ANALYSIS OF THE SITUATION OF CHILDREN AND WOMEN IN THE DEMOCRATIC PEOPLE’S REPUBLIC OF KOREA
UNICEF/ HQ96-0078/Runar Soerensen: Dressed for winter, girls and boys stand smiling outside a primary school in Rinsan county, in North Hwanghae province, south of Pyongyang, the capital.

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Analysis of the Situation of Children and Women in the Democratic People’s Republic of Korea

UNICEF DPRK 2003

PREFACE

This analysis of the situation of children and women in the Democratic People’s Republic of Korea (DPRK), 2003, is intended to further the understanding of various stakeholders associated with the rights of children and women in the DPRK. We hope that it will serve as a resource for informing the policies and responses of both the government and those countries and organizations working to safeguard and improve the lives of children and women. The analysis is also meant to provide the basis for planning future UNICEF cooperation strategies. Towards this end, the document has been designed to serve as an information piece for programme planning, dialogue and advocacy.

The life-cycle perspective has been used to ensure a holistic analysis of the intergenerational and multi-sectoral linkages underlying the well-being of women and children. Though services for children and women in the DPRK, as elsewhere, are necessarily organized along sectoral lines, a thorough understanding of their situation requires an examination of the totality of their needs at different stages in their lives, as well as the linkages and causalities between these stages.

This is by no means an exhaustive analysis. The limited availability and reliability of data have been notable challenges in its preparation. There is still much to be done in the DPRK to strengthen statistical services, to foster greater consistency in figures used by different authorities, and particularly to promote more evidence-based planning. The multiple indicator cluster surveys, including nutritional assessments, conducted in 1998 and 2000, and the nutritional assessment conducted in 2002 play a very important role in enhancing understanding on the status of children and women and on the interplay of various causal factors. This is a role in which international cooperation can be of great utility, to ensure empirical rigour and utilization of information in improving the situation of children, women and vulnerable populations in general.

In view of this paucity in reliable, quantitative data, this situation analysis utilizes field reports and qualitative observations from the international community and national counterparts. It has also been informed where appropriate by secondary sources.

The preparation of this situation analysis coincided with that of the United Nations Common Country Assessment (CCA) on the DPRK. UNICEF contributions to this process were substantial as leader of three theme groups: health and nutrition; water and environmental sanitation; and education. Overall participation in the CCA enabled the consolidation of information and consensus on observable trends among the UN agencies and with a wider range of partners.

This situation analysis was prepared for UNICEF by Charulata Prasada and informed by contributions from the staff of the UNICEF Office in Pyongyang, as well as by discussions with a wide range of partners both national and international. The views expressed are those of UNICEF and do not necessarily reflect the analysis of the government. Where divergence exists, it is hoped that this will be helpful in providing reflections from a different standpoint, one that has only one concern: the well-being and progress of the children and women of the DPRK.

UNICEF DPRK
August 2003
THE MISSION OF UNICEF IN THE DPRK

UNICEF in the Democratic People’s Republic of Korea (DPRK) works for the realization of the rights of children and women, as defined in international human rights instruments, especially the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and relevant national laws. It does so in the context of UNICEF’s global mission statement, the goals of the Millennium Summit and the UN General Assembly’s Special Session on Children, and the organizational priorities of UNICEF’s medium-term strategic plan.

UNICEF’s primary concern at the present time in the DPRK is to assure an essential humanitarian safety net for the most vulnerable children and women as a part of the UN’s consolidated appeals process. It targets the most basic priorities, ensuring that it makes the most efficient use of its limited resources, generously provided by the international community. It constantly reviews policy and strategy to ensure that this is so. It monitors closely the distribution and use of humanitarian supplies for appropriateness and best end utilization.

UNICEF is also convinced that humanitarian assistance alone cannot provide the solution to the ongoing emergency in the DPRK. It thus engages too in limited development cooperation. Here it prioritizes action to enhance national capacities, review and revise social sector plans and policies, and undertake small-scale projects to provide examples for larger-scale development once greater investment becomes available.

UNICEF works in close collaboration with other members of the United Nations Country Team and of the humanitarian and development community in the DPRK. It provides policy and intellectual leadership for the community in the areas of nutrition, water and sanitation, education and, together with WHO, in health. It is the lead advocate for rights of children and women, providing regular updates on their situation and key information and training to members of the humanitarian and development community.

UNICEF is focused on the achievement of concrete results. Its medium-term and annual action plans are based around sets of clearly enunciated measurable and time-bound outputs and outcomes. Its monitoring and evaluation activities are oriented to the measurement of these results and to constant review of the efficiency and effectiveness of strategy and implementation.
Source: WFP DPRK, December 2002

The boundaries and names indicated in these maps do not imply official endorsement.
COUNTRY CONTEXT

The Korean peninsula is situated in northeast Asia. It is bordered to the north by China and to the northeast by Russia, and is otherwise surrounded by sea. At the end of the Second World War in 1945, Korea was divided into two halves, which became the Democratic People’s Republic of Korea (DPRK) to the north and the Republic of Korea (ROK) to the south. Though both Member States of the United Nations, neither recognizes the division of the peninsula.

The DPRK has a total land area of 222,209 sq km.1 Mountains constitute 80 per cent of its territory and plains 20 per cent.2 Most of the soils in the mountainous regions lack organic material and are relatively infertile. The DPRK comprises nine provinces (Ryanggang, North Hamgyong, South Hamgyong, Kangwon, Chagang, North Pyongan, South Pyongan, North Hwanghae and South Hwanghae) and three municipalities directly under central control (Pyongyang, Nampo and Kaesong).

POPULATION

According to government figures, the population in 1999 was 22,754,000. Population growth has been marginal, increasing by approximately one per cent per annum between 1993 and 1999. It is thought that the population growth rate may have stabilized over the past two years. However, until late 1999 there was a steady decline reported in population growth rates since the 1960s (see Figure 1).3 The total fertility rate (TFR) declined from 2.2 in 1993 to 2 in 19994. Life expectancy also declined during the same period from 73.2 years to 66.85 years, and the crude death rate increased from 6.8 per thousand to 9.3 per thousand.

The last national population census was undertaken in 1993. It revealed that women slightly outnumbered men; women were 51.3 per cent of the total population. Nine per cent of the population was reported to be under five years of age in 2001.6

Figure 2 shows the population breakdown by age. These figures, provided by the Flood Damage Rehabilitation Committee (FDRC) in early 2002, are largely consistent with earlier population data originating from the Central Bureau of Statistics (CBS) and other parts of the government.

4 Ibid.
5 Ibid.
6 Ibid.
The DPRK is ethnically almost completely homogeneous. Other than a small ethnic Chinese group, estimated to comprise less than two per cent of the population, there are no other racial divisions. Similarly there is no known linguistic diversity, Korean being the single national language with no distinguishable dialects spoken in the DPRK.

Although ethnic homogeneity contributes to the cohesiveness of the society, it cannot be regarded as the only factor underpinning identity and stability within the nation. Historic threats from external actors, including 35 years of colonial rule under the Japanese, are also cementing forces. The State has further developed a unified ideology for its people - *Juche*⁷ - and a corresponding production-based institutional framework. This is perhaps further strengthened by the relative continuity of traditional Confucian culture present in the entire region. Nor is this social cohesion fragmented by the practice of religions. Religious freedom is guaranteed by the Constitution, though only about a third of the population is thought to practise religion.

Figure 3 shows population by province and city. As one would expect, the majority of the population is concentrated in lowland areas. The presence of large industrial cities has also had an impact on population distribution. The rapid urbanization of the 1950s resulted in a majority of the population (61 per cent) living in towns and cities. This is explained primarily by the priority given to heavy industry during the reconstruction period following the Korean War (1950-53). The clustering of populations is not limited to urban areas; in rural areas too populations are by and large clustered into semi-urban settlements based around cooperative farms and work teams.

**EXTERNAL FACTORS SHAPING THE COUNTRY SITUATION**

External factors play a preponderant role in shaping the situation of the DPRK. Reconstruction and development have been profoundly shaped by geopolitics with the region, as well as by global cold war, and post-cold war, politics.

Historically the Korean peninsula was seen as a zone of influence for both China and Japan, and it has played a major part in their rivalries. Korea was occupied by Japan from 1910 until the end of the Second World War in 1945. It was during this time that much of the heavy industry, which characterized the economy of the northern part of the peninsula until very recently, was first developed to provide for Japanese military requirements. The Second World War ended with Soviet troops occupying the northern half of Korea and the American and other allied forces the southern half. This resulted in the division of the country, governed by two rival provisional administrations, which in 1948 became the governments of the DPRK (north) and ROK (south), each claiming jurisdiction over all of Korea.
In 1950 war broke out again with the two Koreas pitted against one another. The south received support from a United Nations force led by the United States, whilst the north was supported by the new People’s Republic of China. The Korean War ended in 1953 with the peninsula still divided. Importantly, there was no peace treaty, only an armistice, and this has left a legacy of a state of war to this day. Security is thus an issue of overriding importance in Korea, and the status of the peninsula is subject to the interests of a number of nations.

The Korean War resulted in widespread destruction. Following the war, the priority of the DPRK was thus reconstruction, which it undertook with assistance of its allies - the countries of the Warsaw Pact and China - along with transformation of the country into a socialist state. This was done at a very rapid pace. Heavy industry and mining became the centrepiece of the economy, as it was during the period of Japanese colonization. This was later supplemented by the development of light industry to produce consumer goods. The majority of the DPRK’s external trade was with the socialist bloc, largely in the form of barter arrangements, and highly subsidized. These preferential practices ensured access to cheap sources of energy and raw materials.

The country also rapidly developed an impressive set of policies and programmes in the social sector, providing free and universal access to health, childcare, education, maternity benefits and a host of other schemes. These were made possible to a great extent by the revenues generated from the expanding economy, helped in large degree by the assistance from and preferential trading relations with the Soviet Union, China and Eastern Europe. Thus the country achieved notable growth through the 1970s, its national income maintaining a clear edge over the ROK. It contributed assistance to a number of developing countries, notably in Africa.

The gradual breakdown of the socialist bloc in the late 1980s, leading to its complete disintegration around 1990, had a severe and detrimental impact on the DPRK. Here there are two factors of note. Firstly, the spectacular growth of the South Korean economy in the late 1970s and 1980s, combined with the decline of the socialist bloc, led countries in Eastern Europe, and eventually the Soviet Union and China, to open diplomatic relations with the ROK. They did this essentially to access ready sources of needed credit, or in some cases as part of the market orientation to reforms of their own economies. Nonetheless, it had the effect of isolating the DPRK from traditional friends. Secondly, the same factors within the socialist bloc countries led them to alter their terms of trade with the DPRK. Thus imports of fuel and raw materials to the DPRK became more expensive and had increasingly to be paid in hard currency, rather than through barter, and markets for finished products shrank, as the socialist countries turned to other sources of supply.

This resulted in a downturn not only in industrial production but also in the agricultural sector, as access to necessary inputs both imported and locally produced shrank. Energy production declined further exacerbating these problems. The State’s capacity to pay for...
imports of food, to purchase food locally for distribution and operate its wide range of social services was considerably impaired. On top of this came a series of natural disasters (flooding, typhoons and droughts), beginning in 1994, which brought about widespread damage to industry, mines and agriculture, and led to famine. The combined effect was to render the DPRK dependent on external humanitarian assistance for the survival of its people and on eventual external development cooperation and other inward investment to provide an exit from the humanitarian crisis.

Throughout all this time, however, the country has remained technically in a state of war, and there have been various crises with the other major players in the region: the ROK, Japan and the United States. These countries now also became the main donors to the humanitarian assistance programme launched by the United Nations, providing most of the food aid constituting some 80-90 per cent of the operation. Development assistance and other large-scale inward investment have not followed. This is due to both internal and external factors. Internally, there is still much to be done to meet the requirements of donors and investors. Externally, the continued non-resolution of the Korean War and attendant problems have placed political blocks on opportunities for inward investment, such as membership of the international financial institutions and access to bilateral development assistance.

Though the original parties to the Korean War still play the larger part in geopolitical matters surrounding the Korean peninsula, the more recent role of the European Union (EU) has been significant. In recent years all but two9 of the Member States of the EU have established diplomatic relations with the DPRK, and the bulk of funding for non-food aid components of the humanitarian action programme have come from the EU countries and the European Commission. In its recent economic reforms, the government has also stressed that it has studied European countries’ economies as a source of inspiration, and that it discussed this with the EU Presidency delegation that visited the DPRK in May 2001.

Many external commentators link the exit from humanitarian crisis to reunification of the two Koreas, some arguing that the resources required for redevelopment of the northern half of the peninsula can all be found in Korea itself. Certainly the pace of moves towards reunification, and especially a final resolution to the Korean War, represent the most important external factor for future development in the DPRK. Bearing in mind the history of South Korea, the other most significant step will be a final settlement with Japan. In 1965 Japan provided the ROK with US$500 million as tacit compensation for its colonial past. At today’s prices that would represent around US$10 billion of new investment for the cash strapped economy of the DPRK. All of this is still hostage to considerations of security.

GOVERNANCE
The organs of governance in the DPRK are regulated by the Constitution. This was first adopted in 1972 and subsequently amended and supplemented in 1992 and 1998. The Constitution describes the DPRK as an “independent socialist”10 and “revolutionary”11 state “guided in its activities by the Juche idea”12. Sovereignty “resides in the workers, peasants, working intellectuals and all other working people”13. They “exercise power through their representative organs - the Supreme People’s Assembly and local People’s Assemblies at all levels”14: county, city (or district), province (or municipality under direct central authority).
“All organs of the State... are formed and function on the principle of democratic centralism”.

Until the death of President Kim Il Sung in 1994, executive authority was vested in the presidency. On his death, however, he was named Eternal President of the DPRK, and the amended Constitution in 1998 divided executive authority among the National Defence Commission, the Presidium of the Supreme People’s Assembly and the Cabinet. Whilst there are three political parties active in the DPRK, the Constitution clearly delineates a role of “leadership of the Workers Party of Korea” (WPK). The current leader of the country, Kim Jong Il, draws his authority from his positions as Chairman of the National Defence Commission and Secretary-General of the WPK. The President of the Presidium of the Supreme People’s Assembly, Kim Yong Nam, carries out ceremonial duties of a Head of State, such as receiving “the credentials and letters of recall of diplomatic representatives accredited by foreign states”.

Central governance in the DPRK is carried out through “Commissions and Ministries of the Cabinet [that] supervise and guide the work of the sectors concerned in a uniform way under the guidance of the Cabinet”. In a practical sense, the central government and people’s committees at local level share responsibility for different areas of governance including administrative and legislative functions. For instance, the Ministry of Education is responsible for printing and distributing textbooks, while local people’s committees are tasked with provision of basic school supplies, such as pencils, notebooks, etc...

Government revenues are not derived from taxation. Rather they come through the trading of state and cooperative assets, such as agricultural produce, industrial products and services. The ownership of these assets is divided among the central government, local people’s committees and workers’ and peasants’ cooperatives, thus theoretically providing each with the means it needs to carry out its functions. With the severe contraction of the economy, the revenues to each of these organs have naturally fallen to levels below those needed for the maintenance of essential services.

THE ECONOMY

The economy represents one of the most fluid parts of the society over the past decade. On 1 July 2002, the government announced economic reforms oriented towards stimulating the Socialist Economy. These changes might be regarded as the response to prolonged economic hardships that were underpinned by the loss of favourable economic arrangements amongst traditional trading partners and the successive natural disasters faced by the DPRK though the 1990s.

The DPRK’s economic development was founded on the basis of central planning, collective production and State (or collective) ownership of almost all land and enterprises. Successive economic plans have given emphasis to development of heavy industry and to mechanization of agriculture. There was some diversification of the economy in the 1980s. The manufacturing

9 The two are France and Ireland.
11 Ibid, Article2.
12 Ibid, Article 3.
13 Ibid, Article 4.
14 Ibid, Article 6.
15 Ibid, Article 5.
16 Ibid, Preamble.
17 Ibid, Article 111.
18 Ibid, Article 127.
industry accounted for approximately 27-30 per cent of GDP. By 1989 GDP per capita was reportedly US$1,250\(^{19}\).

As noted earlier, initial economic gains were based on the favourable relationship with other socialist countries. These preferential arrangements in effect subsidized economic growth and sustenance of the economy. Perhaps the economic hardships that emerged in the 1990s were rooted in these dependencies and have been prolonged due to the lack of innovation in new trade and investment opportunities. The natural disasters that hit the country from 1994 onwards have also had obvious effects on the overall economic and social infrastructure of the country.

Government figures show a decline in per capita income from US$991 in 1993 to US$457 in 1998, i.e. less than half\(^{20}\). Since 1998 though, the macro-economy seems to have resumed some modest growth, as shown in Table 1. The real GDP growth over the previous year stood at 3.7 per cent in 2001, marking positive growth during three successive years. This is credited to investments made towards strengthening infrastructure within mainstay industries. However, industrial output is reported to have declined between 11 and 30 per cent, varying on the sub-sector, from 1990 levels\(^{21}\).

Diversification in trade relations is becoming increasingly inclusive of different countries, outside the former socialist bloc, notably Japan, Saudi Arabia and Australia. Hong Kong is also an important trading partner. Inter-Korean trade expanded by 28 per cent between 1999 and 2000\(^{22}\).

Total merchandise exports declined from US$1,025 million in 1997 to US$597 million in 1999 but improved slightly to US$708 million in 2000\(^{23}\). Imports on the other hand grew more rapidly between 1996 and 2000 resulting in a consistently widening trade deficit that reached US$978 million in 2000. The

### DPRK ECONOMIC OVERVIEW

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<td>6.2</td>
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<td>(2.2)</td>
<td>(-0.3)</td>
<td>(-4.5)</td>
<td>(0.5)</td>
<td>(-0.4)</td>
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**TABLE 1: DPRK GDP 1996 - 2001, Bank of Korea, 2002**
country is still dependent on external inputs with petroleum, coal, chemicals and machinery being major imports, estimated at US$3.1 billion in 1998.

Though the economy has shown signs of improvement over the past 2-3 years, many of the issues related to competitiveness, lack of self-sufficiency and a relative vacuum in investment and suitable trading partners continue to be underlying barriers to further development.

Recent economic reforms

It is in this context that the government embarked on a series of economic reforms beginning on 1 July 2002 with the avowed aim of strengthening socialism. The measures appear to have been intended to introduce a number of key structural changes to the economy, though it is early days to tell to what extent they have succeeded.

Changes in the pricing system of agricultural produce, but also industrial and other inputs, as well as housing and utility costs, seem to have been aimed at reducing the gap between the prices paid to producers by the State and those available in the private “farmers” markets, thus reinforcing the availability of basic goods controlled by the State. They have also targeted some greater fiscal responsibility within various units of the economy that did not previously have to account for the real value of inputs or produce. Though there is a remaining differential between the state and private sectors, and a great deal of inflation in the latter, the gap has lessened, and this particular piece of the reforms appears to be working, at least for the present. The increased prices were accompanied by a hike in earnings, though it is difficult to estimate the extent to which wages have kept pace with prices, or the extent to which all purchases are now made in cash, as opposed to coupons earned with work points.

Along with this, there was an apparent removal of state subsidies, raising the prospect of non-performing units folding and their employees being made redundant. With employment being a right in the DPRK, however, there is a clear dichotomy between the aim of the reform and its potential consequences. Certainly there is widespread poverty but still no evidence of unemployment or destitution.

In order to limit the impact of inflationary pressure, caused by increased prices and wages, the government on 1 August 2002 instituted a currency reform revising the exchange of the Korean People’s Won (KPW) from 2.15 to 150 KPW to the US dollar, with this rate further susceptible to changes in international market conditions. Some of the economy, notably in Pyongyang, had already become dollarized during the late 1990s. Further, in an apparent attempt to mop up cash holdings of dollars, the government decreed on 1 December 2002 that the officially used foreign currency would be the Euro. This seems to have had little effect, since Euros and dollars continue to circulate side-by-side with either being used dependent on convenience. Another more recent attempt to mobilize cash holdings, this time in won, has been the issuance of government bonds. It is still far too early to say whether this measure will achieve success. Indeed there is also speculation that the bonds might

22 ROK Customs Service.
23 Economist Intelligence Unit (EIU), 2002.
24 This analysis of economic reforms is based on briefings from the Ministry of Foreign Affairs and discussion among staff of the humanitarian and development organizations based in Pyongyang, in turn animated in part by external debate and comment on the reforms, much of it from researcher in the ROK.
substitute for the need to issue increased volumes of currency to cover higher wages.

Among the most important constraints to macro-economic development has been the lack of inward investment. To stimulate this, the government enacted new legislation reforming the allowable proportion of foreign ownership in joint ventures beyond 50 per cent. It also began to expand the number of special economic zones from the one in Rajin-Sonbong, in the northeast on the border with Russia, to three more: Sinuiju, in the northwest on the border with China; Kaesong, in the southwest on the truce line with the ROK; and Kumgang, in the southeast also on the truce line with the ROK. The main source of foreign investment at each is obvious. The strategy appears to be to take advantage of market economics in areas where this will impact least on the mainstream politico-economic ideology of the State, i.e. in zones where it can be self-contained. For various reasons, the development of these zones has been problematic. Apart from particular difficulties in individual cases, the major problems appear to relate to differences in cultural perception between the DPRK authorities and their external interlocutors.

One reform that seemed to buck the trend of reinforcing the socialist system was experimentation with new forms of land tenure on hitherto unused lands in the northeast of the country allowing farmers to cultivate more land on any individual basis and to retain the profits of their production. Though this was touted in many media articles to be a radical move, it appears more designed towards acceptance of a fact, that farmers have increasingly encroached on previously unused land, notably on hillsides, and were putting greater effort into this individual enterprise than the regular business of agricultural cooperatives. Certainly farming families seem to have greater individual assets to fall back on in hard times than do their urban counterparts, who are highly dependent on cash wages and other aid from the State, for instance, food for work. There does though seem to be a fair degree of individual assistance operating between family members in rural communities and those in urban areas.

Thus far a collective framework, combined with reduced reliance on money in society, subordinated the emphasis on individual household security. There are some changes in this scenario already underway that could be accelerated by the impact of the economic reforms. At household level, the individual initiatives taken towards income generation through kitchen gardening or farming of marginal lands will have inevitable impacts on rest, exercising state entitlements and possibly attendance at school. The extent to which work for extra income subscribes to the traditional roles and responsibilities of men and women, boys and girls remains to be seen. However, areas of independent labour are traditionally considered to be tasks that women and children, especially girls, perform.

The government has underscored that some thirty social service schemes related to health, education, entitlements for women, childcare, protection of the disabled, etc... will remain unchanged. There are, however, question marks over the affordability of such a wide range of free services, many of which are highly dependent on international humanitarian assistance.

**Agriculture and food security**

The state of agriculture is problematic. The dwindling food and agricultural production has consistently demonstrated deficits of some 30 per cent for the past seven years. The food gap has ranged from 1.04
million tonnes in 1998/99 to 2.2 million tonnes in 2000/01\(^26\), thereafter declining. Unlike many other food deficit countries, a heavy dependence on food aid from the international community, as well as for necessary agricultural inputs, such as chemical fertilizer, has become standard. However, the government’s pursuit of food self-sufficiency, based on state and collective farming of the 20 per cent of the total land area that is arable, appears questionable. The initial modernization of the agricultural sector through rapid expansion of irrigation, electrification and use of chemical fertilizers were themselves the result of the same dependencies. According to the crop and food assessment mission conducted in July 2002 by the Food and Agriculture Organization of the United Nations (FAO) and the World Food Programme (WFP), “the precarious foreign exchange situation does not allow significant commercial imports of much needed agricultural inputs such as fertilizer, pesticides, plastic sheets, spare parts for machinery, tractor and truck tyres, etc... Over the years domestic production of fertilizer has declined to a level of about 8 per cent of total application in 2001/02, increasing the reliance on imports. Yields of the main crop (paddy) used to be around 7 or 8 tonnes per hectare during the 1980s, but now they are about half of that due to lack of agricultural inputs. In order to increase total food production in the country, every possible piece of land is being brought under production, but cultivation of marginal land has unintended consequences of soil erosion and further reduction in overall land productivity... Thus productivity improvement is needed desperately.”\(^27\) Bolstered by the favourable weather conditions during the ripening season, overall production did improve in both 2001 and has continued to do so marginally in 2002. Agriculture, combined with forestry and fisheries, grew by 8.2 per cent in 2001 after negative growth of 7.9 per cent in 2000\(^28\).

\(^{25}\) This includes instances where these are other Koreans, such as government officials and corporate executives from the ROK. An example of this is a misunderstanding between north and south Koreans over the advantages to be gained from emphasizing the availability of cheap labour in the DPRK, given that it has few other carrots to offer to international business over, say, China, which has better infrastructure, communications, etc... This is apparently seen by some DPRK officials as an insult to Korean people, whilst in the ROK it is just an economic factor.

\(^{26}\) FAO/WFP Crop and Food Supply Assessment Mission to the Democratic People’s Republic of Korea, 29 July 2002.

\(^{27}\) Ibid.

production by county for 1999-2001. It demonstrates the clear vulnerability of the northeast, which is further demonstrated elsewhere in this analysis.

As noted above, families have increasingly cultivated marginal (hillside and other unused) lands and household plots. There have, however, been no accurate estimates of the range and significance of this production. The FAO/WFP crop and food assessment mission reported that the government regarded this as a temporary and negligible phenomenon that need not be included in official statistics. This form of production is worthy of further study, not only on methodological grounds but also to achieve precision in production estimates. The degree of effort put into this marginal cultivation is clearly motivated by the possibility of retaining the harvest within families, but the calorific expense may not be commensurate with the returns.

In spite of all the efforts made to increase food production, both collectively and individually, the crop and food assessment mission also observed high levels of under-employment on collective farms, resulting in a decline in incomes and household food security.

The 2002 nutrition assessment looked at household food security as one of its variables. It found that almost all houses had food in store with no variation across provinces. Maize and rice predominated. The main sources were the public distribution system (57.7 per cent) and the farmers’ ration (34.6 per cent), with 7.3 per cent coming from WFP rations. The frequency of other food groups reported as also being present in the food store is shown in Table 2. There was little variation across provinces for the presence of starchy foods in the store, but the presence of meat/egg/fishy foods did show variation, as did that of pulses. Vegetables, presumably including kimchi, were also universally present, but fruits showed provincial variation. In later discussion, the impact of this variability in household food availability and diet will be seen.

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<td>Starchy and alternatives</td>
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<td>Pulses</td>
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<td>Meat/Egg/Fish</td>
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<td>Vegetables</td>
<td>99.3</td>
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<tr>
<td>Fruits</td>
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<td>WFP/UNICEF fortified foods</td>
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**TABLE 2**: Food groups reported as being present in the food store, by mothers of children aged under seven years, in seven provinces and three cities of the DPRK, October 2002
PLANNING AND INFORMATION SYSTEMS

The DPRK is a centrally planned economy. Overall responsibility for formulation of both medium-term plans and annual budgets rests with the State Planning Commission, a Cabinet-level body. Planning tends to emphasize achievement of quantitative targets in a production mode, rather than qualitative goals related to human development. However, the DPRK has subscribed to the Millennium Development Goals, as well as those of *A World Fit for Children*.33

As in other socialist states, medium-term plans guided overall economic, social, defence and other activity. After an initial five-year plan, focused entirely on reconstruction, up to 1960, a series of seven-year development plans ensued with periods of adjustment between them. The last seven-year plan came to a close in 1994, and there has been no further overall medium-term planning of the economy, though there do exist a number of sectoral and other plans, some costed and some not. This is undoubtedly a reflection of the general breakdown of the economy and its underpinning means of collection of State revenues. Without any predictability regarding the future of the economy, there is little basis for setting medium or longer-term goals and strategies.

The centralization of planning has had major consequences for local level data collection and management of information systems. Beyond the obvious questions surrounding the local responsiveness and efficiency of central planning, there are also challenges associated with data gathering and information-based planning. Policies across sectors consistently commit to take a learning-based, scientific approach to programme delivery. There is indeed a widespread practice of collectively mapping production in order to improve performance at local levels. However, this is not replicated at higher levels. The DPRK relies heavily on censuses and sectoral reporting systems. Data is collected from local levels and reported horizontally and vertically to the Central Bureau of Statistics (CBS) and concerned line ministries. Although it is mentioned that data are verified and checked for accuracy by CBS at the county and provincial levels, there is no evidence of data analysis at the local level.

Field observations confirm that record keeping is meticulous at all levels across sectors and institutions.

### MILLENIUM DEVELOPMENT GOALS TO BE ACHIEVED BY 2015

1. Halve extreme poverty and hunger.
2. Achieve universal primary education.
3. Empower women and promote equality between women and men.
4. Reduce under-five mortality by two-thirds.
5. Reduce maternal mortality by three-quarters.
6. Reverse the spread of diseases, especially HIV/AIDS and malaria.
7. Ensure environmental sustainability.
8. Create a global partnership for development, with targets for aid, trade and debt relief.

**FIGURE 5: Implementing the Millenium Declaration,**
*United Nations Department of Public Information, October 2002*

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29 However, as noted above, one economic reform appears to be designed to take account of this.
31 Report on the DPRK Nutrition Assessment 2002, Central Bureau of Statistics DPRK, November 2002. The assessment was carried in collaboration with the DPRK Institute of Child Nutrition, UNICEF and WFP.
32 Kimchi is spiced pickled cabbage. It can also be made from other vegetables. It is an essential part of every Korean meal.
33 The Millennium Development Goals are those emanating from the UN’s Millennium Summit in 2000. *A World Fit for Children* is the outcome document of the UN General Assembly’s Special on Children in 2002. In both cases, and consistently between them, they emphasize outcomes that are designed to enhance the quality of human life.
However, reporting follows an upward flow towards the centre, rather than being effectively analyzed and employed for planning purposes at each level. Although impressive local systems of information management exist for cooperative production figures, these systems of local mapping and responsive planning have not been replicated in the social sector. The international community has observed that, in spite of the wealth of existing data, there is scant aggregation, analysis and sharing of information for the purpose of development cooperation.

Limitations on the availability of disaggregated data, particularly by gender, represent a profound barrier to accurate assessment, responsive planning and evaluation, whether on grounds of efficiency, effectiveness or equality.

SOCIAL ORGANIZATION AND COMMUNICATION

The DPRK is par excellence a highly organized society. Communication, advocacy and social mobilization are central priorities. The government relies on various channels of communication for disseminating information, furthering propaganda campaigns and providing sources of entertainment. Communication channels and social organizations play a significant role in maintaining social cohesion and stability. A closely integrated system of social organizations regularly mobilizes the population around a range of issues. For example, unions of industrial and agricultural workers, women, youth, etc... serve the primary function of organizing segments of the population around social and cultural issues. The country is reliant on both traditional forms of communication as well as mass media.

The Korean Central News Agency (KCNA), a government body, is the sole news agency in the country. There are three television channels, as well as radio, all state controlled, but there are no reliable data on access, use and impact of the media. Traditional media include mobile loudspeaker vans and loudspeakers in fields, which are frequently used to broadcast music and messages to workers and others. The population is entirely literate, and so the written word could be a very powerful vehicle. There is, however, little evidence of its use, beyond the proliferation of signboards around the country, possibly due to shortages of printing materials. There is tremendous emphasis placed on person-to-person communication at village and neighbourhood levels.

The entry points for addressing the family and issues surrounding childcare knowledge, attitudes and practices remain a challenge. Presently, there is an extremely heavy reliance on section doctors as virtually the sole systematic point of contact between institutions and families. Field motivators, who are frequently the same person as the section doctor, are also present at the ri/dong level. The Ministry of Public Health’s Health Education Institute employs “informers”, whose role is to inform about campaigns or mobilize action.

Perhaps the deeper challenge relates to identifying avenues for addressing attitudes and practices in the private sphere. The prevailing tendency to disseminate, inform and instruct may not appropriately address underlying issues related, for instance, to childcare or sanitation that have to do with embedded values and norms. The DPRK is though, a tightly organized society. The well-established channels of mass mobilization and public participation have remained largely intact throughout the hardships faced by the nation. Capacity building in the area of communication is guaranteed, therefore, to have widespread effects. However, the
technical capacities for development of communication programmes have suffered due to both lack of inputs and contact with developments in other countries.

**POLICY CONTEXT FOR CHILDREN AND WOMEN**

The DPRK’s commitment to the wellbeing of children and women is enshrined in its Constitution, laws and policies that guarantee a comprehensive set of social services, subsidies and safety nets. The basis for the current systems of education, health, childcare and women’s equality were established at the very inception of the country through the first decision taken by the Special People’s Committee in 1946. Policies have since evolved in parallel with reconstruction and development efforts. The social security system developed as a means of promoting equality among urban and rural populations resulting in relatively equitable extension of services throughout the country.

The particular strength of the DPRK’s policy framework lies in its comprehensiveness, integration and consistency in addressing the interests of children and women. It has been aligned with the collective production system. The government has proactively broadened and updated its laws and policies on an ongoing basis also making an effort to harmonize with international innovations and standards. Government spending and social investments were initially commensurate to its commitments though, with dwindling resources, it has not been possible to maintain this. The government has, nevertheless, kept its commitment to social entitlements, particularly those for children and women. This was reaffirmed in the enactment of the economic reforms begun from 1 July 2002 with the continuation of social welfare for 30 categories of recipients. This includes subsidies to education, the health system and care for children. The government also continues to guarantee a minimum ration of food staples, the scale of which will be determined by food availability.

**Laws and policies related to children**

The DPRK has a longstanding State policy of collectively supporting children’s care, upbringing, education and overall socialization. The codification of standards for the care of children began as early as 1947 with the Rules of Childcare, in which the State assumed responsibility for providing childcare. Subsequent legislation in 1949 - the Rules of Childcare Centres - further developed regulatory standards.

The present system of care for children is based primarily on the Law on Nursing and Upbringing of Children (1976). In establishing the rationale and framework for the nursery system, the law commits to maintaining standards for feeding and encouraging the psychosocial development of children, as well as assuring hygiene and epidemic prevention. Operationally, social cooperative organizations are obliged to maintain the material conditions of nurseries and kindergartens at levels determined by the State. The legal framework is integrated and, therefore, commitments for care for women during pregnancy and maternity benefits are included within this law. The law also establishes that pregnancies must be registered, thus facilitating antenatal care.

Following its accession to the Convention on the Rights of the Child (CRC), the DPRK adopted the Civil...
Law in September 1990 and the Family Law in October 1990. The Civil Law defined children as persons below the age of 17 years and established equal civil rights for adults and children, and adopted standards of civil responsibility for children. The Family Law obligates the State to pay primary attention to providing the material conditions for mothers to bring up and educate children soundly (Article 6). It also ascribed special responsibility to women for the upbringing and education of children (Article 18). The Constitution guarantees universal free and compulsory education for eleven years: one year of preschool, four years of primary school and six years of secondary school.

The DPRK’s policy framework related to children is extremely comprehensive. However, its realization is contingent on intensive investment in multiple sectors and layers of institutions. Economic constraints have, in effect, led to under-investment raising questions about institutional capacity to deliver on children’s entitlements.

**Laws and policies relating to women**

Women’s equality is promoted through a series of interrelated laws on labour, the civil code, public health, nursing and child rearing, and the family, as well as in the Constitution. These all have special provisions intended to protect and promote women’s rights. There exists a considerable amount of overlap between the various policies and no notable inconsistencies between them.

The commitment to women’s equality was first articulated in the Law on Sexual Equality in 1946. The law served as the legal foundation for women’s equal status stipulating women’s rights in marriage and divorce, and to alimony and child support. It protects women from sexual exploitation by prohibiting any form of prostitution, concubinage and polygamy. Equal inheritance and voting rights were also conferred on women.

Key to promoting women’s rights was to bring them into the workforce. Targets and norms for this began to evolve as early as 1958, although actual codification of major standards came about with the enactment of the Socialist Labour Law of 1978. This guaranteed protective standards during pregnancy including restriction from performing heavy and strenuous work harmful to health and prohibition of night labour. Women with infants were restricted from working late hours.

Policies surrounding maternity leave have progressed considerably since 1978. The original provision was for 35 days before and 42 days after delivery. Since then maternity leave has been extended to a total of 150 days, of which 60 days might be taken before delivery. Should maternity leave be extended to 180 days to be taken after delivery, it would certainly facilitate the State recommendation that undisrupted, exclusive breast-feeding be practised for six months from birth.

The Law on Nursing and Children’s Upbringing (1976) does entitle women to leave the workplace for breast-feeding, but the practicality of exercising the right remains problematic. According to this law (Article 20), wages, provisions and shares of distribution for the period of maternity leave are borne by the State or by the social cooperative organizations. Operationally, policies promoting women’s equality are supported by an extensive health care network, counselling centres (under the authority of local people’s committees) and childcare institutions.
Although these services and entitlements remain intact, as is the government’s commitment to their principles, individual and family practical responses to recent hardships raise questions on women’s actual ability to exercise and take advantage of these benefits. It is understood, for instance, that many women forego maternity benefits in order to accumulate the necessary work points to access food rations.

International agreements and treaties

The DPRK is a State Party to four of the six core international human rights instruments. It acceded to them in the following years:
- International Covenant on Economic, Social and Cultural Rights (ICESCR) - 1981;
- International Covenant on Civil and Political Rights (ICCPR) - 1981;
- Convention on the Rights of the Child (CRC) - 1990;

Convention on the Rights of the Child

The DPRK has been vigilant about children’s rights. It signed and ratified the CRC and has subsequently submitted two reports, the most recent in May 2002. The DPRK has revised some 50 laws, including formulation of the Family Law and the Civil Law, in order to ensure compliance with the provisions of the Convention. It has also formulated its second National Programme of Action for the Wellbeing of Children 2001-2010.

A notable feature of progress on the implementation of the CRC since the first report relates to corporal punishment. In its second periodic report, the government has indicated that corporal punishment for children within the family and in institutions has been done away with.

In relation to the four core principles of the CRC, the Committee on the Rights of the Child made observations as follows on the DPRK’s initial report:

Non-discrimination (Article 2): The homogeneity of the population and relative equality minimizes other bases for discrimination.

There is no apparent legal discrimination against children with disabilities and the State does provide specialized care. However, the Committee did express concern over the possible de facto discrimination related to access and adequacy of care.

The Committee expressed concern regarding monitoring of the implementation of the Convention amongst vulnerable children in both urban and rural areas. This, alongside the Committee’s notation on the country’s limited capacity for the development of differential indicators and to subsequently collect and analyze disaggregated data, raises questions regarding prevailing assumptions on vulnerability and equity.

The best interests of the child (Article 3): A recurring comment by the Committee, making special reference to Articles 3 and 20, relates to the implications of institutionalized care for children in early childhood, suggesting “that the State Party consider reviewing its policies and programmes regarding institutional care with a view to supporting more family oriented
solutions”. This has far reaching implications for the future direction of State policy on children, given the extent of emphasis placed on institutionalized care in the DPRK.

In other countries, the best interests of the child principle has been invoked to argue that basic services for children and women must be protected at all times, including structural adjustment and other economic reforms. Respect for the best interests of the child should be a key in mediating and guiding the reforms that the DPRK has initiated.

**Right to survival and development (Article 6):** Overall access to basic services, and equality of opportunity to access them, has been consistently maintained by the State. In its most recent report to the Committee, the government noted that the necessary legislative and institutional environment has been established but that “real livelihoods” of children will depend on the improvement of economic conditions of the country.

Also recognized in the report is the impact of eroded quality of health care on children. Special attention is placed on the need to improve the quality of the education system in its entirety to promote optimal development of children.

The Committee expressed its concern about the increased child mortality rate resulting from malnutrition, particularly amongst the most vulnerable, including those living in institutions.

The Committee encouraged the State Party to:
- prevent and combat malnutrition in children with favourable budgetary allocations to the maximum extent of their available resources, inclusive of international cooperation;
- adopt a children’s code;
- incorporate the Convention in curricula of all educational institutions and facilitate information to children on their rights;
- consider reviewing its policies and programmes regarding institutional care with a view to supporting more family oriented solutions.

**Convention on the Elimination of All Forms of Discrimination against Women**

Its accession in 2001 to CEDAW, the most comprehensive treaty on women’s human rights, reaffirms the DPRK’s international commitment to guarantee women’s equality. CEDAW provides for equality between women and men in the enjoyment of civil,
political, economic, social and cultural rights. It stipu-
lates that discrimination against women is to be elimi-
nated through legal, policy and programmatic measures
and through temporary special affirmative measures to
accelerate women’s equality, which are defined as
non-discriminatory.

The Convention is notably the only human rights treaty
to affirm women’s reproductive rights. The initial
national report to the Committee on the Elimination of
All Forms of Discrimination against Women is due in
2003.

The existence of gender-based discrimination is not for-
mauely acknowledged by the government. Noting that
marked gender-based differences do exist within both
the public and private spheres in the DPRK, there are
few instances of discrimination recorded. The Human
Rights Committee’s concluding remarks in July 2001
on the most recent State Party report on ICCPR
expressed concern about the number of allegations
regarding the trafficking of women, in violation of
Article 8 of ICCPR, brought to its attention by both
non-governmental organizations and the Special
Rapporteur on Violence against Women41.

The DPRK also participated in and adopted the
platform of action of the International Conference on
Although a delegation was sent to the Fourth World
Conference on Women in Beijing in 1995, the DPRK
did not sign the platform of action.

**Budgets and fiscal policy**
The DPRK does not release detailed information by cat-
egory on national budgets, and its definition of a
budget is said to be much more expansionary than that
of a market economy42. However, announcements on
the growth rates against previous years have been
made. Difficulties in commenting on fiscal spending
relate to the categorization applied to spending, or
more specifically to the practice of clustering different
categories of expenditure, for example, culture with
social security. The DPRK’s fiscal spending can be
broadly divided into three areas: social and cultural;
national defence; and management43. The DPRK histori-
cally boasted exceptionally high expenditures on socio-
cultural programmes, which encompass education,
health, environment, social security, welfare, housing
and local development, as well as cadre training and
culture.

The State’s exclusive sponsorship of social provision
obviously required extensive investments in estab-
lishing current systems. An example is seen in edu-
cation. Remarkable increases in socio-cultural
expenditure and reduced military spending accom-
panied the expansion of compulsory education to
eleven years in 1971-7644. This has been difficult to
maintain. For example, in comparing actual expenditure
on education between 1994 and 1999, it has declined
by almost 30 per cent, even though it has remained
virtually constant as a percentage of total national
expenditure, indicating constancy of government

40 Democratic People’s Republic of Korea, The Second Periodic Report
on the Implementation of the Convention on the Rights of the Child,
May 2002.
41 China’s public security agency has also registered some 90 cases of
trafficking of women, who are DPRK citizens, within its territory.
42 Cho Myung Chul and Zang Hyongsoo, North Korea’s Budgetary
System, Korea Institute for International Economic Policy, November
1999. Messrs Cho and Zang go on to say: “According to the
Economic Dictionary [of the DPRK] of 1985, budget is defined as ‘a
totality of all economic relations that arise from the activities of
creating, distributing, and utilizing cash and capital by the state,
institutions and enterprises’.
43 Ibid.
44 Ibid.
commitment\textsuperscript{45}. Given comprehensiveness of coverage and entitlements, the State’s fiscal capacity to maintain adequate levels of investment to assure access and quality is obviously in doubt. Since the early 1990s, the economy has been in decline. The country is now unable to fund its recurrent budget and is aid-dependent, including for food.

The budget passed by the Supreme People’s Assembly (SPA) in March 2002 envisaged increases in spending of 6.3 per cent for education, 5.1 per cent for public health and 6.1 per cent for social insurance and social security. Although details for the present are unavailable, the total outlay on implementation of the compulsory education, free health care, social insurance and social security system amounted to 38.1 per cent of the national budget. This compared to 14.4 per cent for national defence, the same proportion as applied in 2001\textsuperscript{46}.

The proportion of social sector spending devoted to basic social services (i.e. basic and primary education, as opposed to university education, or primary health care, as opposed to the operation of specialist hospitals) is not known, and thus an assessment of the DPRK’s performance against its commitment to the 20/20 initiative\textsuperscript{47} of the 1995 Copenhagen Social Summit is not feasible.

Interestingly, budget allocations for local development are clustered with social and cultural expenditures, making it difficult to apprehend the extent to which financial resources are earmarked for basic services at points of contact/delivery. However, based on field

<table>
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<tr>
<th>INSTITUTION/PERSON</th>
<th>ROLE</th>
<th>RESOURCE</th>
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<tr>
<td><strong>NURSERY</strong> (MoPH) 10-15% of total village population</td>
<td>From 3 months to 4 years old Daily care: • Feeding (including breastfeeding) • Hygiene (washing, etc...) • Stimulation (playing, education) • Immunization • Growth monitoring • PHC</td>
<td>Cooperative farm budget (per child proportion) ⏯️ ⏯️ ⏯️ Technical support MoPH → PPC → CPC → village Section Doctor</td>
</tr>
<tr>
<td><strong>KINDERGARTEN</strong> (MoE) 10-15% of total village population</td>
<td>From 4 to 5 years old, composed of two grades, of which higher grade is pre-school (compulsory) Daily care: • Feeding (only one time + snack) • Hygiene • Formal education • PHC (including growth monitoring)</td>
<td>Cooperative farm budget (per child proportion) ⏯️ ⏯️ ⏯️ Technical support MoE → PPC → CPC → village Education Department</td>
</tr>
</tbody>
</table>

TABLE 4: Roles and resources of nurseries and kindergartens
observations by the international community, there is no visible tendency of off-loading costs to lower levels of governance, though local governments already have many fiscal responsibilities for social services, which they too are unable to execute given their lack of resources.

INSTITUTIONAL MAP
A rudimentary mapping exercise was undertaken by UNICEF national and international staff to identify key institutions and their various resources and accountabilities. Figure 6 shows the networks of institutions most significant to the situation of children and women, whilst Table 4 indicates the roles and resources of two key early childcare institutions. It also indicates crudely the planning environment for these early childcare institutions. This type of analysis needs to be taken further, particularly in determining patterns of entitlements and accountabilities for the rights of children and women. Some preliminary observations can, nonetheless be made:

- There is close integration between production systems and service delivery facilities.
- There is a concentration of management and referral-level institutions at the county/district-level, indicating this as a key entry point for programming.
- More specialized and training resources are placed at the provincial level, and programmes need to take these into account.

46 These figures are taken from the KCNA report of 27 March 2002 on the SPA’s deliberations on the budget.
47 The 20/20 initiative called for governments of developing countries to devote 20 per cent of national budgets to basic social services and for developed countries to provide 20 per cent of their official development assistance to the same end.
EARLY CHILDHOOD

Early childhood is the most rapid period of development in a human life. The years from conception through birth to eight years of age are critical to the complete and healthy cognitive, emotional and physical growth of children. In short, it is a time when the foundations of physical growth, mental development and socialization are laid. It is also a time of heightened vulnerability when disease patterns, interacting with inadequacies of care, can seriously undermine that foundation, often resulting in compromised growth and development, and even death.

An examination of early childhood in the DPRK suggests that malnutrition has taken on an inter-generational pattern therein eroding survival, growth and development. This in turn manifests itself in reduced wellbeing and performance throughout the lifecycle. Whereas food shortages and natural disasters had a significant effect on early childhood development in the mid to late 1990s, the present state of malnutrition reflects a wider range of determinants. These include a combination of:

- poor physical status of women, the overall care environment and reduced capacities of primary and secondary caregivers to provide adequate care;
- the erosion of health delivery and water and sanitation systems, inhibiting caregivers from ensuring that children are appropriately and adequately nourished and stimulated, and are shielded from communicable diseases.

Figures 7 and 8 show the interrelation of both factors involved in optimal early childhood development and consequences of malnutrition throughout the lifecycle.

FOETAL GROWTH

Early childhood development is significantly impacted by conditions prior to birth and the overall status of women before and during pregnancy. A precarious nutritional situation among women is most often the result of heavy workload and exposure to infection, combined with inadequate intake of nutritious food. This has a negative impact on intra-uterine growth and development and can result in low birth weight. These newborns are thus already vulnerable to infection and further malnutrition.

Data on the nutritional status of women in the reproductive age group or weight gain during pregnancy have not been compiled and made available, and body mass index (BMI) is not measured. However, the stature of women appears to be small. Moreover, the
improvements in child nutritional status over the same period (see below), is significant. It should be noted, however, that in the 2002 assessment only a quarter of mothers agreed to have the examination\textsuperscript{52}, and the sample is certainly too small to discern any provincial variations with accuracy.

Both the 1998 and 2002 assessments also collected information on birth weights through mothers’ recall. The 1998 survey found that 9.1 per cent of mothers reported birth weights below 2.5 kg. In 2002, the respective figure was 6.7 per cent, ranging from 4.8 per cent in Pyongyang to 8.5 per cent in North Hwanghae and Ryanggang Provinces\textsuperscript{53}. These rates are very low compared to other countries, and there have been questions about the reliability of mothers’ recall. The external experts assisting the 2002 assessment believe, however, that mothers’ recall is good, though they note too that in the 1998 survey, if birth weights of 2.5 kg are added to those below 2.5 kg, the proportion goes up from 9.1 per cent to 22.7 per cent; in

<table>
<thead>
<tr>
<th>PROVINCE/CITY</th>
<th>% MALNOURISHED</th>
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<tbody>
<tr>
<td>Ryanggang</td>
<td>33.5</td>
</tr>
<tr>
<td>North Hamgyong</td>
<td>37.1</td>
</tr>
<tr>
<td>South Hamgyong</td>
<td>29.8</td>
</tr>
<tr>
<td>North Pyongan</td>
<td>30.9</td>
</tr>
<tr>
<td>South Pyongan</td>
<td>35.8</td>
</tr>
<tr>
<td>Pyongyang</td>
<td>34.2</td>
</tr>
<tr>
<td>Nampo</td>
<td>26.6</td>
</tr>
<tr>
<td>North Hwanghae</td>
<td>31.3</td>
</tr>
<tr>
<td>South Hwanghae</td>
<td>24.6</td>
</tr>
<tr>
<td>Kaesong</td>
<td>36.5</td>
</tr>
<tr>
<td>ALL</td>
<td>32.0</td>
</tr>
</tbody>
</table>

TABLE 5: Maternal malnutrition status as measured by adequacy of mid-upper arm circumference (MUAC) in mothers of children under two surveyed in seven provinces and three cities of the DPRK

The 2002 nutrition assessment also found that 33.6 per cent of mothers measured were malnourished according to the adequacy of the mid-upper arm circumference (MUAC)\textsuperscript{50}, with some variation across provinces/cities (see Table 5). The assessment also measured weight, finding that 16.7 per cent of mothers weighed less than 45 kg and 55.8 per cent less than 50 kg. A pre-pregnancy weight of less than 54 kg has been shown to be associated with less than ideal pregnancy outcomes across a number of studies\textsuperscript{51}.

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![FIGURE 7: Effects of malnutrition and morbidity seen from a life cycle perspective](image-url)
the 2002 assessment the same process would increase the proportion from 6.7 per cent to 14.6 per cent. They also noted that birth weight is not a measure of linear growth, and low birth weight may not, therefore, have such an impact on later stunting, which is linked more with the quality of diets of mothers before and during pregnancy than with its quantity.

SURVIVAL
The initial impressive gains made by the DPRK in reducing the under-five mortality rate (U5MR) from 37 per thousand live births in 1960 to 14 in 1990 have since been blunted. The Ministry of Public Health (MoPH) reports that U5MR in 2000 was 48.8. U5MR increased by about 1.8 times between 1993 and 1999. A commensurate rise in the infant mortality rate (IMR) indicates a steady increase over the last decade in children’s risk of dying before reaching five years of age.

The main causes of death in children under five are diarrhoeal diseases and acute respiratory infections, though little is known about causes of death in the perinatal and neonatal periods. As in other developing countries, malnutrition is assumed to underlie at least one half of all under-five deaths. Environmental factors are thought to play a large role in this situation.

EARLY CHILDHOOD GROWTH AND DEVELOPMENT
Three very large nutrition surveys were conducted in the DPRK in 1998, 2000 and 2002. Though the universes of these surveys were different, their mean aggregates do show some discernible trends. There are considerable improvements for all three measures of malnutrition (as shown in figure 10). The 1998 survey gives an indicator of the famine conditions that
prevailed in the mid-1990s. It is thus no surprise that children’s nutritional status should have improved considerably, also in view of the large-scale humanitarian relief effort that ensued.

The improvement is more marked in the case of acute malnutrition (wasting) than it is for chronic malnutrition (stunting), and for the latter the rate still remains very high, according to the World Health Organization (WHO) classification. There is still a significant number of children, estimated at around 70,000, who are severely wasted and require hospitalization for rehabilitation. The very high level of stunting indicates that there are serious problems for both the physical growth and psychosocial development of young children. These have far reaching consequences affecting the whole of their lives. Recent international research has shown that retarded growth and development in the youngest years cannot be later regained or compensated for.

The malnutrition rates among children over two years of age are thus largely a reflection of how good their growth was in the first two years, beginning in utero. New findings on the creation of growth potential during gestation, coupled with the findings of the 2002 assessment with regard to women’s nutritional status, should lead to more emphasis on the condition of women prior to, during and following pregnancy.

The 2002 assessment provided information on nutritional status of children disaggregated by province and city. This showed marked differences across the country with the best situation prevailing in Pyongyang and Nampo cities and the worst in South Hamgyong and Ryanggang provinces (see table 6). This confirms evidence from field observations that the population in the northeast of the country is in a more vulnerable situation and argues for greater attention to be paid to them. The assessment also provided the means to compare the situation of boys and girls and of children living in urban and rural areas, finding in each case no significant difference.

There is a growing body of evidence globally that micronutrients play a significant role in the growth and development of young children, as well as in immune systems. Figure 12 shows the consequences of micronutrient deficiencies in the life cycle of the child. It is likely that young children in the DPRK would be susceptible to micronutrient deficiencies, given their very limited diets, especially the relative absence of...
meat, fish and eggs. Feeding issues are further discussed below.

Unfortunately, there have yet been few studies on the situation of micronutrient deficiencies in the DPRK. The limited evidence is the following:

- The 1998 MICS reported the prevalence of anaemia in 31.7 per cent of children aged 6-84 months. There have been no updates of this indicator but, as noted above, roughly one third of mothers were found to be anaemic in the 2002 nutrition assessment. It is likely that many children are born with pre-existing anaemia. This will affect their energy levels, growth potential and immunity from disease.

- A study of goitre prevalence, caused by iodine deficiency\(^59\), conducted some years ago in eight provinces, found a rate of 15 per cent with ranges from 4 to 26 per cent depending on the province. The 2000 MICS found that only 1.7 per cent of households surveyed had iodized salt\(^60\). This did not figure in the 2002 nutrition assessment.

- Clinical signs of vitamin A deficiency have regularly been observed in childcare institutions, though the only available figure is from the 1995 mid-decade review of progress towards the World Summit for Children goals, which indicates a prevalence of 9.3 per cent. However, twice-yearly supplementation of children aged 6 months to 5 years, begun in 1998, has proven extremely successful. The 2002 nutrition assessment found a mean coverage rate of 98.6 per cent. On the other hand, coverage of post partum vitamin A supplementation to new mothers was only 33.1 per cent\(^61\).

CARE FOR CHILDREN

**Infant and young child feeding**

The 1998 MICS reported that 96.5 per cent of children were exclusively breast fed for the first four months of their lives. However, the clarity of understanding of the term "exclusive breast-feeding" was questionable, because mothers commonly believe that to give an infant water does not detract from the exclusivity of breast-feeding. The rate of exclusive breast-feeding

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\(^{59}\) The human body requires a daily intake of small amounts of iodine and cannot store it, like it does other micronutrients. Iodine deficiency in a foetus or young child can result in stillbirth and cretinism; it is the largest worldwide cause of mental disability. More insidiously, it robs children of 10-15 IQ points. The most striking physical manifestation of iodine deficiency, by no means visible in all cases, is a swelling of the thyroid gland in the neck into a goitre.

\(^{60}\) The globally accepted response to iodine deficiency, given that iodine has progressively disappeared from soils and thus from plant food sources, is the fortification of salt with potassium iodate.

\(^{61}\) Vitamin A provides protection from night blindness and other sight impairments. It also boosts the immune system, with some international studies indicating a high correlation between vitamin A supplementation and reduced mortality. Providing high dose vitamin A capsules to mothers immediately following delivery provides protection to children under six months, as it is transferred to the child in the mother’s breast milk.
declined significantly after the fourth month. According to the 2000 MICS, 90.7 per cent of children were exclusively breast fed in the first three months of their lives. This declined to 18.4 per cent for children in the 6-9 month age range.

In the 2002 nutrition assessment there was more care taken over the question of breast-feeding, and it found a mean rate of exclusive breast-feeding of children under six months of 69.6 per cent, with lows of 43.1 per cent in Pyongyang, 46.9 per cent in Nampo and 47.1 per cent in North Pyongan.

Despite the high proportion of institutional deliveries, reports suggest that the initiation of breast-feeding is often late by 12-24 hours.

The disruption of breast-feeding has obvious implications for the health and nutritional status of children. In addition to depriving them of antibodies present in breast milk, and reducing valuable psychosocial stimulation and bonding. The introduction of other foods at this early age also exposes children to sources of infection that are not present in breast-feeding. The challenge of maintaining hygiene standards in view of the DPRK’s reduced water supply and poor sanitation facilities adds to these vulnerabilities.

The government revised its policy on breast-feeding in 2001, raising the recommended period of exclusive breast-feeding from three to six months. However, children enter nurseries at the age of three months on the termination of the mandated period of maternity leave. Despite the deliberate and close proximity of nurseries to workplaces, breast-feeding is frequently rushed or disrupted. This may also be a factor in the drop off in breast-feeding noted in the various nutritional surveys.

In the DPRK, childcare responsibilities fall primarily on working women and caregivers in institutions, both of whom face limitations in time and resources. Between six months and three years, children have high nutritional requirements per kilogramme of body weight. They are highly susceptible to infection and, having very small stomachs, need frequent feeding with sufficiently dense but easily digestible foods. This is equally a time when children need a lot of care and attention.

Traditional homemade complementary foods lack protein, fat and micronutrients. The available diet is primarily watery and cereal and vegetable based, and is inadequate to the nutritional needs of children at this age. Food shortages and low purchasing power have resulted in not only scarcity but also a lack of diversity in the types of foods available and purchased. Prior to the emergency, complementary food consisted of rice, carrots, fish and oil. However, these commodities are no longer readily available or affordable. There has been some effort towards fortification of cereal/milk-blended foods, biscuits and
noodles, which are supplied to children and pregnant and lactating women as food aid. Fortification of a broader range of commonly used foods, such as cooking oil and flour, has not yet begun and would need levels of investment not presently available.

Health care
The DPRK has a very extensive network of health care institutions and providers. This comprises section (or household) doctors attached to each work team, one per 130 families; clinics, polyclinics and hospitals in each ri and dong; a hospital and anti-epidemic station in each county or urban district; hospitals attached to significant urban factories; and specialized institutions, including maternity and paediatric hospitals in each province and municipal city. There are also tertiary institutions in Pyongyang. Health care is by law provided completely free of charge. The existence of this network is a major achievement and an advantage in the provision of health services to children. However, over the past decade or so, the system has become increasingly vulnerable due to the economic difficulties faced by the country. This has led to a general rundown of infrastructure and especially shortages of medicines and other supplies.

The DPRK previously produced its own drugs but, like other parts of the industrial economy, these factories now run well below their potential. In many cases they are dependent on scant foreign aid for raw materials. Most essential drugs are (inadequately) supplied as humanitarian assistance.

A major area of comparative success has been in the prevention of disease through immunization. Prior to the 1990s, the DPRK had a very impressive and very complicated immunization programme. With limited funding and the onset of the natural disasters, this deteriorated rapidly. The country revamped its immunization strategy basing it on international standards, as defined by WHO. However, the 1998 MICS found very low coverage levels due to a number of factors: notably difficulties involved in the change of strategies, lack of equipment, and shortages of electricity to power the cold chain. The 2000 MICS indicated that coverage rates had picked up significantly, and this was largely confirmed by the 2002 nutrition assessment (see table 7), though reliance on recall, rather than vaccination cards, renders the results less credible; contrary to general practice in other countries, the vaccination cards have not been retained by households but kept in health facilities. Different statistics have been used by MoPH for its application to the Global Alliance for Vaccines and Immunizations (GAVI), which the 2002 result for DPT 3 would seem to

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>RESULT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VACCINATION COVERAGE</strong></td>
<td>1998</td>
</tr>
<tr>
<td>DPT 3</td>
<td>37.4</td>
</tr>
<tr>
<td>OPV 3</td>
<td>76.5</td>
</tr>
<tr>
<td>Measles</td>
<td>34.4</td>
</tr>
</tbody>
</table>

**TABLE 7: Vaccination coverage, 1998, 2000 and 2002**

62. Ris and dongs are sub-district levels of governance in, respectively, rural and urban areas. The ri corresponds to the area of a cooperative or state farm.
63. The cold chain refers to the network of refrigeration and insulation devices needed to ensure that vaccines are kept at the required low temperatures to ensure their potency.
64. DPT refers to the triple antigen vaccine against diphtheria, pertussis (or whooping cough) and tetanus, which is given in three doses. OPV is oral polio vaccine, which is also given in three doses. The figure for OPV is undoubtedly actually that for the national immunization days, explaining the difference between the DPT and OPV rates; in the regular immunization programme, these two vaccines are given together.
confirm. Nevertheless, there is a clear upturn, though this needs to be sustained.

Notably the national immunization days (NIDs) for polio eradication, held each year since 1997 in October and November, have been extremely successful achieving coverage in excess of 95 per cent. With improved surveillance of acute flaccid paralysis (AFP)\(^6\), it is now clear that polio has been eradicated, and the NIDs will cease from 2003, though formal certification is to be done for WHO’s Southeast Asia Region as a whole and may still take some more time\(^6\).

Through the same strategy of national child health days in May and November of each year, vitamin A supplementation for children aged six months to five years has been brought to similar high coverage levels, in fact, the highest in the Asia-Pacific region. Over the last two years, deworming pills\(^7\) have also been given to children aged two to five years. Clearly there is further scope to capitalize on this strategy, and the capacity for social mobilization of the DPRK’s health service, for other health interventions.

Apart from its economic and funding constraints, there are other factors inhibiting the effectiveness and efficiency of the health service. The extensive base network should certainly be maintained. However, there is ample evidence of over-capacity in hospitals, with hospital beds and their attendant human resources permanently underused. This is often explained by constraints over availability of food, medicines and, in winter, heating. However, this is an area that would benefit from extensive analysis and reform.

The DPRK’s comparative isolation has also inhibited redevelopment of public health system. Health professionals have not had access to many of the advances that have taken place in public health around the world. These have tended to touch basic aspects of care as much as more advanced technological questions. An example of this is the worldwide renewed interest in nursing as an essential component of patient care, whereas the DPRK has a ratio of doctors to nurses that is almost the inverse that prevailing in other countries. Its research, development and training institutions too are focused more on specialties than on advancing basic standards of care. There will be a need to increase the scale of the DPRK’s contacts with other countries, and with information on advances in health care, as well as to change the orientation of its higher institutions toward the achievement of fundamental results for children’s health.

**Childcare institutions**

Institutional care during early childhood is the norm in the DPRK. The Law on Nursing and Upbringing of Children was adopted in 1976. It articulates the State’s commitment to the financing of early childcare and defines the basic requirements of satisfactory/humane nursery conditions. The government’s conceptual approach towards early childhood care is multi-sectoral, although nurseries fall under the umbrella of the Ministry of Public Health. Nurseries accept children from the age of three months to four years. Attendance is optional. Kindergartens, which come under the Ministry of Education (MoE), cater for children aged five to six years. The second year is the first of the compulsory eleven-year education system. Based on this system of early childhood care and education, children enter primary school at seven years of age. Nurseries and kindergartens are attached to factories, enterprises and cooperative farms, and are supported financially by the concerned units.
The total number of children enrolled in nurseries and kindergartens in 2002 was 2,280,560, suggesting near total enrolment in early childcare programmes\(^68\). It is, however, possible that there is some over-reporting of enrolment, and certainly enrolment does not match attendance throughout the year. Many field reports indicate decreasing numbers of children attending nurseries. One factor is that parents are reluctant to consign their children to the nurseries given shortages of food and fuel for heating in the institutions. Practically, the economic hardships faced by cooperatives, state enterprises and social organizations have obviously influenced the amount of food and financial resources available to nurseries and other childcare institutions. Whereas individuals and families might adopt coping strategies, such as kitchen gardening and individual terracing, it remains unclear how institutions for the care of children are adapting to hardships.

The 2000 situation analysis noted that caregivers are under significant amounts of stress. This remains a point of concern in 2003. Field reports confirm a caregiver-to-child ratio of between 1:8 and 1:10 in nurseries and baby homes. With young children needing very frequent feeding, this is clearly inadequate. The consequences of ailing water supply and sanitation systems, recurrent shortages in electricity and basic shortages in supplies burden caregivers. On average, they may spend one to two hours a day ensuring adequate water needs are met. This raises questions about the level of hygiene maintained on a day-to-day basis, in addition to detracting from the time and stimulation that would otherwise be focused on promoting the healthy development of children.

In addition to the nurseries, the State also maintains 15 baby homes, for orphans and other children for whom their parents are unable to care. In 2002, these numbered 1,863 children aged 0-4 years\(^69\). This number includes triplets, who are cared for by the State during the first five years of their lives on the grounds that their care would be overburdening for their families\(^70\). Comments related to nurseries also apply to baby homes, which may be even less financially stable, given that they have no connection with any productive enterprise but are fully dependent on the State for their funding. Field observations indicate that there is considerably more malnutrition in baby homes than in nurseries, though baby homes do often substitute for provincial paediatric hospitals as the location for rehabilitation of severely malnourished children\(^71\). The very youngest children are clearly in a more disadvantaged situation, as they have no one to breast-feed them. Following their time in baby homes, the children move on to orphanages during their fifth and sixth years. In 2002, there were twelve orphanages in the DPRK catering for 1,544 children\(^72\). These are the equivalent of kindergartens for children who are orphaned.

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\(^{65}\) This is the means of detecting and verifying potential polio cases. Not all AFP is due to polio, which is verified through laboratory tests of stool specimens.

\(^{66}\) The region includes some other countries where there is still transmission of wild poliovirus.

\(^{67}\) High worm load is a factor preventing children from gaining adequate nutrition from food and especially inhibits the absorption of iron, leading to anaemia.

\(^{68}\) Figures provided by the Flood Damage Rehabilitation Committee.


\(^{70}\) There is a potential conflict here with Articles 3, 9 and 18 of the Convention on the Rights of the Child.

\(^{71}\) This happens particularly in instances where a parent or other family member is unable to remain with the child. Baby homes are set up to provide twenty-four hour care for young children, whereas the hospitals are not.

The State also runs a number of institutions for disabled children. Very little is known of these. It would be consistent with its adherence to the Convention on the Rights of the Child (notably Article 23) were the government to review its apparent policy of blanket institutionalization. The globally accepted approach is to care for disabled children within their families and communities, wherever possible.

**Growth monitoring and promotion**

Growth monitoring is routinely practiced at nurseries and backstopped by section doctors attached to each institution. Practically, the division of responsibility for growth monitoring seems to differ among institutions. In some cases, caregivers are responsible for both the weighing and the analysis of results; in others, they do the weighing, and the section doctors analyze the results; in still others, the responsibility for both falls on the section doctors. Since the section doctors are attached to ri or dong clinics, a second set of records of children’s weights is also kept there.

Experiences from other countries, where malnutrition is a significant concern, demonstrate that growth monitoring is most effective when caregivers and guardians are involved in the actual process of weighing and analysis of results. Experts in nutrition working within the DPRK over a long period note that the capacities of caregivers for early detection and appropriate response to growth faltering, and undertaking actions for actual prevention of malnutrition, are limited. Building the capacities of caregivers for systematic prevention and treatment of malnutrition, based on the growth monitoring process, is undisputedly an unmet need associated with the early childcare institutions.

One other significant drawback related to the overall effectiveness of present growth monitoring practice relates to the lack of systematic contact and coordination with families. Present reports suggest a virtual disjoint between family and institutional care. Caregivers meet family members when they drop off or collect children, which may often be done by an elder sibling. This inhibits the holistic assessment and analysis of children’s care environments. Clinical symptoms, such as diarrhoea, reduced energy or vomiting, might not get shared, nor their causes addressed. In short, the utility of growth monitoring becomes restricted to curative responses, where caregivers or section doctors only inform parents when problems have a measurable impact, therein negating the preventive and promotive functions. Recognizing that in the DPRK childcare institutions play a significant role, but are only one of two major care environments, linkages with families and to overall planning within the community need to be reinforced as a matter of priority.

In the DPRK, at the ri level, people and families are organized around production systems. Service delivery systems are planned multi-sectorally according to area-based (county) parameters. Although growth-monitoring records within nurseries and ri clinics are meticulously kept, they are not used for planning at the local level. This is unfortunate, since they could thus make a significant contribution to the integrated plans developed at the county level. This is furthermore the most sensitive indicator of the overall well-being of the population and of the protection of human capital.

**Psychosocial care and school readiness**

As noted in the Law on Nursing and Upbringing of Children, socialization and education are both essential objectives of the institutionalized care system. In spite of the extensive commitment towards promoting the optimal development of children, the caregiver-to-child
ratio is too low to provide the essential psychosocial care and stimulation for young children even in the best of circumstances.

The incidence of stunting is not only very concerning from the standpoint of survival and physical growth but also for the overall development of children. Stunting is the only tangible indicator of psychosocial development. In situations of inadequate nutrition, the body spontaneously ranks survival first and growth second, and cognitive and brain development last. This does not, however, imply that survival, growth and development are sequential. Rather, they take place simultaneously and, therefore, adequate feeding must be accompanied by psychosocial stimulation in order to enable optimal early childhood development. Practically, this means that children must be held, stroked, spoken to and stimulated visually with objects.

With a low ratio or caregivers-to-children, the various task burdens are too high to provide the same amount of stimulation for all children to develop to their optimal capacity. Moreover, there is a shortage of toys and learning materials. Integrated early childhood development is a relatively new approach and subject. It is, however, proving to be amongst the most effective strategies/entry points for human development in both developing and developed countries alike. Cuba, for example, has incrementally built a national system of daycare centres and early childhood groups that reach 98.3 per cent of children in the 0-6 year age group.

ENVIRONMENTAL FACTORS

The deterioration of the water and environmental sanitation systems resulting in the inadequacy of water supply and quality are one of the main reasons for compromised standards of hygiene, and causes of infection, in the DPRK.

Water supply

As indicated in figure 13, a large proportion of the population relies on piped systems for its water. Deterioration in water supply systems has resulted in a significant decrease in effective access to potable water. The daily water production fell from 304 litres per capita in 1994 to 289 litres per capita in 1996. Access to piped water (for the population served by these systems) dropped from 83 per cent to just 53 per cent during the same timeframe. This trend is likely to have continued thereafter, since no systematic programme of rehabilitation has been possible. A 2002 assessment of water supply and sanitation needs in three counties (Kosan in Kangwon Province and Kowon and Jongpyong in South Hamgyong Province) indicates that 80 per cent of the water supply needs of the population remain unmet. More specifically, the water supply remains at 50 litres per person per day, which represents just 20 per cent of the government target of 250 litres per person per day at the county level (where the majority of institutions are situated) and a 50 per cent shortfall from the 100 litres per person per day government target at the ri level.

There are multiple reasons that explain the shortfalls in water supply ranging from the inadequacy of water sources, which require re-planning, to the maintenance and rehabilitation of the water storage structures, pipelines (delivery and distribution) and pumping systems. Leakage due to rusted pipes, estimated by the Ministry of City Management (MoCM) to be up to 50 per cent, exacerbates supply problems. In addition to aging motors and pumps that are incapable of dis-

tributing the maximum yield, key connections are lacking due to missing parts and maintenance of electrical equipment. Also restricted by recurrent power shortages, pumping stations are unable to supply adequate amounts of water.

There is, nevertheless, considerable potential for development of gravity-flow systems. With an abundance of perennial water sources in the hills and mountains of the DPRK, this would seem to be the best way forward for the country to redevelop its water supply systems. This would also obviate the need for expensive and problematic pumping stations, exploiting either lowland rivers or lowland underground sources. Gravity systems are also more economic at both the investment and operation stages.

Although official figures on water quality are not readily available, reports of sub-standard water quality and contamination are common. MoCM notes that outbreaks of water-borne diseases, caused by secondary contamination of water in pipelines, remain a major problem. Testing and monitoring of water quality are regularly undertaken at anti-epidemic stations (AES) of the Ministry of Public Health. Though standards for water supply and quality are comparable to the WHO guidelines and the European standards, the AES lack updated and appropriate equipment and supplies, and their capacity is restricted due to date-expired reagents with reduced potency. Similarly, the staff capacity to collect and store water samples is limited, as is their capacity for data analysis and interpretation.

Hygiene and sanitation

Very little is known about hygiene practices, such as hand washing, in the DPRK. People appear to be highly dependent on tap water and modern soap as a disinfectant. It remains unclear how the population is adapting to the shortages of both water and soap. There are no known traditional alternatives to soap, such as ash in some other Asian countries. Hygiene practices are likely to be compromised in urban areas that are most severely impacted by shortages in piped water supply. In rural areas, where human excrement is used as a fertilizer and regular washing is of utmost importance, hygiene is likely to be compromised by the shortages of water, soap and disinfectants.

As shown in figure 14, the majority of the population relies on dug latrines. The danger of transmitting vector-borne diseases, overflow and contamination is significant with dug and open pit latrines. The location and flooding of open latrines contribute to the infiltration of sewage into water supply systems. In the early 1990s, the government made a concerted effort to replace dug latrines with flush toilets. However, water shortages have required the widespread change of flush toilets into pour-flush latrines. The 1998 MICS noted that the condition of latrines observed in institutions was below the minimum standard established for such institutions. As with water systems, one can only suppose that the situation has continued to degrade in the absence of any systematic programme of rehabilitation.

Changing strategies for development

Prior to the economic crisis and natural disasters, the government firmly prioritized expansion of water supply with no significant investments, and possibly no significant need, to renovate the inherited water systems, some of which were already three to four decades old. The government continues to regard water and sanitation as a priority. However, investment has suffered due to the context of economic hardships and has been highly inadequate. Until 2000, the overarching emphasis was placed on man-
agement of the humanitarian crisis and averting mass starvation. During this time interventions were of a small scale and ad hoc responses, such as constructing public latrines to compensate for those that had been destroyed. The role of international donors in the sector was oriented towards provision of supplies (such as pipes and water containers) and small-scale repairs. Donor support did not respond to assessment-based requests, nor did it contribute to any kind of systematic effort for increasing water supply in an incremental manner towards complete rehabilitation.

Gaps in the capacity of central and local water authorities pose immediate challenges to rehabilitation. MoCM has identified several gaps in supplies, while recognizing that successful rehabilitation of water systems is contingent on systematic diagnostic assessment. Capacity building as a technical response to these assessments represents the most rational and systematic use of scarce resources. In the context of its current international cooperation, MoCM has defined the county as the appropriate level for assessment. The presence of key institutions, as well as the manageable average size of counties, makes them an appropriate focus for attention given the current resources and capacities. It also ensures the integration of water and environmental sanitation activities.

The sector still needs large investments of a scale presently unavailable. These might eventually come from bilateral donors, the international financial institutions or even the private sector. We also still have to see how recently introduced water user fees will play out and possibly contribute to greater investment in the sector.
MIDDLE CHILDHOOD AND ADOLESCENCE

Middle childhood is a time of increased mobility and independence for children. In most countries, the most intensive stages of socialization through formal institutions begin during middle childhood. For children in the DPRK, middle childhood represents a continuation of close and intense interaction with institutions. Whereas the early childhood institutions’ primary objective is the guardianship and basic care of children, entry into education marks a more intense emphasis on learning and formal socialization.

It is during middle childhood and adolescence that children are taught and expected to behave according to customary gender roles. The socialized differences between girls and boys in every culture begin in early childhood itself. However, in middle childhood these are reinforced and furthered by both formal and informal means. The socially defined duties and roles differ between men and women, boys and girls. The roles and duties of women and girls encompass a range of responsibilities associated with taking care of the home, nurturing and caring for the family, performing biological reproductive functions and, for women, involvement in public life and productive labour. Traditionally, men and boys are to contribute to household security through involvement in productive labour and public participation and, for men, in ensuring the social education of boy children.

With its system of free and compulsory education, middle childhood and adolescence in the DPRK centre largely around school. The education system, along with its attendant social organization, the Kim Il Sung Youth League, represents one of the most potent channels of socialization and investment in children’s capacities during these stages of life.

THE EDUCATION SYSTEM
The education system in the DPRK comprises two main consecutive stages: eleven-year compulsory education and post-compulsory education. The initial eleven years comprise: the upper class of kindergarten (the lower one being optional); primary school (four years); and secondary school (six years). Beyond compulsory education there are higher specialized colleges (two to three years), and colleges and universities (four to six years). In addition there are seventeen boarding schools in the country catering to the education needs of 4,410 orphans aged 7-17 years76.

Education in the DPRK encompasses experiential learning based on practical action and labour as part of a course of study. Underpinned by ideology and

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perhaps the pragmatic task of state development, the
education policy promotes socialist pedagogy and
engenders participation in public life and production.

The curriculum is standardized throughout the country,
and there exist no separate programmes or streams
channeled towards areas of general education, tech-
nical and vocational education, with the exception of
some special schools. Education curricula are
developed at the central level by the State Academy
for Research in Education, and teaching materials are
drawn up and edited by the educational publishing
houses. The National Commission for the Revision of
Textbooks is responsible for changes in textbooks,
although the Ministry of Education must ratify amend-
ments prior to publication. Recent revisions reported to
UNESCO, but not involving international cooperation,
include textbooks for civics in 1991-94 and Korean
language for the upper class of kindergarten and
primary school in 1993-94. Textbooks for natural sci-
ences have also recently been rewritten.

Some aspects of school curricula for boys and girls
differ. There is greater emphasis on physical education
for boys and on home economics for girls.

The Ministry of Education coordinates the efforts of all
educational research institutions. The State Academy
for Research in Education, which has an academic
staff of 400, undertakes research into teaching theory,
the psychology of education and the content and
methodology of general (primary and secondary) edu-
cation. The Institute of Higher Education is responsible
for research in post-secondary education. Specific
research topics are not a matter of public record.
However, it seems clear that the ideological underpin-
ings and the basic approach towards education,
including curriculum content, have remained largely
constant since the reconstruction phase immediately
following the Korean War. For instance, the advent of
information technology is viewed as a simple additional
of content and equipment rather than an occasion for
fundamental reform of philosophy and content.

Learning assessment consists of discovering whether
the students’ education by the teacher (i.e. as regards
content, teaching procedures and teaching methods) is
properly conducted and whether the student has
attained the objectives of the education process, as
defined by the curriculum. This consists of regular
question-and-answer sessions, checks on homework
assignments and intermediate tests. Finally, there are
examinations in selected subjects at the end of the
semester and each academic year. Failure resulting in
repetition in primary school is minimal. The final sec-
ondary examination is based on questions set by
municipal or district education units. If students fail their
final examination, they receive only a certificate of edu-
cation, which means that they have to re-sit the exam
the following year in the subjects in which they failed, if
they are to obtain the secondary education diploma.

TABLE 8: Evolution of educational policies

<table>
<thead>
<tr>
<th>Policy Description</th>
<th>Year</th>
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<tbody>
<tr>
<td>Compulsory primary and abolition of tuition fees</td>
<td>1956</td>
</tr>
<tr>
<td>Compulsory secondary and abolition of tuition fees</td>
<td>1958</td>
</tr>
<tr>
<td>Free education</td>
<td>1959</td>
</tr>
<tr>
<td>Compulsory nine-years education</td>
<td>1967</td>
</tr>
<tr>
<td>Compulsory eleven-years education</td>
<td>1972</td>
</tr>
<tr>
<td>Law on Nursing and Upbringing of Children (codification of existing policy)</td>
<td>1976</td>
</tr>
<tr>
<td>Thesis on Socialist Education (codification of existing policy)</td>
<td>1977</td>
</tr>
</tbody>
</table>

ACHIEVEMENTS AND CONSTRAINTS IN EDUCATION

Enrolment and attendance

The DPRK has made impressive gains in education
since 1945. Boasting universal literacy and 100 per cent official enrolment, the DPRK has successfully
established an extensive primary and secondary school
system as well as institutions for higher learning. The
priority placed on education during the reconstruction
effort resulted in the development of an extensive
infrastructure. The establishment of some 1,600
primary and 26 secondary branch schools for children
in the most remote areas, including island commu-
nities, is indicative of this commitment. No child in the
DPRK seems to have a great distance to travel to reach a school. Class size is relatively small for a developing country. The National Report on Education for All (EFA), 2000, reported that the mean teacher-student ratio in primary schools was 1:23 and in secondary schools was 1:21.

With universal enrolment, the ratio between girls and boys is absolutely equal. However, field observations and verbal reports from the Ministry of Education indicate that the prolonged hardships are beginning to provoke patterns of absenteeism. In the northeast, for instance, there is intermittence in attendance, which observation indicates affects girls more than boys. Primary acknowledged factors include illness and problems of heating schools during the long sub-zero winters. It is also possible that household imperatives, such as gathering firewood, planting and harvesting, and caring for sick relatives, may be other factors. The 2002 consolidated interagency appeal noted that, depending on the province and season, attendance stood at 60-80 per cent.

Financing education
The condition of schools has deteriorated along with the downturn in the economy and the impact of natural disasters. Physical damage to the educational infrastructure was extensive in the 1990s. In 1995, 4,210 kindergartens and 2,290 primary and secondary school buildings were destroyed or damaged in the floods, and 346,200 textbooks (weighing 3,000 tonnes) were swept away. These damages were estimated at US$145 million. Further significant damage occurred in the floods of 1996. The number of orphans increased causing further financial burdens on the State.

The government managed to maintain spending on education, as a percentage of the national budget, throughout the latter part of the 1990s (figure 15). However, this was an equal share of a diminished budget. The result has been seen in shortages of basic school supplies, often now a charge on parents rather than the local authority, and textbooks, and in further degradation of infrastructure, including water and sanitation systems. As noted above, a part of these shortfalls has been met by parents themselves, often through the valiant efforts of teaching staffs to keep up educational standards. Humanitarian assistance has also made a modest contribution, including through school feeding programmes. This is not, however, a sustainable approach to solve the problems of the system.

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<th>PRIMARY EDUCATION</th>
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<td>Number of teachers ('000)</td>
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<tr>
<th>SECONDARY EDUCATION</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of schools</td>
<td>4,772</td>
<td></td>
</tr>
<tr>
<td>Number of students ('000)</td>
<td>2,187</td>
<td></td>
</tr>
<tr>
<td>Number of teachers ('000)</td>
<td>112</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 9: Overview of educational infrastructure


78 In some cases, parents have been known to copy whole textbooks into exercise books to ensure that their children were not disadvantaged in school.

79 WFP provides locally-manufactured biscuits to schools. At one time these were fortified with vitamins and minerals, provided by UNICEF, but shortfalls in funding and the priority given to the youngest children and pregnant and nursing mothers led to the abandonment of fortification. In 2001, China provided cloth for all school uniforms in the country.
Education quality

It is important to note that enrolment and attendance do not equate with learning achievements and outcomes. Studies undertaken in 60 different countries illustrate that only five per cent of primary school students surpassed the minimum level of learning achievement. Whether or not the expanded educational opportunities translate into meaningful development - for an individual or for society - depends ultimately on whether people actually learn as a result of those opportunities. The focus on basic education must be on actual learning acquisition and outcome. It is, therefore, necessary to improve and apply systems of assessing learning achievement. The implications for the DPRK are thus to focus more closely on the highly visible accomplishments of its educational system and analyze them according to a higher standard of quality and learning achievement. This is indeed a concern of the government. In adopting the Dakar Framework of Action, the DPRK has identified two priority goals. These are:

1. To ensure that all young people and adults have access to appropriate learning and life skills programmes.
2. To improve the quality of education.

There are multiple factors influencing quality. These include school readiness, gender-sensitive environment, appropriate curriculum content, and processes through which teachers use child-centred teaching approaches in well-managed classrooms and schools, and skillful assessment to facilitate learning and reduce disparities. The nation’s approach already incorporates some of the elements essential to the framework of a quality education system. Recurrent training is mandatory and comprises 10-16 day courses taken every six months. This frequency of in-service training is higher than in most countries. This comes on top of a well-structured system of pre-service training, though the content and methodology of this training are still not fully clear.

Improving the quality of education will also imply more openness to: consider new ideas in pedagogy and teaching practice; focus more concertedly on real learning outcomes in terms of skills and aptitudes acquired by individual children, not only their retention of information; and admit children, their parents and communities as more active stakeholders in the education system, thus ensuring that schools become more accountable to the populations they are intended to serve. It implies too a greater concentration on early childhood development as the foundation for successful performance in education.

VULNERABILITY IN MIDDLE CHILDHOOD AND ADOLESCENCE

In most countries, increasing vulnerability to sexual exploitation and labour marks adolescence. There is no existing documentation of widespread sexual abuse of children and adolescents. Similarly there are not documented cases of abortions, pregnancies or sexually transmitted diseases amongst this group. The tight-knit social organization and lifestyles with the DPRK do minimize vulnerability from this perspective. Nevertheless, vigilance is essential, since continued economic hardships could, as in other countries, lead to the exploitation and wider abuse of children.

In its concluding observations to the countries first report on the CRC, the Committee on the Rights of the Child expressed concern about widespread use of corporal punishment on children. The second period report states that measures have been taken to address and
progressively eliminate corporal punishment. There is, however, little evidence that it is in any way widespread.

Senior government officials state that cultural values and norms associated with gender-based differences were reduced in tandem with reduced fertility and smaller family size. It appears, however, that the most significant form of vulnerability relates to the prospective marginalization of girls from or within the educational process. Underscoring that at present this is not a grave problem, it is an area that should be monitored in the future, in line with the observation of the Committee on the Rights of the Child regarding the development and use of disaggregated indicators to monitor the situation of children82.


81 This is the outcome document of the World Education Forum held in Dakar, Senegal in 2000.

82 Concluding observations of the Committee on the Rights of the Child: Democratic People’s Republic of Korea, CRC/C/15/Add.88, 5 June 1998, para 22.
Adulthood (eighteen years onward) is largely defined by reproduction and the associated roles and responsibilities of caregivers. This is the first stage of relative autonomy, during which knowledge, attitudes and practices have multiple impacts on the health and well-being of individuals, children and families. There is relative control over contact with and use of available services. There are, however, some key differences characterizing adulthood in the DPRK. The formal social organization around collective production and living is intense. Social services and care institutions and social cultural organizations are tightly woven together, therein encouraging conformity. Combined with a virtually homogeneous population, trends within adulthood are fairly uniform across the country. The main categories of vulnerability relate to geography and gender.

In spite of the legislated equality both in the public and private spheres, gender roles and relationships prevail as a potent influence during this life stage. In the DPRK, women have a traditional responsibility for childcare and household management, in addition to their productive roles in the workplace. In most societies there is a positive relationship between social and physical status. The DPRK represents something of an anomaly, where indicators of social status between men and women uphold the appearance of relative equality. However, the available data on women’s physical status during the reproductive cycle suggest otherwise. Two valuable indices - the gender development index (GDI) and the gender empowerment measure (GEM) - for the DPRK are notably absent in the Human Development Report, making comparisons between the two or with other countries in the region, and globally, impossible. This chapter on adulthood overviews the social and physical status of women. Attention is cast on the health sector given the particular relevance of contact with the health system in this life stage.

**SOCIAL STATUS OF WOMEN**

Progress towards promoting gender equality has been significant since 1946, when the equality of the sexes was first promulgated in the DPRK. This notable success might be attributed to the consistency of the national approach to gender equality. Gender equality has been proactively facilitated by reducing women’s individual reproductive responsibilities for childcare, thereby enabling their effective participation in the

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83 As indicated in other parts of this situation analysis, populations living in the north and northeast of the country are subject to heightened vulnerability.
productive and public spheres. Women are accorded equal social status and rights with men in the Constitution (Article 77).

This commitment is backed by a series of protective measures and entitlements, including maternity leave (running up to the child attaining three months of age) and a reduced work regime for mothers of multiple children, for example. The other significant stream for promoting gender equality relates to the establishment of a network of maternity hospitals, nurseries and kindergartens, and other measures.

The DPRK made substantial gains in bringing women into the labour force; by 1998 women accounted for 48.4 per cent. This country is also one of the rare examples of complete pay equality between men and women. The government’s deliberate attempt to feminize sectors, such as public health (67.3 per cent) and education, demonstrates the success of its effort, though there does still exist some gender hierarchy with men occupying higher skilled (and thus more lucrative) positions than women. The salary increases enacted on 1 July 2002, as part of a series of economic reform measures, have certainly favoured occupations with a preponderance of men; the armed forces, mining, science and technology are key examples.

The trend in political decision-making is similar. The ratio of women to men decreases with the level of decision-making from the periphery to the centre. Disparities occur too in enrolment in educational institutions. According to 1998 figures, girls comprised 48.7 per cent of students in primary and secondary schools. Their enrolment share declines, however, at university/college level to 34.4 per cent.

The roles and duties of women and girls encompass household sustenance, including gathering firewood, fuel and food, as well as traditional roles of cooking, cleaning and caring for children, particularly in their earlier years. Basic shortages in food and fuel, and the breakdown of water systems, have, therefore, disproportionately impacted girls and women’s workload. The socially defined responsibility (duty) for household maintenance in the face of scarcity results in increased vulnerabilities for women and girls in a number of ways. An abundance of anecdotal evidence suggests that individual and family necessities frequently override the capacity to take advantage of measures designed to protect them. For example, the sixty-day

### TABLE 10: Proportion of women in major fields of employment

<table>
<thead>
<tr>
<th>Category</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.1%</td>
</tr>
<tr>
<td>49.2%</td>
</tr>
<tr>
<td>23.9%</td>
</tr>
<tr>
<td>19.1%</td>
</tr>
<tr>
<td>59.2%</td>
</tr>
</tbody>
</table>

### TABLE 11: Number of technicians and experts per 1000 persons, 1993

<table>
<thead>
<tr>
<th>Category</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer</td>
<td>376</td>
<td>308</td>
<td>69</td>
<td>18.24</td>
</tr>
<tr>
<td>Para-engineer</td>
<td>453</td>
<td>275</td>
<td>178</td>
<td>39.37</td>
</tr>
<tr>
<td>Technician</td>
<td>829</td>
<td>583</td>
<td>247</td>
<td>29.78</td>
</tr>
<tr>
<td>Expert</td>
<td>535</td>
<td>305</td>
<td>230</td>
<td>42.99</td>
</tr>
<tr>
<td>Semi-expert</td>
<td>426</td>
<td>143</td>
<td>283</td>
<td>66.49</td>
</tr>
<tr>
<td>Total</td>
<td>1790</td>
<td>1030</td>
<td>760</td>
<td>42.46</td>
</tr>
</tbody>
</table>

### TABLE 12: Women as a proportion of deputies in legislative bodies, 2002

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Female deputies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supreme People’s Assembly</td>
<td>20.1%</td>
<td></td>
</tr>
<tr>
<td>Provincial People’s Assemblies</td>
<td>23.9%</td>
<td></td>
</tr>
<tr>
<td>County People’s Assemblies</td>
<td>25.0%</td>
<td></td>
</tr>
</tbody>
</table>
maternity leave prior to childbirth is frequently not taken. In sum, the impressive gains made towards gender equality are being seriously challenged by a decline in women’s status. This is primarily due to the prolonged hardships and the reduced capacity of families and women to exercise their entitlements. The increasing monetarization of the economy could well heighten future vulnerabilities of women and girls due to the division of labour.

PHYSICAL STATUS OF WOMEN
Some of the common indicators for the status of women are good relative to both developing and developed nations. The total fertility rate (TFR), indicating the mean number of children born to a woman, is 2, compared with 1.7 for the Republic of Korea, for example. Although the legal age at marriage is 17 years for women and 18 years for men, the average age at marriage is 24-26 years for women and 26-28 years for men. These are indicative of a good standard of reproductive control. Moreover, there is also a generally accepted inverse relationship between family size and gender-based discrimination amongst children that undoubtedly also applies to the DPRK.

Whereas women’s nutritional and health status improved steadily from 1946 to the early 1990s, many of these gains have been reversed over the past decade. The 2002 nutrition assessment found that one-third of the mothers measured were malnourished (as measured by adequacy of mid-upper arm circumference) and a similar number were anaemic. It is worth noting that there multiple causes of anaemia that include inadequate absorption of dietary iron due to the largely cereal-based diet (see table 14), frequency of infection, and inadequate rest and care, particularly during pregnancy and lactation.

The maternal mortality ratio (MMR), referring to the number of pregnancy related maternal deaths per 100,000 live births, varies according to the source quoted. The best estimate appears to be 105/100,000 obtained from a government conducted (UNFPA) supported household survey in 1997 in three provinces. This is notably almost double the estimated level in 1993 of 54/100,000, though it is not possible to posit this as a trend due to difficulties in accurate measurement of the indicator.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of anaemia in mothers of children under 2 years of age</td>
<td>33.6%</td>
</tr>
<tr>
<td>Proportion of mothers of children under 2 years of age malnourished (as measured by adequacy of mid-upper arm circumference)</td>
<td>32.0%</td>
</tr>
<tr>
<td>Proportion of mothers of children under 2 years of age weighing less than 50 kg</td>
<td>55.8%</td>
</tr>
<tr>
<td>Proportion of mothers of children under 2 years of age weighing less than 45 kg</td>
<td>16.6%</td>
</tr>
<tr>
<td>Maternal mortality ratio (per 100,000 live births)</td>
<td>105</td>
</tr>
</tbody>
</table>

TABLE 13: Select indicators of women’s physical status

84 Source: Second periodic report of the DPRK on it implementation of the International Covenant on Civil and Political Rights.
86 Figures provided by the Korean Democratic Women’s Union.
87 Source: Nutrition Assessment 2002, except for the maternal mortality ratio, which is from a UNFPA sponsored reproductive health survey in three provinces in 1997.
88 Actually this indicates the number of children a woman would have during her reproductive life if she experienced the prevailing rates of fertility at each age.
89 See also Chapter 2 for more discussion on the implication of for young children of poor nutritional status of women.
A further survey was conducted in 2002, but the results were not available at the time of this analysis. Interestingly, women’s depletion is the most common explanation provided for problems relating to breast feeding. Women themselves regard it as a practice that consumes valuable energy. Although scientifically this is not the case, the prevalence of such reports suggests that women themselves feel depleted. Clearly to improve growth and development of young children, there is a need for greater attention to the condition of women prior to, during and following pregnancy.

The conclusions that might be drawn relate to both inadequacies in the social care environment for women and in practices related to adequate feeding, rest and hygiene. The situation is also indicative of the capacity of the health care system to respond to women’s health concerns and needs.

### HEALTH SERVICES

**Access**

The health care system in the DPRK demonstrates impressive outreach. The strength of the system is embedded in the government’s commitment to the simultaneous development of health infrastructure and policy. The State guarantees universal and free health care in the Constitution (Article 72) and in the Public Health Law of 1980. The latter decrees a health system that is equally prophylactic and curative noting specifically deep concern and care for the protection of women and children (Article 10). The establishment of the public health care system was undertaken simultaneously with reconstruction efforts. Between 1970 and 1976, the policy on guaranteeing medical care focused on the shift of development and society at large from the growth-oriented to the balance-oriented through improving medical services for farmers and

<table>
<thead>
<tr>
<th>FOOD GROUP</th>
<th>Kaesong</th>
<th>Nampo</th>
<th>North Hamgyong</th>
<th>North Hwanghae</th>
<th>North Pyongan</th>
<th>Pyongyang</th>
<th>Ryanggang</th>
<th>South Hamgyong</th>
<th>South Hwanghae</th>
<th>South Pyongan</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starchy and alternatives</td>
<td>100</td>
<td>99.7</td>
<td>99.6</td>
<td>98.9</td>
<td>98.0</td>
<td>100</td>
<td>99.6</td>
<td>100</td>
<td>99.6</td>
<td>99.6</td>
<td>99.7</td>
</tr>
<tr>
<td>Pulses</td>
<td>78.8</td>
<td>80.3</td>
<td>63.0</td>
<td>67.3</td>
<td>76.3</td>
<td>69.4</td>
<td>37.9</td>
<td>40.7</td>
<td>86.1</td>
<td>39.8</td>
<td>63.9</td>
</tr>
<tr>
<td>Meat/Egg/Fish</td>
<td>63.6</td>
<td>78.6</td>
<td>45.7</td>
<td>49.6</td>
<td>70.7</td>
<td>66.9</td>
<td>32.7</td>
<td>32.6</td>
<td>26.6</td>
<td>29.4</td>
<td>49.8</td>
</tr>
<tr>
<td>Dairy foods and fats</td>
<td>99.2</td>
<td>99.0</td>
<td>69.9</td>
<td>99.3</td>
<td>98.3</td>
<td>99.6</td>
<td>93.5</td>
<td>87.4</td>
<td>95.5</td>
<td>96.7</td>
<td>93.9</td>
</tr>
<tr>
<td>Fruits and vegetables</td>
<td>99.6</td>
<td>99.0</td>
<td>90.9</td>
<td>99.3</td>
<td>97.9</td>
<td>97.5</td>
<td>99.6</td>
<td>98.9</td>
<td>98.5</td>
<td>99.3</td>
<td>98.0</td>
</tr>
<tr>
<td>Sweets and Drinks</td>
<td>70.8</td>
<td>78.6</td>
<td>40.6</td>
<td>51.1</td>
<td>78.3</td>
<td>67.6</td>
<td>34.5</td>
<td>43.2</td>
<td>28.1</td>
<td>27.1</td>
<td>52.3</td>
</tr>
<tr>
<td>Fortified foods and supplements</td>
<td>15.9</td>
<td>22.8</td>
<td>45.3</td>
<td>32.4</td>
<td>16.7</td>
<td>26.0</td>
<td>31</td>
<td>15.8</td>
<td>10.1</td>
<td>30.8</td>
<td>24.7</td>
</tr>
</tbody>
</table>

**TABLE 14:** Food groups reported as being eaten the day before by mothers of children aged under-two years in seven provinces and three cities of DPRK, October 2002
facilities of medical treatment in distant rural areas; in other words a policy of equity. Unlike most developing countries, urban-rural disparities are minimal, at least in terms of access.

There is a high ratio of doctors to population: 568 per 100,000, compared with 162/100,000 in China and 48/100,000 in Vietnam\(^9\). There is also a preponderance of doctors over nursing staff, in a ratio that is inverse to that found in other countries, which suggests a bias towards medical treatment in hospitals over other care factors. However, the multiple roles of section doctors\(^9\) encompass a range of responsibilities, including prophylactic and curative care, suggesting a more balanced delivery of health services outside hospitals. Hospital-based care would clearly improve with greater availability of nursing staff.

Care practices
The health system is characterized by both strengths and constraints with respect to care for women. According to the Korean Democratic Women’s Union, all women receive the minimum of a monthly check-up by the section doctors. The system also provides for intensive antenatal care. Ninety-nine per cent of women with children under five years of age were registered for antenatal care, according to the 1998 MICS; registration was also found to be extremely high in the first trimester of pregnancy (94.9 per cent). This suggests that the system of antenatal care remained functional during the peak crisis period. Theoretically women receive eighteen such check-ups. However, the actual average number is between nine and ten (a mean of 9.6). In spite of these impressive provisions for women during pregnancy, nutritional care and supplementation is lacking. Weight gain is not followed, and there is a notable absence of systematic iron supplementation during pregnancy. Rather iron supplementation is restricted to certain complications during pregnancy and selectively given post partum. Similarly, post partum vitamin A supplementation reaches only one-third of mothers. This appears to reflect a diagnostic approach towards health care rather than a result of shortages in either iron and folic acid or vitamin A capsules for which ample humanitarian assistance has been available. The 1998 MICS also found extremely low levels of tetanus toxoid vaccination coverage for women in the reproductive age group. The analysis of the findings of the 1998 MICS suggested too that the quality of antenatal care was compromised due to the limited familiarity of health providers with updated treatment methods and drugs.

The frequent contact with section doctors and health care personnel is meant to facilitate diagnosis and referral to provincial maternity hospitals. Questions surrounding the expedient referral of women to specialized care facilities were raised in the 1998 MICS. In the DPRK there are two specific areas where delays appear to be particularly harmful. The first rests with the diagnostic skills and capacity for early detection of risks and problems by the section doctors. The second area relates to logistical challenges to travel to points of referral. Another factor might be concerns over the quality of care available in the receiving referral institutions, including stabilization of patients at intermediary care institutions, given shortages of medicines and equipment.

In 1998, skilled health personnel reportedly attended 96.7 per cent of all births. Home deliveries were

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91 These are the family health workers assigned to work teams and neighbourhoods. See Chapter 2 for more discussion on section doctors.
extremely rare. Most births took place in ri hospitals and clinics, followed by county hospitals and provincial maternity hospitals (see figure 17). Observations based on interviews over half a decade suggest that the proportion of women that give birth in provincial maternity hospitals and county hospitals is primarily the result of the proximity of the hospitals to their residence as opposed to referrals from any distance.

The possible increase in MMR between 1993 and 1997 is explained by several overlapping factors. It is, however, an indicator of inadequacies in emergency obstetric care. According to the 2000 situation analysis, haemorrhage, infection and toxaemia were the main causes reported by MoPH. A 2002 report by a UNFPA consultant on obstetric care, based on a survey of 32 hospitals in three provinces (South Hwanghae, North Pyongan and Pyongyang) noted a frequency in eclampsia and episiotomies\(^2\). Severe bleeding is commonly reported as the prevalent problem during childbirth. WHO has noted that blood transfusion capacity requires improvement. There are, however, profound gaps surrounding both the causes and conditions of maternal mortality. The absence of age-disaggregated analysis of infant mortality presents a significant gap, given that the number of deaths during the perinatal period (from 22 weeks of gestation up until 7 complete days after birth) can be used as an indicator of the quality of antenatal and obstetric services.

**Family Planning**

The contraceptive prevalence rate for married couples, according to a 1997 government survey in three provinces supported by UNFPA, was 52 per cent using modern methods and 67 per cent using any method (table 15). There is no additional information on access to family planning services in other provinces or on the type of services available. Contraceptives are often not available at ri level. Condoms can be obtained free of charge from reproductive health services but are not sold commercially. Their use for protection, rather than family planning, is likely to be very limited. More exact data should emerge from a new reproductive health survey in the same provinces due to be released in 2003.

According to a recent UNFPA study\(^3\), 23 per 1000 pregnancies are terminated through (voluntary) induced abortion. This indicates a large unmet demand for modern family planning services. Considering the country’s extensive health service infrastructure, there seems to be no reason why national family planning services cannot be put into place quickly, if the necessary resources are available.

**Tuberculosis, malaria and HIV/AIDS**

Tuberculosis (TB) represents a significant health concern for the overall population. The increase in TB incidence between 1994 and 2001 is dramatic, rising from 38/100,000 to 220/100,000. TB is cited as a leading cause of death in the overall population claiming some 2,300 lives annually. The proportion of

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-uterine device</td>
<td>75.0%</td>
</tr>
<tr>
<td>Unspecified natural methods</td>
<td>17.7%</td>
</tr>
<tr>
<td>Female sterilization</td>
<td>6.5%</td>
</tr>
<tr>
<td>Condom</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

**TABLE 15: Prevalence of contraceptive methods used**
male and female deaths is not known. The government is progressively introducing the directly-observed treatment short-course (DOTS) schedule and has secured multi-year funding for TB treatment through WHO from the Global Fund to combat AIDS, Tuberculosis and Malaria (GFATM). The DPRK also receives assistance in this area from the Eugene Bell Foundation and Christian Friends of Korea.

Vivax malaria has re-emerged as a health concern. Reported cases rose from 107,000 in 2000 to nearly 150/100,000 in 2001, though there has been a reduction subsequently. Vivax malaria is not life-threatening. However, malaria is very dangerous to women during pregnancy. The government is carrying out a limited programme of mass prophylaxis to stem the transmission of the disease and has sought funds from the GFATM to take this to scale. Since it was all but eradicated in earlier times, there is now a gap in the capacities of peripheral health workers to diagnose and treat malaria.

There are no documented cases of HIV or AIDS in the DPRK. This is not surprising given the insularity and relative lack of mobility amongst the population. Neighbouring China reportedly has an HIV infection rate of 0.11 per cent among the adult population (15-49 years of age) and the ROK has a marginal infection rate of less than 0.1 per cent. This is much better than other countries in the region, such as Cambodia with an infection rate of 2.7 per cent and Thailand with 1.79 per cent94. The government has recognized that HIV/AIDS represents a potential health concern to the population in the future. This bodes well, since the most potent allies of the HIV/AIDS epidemic around the world have been complacency and denial. The DPRK will not be able to escape HIV/AIDS entirely, but it does have a golden opportunity to prepare for and limit its spread, especially by ensuring that its population is forearmed with the knowledge, attitudes and behaviours essential to its protection. The highly organized and cohesive nature of the society is a clear advantage in this endeavour.

92 Obstetric Care in DPRK, Dr Ravindran Jegasothy FRCOG, Consultant, International Planned Parenthood Federation.  
93 Ibid.  
CONCLUSIONS

The situation of children and women appears to have improved somewhat over the past three years, since the publication of the last situation analysis. This is evidenced particularly by dramatic declines in malnutrition levels and a probable arrest of the upward trend in mortality. The economy is showing some signs of modest revival, and the government has been more responsive and flexible towards reflecting on and reforming current practices in the light of the changing overall environment. The DPRK has demonstrated remarkable social cohesion and a commitment to maintain the universality of services and a complete set of entitlements for children and women against a backdrop of severe and protracted hardships.

However, the existing gap between the legal and policy framework guaranteeing protection and entitlements and the actual status of children and women shows that capacities within the DPRK have been severely reduced. This refers specifically to the government’s capacity to provide services of adequate quantity and quality and the capacity of women, children and families to exercise their entitlements.

Due to the differences faced by the country and the absence of capital investment, over time there has been unquestionable and obvious erosion in the quality and effectiveness of basic social services across sectors. This has had a significant impact on the survival, well-being and performance of children, women and the overall population. Human capacity - the key ingredient for future progress - has been significantly eroded.

The extensive and expansive systems of institutionalized care and services are frequently hailed as one of the major achievements of the State since the inception of the DPRK. However, the impact of the initial gains has been blunted as a result of three protracted problems:

1. There has been obvious damage to and degradation of physical infrastructure that has gone unaddressed leaving many schools, hospitals, other care institutions and water and sanitation systems in a marginal condition. Indeed these have largely been subject to continued degradation throughout the period of the international humanitarian action programme.

2. In addition to the damage to infrastructure, there has been protracted isolation from innovation. This refers to innovations associated with new technologies and their appropriate use, as well as
to updating skill sets, methods and overall approaches (both diagnostic/analytical and curative/solution-oriented). In many cases this has resulted in lost opportunities to update techniques and approaches in line with international standards that present more effective ways of realizing objectives articulated in prior policies.

3. Efforts to improve the existing systems have had limited success largely due to the lack of evidence-based planning. The absence of planning, action and reaction informed by the availability and systematic analysis and use of relevant data has detracted from both the efficiency and effectiveness of many institutions and institutional practices in the DPRK.

The context of the scale and extensiveness of the challenges faced by the DPRK, combined with the notable intergenerational pattern of chronic malnutrition and ill health, suggests that the most strategic and effective entry point is to focus on early childhood development, inclusive of maternal care. This makes sense in order to ensure the best opportunities for survival, growth and optimal development of children, laying more solid foundations for their future well-being and learning capacity. In turn, this will lead to overall strengthening of the human capital essential for progress and development.

Early childhood development is particularly contingent on an increased emphasis on improving care practices for children and women. In particular, improving the physical status of women is essential to give children the best start in life, as well as ongoing care in their early years. This is contingent not only on health services but also tackling issues of women’s workload, rest during pregnancy and lactation, and full exercise of their entitlements. It implies an increased effort to improve the quality of care within institutions and, particularly, family capacity for care, combined with an overarching emphasis on overcoming constraints in knowledge, practices and resources.

In this context, there is a need to revisit and review the role of childcare institutions. The institutions themselves suffer from resource constraints and eroded capacities. Over time they have also substituted for, rather than reinforced, the capacities of children’s primary caregivers: their parents and families, supported by the wider community. A more balanced approach that builds family and community capacity, involving them more closely in the operation of health and childcare services, as well as improving the quality of the institutions themselves, has been demonstrated as a highly successful strategy for augmenting the overall quality of care in numerous countries. Effectiveness will be contingent on the involvement of all stakeholders and integration of services that are critical for early child development.

For the DPRK to enhance its competitiveness, attention to the quality of education will be essential. Capitalizing on the already impressive quantitative achievements of the education system, measures now need to be taken to monitor more closely learning achievement of students and introduce innovations in education, including improved early learning and school readiness. Learning objectives and outcomes should be set and monitored with due regard to the ongoing aim of promoting full equality between girls and boys. Thus, disaggregated monitoring will be essential, the situation of girls’ education being the key indicator.

Overall planning of services for children and women also needs to be informed by the improved use of real
evidence. Thus urgent attention is needed to capacities for collection, analysis and use of data and information on the situation of children and women and on the efficiency and effectiveness of programmes. This refers not only to technical capacities but also to the grounding of a culture of information sharing and use.

With the overall size of the national economy still a considerable limiting factor, the government will need to be strategic in its resource allocations. It should clearly, however, give greater priority to investments in the most basic social services in order to provide broad protection for the population, especially children and women. External cooperation should continue to provide much needed assistance to ensure continued provision of a basic humanitarian safety net to overcome food deficits and ensure the basic functioning of essential social services.

The way forward, however, is through development and greater engagement of, and with, the international community, tackling not only the immediate but also the underlying and structural determinants of child survival, optimal growth and development and the well-being of women. Should the scale of external resources remain constrained, these must be utilized in a highly targeted manner aimed primarily at improving human capacities as the basis for future development and at the planning and implementation of appropriate limited-scale models of more sustainable strategies for development for children and women. This approach can both help to inform social policy and strategic planning and prepare the way for larger scale development, once additional resources become available.
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