data from the US Geological Survey.

Source: mainly UN, *Industrial Commodity Statistics Yearbook.*

1998 (estimates, '000 metric tons): Nitrogenous fertilizers 72; Cement 17,000; Pig-iron 250; Crude steel 1,000; Refined copper (unwrought) 28; Lead (primary metal) 75; Zinc (primary metal) 180.

1999 (estimates, '000 metric tons): Cement 16,000; Pig-iron 250; Crude steel 1,000; Refined copper (unwrought) 25; Lead (primary metal) 70; Zinc (primary metal) 180.

2000 (estimates, '000 metric tons): Cement 15,000; Pig-iron 250; Crude steel 1,000; Refined copper (unwrought) 25; Lead (primary metal) 70; Zinc (primary metal) 200.

Source: mainly US Geological Survey.

Finance

CURRENCY AND EXCHANGE RATES

Monetary Units
100 chon (jun) = 1 won.

Sterling, Dollar and Euro Equivalents (31 May 2002)
£1 sterling = 3.153 won;
US $1 = 2.150 won;
€1 = 2.018 won;
100 won = £31.71 = $46.51 = €49.55.

Note: In August 2002 it was reported that a currency reform had been introduced, whereby the exchange rate was adjusted from US $1 = 2.15 won to $1 = 150 won: a devaluation of 98.6%.

BUDGET (projected, million won)

	1992	1993	1994
Revenue	39,500.9	40,449.9	41,525.2
Expenditure	39,500.9	40,449.9	41,525.2
Economic development	26,675.1	27,423.8	28,164.0
Socio-cultural sector	7,730.6	7,751.5	8,218.3
Defence	4,582.1	4,692.2	4,816.9
Administration and management	513.1	582.4	326.0

1998 (estimates, million won): Total revenue 19,790.8; Total expenditure 20,015.2.

1999 (estimates, million won): Total revenue 19,801.0; Total expenditure 20,018.2.

2000 (estimates, million won): Total revenue 20,955.0; Total expenditure 20,903.0.

2001 (projected, million won): Total revenue 21,571.0; Total expenditure 21,571.0.

2002 (projected, million won): Total revenue 22,174.0; Total expenditure 22,174.0.

NATIONAL ACCOUNTS

Gross Domestic Product by Economic Activity (% of total)

	1997	1998	1999
Agriculture, forestry and fishing	28.9	29.6	31.4
Mining	6.7	6.6	7.3
Manufacturing	18.8	19.0	18.3
Electricity, gas and water	4.3	4.2	4.5
Construction	6.3	5.1	6.1
Government services	25.1	25.3	22.8
Other services	9.9	10.2	9.6
Total	100.0	100.0	100.0

Source: Bank of Korea (Republic of Korea).

External Trade

PRINCIPAL COMMODITIES (US $ million)*

Imports	1999	2000	2001
Live animals and animal products; Vegetable products	101.3	20.3; 159.0	73.9; 221.0
Animal or vegetable fats and oils; prepared edible fats; animal or vegetable waxes; Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured substitutes	58.2	89.1	89.9
Mineral products	141.0	171.2	231.1
Products of chemical or allied industries	96.4	108.4	123.4
Plastics, rubber and articles thereof	51.0	67.5	66.0
Textiles and textile articles	127.1	171.9	203.9
Base metals and articles thereof	59.0	85.2	100.4
Machinery and mechanical appliances; electrical equipment; sound and television apparatus	135.6	205.1	243.8
Vehicles, aircraft, vessels and associated transport equipment	102.2	146.2	88.4
Total (incl. others)	964.6	1,406.5	1,620.3

Exports	1999	2000	2001
Live animals and animal products	87.8	97.9	158.4
Vegetable products	22.5	30.3	42.0
Mineral products	22.6	43.2	50.5
Products of chemical or allied industries; Plastics, rubber and articles thereof	39.9	44.9	44.6
Wood, cork and articles thereof; wood charcoal; manufactures of straw, esparto, etc.	16.2	10.9	5.6
Textiles and textile articles	130.6	140.0	140.5
Natural or cultured pearls, precious or semi-precious stones, precious metals and articles thereof; imitation jewellery; coin	21.4	9.8	14.1
Base metals and articles thereof	46.5	43.9	60.2
Machinery and mechanical appliances; electrical equipment, sound and television apparatus	81.3	105.2	97.9
Total (incl. others)	515.0	565.8	650.2

* Excluding trade with the Republic of Korea (US $ million): Imports 211.8 in 1999, 272.8 in 2000, 226.8 in 2001; Exports 121.6 in 1999, 152.4 in 2000, 176.2 in 2001.

Source: Korea Trade-Investment Promotion Agency (KOTRA), Republic of Korea.

PRINCIPAL TRADING PARTNERS (US $ million)*

Imports	1999	2000	2001
China, People's Republic	328.7	450.8	573.1
Germany	32.6	53.6	82.1
Hong Kong	60.5	68.5	42.6
India	98.0	142.9	154.8
Japan	147.8	206.8	249.1
Russia	48.5	42.9	63.8
Singapore	48.1	46.2	112.3
Spain	n.a.	15.3	31.6
Taiwan	11.7	n.a.	n.a.
Thailand	34.7	188.3	109.6
United Kingdom	22.1	25.3	40.7
USA	11.3	n.a.	n.a.
Total (incl. others)	964.6	1,406.5	1,620.3

Exports	1999	2000	2001
Bangladesh	24.2	n.a.	n.a.
China, People's Republic	41.7	37.2	166.7
Germany	23.7	25.6	22.8
Hong Kong	63.3	46.4	38.0
India	44.3	25.5	3.1
Japan	202.6	256.9	225.6
Spain	n.a.	12.7	12.6
Thailand	3.2	19.5	24.9
Total (incl. others)	515.0	565.8	650.2

* Excluding trade with the Republic of Korea (US $ million): Imports 211.8 in 1999, 272.8 in 2000, 226.8 in 2001; Exports 121.6 in 1999, 152.4 in 2000, 176.2 in 2001.

Source: Korea Trade-Investment Promotion Agency (KOTRA), Republic of Korea.

Transport

SHIPPING

Merchant Fleet (registered at 31 December)

	1999	2000	2001
Number of vessels	171	176	176
Total displacement ('000 grt)	657.8	652.6	697.8

Source: Lloyd's Register-Fairplay, *World Fleet Statistics*.

International Sea-Borne Freight Traffic (estimates, '000 metric tons)

	1988	1989	1990
Goods loaded	630	640	635
Goods unloaded	5,386	5,500	5,520

Source: UN, *Monthly Bulletin of Statistics*.

CIVIL AVIATION (traffic on scheduled services)

	1995	1996	1997
Kilometres flown (million)	3	3	5
Passengers carried ('000)	254	254	280
Passenger-km (million)	207	207	286
Total ton-km (million)	22	22	30

Source: UN, *Statistical Yearbook*.

Tourism

	1996	1997	1998
Tourist arrivals ('000)	127	128	130

Source: World Tourism Organization, mainly *Yearbook of Tourism Statistics*.

Communications Media

	1994	1995	1996
Radio receivers ('000 in use)	2,950	3,000	3,300
Television receivers ('000 in use)	1,000	1,050	1,090
Telephones ('000 main lines in use)*	1,100	1,100	1,100
Telefax stations (number in use)	3,000*	n.a.	n.a.
Daily newspapers:			
Number	11	11*	3
Average circulation ('000 copies)*	5,000	5,000	4,500

* Estimate(s).

1997 ('000 in use): Radio receivers 3,360; Television receivers 1,200.

Sources: UNESCO, *Statistical Yearbook*; UN, *Statistical Yearbook*.

Education

(1987/88)

	Institutions	Teachers	Students
Pre-primary	16,964	35,000	728,000
Primary	4,810*	59,000	1,543,000
Secondary	4,840*	111,000	2,468,000
Universities and colleges	519†	23,000	325,000
Other tertiary	n.a.	4,000	65,000

* 1997 figure.

† Of which 46 were university-level institutions and 473 were colleges (1986).

Source: mainly UNESCO, *Statistical Yearbook*.

Directory

The Constitution

A new Constitution was adopted on 27 December 1972. According to South Korean sources, several amendments were made in April 1992, including the deletion of references to Marxism-Leninism, the extension of the term of the Supreme People's Assembly from four to five years, and the promotion of limited 'economic openness'. Extensive amendments to the Constitution were approved on 5 September 1998. The main provisions of the revised Constitution are summarized below:

The Democratic People's Republic of Korea is an independent socialist state; the revolutionary traditions of the State are stressed (its ideological basis being the *Juche* idea of the Korean Workers' Party), as is the desire to achieve national reunification by peaceful means on the basis of national independence. The Late President Kim Il Sung is the Eternal President of the Republic.

National sovereignty rests with the working people, who exercise power through the Supreme People's Assembly and Local People's Assemblies at lower levels, which are elected by universal, equal and direct suffrage by secret ballot.

The foundation of an independent national economy, based on socialist and *Juche* principles, is stressed. The means of production are owned solely by the State and socialist co-operative organizations.

Culture and education provide the working people with knowledge to advance a socialist way of life. Education is free, universal and compulsory for 11 years.

Defence is emphasized, as well as the rights of overseas nationals, the principles of friendly relations between nations based on equality, mutual respect and non-interference, proletarian internationalism, support for national liberation struggles and due observance of law.

The basic rights and duties of citizens are laid down and guaranteed. These include the right to vote and to be elected (for citizens who are more than 17 years of age), to work (the working day being eight hours), to free medical care and material assistance for the old, infirm or disabled, and to political asylum. National defence is the supreme duty of citizens.

THE STRUCTURE OF STATE

The Supreme People's Assembly

The Supreme People's Assembly is the highest organ of state power, exercises legislative power and is elected by direct, equal, universal and secret ballot for a term of five years. Its chief functions are: (i) to adopt, amend or supplement legal or constitutional enactments; (ii) to determine state policy; (iii) to elect the Chairman of the National Defence Commission; (iv) to elect the Vice-Chairmen and other members of the National Defence Commission (on the recommendation of the Chairman of the National Defence Commission); (v) to elect the President and other members of the Presidium of the Supreme People's Assembly, the Premier of the Cabinet, the President of the Central Court and other legal officials; (vi) to appoint the Vice-Premiers and other members of the Cabinet (on the recommendation of the Premier of the Cabinet); (vii) to approve the State Plan and Budget; (viii) to receive a report on the work of the Cabinet and adopt measures, if necessary; (ix) to decide on the ratification or abrogation of treaties. It holds regular and extraordinary sessions, the former being once or twice a year, the latter as necessary at the request of at least one-third of the deputies. Legislative enactments are adopted when approved by more than one-half of those deputies present. The Constitution is amended and supplemented when approved by more than two-thirds of the total number of deputies.

The National Defence Commission

The National Defence Commission, which consists of a Chairman, first Vice-Chairman, other Vice-Chairmen and members, is the highest military organ of state power, and is accountable to the Supreme People's Assembly. The National Defence Commission directs and commands the armed forces and guides defence affairs. The Chairman of the National Defence Commission serves a five-year term of office and has the most senior post in the state hierarchy.

The Presidium of the Supreme People's Assembly

The Presidium of the Supreme People's Assembly, which consists of a President, Vice-Presidents, secretaries and members, is the highest organ of power in the intervals between sessions of the Supreme People's Assembly, to which it is accountable. It exercises the following chief functions: (i) to convene sessions of the Supreme People's Assembly; (ii) to examine and approve new legislation, the State Plan and the State Budget, when the Supreme People's Assembly is in recess; (iii) to interpret the Constitution and legislative enactments; (iv) to supervise the observance of laws of State organs; (v) to organize elections to the Supreme People's Assembly and Local People's Assemblies; (vi) to form or abolish ministries or commissions of the Cabinet; (vii) to appoint or remove Vice-Premiers and other cabinet or ministry members, on the recommendation of the Premier, when the Supreme People's Assembly is not in session; (viii) to elect or transfer judges of the Central Court; (ix) to ratify or abrogate treaties concluded with other countries; (x) to appoint or recall diplomatic envoys; (xi) to confer decorations, medals, honorary titles and diplomatic ranks; (xii) to grant general amnesties or special pardon. The President of the Presidium represents the State and receives credentials and letters of recall of diplomatic representatives accredited by a foreign state.

The Cabinet

The Cabinet is the administrative and executive body of the Supreme People's Assembly and a general state management organ. It serves a five-year term and comprises the Premier, Vice-Premiers, Chairmen of Commissions and other necessary members. Its major functions are the following: (i) to adopt measures to execute state policy; (ii) to guide the work of ministries and other organs responsible to it; (iii) to establish and remove direct organs of the Cabinet and main administrative economic organizations; (iv) to draft the State Plan and adopt measures to make it effective; (v) to compile the State Budget and to implement its provisions; (vi) to organize

and execute the work of all sectors of the economy, as well as education, science, culture, health and environmental protection; (vii) to adopt measures to strengthen the monetary and banking system; (viii) to adopt measures to maintain social order, protect State interests and guarantee citizens' rights; (ix) to conclude treaties; (x) to abolish decisions and directives of economic administrative organs which run counter to those of the Cabinet. The Cabinet is accountable to the Supreme People's Assembly.

Local People's Assemblies

The Local People's Assemblies and Committees of the province (or municipality directly under central authority), city (or district) and county are local organs of power. The Local People's Assemblies consist of deputies elected by direct, equal, universal and secret ballot. The Local People's Committees consist of a Chairman, Vice-Chairmen, secretaries and members. The Local People's Assemblies and Committees serve a four-year term and exercise local budgetary functions, elect local administrative and judicial personnel and carry out the decisions at local level of higher executive and administrative organs.

THE JUDICIARY

Justice is administered by the Central Court (the highest judicial organ of the State), local courts and the Special Court. Judges and other legal officials are elected by the Supreme People's Assembly. The Central Court protects state property, constitutional rights, guarantees that all state bodies and citizens observe state laws, and executes judgments. Justice is administered by the court comprising one judge and two people's assessors. The court is independent and judicially impartial. Judicial affairs are conducted by the Central Procurator's Office, which exposes and institutes criminal proceedings against accused persons. The Office of the Central Procurator is responsible to the Chairman of the National Defence Commission, the Supreme People's Assembly and the Central People's Committee.

The Government

HEAD OF STATE

President: (President KIM IL SUNG died on 8 July 1994 and was declared 'Eternal President' in September 1998).

Chairman of the National Defence Commission: Marshal KIM JONG IL.

First Vice-Chairman: Vice-Marshal JO MYONG ROK.

Vice-Chairmen: Vice-Marshal KIM IL CHOL, Vice-Marshal RI YONG MU.

Other members: Vice-Marshal KIM YONG CHUN, YON HYONG MUK, Marshal RI UL SOL, Vice-Marshal PAEK HAK RIM, JON BYONG HO, KIM CHOL MAN.

CABINET

(September 2002)

Premier: HONG SONG NAM.

Vice-Premiers: JO CHANG DOK, KWAK POM GI.

Vice-Premier and Chairman of the Commission for Capital Construction: Col-Gen. SHIN IL NAM.

Minister of Foreign Affairs: PAEK NAM SUN.

Minister of Public Security: Vice-Marshal PAEK HAK RIM.

Minister of the People's Armed Forces: Vice-Marshal KIM IL CHOL.

Chairman of the State Planning Commission: PAK NAM GI.

Minister of Power and Coal Industry: O GWANG HONG.

Minister of Extractive Industries: SON JONG HO.

Minister of Metal and Machine-Building Industries: JON SUNG HUN.

Minister of Construction and Building Materials Industries: JO YUN HUI.

Minister of the Electronics Industry: O SU YONG.

Minister of Railways: KIM YONG SAM.

Minister of Land and Marine Transport: KIM YONG IL.

Minister of Agriculture: KIM CHANG SHIK.

Minister of Chemical Industry: PAK PONG JU.

Minister of Light Industry: RI JU O.

Minister of Foreign Trade: RI KWANG GUN.

Minister of Forestry: RI SANG MU.

Minister of Fisheries: RI SONG UNG.

Minister of City Management: CHOE JONG GON.

Minister of Land and Environmental Protection: JANG IL SON.

Minister of State Construction Control: PAE TAL JUN.

Minister of Commerce: RI YONG SON.

Minister of Procurement and Food Administration: CHOE NAM GYUN.

Minister of Education: PYON YONG RIP.

Minister of Post and Telecommunications: RI KUM BOM.

Minister of Culture: KANG NUNG SU.

Minister of Finance: MUN IL BONG.

Minister of Labour: RI WON IL.

Minister of Public Health: KIM SU HAK.

Minister of State Inspection: KIM UI SUN.

Chairman of the Physical Culture and Sports Guidance Committee: PAK MYONG CHOL.

President of the National Academy of Sciences: RI KWANG HO.

President of the Central Bank: KIM WAN SU.

Director of the Central Statistics Bureau: KIM CHANG SU.

Chief Secretary of the Cabinet: JONG MUN SAN.

MINISTRIES

All Ministries and Commissions are in Pyongyang.

Legislature

CHOE KO IN MIN HOE UI

(Supreme People's Assembly)

The 687 members of the 10th Supreme People's Assembly (SPA) were elected unopposed for a five-year term on 26 July 1998. Its permanent body is the Presidium.

Chairman: CHOE TAE BOK.

Vice-Chairmen: CHANG CHOL, RYO WON GU.

President of the Presidium: KIM YONG NAM.

Vice-Presidents of the Presidium: YANG HYONG SOP, KIM YONG DAE.

Political Organizations

Democratic Front for the Reunification of the Fatherland: Pyongyang; f. 1946; a vanguard organization comprising political parties and mass working people's organizations seeking the unification of North and South Korea; Mems of Presidium PAK SONG CHOL, RYOM TAE JUN, YANG HYONG SOP, JONG TU HWAN, RI YONG SU, JONG SHIN HYOK, KIM PONG JU, PYON CHANG BOK, RYU MI YONG, RYO WON GU, YUN KI BOK, KANG RYON HAK.

The component parties are:

Chondoist Chongu Party: Pyongyang; tel. (2) 334241; f. 1946; supports policies of Korean Workers' Party; follows the guiding principle of *Innaechon* (the realization of 'heaven on earth'); Chair. RYU MI YONG.

Korean Social Democratic Party (KSDP) (Joson Sahoeminjudang): Pyongyang; tel. (2) 5211981; fax (2) 3814410; f. 1945; advocates national independence and a democratic socialist society; supports policies of Korean Workers' Party; Chair. KIM YONG DAE; First Vice-Chair. KANG PYONG HAK.

Korean Workers' Party (KWP): Pyongyang; f. 1945; merged with the South Korean Workers' Party in 1949; the guiding principle is the *Juche* idea, based on the concept that man is the master and arbiter of all things; 3m. mems; Gen. Sec. Marshal KIM JONG IL.

Sixth Central Committee

General Secretary: Marshal KIM JONG IL.

Politburo

Presidium: Marshal KIM JONG IL.

Full Members:

KIM YONG NAM, PAK SONG CHOL, KIM YONG JU, KYE UNG TAE, JON BYONG HO, HAN SONG RYONG.

Alternate Members:

HONG SONG NAM, YON HYONG MUK, YANG HYONG SOP, CHOE TAE BOK, KIM CHOL MAN, CHOE YONG RIM, RI SON SHIL.

Secretariat:

Marshal KIM JONG IL, KYE UNG TAE, JON BYONG HO, HAN SONG RYONG, CHOE TAE BOK, KIM KI NAM, KIM KUK TAE, KIM JUNG RIN, SO KWAN HI, KIM YONG SUN, JONG HA CHOL.

The component mass working people's organizations are:

General Federation of Trade Unions of Korea (GFTUK).

Kim Il Sung Socialist Youth League.

Korean Democratic Women's Union (KDWU).

Union of Agricultural Working People of Korea.

(See under Trade Unions.)

There is one opposition organization in exile, with branches in Tokyo (Japan), Moscow (Russia) and Beijing (People's Republic of China):

Salvation Front for the Democratic Unification of Chosun: f. early 1990s; seeks the overthrow of the Kim dynasty, the establishment of democracy in the DPRK and Korean reunification; Chair. PAK KAP DONG.

Diplomatic Representation

EMBASSIES IN THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

Algeria: Munsudong, Taedongkang District, Pyongyang; tel. (2) 90372; Ambassador: MOKHTAR REGUIEG.

Benin: Pyongyang; Ambassador: A. OGIST.

Bulgaria: Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817341; Ambassador: YORDAN MUTAFCHIYEV.

China, People's Republic: Pyongyang; tel. (2) 3813116; fax (2) 3813425; Ambassador: WU DONGHE.

Cuba: POB 5, Pyongyang; tel. (2) 3817370; fax (2) 3817703; Ambassador: ESTEBAN LOBAINA ROMERO.

Egypt: Pyongyang; tel. (2) 3817406; fax (2) 3817611; Ambassador: MAHMUD MUHAMMAD FARAQ ZAYN.

Ethiopia: POB 55, Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817750; fax (2) 3817618; Chargé d'affaires: FEKADE S.G. MESKEL.

India: Block 53, Munsudong, Taehak St, Taedongkang District, Pyongyang; tel. (2) 3817274; fax (2) 3817619; Ambassador: R. P. SINGH.

Indonesia: 5 Foreigners' Bldg, Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817386; fax (2) 3817612; e-mail kbripyg@public.east.cn.net; Ambassador: BUCHARI EFFENDI.

Iran: Munhungdong, Monsu St, Taedongkang District, Pyongyang; tel. (2) 3817492; fax (2) 3817612; Ambassador: MOHAMMAD GANJI-DOOST.

Laos: Pyongyang; Ambassador: KHAMKENG SAYAKEO.

Libya: Pyongyang; Secretary of People's Bureau: AHMED AMER AL-MUAKKAF.

Mali: Pyongyang; Ambassador: NAKOUNTE DIAKITÉ.

Mongolia: Pyongyang; tel. (2) 3817324; Ambassador: J. LOMBO.

Nigeria: POB 535, Pyongyang; tel. (2) 3817286; fax (2) 3817613; Ambassador: ADOGA ONAH.

Pakistan: Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817479; fax 3817622; Ambassador: SULTAN HABIB.

Poland: Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817327; fax (2) 3817634; Ambassador: WOJCIECH KALUZA.

Romania: Munhengdong, Pyongyang; tel. (2) 3817336; Ambassador: NICOLAE GIRBA.

Russia: Shinyangdong, Chung Kuyuck, Pyongyang; tel. (2) 3813101; fax (2) 3813427; Ambassador: ANDREI KARLOV.

Syria: Munsudong, Taedongkang District, Pyongyang; tel. (2) 349323; Ambassador: YASSER AL-FARRA.

Thailand: Pyongyang; Ambassador: NIKHOM TANTEMSAPYA.

United Kingdom: Munsudong, Pyongyang; tel. (2) 3817980; fax (2) 3817985; Ambassador: DAVID SLINN.

Viet Nam: Munsudong, Taedongkang District, Pyongyang; tel. (2) 3817353; fax (2) 3817632; Ambassador: LE XUAN VINH.

Yugoslavia: Pyongyang; Ambassador: LJUBOMIR DJUKIĆ.

Judicial System

The judicial organs include the Central Court, the Court of the Province (or city under central authority) and the People's Court. Each court is composed of judges and people's assessors.

Procurators supervise the ordinances and regulations of all ministries and the decisions and directives of local organs of state power to ensure that they conform to the Constitution, laws and decrees, as well as to the decisions and other measures of the Cabinet. Procurators bring suits against criminals in the name of the State, and participate in civil cases to protect the interests of the State and citizens.

Central Court: Pyongyang; the highest judicial organ; supervises the work of all courts.

President: KIM BYONG RYUL.

First Vice-President: YUN MYONG GUK.

Central Procurator's Office: supervises work of procurator's offices in provinces, cities and counties.

Procurator-General: CHOE YONG RIM.

Religion

The religions that are officially reported to be practised in the DPRK are Buddhism, Christianity and Chundo Kyo, a religion peculiar to Korea combining elements of Buddhism and Christianity. Religious co-ordinating bodies are believed to be under strict state control.

Korean Religious Believers Council: Pyongyang; f. 1989; brings together members of religious organizations in North Korea; Chair. JANG JAE ON.

BUDDHISM

In 1995, according to North Korean sources, there were some 60 Buddhist temples and an estimated 300 monks in the DPRK; the number of believers was about 10,000.

Korean Buddhists Federation: POB 77, Pyongyang; tel. (2) 43698; fax (2) 3812100; f. 1945; Chair. Cen. Cttee PAK TAE HWA; Sec. SHIM SANG RYON.

CHRISTIANITY

In 1995, according to North Korean sources, there were approximately 13,000 Christians (including 3,000 Roman Catholics) in the country, many of whom worshipped in house churches (of which there were about 500).

Korean Christians Federation: Pyongyang; f. 1946; Chair. Cen. Cttee KANG YONG SOP; Sec. O KYONG U.

The Roman Catholic Church

For ecclesiastical purposes, North and South Korea are nominally under a unified jurisdiction. North Korea contains two dioceses (Hamhung and Pyongyang), both suffragan to the archdiocese of Seoul (in South Korea), and the territorial abbacy of Tokwon (Tokugen), directly responsible to the Holy See.

Korean Roman Catholics Association: Changchung 1-dong, Songyo District, Pyongyang; tel. (2) 23492; f. 1988; Chair. Cen. Cttee JANG JAE ON; Vice-Chair. MUN CHANG HAK.

Diocese of Hamhung: Catholic Mission, Hamhung; Bishop (vacant); Apostolic Administrator of Hamhung and of the Abbacy of Tokwon: Fr PLACIDUS DONG-HO RI, 134-1 Waekwan-dong Kwan Eub, Chil kok kun, Gyeongbuk 718-800, Republic of Korea; tel. (545) 970-2000.

Diocese of Pyongyang: Catholic Mission, Pyongyang; Bishop Rt Rev. FRANCIS HONG YONG HO (absent); Apostolic Administrator Most Rev. NICHOLAS CHEONG JIN-SUK, Archbishop of Seoul.

CHUNDO KYO

Korean Chundoists Association: Pyongyang; tel. (2) 334241; f. 1946; Chair. of Central Guidance Cttee RYU MI YONG.

The Press

PRINCIPAL NEWSPAPERS

Choldo Sinmun: Pyongyang; f. 1947; every two days.

Joson Inmingun (Korean People's Army Daily): Pyongyang; f. 1948; daily; Editor-in-Chief RI TAE BONG.

Kyowon Sinmun: Pyongyang; f. 1948; publ. by the Education Commission; weekly.

Minju Choson (Democratic Korea): Pyongyang; f. 1946; govt organ; 6 a week; Editor-in-Chief KIM JONG SUK; circ. 200,000.

Nongup Kunroja: Pyongyang; publ. of Cen. Cttee of the Union of Agricultural Working People of Korea.

Pyongyang Sinmun: Pyongyang; f. 1957; general news; 6 a week; Editor-in-Chief SONG RAK GYUN.

Rodong Chongnyon (Working Youth): Pyongyang; f. 1946; organ of the Cen. Cttee of the Kim Il Sung Socialist Youth League; 6 a week; Editor-in-Chief RI JONG GI.

Rodong Sinmun (Labour Daily): Pyongyang; f. 1946; organ of the Cen. Cttee of the Korean Workers' Party; daily; Editor-in-Chief CHOE CHIL NAM; circ. 1.5m.

Rodongja Sinmun (Workers' Newspaper): Pyongyang; f. 1945; organ of the Gen. Fed. of Trade Unions of Korea; Editor-in-Chief RI SONG JU.

Saenal (New Day): Pyongyang; f. 1971; publ. by the Kim Il Sung Socialist Youth League; 2 a week; Deputy Editor CHOE SANG IN.

Sonyon Sinmun: Pyongyang; f. 1946; publ. by the Kim Il Sung Socialist Youth League; 2 a week; circ. 120,000.

Tongil Sinbo: Kangan 1-dong, Youth Ave, Songyo District, Pyongyang; f. 1972; non-affiliated; weekly; Chief Editor JO HYON YONG; circ. 300,000.

PRINCIPAL PERIODICALS

Chollima: Pyongyang; popular magazine; monthly.

Choson (Korea): Pyongyang; social, economic, political and cultural; bi-monthly.

Choson Minju Juuiinmin Gonghwaguk Palmyonggongbo (Official Report of Inventions in the DPRK): Pyongyang; 6 a year.

Choson Munhak (Korean Literature): Pyongyang; organ of the Cen. Cttee of the Korean Writers' Union; monthly.

Choson Yesul (Korean Arts): Pyongyang; organ of the Cen. Cttee of the Gen. Fed. of Unions of Literature and Arts of Korea; monthly.

Economics: POB 73, Pyongyang; fax (2) 3814410; quarterly.

History: POB 73, Pyongyang; fax (2) 3814410; quarterly.

Hwahakgwa Hwahakgoneop: Pyongyang; organ of the Hamhung br. of the Korean Acad. of Sciences; chemistry and chemical engineering; 6 a year.

Jokook Tongil: Kangan 1-dong, Youth Ave, Songyo District, Pyongyang; organ of the Cttee for the Peaceful Unification of Korea; f. 1961; monthly; Chief Editor LI MYONG GYU; circ. 70,000.

Korean Medicine: POB 73, Pyongyang; fax (2) 3814410; quarterly.

Kunroja (Workers): 1 Munshindong, Tongdaewon, Pyongyang; f. 1946; organ of the Cen. Cttee of the Korean Workers' Party; monthly; Editor-in-Chief RYANG KYONG BOK; circ. 300,000.

Kwahakwon Tongbo (Bulletins of the Academy of Science): POB 73, Pyongyang; fax (2) 3814410; organ of the Standing Cttee of the Korean Acad. of Sciences; 6 a year.

Mulri (Physics): POB 73, Pyongyang; fax (2) 3814410; quarterly.

Munhwao Haksup (Study of Korean Language): POB 73, Pyongyang; fax (2) 3814410; publ. by the Publishing House of the Acad. of Social Sciences; quarterly.

Philosophy: PO Box 73, Pyongyang; fax (2) 3814410; quarterly.

Punsok Hwahak (Analysis): POB 73, Pyongyang; fax (2) 3814410; organ of the Cen. Analytical Inst. of the Korean Acad. of Sciences; quarterly.

Ryoksagwahak (Historical Science): Pyongyang; publ. by the Acad. of Social Sciences; quarterly.

Saengmulhak (Biology): POB, Pyongyang; fax (2) 3814410; publ. by the Korea Science and Encyclopedia Publishing House; quarterly.

Sahoekwahak (Social Science): Pyongyang; publ. by the Acad. of Social Sciences; 6 a year.

Suhakkwa Mulli: Pyongyang; organ of the Physics and Mathematics Cttee of the Korean Acad. of Sciences; quarterly.

FOREIGN LANGUAGE PUBLICATIONS

The Democratic People's Republic of Korea: Korea Pictorial, Pyongyang; f. 1956; illustrated news; Korean, Russian, Chinese, English, French, Arabic and Spanish edns; monthly; Editor-in-Chief HAN POM CHIK.

Foreign Trade of the DPRK: Foreign Trade Publishing House, Potonggang District, Pyongyang; economic developments and export promotion; English, French, Japanese, Russian and Spanish edns; monthly.

Korea: Pyongyang; f. 1956; illustrated; Korean, Arabic, Chinese, English, French, Spanish and Russian edns; monthly.

Korea Today: Foreign Languages Publishing House, Pyongyang; current affairs; Chinese, English, French, Russian and Spanish edns; monthly; Vice-Dir and Editor-in-Chief HAN PONG CHAN.

Korean Women: Pyongyang; English and French edns; quarterly.

Korean Youth and Students: Pyongyang; English and French edns; monthly.

The Pyongyang Times: Sochondong, Sosong District, Pyongyang; tel. (2) 51951; English, Spanish and French edns; weekly.

NEWS AGENCIES

Korean Central News Agency (KCNA): Potonggangdong 1, Potonggang District, Pyongyang; internet www.kcna.co.jp; f. 1946; sole distributing agency for news in the DPRK; publs daily bulletins in English, Russian, French and Spanish; Dir-Gen. KIM KI RYONG.

Foreign Bureaux

Informatsionnoye Telegrafnoye Agentstvo Rossii—Telegrafnoye Agentstvo Suverennykh Stran (ITAR—TASS) (Russia): Munsudong, Bldg 4, Flat 30, Taedongkang District, Pyongyang; tel. (2) 3817318; Correspondent ALEKSANDR VALIYEV.

The Xinhua (New China) News Agency (People's Republic of China) is also represented in the DPRK.

Press Association

Korean Journalists Union: Pyongyang; tel. (2) 36897; f. 1946; assists in the ideological work of the Korean Workers' Party; Chair. Cen. Cttee KIM SONG GUK.

Publishers

Academy of Sciences Publishing House: Nammundong, Central District, Pyongyang; tel. (2) 51956; f. 1953.

Academy of Social Sciences Publishing House: Pyongyang; Dir CHOE KWAN SHIK.

Agricultural Press: Pyongyang; labour, industrial relations; Pres. HO KYONG PIL.

Central Science and Technology Information Agency: Pyongyang; f. 1963; Dir RI JA BANG.

Education Publishing House: Pyongyang; f. 1945; Pres. KIM CHANG SON.

Foreign Language Press Group: Sochondong, Sosong District, Pyongyang; tel. (2) 841342; fax (2) 812100; f. 1949; Dir CHOE KYONG GUK.

Foreign Language Publishing House: Oesong District, Pyongyang; Dir SONG KI HYON.

Higher Educational Books Publishing House: Pyongyang; f. 1960; Pres. JU IL JUNG.

Industrial Publishing House: Pyongyang; f. 1948; technical and economic; Dir KIM TONG SU.

Kim Il Sung University Publishing House: Pyongyang; f. 1965.

Korea Science and Encyclopedia Publishing House: POB 73, Pyongyang; tel. (2) 18111; fax (2) 3814410; publishes numerous periodicals and monographs; f. 1952; Dir Gen. KIM YONG IL; Dir of International Co-operation JEAN BAHNG.

Korean People's Army Publishing House: Pyongyang; Pres. YUN MYONG DO.

Korean Social Democratic Party Publishing House: Pyongyang; tel. (2) 3818038; fax (2) 3814410; f. 1946; publishes quarterly journal *Joson Sahoemingjudang* (in Korean) and *KSDP Says* (in English); Dir CHOE WON JUN.

Korean Workers' Party Publishing House: Pyongyang; f. 1945; fiction, politics; Dir RYANG KYONG BOK.

Kumsong Youth Publishing House: Pyongyang; f. 1946; Dir HAN JONG SOP.

Literature and Art Publishing House: Pyongyang; f. by merger of Mass Culture Publishing House and Publishing House of the Gen. Fed. of Literary and Art Unions; Dir Gen. JO KYONG HWAN.

Transportation Publishing House: Namgyodong, Hyongjaesan District, Pyongyang; f. 1952; travel; Editor PAEK JONG HAN.

Working People's Organizations Publishing House: Pyongyang; f. 1946; fiction, government, political science; Dir PAK SE HYOK.

WRITERS' UNION

Korean Writers' Union: Pyongyang; Chair. Cen. Cttee KIM PYONG HUN.

Broadcasting and Communications

TELECOMMUNICATIONS

Korea Post and Telecommunications Co: Pyongyang; Dir KIM HYON JONG.

BROADCASTING

Regulatory Authorities

DPRK Radio and Television Broadcasting Committee: see Radio, below.

Pyongyang Municipal Broadcasting Committee: Pyongyang; Chair. KANG CHUN SHIK.

Radio

DPRK Radio and Television Broadcasting Committee: Jonsungdong, Moranbong District, Pyongyang; tel. (2) 3816035; fax (2) 3812100; programmes relayed nationally with local programmes supplied by local radio cttees; loudspeakers are installed in factories and in open spaces in all towns; home broadcasting 22 hours daily; foreign broadcasts in Russian, Chinese, English, French, German, Japanese, Spanish and Arabic; Chair. CHA SUNG SU.

Television

General Bureau of Television: Gen. Dir CHA SUNG SU.

DPRK Radio and Television Broadcasting Committee: (see Radio).

Kaesong Television: Kaesong; broadcasts five hours on weekdays, 11 hours at weekends.

Korean Central Television Station: Ministry of Post and Telecommunications, Pyongyang; broadcasts five hours daily; satellite broadcasts commenced Oct. 1999.

Mansudae Television Station: Mansudae, Pyongyang; f. 1983; broadcasts nine hours of cultural programmes, music and dance, foreign films and news reports at weekends.

Finance

(cap. = capital; res = reserves; dep. = deposits; m. = million; brs = branches)

BANKING

During 1946–47 all banking institutions in North Korea, apart from the Central Bank and the Farmers Bank, were abolished. The Farmers Bank was merged with the Central Bank in 1959. The Foreign Trade Bank (f. 1959) conducts the international business of the Central Bank. Other banks, established in the late 1970s, are responsible for the foreign-exchange and external payment business of North Korean foreign trade enterprises.

The entry into force of the Joint-Venture Act in 1984 permitted the establishment of joint-venture banks, designed to attract investment into North Korea by Koreans resident overseas. The Foreign Investment Banking Act was approved in 1993.

Central Bank

Central Bank of the DPRK: Munsudong, Seungri St 58-1, Central District, Pyongyang; tel. (2) 3338196; fax (2) 3814624; f. 1946; bank of issue; supervisory and control bank; Pres. KIM WAN SU; 227 brs.

State Banks

Changgwang Credit Bank: Saemaeul 1-dong, Pyongchon District, Pyongyang; tel. (2) 18111; fax (2) 3814793; f. 1983; commercial, joint-stock and state bank; cap. 601.0m. won, res 1,194.2m. won, dep. 10,765.8m. won (Dec. 1997); Chair. KIM CHOL HWAN; Pres. KYE CHANG HO; 172 brs.

Credit Bank of Korea: Chongryu 1-dong, Munsu St, Otandong, Central District, Pyongyang; tel. (2) 3818285; fax (2) 3817806; f. 1986 as International Credit Bank, name changed 1989; Pres. LI SUN BOK; Vice-Pres. SON YONG SUN.

Foreign Trade Bank of the DPRK: FTB Bldg, Jungsongdong, Seungri St, Central District, Pyongyang; tel. (2) 3815270; fax (2) 3814467; f. 1959; deals in international settlements and all banking business; Pres. KIM JUN CHOL; 11 brs.

International Industrial Development Bank: Jongpyong-dong, Pyongchon District, Pyongyang; tel. (2) 3818610; fax (2) 3814427; f. 2001; Pres. SHIN DOK SONG.

Korea Daesong Bank: Segoridong, Gyongheung St, Potonggang District, Pyongyang; tel. (2) 3818221; fax (2) 3814576; f. 1978; Pres. RI HONG.

Koryo Bank: Ponghwadong, Potonggang District, Pyongyang; tel. (2) 3818168; fax (2) 3814033; f. 1989 as Koryo Finance Joint Venture Co, name changed 1994; co-operative, development, regional, savings and universal bank; Pres. LI CHANG HWAN; 10 brs.

Kumgang Bank: Jungsongdong, Central District, Pyongyang; tel. (2) 3818532; fax (2) 3814467; f. 1979; Chair. KIM JANG HO.

Joint-Venture Banks

Korea Commercial Bank: f. 1988; joint venture with Koreans resident in the USA.

Korea Joint Financial Co: f. 1988; joint venture with Koreans resident in the USA.

Korea Joint Bank: Ryugyongdong, Potonggang District, Pyongyang; tel. (2) 3818151; fax (2) 3814410; f. 1989 with co-operation of the Federation of Korean Traders and Industrialists in Japan; cap. US $1,932.5m. (1994); Chair PAK IL RAK; Vice-Pres. KIM SONG HWAN; 6 brs.

Korea Nagwon Joint Financial Co: f. 1987 by Nagwon Trade Co and a Japanese co.

Korea Rakwon Joint Banking Co: Pyongyang; Man. Dir HO POK DOK.

Korea United Development Bank: Central District, Pyongyang; tel. (2) 3814165; fax (2) 3814497; f. 1991; 51% owned by Zhongce Investment Corpn (Hong Kong), 49% owned by Osandok General Bureau; cap. US $60m.; Pres. KIM SE HO.

Koryo Joint Finance Co: Pyongyang; Dir KIM YONG GU.

Foreign-Investment Banks

Golden Triangle Bank: Rajin-Sonbong Free Economic and Trade Zone; f. 1995.

Daesong Credit Development Bank: Potonggang Hotel, 301 Ansan-dong, Pyongchon District, Pyongyang; tel. (2) 3814866; fax (2) 3814723; f. 1996 as Peregrine-Daesong Development Bank; jt venture between Oriental Commercial Holdings Ltd (Hong Kong) and Korea Daesong Bank; Man. NIGEL COWIE.

INSURANCE

State Insurance Bureau: Central District, Pyongyang; tel. (2) 38196; handles all life, fire, accident, marine, hull insurance and reinsurance.

Korea Foreign Insurance Co (Chosunbohom): Central District, Pyongyang; tel. (2) 3818024; fax (2) 3814464; f. 1974; conducts marine, motor, aviation and fire insurance, reinsurance of all classes, and all foreign insurance; brs in Chongjin, Hungnam and Nampo, and agencies in foreign ports; overseas representative offices in Chile, France, Germany, Pakistan, Singapore; Pres. RI JANG SU.

Korea International Insurance Co: Pyongyang; Dir (vacant).

Korea Mannyon Insurance Co: Pyongyang; Pres. PAK IL HYONG.

Trade and Industry

GOVERNMENT AGENCIES

DPRK Committee for the Promotion of External Economic Co-operation: Jungsongdong, Central District, Pyongyang; tel. (2) 333974; fax (2) 3814498; Chair. KIM YONG SUL.

DPRK Committee for the Promotion of International Trade: Central District, Pyongyang; Pres. RI SONG ROK; Chair. KIM JONG GI.

Economic Co-operation Management Bureau: Ministry of Foreign Trade, Pyongyang; f. 1998; Dir KIM YONG SUL.

Korea International Joint Venture Promotion Committee: Pyongyang; Chair. RI KWANG GUN.

Korean Association for the Promotion of Asian Trade: Pyongyang; Pres. RI SONG ROK.

Korean International General Joint Venture Co: Pyongyang; f. 1986; promotes joint economic ventures with foreign countries; Man. Dir KANG JONG MO.

Korean General Merchandise Export and Import Corpn: Pyongyang.

INDUSTRIAL AND TRADE ASSOCIATIONS

Korea Building Materials Trading Co: Central District, Pyongyang; chemical building materials, woods, timbers, cement, sheet glass, etc; Dir SHIN TONG BOM.

Korea Cement Export Corpn: Central District, Pyongyang; f. 1982; cement and building materials.

Korea Cereals Export and Import Corpn: Central District, Pyongyang; high-quality vegetable starches, etc.

Korea Chemicals Export and Import Corpn: Central District, Pyongyang; petroleum and petroleum products, raw materials for the chemical industry, rubber and rubber products, fertilizers, etc.

Korea Daesong Jeil Trading Corpn: Potonggang District, Pyongyang; machinery and equipment, chemical products, textiles, agricultural products, etc.

Korea Daesong Jesam Trading Corpn: Potonggang District, Pyongyang; remedies for diabetes, tonics, etc.

Korea Ferrous Metals Export and Import Corpn: Potonggang District, Pyongyang; steel products.

Korea Film Export and Import Corpn: Daedongmundong, Central District, POB 113, Pyongyang; tel. (2) 180008034; fax (2) 3814410; f. 1956; feature films, cartoons, scientific and documentary films; Dir-Gen. CHOE HYOK U.

Korea First Equipment Export and Import Co: Central District, Pyongyang; tel. (2) 334825; f. 1960; export and import of ferrous and non-ferrous metallurgical plants, geological exploration and mining equipment, communication equipment, machinebuilding plant, etc.; construction of public facilities such as airports, hotels, tourist facilities, etc.; joint-venture business in similar projects; Pres. CHAE WON CHOL.

Korea Foodstuffs Export and Import Corpn: Tongdaewon District, Pyongyang; cereals, wines, meat, canned foods, fruits, cigarettes, etc.

Korea Fruit and Vegetables Export Corpn: Central District, Pyongyang; tel. (2) 35117; vegetables, fruit and their products.

Korea General Co for Economic Co-operation: Central District, Pyongyang; overseas construction, equipment for hydroelectric power plants, equipment for rice-cleaning mills.

Korea General Export and Import Corpn: Central District, Pyongyang; plate glass, tiles, granite, locks, medicinal herbs, foodstuffs and light industrial products.

Korea General Machine Co: Pyongyang; Dir RA IN GYUN.

Korea Hyopdong Trading Corpn: Central District, Pyongyang; fabrics, glass products, ceramics, chemical goods, building materials, foodstuffs, machinery, etc.

Korea Industrial Technology Co: Pyongyang; Pres. KWON YONG SON.

Korea International Chemical Joint Venture Co: Pyongyang; Chair. RYO SONG GUN.

Korea International Joint Venture Co: Pyongyang; Man. Dir HONG SONG NAM.

Korea Jangsu Trading Co: Potonggang District, Pyongyang; medicinal products and clinical equipment.

Korea Jeil Equipment Export and Import Corpn: Jungsongdong, Central District, Pyongyang; tel. (2) 334825; f. 1960; ferrous and non-ferrous metallurgical plant, geological exploration and mining equipment, power plant, communications and broadcasting equipment, machine-building equipment, railway equipment, construction of public facilities; Pres. CHO JANG DOK.

Korea Jesam Equipment Export and Import Corpn: Central District, Pyongyang; chemical, textile, pharmaceutical and light industry plant.

Korea Koryo Trading Corpn: Pyongyang; Dir KIM HUI DUK.

Korea Kwangmyong Trading Corpn: Central District, Pyongyang; dried herbs, dried and pickled vegetables; Dir CHOE JONG HUNG.

Korea Light Industry Import-Export Co: Juchetab St, Tongdaewon District, Pyongyang; tel. (2) 37661; exports silk, cigarettes, canned goods, drinking glasses, ceramics, handbags, pens, plastic flowers, musical instruments, etc.; imports chemicals, dyestuffs, machinery, etc.; Dir CHOE PYONG HYON.

Korea Machine Tool Trading Corpn: Pyongyang; Dir KIM KWANG RYOP.

Korea Machinery and Equipment Export and Import Corpn: Potonggang District, Pyongyang; tel. (2) 333449; f. 1948; metallurgical machinery and equipment, electric machines, building machinery, farm machinery, diesel engines, etc.

Korea Maibong Trading Corpn: Central District, Pyongyang; non-ferrous metal ingots and allied products, non-metallic minerals, agricultural and marine products.

Korea Manpung Trading Corpn: Central District, Pyongyang; chemical and agricultural products, machinery and equipment.

Korea Mansu Trading Corpn: Chollima St, Central District, POB 250, Pyongyang; tel. (2) 43075; fax (2) 812100; f. 1974; antibiotics, pharmaceuticals, vitamin compounds, drugs, medicinal herbs; Dir KIM JANG HUN.

Korea Marine Products Export and Import Corpn: Central District, Pyongyang; canned, frozen, dried, salted and smoked fish, fishing equipment and supplies.

Korea Minerals Export and Import Corpn: Central District, Pyongyang; minerals, solid fuel, graphite, precious stones, etc.

Korea Namheung Trading Co: Tongdaewon District, Pyongyang; high-purity reagents, synthetic resins, vinyl films, essential oils, menthol and peppermint oil.

Korea Non-ferrous Metals Export and Import Corpn: Potonggang District, Pyongyang.

Korea Okyru Trading Corpn: Central District, Pyongyang; agricultural and marine products, household goods, clothing, chemical and light industrial products.

Korea Ponghwa Contractual Joint Venture Co: Pyongyang; Dir RIM TONG CHON.

Korea Ponghwa General Trading Corpn: Central District, Pyongyang; machinery, metal products, minerals and chemicals.

Korea Publications Export and Import Corpn: Yokjondong, Yonggwang St, Central District, Pyongyang; tel. (2) 3818536; fax (2) 3814404; f. 1948; export of books, periodicals, postcards, paintings, cassettes, videos, CDs, CD-ROMs, postage stamps and records; import of books; Pres. RI YONG.

Korea Pyongchon Trading Co: Central District, Pyongyang; axles, springs, spikes, bolts and bicycles.

Korea Pyongyang Trading Co Ltd: Central District, POB 550, Pyongyang; pig iron, steel, magnesia clinker, textiles, etc.

Korea Rungra Co: Pyongyang; Dir CHOE HENG UNG.

Korea Rungrado Trading Corpn: Potonggang District, Pyongyang; food and animal products; Gen. Dir PAK KYU HONG.

Korea Ryongaksan General Trading Corpn: Pyongyang; Gen. Dir HAN YU RO.

Korea Samcholli General Corpn: Pyongyang; Dir JONG UN OP.

Korea Senbong Trading Corpn: Central District, Pyongyang; ferrous and non-ferrous metals, rolled steels, mineral ores, chemicals, etc.

Korea Somyu Hyopdong Trading Corpn: Oesong District, Pyongyang; clothing and textiles.

Korea Songhwa Trading Corpn: Oesong District, Pyongyang; ceramics, glass, hardware, leaf tobaccos, fruit and wines.

Korea Technology Corpn: Central District, Pyongyang; scientific and technical co-operation.

Korea Unha Trading Corpn: Tongdaewon District, Pyongyang; clothing and fibres.

Kwangmyong Trading Group of Korea: Pyongyang; Pres. CHOE JONG HUN.

TRADE UNIONS

General Federation of Trade Unions of Korea (GFTUK): POB 333, Pyongyang; fax (2) 3814427; f. 1945; 1.6m. mems (1986); six affiliated unions; Chair. RYOM SUN GIL.

- **Metals, Engineering, Mining and Power Industries Workers' Union:** Pyongyang; Chair. RI JU JIN.
- **Light and Chemical Industries and Commerce Union:** Pyongyang; Chair. MUN SOK NAM.
- **Union of Public Employees:** Pyongyang; Chair. PAK SEI HYOK.
- **Union of Construction and Forestry Workers:** Pyongyang; Chair. SON YONG JUN.
- **Union of Educational and Cultural Workers:** Pyongyang; Chair. PAK CHUN GEUN.
- **Union of Transport Workers and Fishermen:** Pyongyang; Chair. CHOE RYONG SU.

General Federation of Agricultural and Forestry Technique of Korea: Chung Kuyuck Nammundong, Pyongyang; f. 1946; 523,000 mems.

General Federation of Unions of Literature and Arts of Korea: Pyongyang; f. 1946; seven br. unions; Chair. Cen. Cttee CHANG CHOL.

Kim Il Sung Socialist Youth League: Pyongyang; fmrly League of Socialist Working Youth of Korea; First Sec. KIM GYONG HO.

Korean Architects' Union: Pyongyang; f. 1954; 500 mems; Chair. Cen. Cttee PAE TAL JUN.

Korean Democratic Lawyers' Association: Ryonhwa 1, Central District, Pyongyang; fax (2) 3814644; f. 1954; Chair. HAM HAK SONG.

Korean Democratic Scientists' Association: Pyongyang; f. 1956.

Korean Democratic Women's Union: Jungsongdong, Central District, Pyongyang; fax (2) 3814416; f. 1945; Chief Officer PAK SUN HUI.

Korean General Federation of Science and Technology: Jungsongdong, Seungri St, Central District, Pyongyang; tel. (2) 3224389; fax (2) 3814410; f. 1946; 550,000 mems; Chair. Cen. Cttee CHOE HUI JONG.

Korean Medical Association: Pyongyang; f. 1970; Chair. CHOE CHANG SHIK.

Union of Agricultural Working People of Korea: Pyongyang; f. 1965 to replace fmr Korean Peasants' Union; 2.4m. mems; Chair. Cen. Cttee SUNG SANG SOP.

Transport

RAILWAYS

Railways were responsible for some 62% of passenger journeys in 1991 and for some 74% of the volume of freight transported in 1997.

At April 2000 the total length of track was 5,214 km, of which some 79% was electrified. There are international train services to Moscow (Russia) and Beijing (People's Republic of China). Construction work on the reconnection of the Kyongui (West coast, Shinuiju–Seoul) and East Coast Line (Wonsan–Seoul) began in September 2002; the former was expected to be completed by the end of that year, and the latter by September 2003. Eventually the two would be linked to the Trans-China and Trans-Siberian railways respectively, greatly enhancing the region's transportation links.

There is an underground railway system in Pyongyang, comprising two lines with a combined length of 22 km. Unspecified plans to expand the system were announced in February 2002.

ROADS

In 2000, according to South Korean estimates, the road network totalled 23,407 km (of which only about 8% was paved), including 682 km of multi-lane highways.

INLAND WATERWAYS

The Yalu (Amnok-gang) and Taedong, Tumen and Ryesong are the most important commercial rivers. Regular passenger and freight services: Nampo–Chosan–Supung; Chungsu–Shinuiju–Dasado; Nampo–Jeudo; Pyongyang–Nampo.

SHIPPING

The principal ports are Nampo, Wonsan, Chongjin, Rajin, Hungnam, Songnim and Haeju. In 1997 North Korean ports had a combined capacity for handling 35m. tons of cargo. At 31 December 2001 North Korea's merchant fleet comprised 176 vessels, with a combined displacement of 697,804 grt.

Korea Chartering Corpn: Central District, Pyongyang; arranges cargo transportation and chartering.

Korea Daehung Shipping Co: 1-1, Zungguyok, Pyongyang.

Korea East Sea Shipping Co: Pyongyang; Dir RI TUK HYON.

Korea Foreign Transportation Corpn: Central District, Pyongyang; arranges transportation of export and import cargoes (transit goods and charters).

Korean-Polish Shipping Co Ltd: Moranbong District, Pyongyang; tel. (2) 3814384; fax (2) 3814607; f. 1967; maritime trade mainly with Polish, Far East and DPRK ports.

Korea Tonghae Shipping Co: Changgwang St, Central District, POB 120, Pyongyang; tel. (2) 345805; fax (2) 3814583; arranges transportation by Korean vessels.

Ocean Maritime Management Co Ltd: Tonghungdong, Central District, Pyongyang.

Ocean Shipping Agency of the DPRK: Moranbong District, POB 21, Pyongyang; tel. (2) 3818100; fax (2) 3814531; Pres. O JONG HO.

CIVIL AVIATION

The international airport is at Sunan, 24 km from Pyongyang.

Chosonminhang/General Civil Aviation Bureau of the DPRK: Sunan Airport, Sunan District, Pyongyang; tel. (2) 37917; fax (2) 3814625; f. 1954; internal services and external flights by Air Koryo to Beijing and Shenyang (People's Republic of China), Bangkok (Thailand), Macao, Nagoya (Japan), Moscow, Khabarovsk and Vladivostok (Russia), Sofia (Bulgaria) and Berlin (Germany); charter services are operated to Asia, Africa and Europe; Pres. KIM YO UNG.

Tourism

The DPRK was formally admitted to the World Tourism Organization in 1987. Tourism is permitted only in officially accompanied parties. In 1999 there were more than 60 international hotels (including nine in Pyongyang) with 7,500 beds. Tourist arrivals totalled 128,000 in 1997. A feasibility study was undertaken in 1992 regarding the development of Mount Kumgang as a tourist attraction. The study proposed the construction of an international airport at Kumnan and of a number of hotels and leisure facilities in the Wonsan area. Local ports were also to be upgraded. It was hoped that the development, scheduled to cost some US $20,000m. and to be completed by 2004, would attract 3m. tourists to the area each year. In November 1998 some 800 South Korean tourists visited Mount Kumgang, as part of a joint venture mounted by the North Korean authorities and Hyundai, the South Korean conglomerate. By November 2000 only 350,000 South Korean tourists had visited the attraction. In 1996 it was reported that proposals had been made to create a tourist resort in the Rajin-Sonbong Free Economic and Trade Zone, in the north-east of the country. It was announced that hotels to accommodate some 5,000 people were to be constructed, as well as an airport to service the area. There were reports in 1998 that a heliport had been opened in the Zone, and in 1999 the resort was completed. Mount Chilbo, Mount Kuwol, Mount Jongbang and the Ryongmum Cave were transformed into new tourist destinations in that year. In August 2000 plans were announced for the development, jointly with China, of the western part of Mount Paektu, Korea's highest mountain, as a tourist resort.

Korea International Tourist Bureau: Pyongyang; Pres. HAN PYONG UN.

Korean International Youth Tourist Co: Mankyongdae District, Pyongyang; tel. (2) 73406; f. 1985; Dir HWANG CHUN YONG.

Kumgangsan International Tourist Co: Central District, Pyongyang; tel. (2) 31562; fax (2) 3812100; f. 1988.

National Tourism Administration of the DPRK: Central District, Pyongyang; tel. (2) 3818901; fax (2) 3817607; f. 1986; state-run tourism promotion organization; Dir RYO SUNG CHOL.

Ryohaengsa (Korea International Travel Company): Central District, Pyongyang; tel. (2) 3817201; fax (2) 3817607; f. 1953; has relations with more than 200 tourist companies throughout the world; Pres. CHO SONG HUN.

State General Bureau of Tourism: Pyongyang; Pres. RYO SUNG CHOL.

Defence

In August 2001 armed forces were estimated to total 1,082,000: army 950,000; navy 46,000; air force 86,000. There are also 189,000 security and border guards, and a workers' and peasants' militia ('Red Guards') numbering about 3.5m. Military service is selective: army for five to eight years, navy for five to 10 years and air force for three to four years.

Defence Expenditure: Budgeted at an estimated 2,960m. won for 2001.

Supreme Commander of the Korean People's Army and Chairman of the National Defence Commission: Marshal KIM JONG IL.

Chief of General Staff of the Korean People's Army: Vice-Marshal KIM YONG CHUN.

Commander of the Air Force: Col-Gen. O KUM CHOL.

Commander of the Navy: Gen. KIM YUN SHIM.

Education

Universal, compulsory primary and secondary education were introduced in 1956 and 1958, respectively, and are provided at state expense. Free and compulsory 11-year education in state schools was introduced in 1975. Children enter kindergarten at five years of age, and primary school at the age of six. After four years, they advance to senior middle school for six years. In 1987/88 there were 1.5m. primary school students and 2.5m. secondary school students. In that year some 325,000 students were enrolled in university-level institutions (of which there were 519 in 1986). In 1988 the Government announced the creation of new educational establishments, including one university, eight colleges, three factory colleges, two farmers' colleges and five special schools. English is compulsory as a second language from the age of 14. The adult literacy rate was estimated at 99% in 1984. In March 2001 the Ministry of Education announced plans for the establishment of a university of information science and technology in Pyongyang, in co-operation with a South Korean education foundation. The new university was due to offer a postgraduate degree course from September 2002 and undergraduate courses from 2003.

Bibliography

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