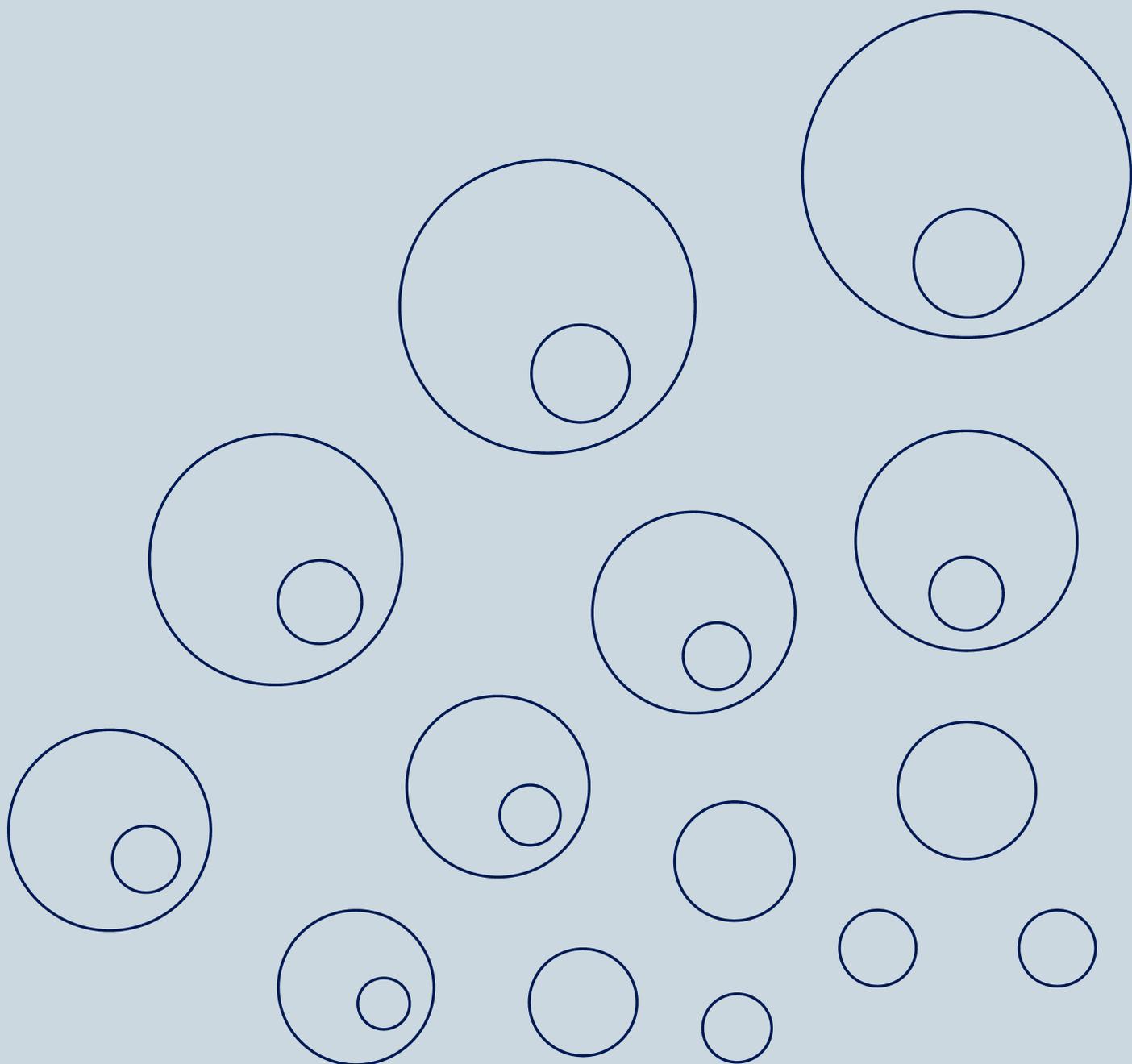


North Korea 2007

Assisting Development and Change

*Geir Helgesen and
Nis Høyrup Christensen*



NORTH KOREA 2007
ASSISTING DEVELOPMENT AND CHANGE

Report commissioned by the Norwegian Ministry of Foreign Affairs

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NORTH KOREA 2007: ASSISTING DEVELOPMENT AND CHANGE

Preface

This report, covering the current situation in the Democratic People's Republic of Korea (DPRK), henceforth North Korea, is commissioned by the Norwegian Ministry of Foreign Affairs. It was based on a field trip to North Korea in November 2006 (list of contacts, see Appendix A), organized by the North Korean Ministry of Foreign Affairs, where we obviously only saw what the government wanted us to see. We did, however, also meet with professionals, mostly foreigners who were linked to the NGOs operating in North Korea and representatives from the various diplomatic missions in the capital. We have also been in contact with a Norwegian company with extensive experience in North Korea, and we have, with their permission, utilized what we learned from them in the concluding chapter of this report. Our assessments also take into account what has recently been written by other academics in the field of modern Korea. We also refer to the report we drafted for the Danish Ministry of Foreign Affairs in 2005: *North Korea's Economic, Political and Social Situation* (list of contacts, see Appendix B). Some sections from this report have been used directly, and some parts have been re-written based on new assessments. While the 2005 report may have been slightly colored by South Korean wishful thinking, the present report better reflects the existing difficulties as we were exposed to them in talks with North Korean's and foreign actors in the country.

Due to the fact that North Korea has long been isolated from the rest of the world, we have deemed it important to contextualize the country. It is a different country, which most foreigners quickly acknowledge and it is impossible to deal with North Korea based only on universal principles. Culture matters, not least in this part of the world, and very much so in North Korea.

The times may be global, but most people still live within national borders most of their life. In North Korea this is the only option. The international community, from the neighboring countries to the USA and Europe, has a strong interest in "normalizing" North Korea, and in contributing to securing peace in the East Asian region where giants like the People's Republic of China (PRC), henceforth China, and Japan automatically become involved if peace is lost.

The positive momentum in the Six-Party Talks has made the present report timely. If the draft agreement (see Appendix C) reported from Beijing on February 13th 2007 holds, North Korea is on its way to normalization. For the first time it seems unlikely that North Korea will turn the clock back and there are now reasons to hope that the 23 million North Koreans have left the worst part of their country's history behind them.

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Summary

How can North Korea develop? And how can the international community assist in this process? For many years these questions have been pushed aside as the international community has stalled all development projects and made a solution to the nuclear crisis a precondition for engagement. It is questionable whether this has been the right strategy if the goal was an end to dictatorship and promotion of a better life for the North Korean population.

Recent events have seen a general change in the approach to North Korea, most notably a change in the US strategy, which now recognizes North Korea as a legitimate partner. This has prompted a breakthrough in the "six-party talks" between the two Koreas, China, Russia, Japan and the USA. The sudden willingness from the US side to approach the nuclear issue in a much broader framework and thus discuss diplomatic ties, a peace treaty, and long-term economic assistance, has made all the difference. These steps seem to be the best recipe for bringing North Korea back within the fold of normal nations. Engagement is what is keeping the country on the right track and, as such, the international community should not sit tight and wait for a final dismantlement of the nuclear capability before properly focusing on North Korea.

Ironically, the first obstacle in defining a viable path for North Korea is formalism on both sides. The international community will only provide humanitarian assistance to the country while North Korea will only receive development aid. These categories may be somewhat overlapping and in this report it is argued that the time is ripe to engage in long-term development assistance.

North Korea may still match its bleak image of remaining an anomaly in the world of nations quite well. From the outside, what is seen is a country trying to preserve a system that has failed. In this report we maintain that North Korea has taken not only the first step towards change but also it has acknowledged that their system has turned into a counterproductive one in a globalized world. It seems obvious, however, that sixty years of effective isolation have left their mark. The country, both the governing circles and the population, are now in a process of re-education, a process that slowly but surely includes a mental shift in both groups. It goes without saying that such a process will take time, but also that the more contact with foreigners people in North Korea experience, the better.

In the chapter on North Korea's economy, the country's weakness is documented. While the ethos of a planned economy lingers on, however, we also see that the leadership is backing change with new laws and regulations. What was initially a grassroots activity, the farmers markets, has become a necessary way of survival in a country where the authorities have failed to deliver. And today every city has markets with a variety of goods, mostly produced in China. Market reforms, although a concept seldom used by officials in the country, are now promoted in order to invigorate the economy, together with decentralization and new economic management systems. Moreover, probably with an eye on China's economic growth, special economic zones are being promoted. The comparative advantages of North Korea are a quite well-educated and affordable workforce, cheap land rent,

and a central location in a booming East Asia between Japan and the Republic of Korea (ROK), henceforth South Korea, in the south and China to the north.

North Korea's absolute disadvantage is that this previously highly developed industrial country has failed to maintain – not to mention develop – its technologies and industries or its infrastructure. The country is worn out, and its government has proved to have been totally unprepared for the great changes that happened with the collapse of Soviet Union and likewise unprepared to meet the climatic challenges that have further damaged the country. At present the energy situation keeps North Korea in a straitjacket, with the whole energy sector in a state of virtual collapse. A positive development in the country's economy cannot be expected without stability in energy supply.

The agricultural sector is also strongly affected by lack of energy, particularly electricity for pumps in the irrigation system and fuel for machinery. Another major problem is the scarce supplies of fertilizer, without which crop yields will remain well below their potential. Among the few positive developments in the agricultural sector are experiments with alternative crops and a permit, dating back to 1996, to sell above quota production on farmers markets.

Fisheries may be an area with a potential for high growth. The natural conditions are very good, and the Koreans have a tradition for cultivating the sea. However, development here basically stopped around the 1960s, which is why much of the necessary equipment is outdated. The North Korean government is keen to have this sector developed, both to feed the population and to earn necessary foreign exchange in the huge markets in nearby Japan, South Korea and China.

Based on the analysis of this report we would pinpoint the following areas as those in dire need of development assistance:

- The energy infrastructure must be repaired, rebuilt and modernized. Reconstruction of the national grid would be a huge project and would need to be supported by international stakeholders.
- The energy sector needs external support for upgrading existing hydroelectric power and coal-based thermal power plants. A thorough study conducted by Norconsult in 2002 remains the best starting point with regards to hydroelectric power plants.
- New and alternative sources of energy could be valuable inputs, particularly small- and medium-sized hydroelectric power plants operated locally and isolated from the national power grid.
- Due to unfavourable weather conditions, a necessary part of any future development assistance would be to prioritize damage prevention and control. Important here is the strengthening of dykes and the re-establishing of irrigation systems, including provision of effective water pumps. To prevent recurrent flooding the existing projects of reforestation to stop soil erosion need further economic support.
- Reasonable agricultural production in North Korea is dependent of access to fertilizers, and as the country has been self-sufficient in this field in the past it is worthwhile assisting in re-establishing this industry.
- Tools and machinery for the agricultural sector need to be upgraded or replaced both to enhance efficiency and to save energy. This goes for

irrigation pumps, tractors, trucks for transportation, mobile threshers, and seed drills.

- In the field of fishery, due to a certain similarity in geography and climate, Norway may be in a good position to advice and support developments in North Korea. Upgrading of ships and equipment for marine fishery is needed, and support for development of fish breeding and aquaculture projects clearly would be welcomed.
- The existing health-care system covers all of the country and is well established, but needs a general and extensive upgrading. An important support is the ongoing provision of "health kits", and economic support for heating during wintertime.
- A revamping of the communication infrastructure, including fibre-optic cabling, will be needed for the country to modernize its economic sectors and establish normal foreign relations.
- In all fields, and as a general recommendation, North Korean experts need to upgrade their knowledge and to be connected to colleagues outside their own country. This is why offering of educational opportunities should be stressed as of particular importance.

Box 1: Prioritizing Assistance to Development and Change

A Norwegian contribution to support change and positive developments in North Korea could focus on the following:

- Upgrading hydroelectric power plants, both large-scale and small-scale.
- Helping the country to re-establish its fertilizer production so as to realize its potential in agriculture.
- Helping modernize the existing fishing sector and exploring possible new areas for development in this field.
- Supporting the health sector with medicine, equipment and by upgrading the general knowledge of health personnel.
- Inviting experts in different fields (economy, agriculture, fishery, health care, etc.) to upgrade the knowledge level for core people in the ongoing reform process.

Chapter One: North Korea contextualized

How can the North Korean regime be dealt with? How can open, democratic countries defend their engagement with North Korea while the system clings to outdated and possibly inhumane forms of governance? Most importantly, how can one enter into involvement with North Korea without fortifying the existing system including the country's present leadership?

There is no scientifically correct approach to the North Korea problem, engagement stands as the opposite of containment, and the choice between the two is both a moral and a political one.

Some keen observers of the peculiar North Korean system have questioned the mainstream Western approach to that country. In an insightful article entitled "Seeing North Korea Clearly", Saunders and Pinkston, two scholars from the Monterey Institute's Center for Nonproliferation Studies, simply advocate that "empathy is required".¹ The author's stress that one should not confuse *empathy* with *sympathy*: to understand reality as it is understood by others does not imply any kind of agreement. It is vital, however, to understand the world as viewed from Pyongyang in order to avoid, at best, sub-optimal solutions, and at worst, inadvertent war.² Such an understanding is also extremely important to be able to intervene in the missing human rights issue in the most efficient way. The following offers a few but essential elements to construct the above mentioned necessary *empathetic* understanding of this very atypical country.

A communist-like state

One thing seems clear: in dealing with contemporary North Korea, a country still marked by isolation from the rest of the world, one needs to understand how and why the current situation developed, particularly by placing it in a relevant historical and cultural context.

During the colonial period, between 1910 and 1945, many patriotic and nationalistic Koreans fighting for their country's independence adopted socialism or communism as their ideology.³ It is significant that this ideology did not enter Korean soil together with the Soviet Red Army in 1945. At the end of WW II, due to international agreements between the victorious powers, in particular the USA and the Soviet Union, Korea was divided: the North to be adopted into the communist sphere, and the South into the Western, liberal-democratic sphere. This temporary division has become the interminable ill fate of the Korean people, who were deprived of their chance to develop a modern country after 35 years of colonial suppression under Japan.

A particular trait in the development of North Korea as a communist-like state was a strong emphasis on its independent position vis-à-vis the Soviet Union,

¹ Pinkston, Daniel A. and Phillip C. Saunders, 2003, "Seeing North Korea Clearly", *Survival*, Vol. 45, No. 3.

² Ibid: p, 91.

³ Helgesen, Geir, 1998, *Democracy and Authority in Korea. The Cultural Dimension in Korean Politics*. Richmond and New York: Curzon & St. Martin's Press, p. 27.

China and others. *Juche*, a state ideology, was created hailing national self-reliance and independence as the core values. By doing it their own way, their model became colored more by values and norms inherent in the pre-communist social system, than by foreign ideological constructions à la Marx, Engels and Lenin. Initially, from an economic point of view, this indigenous system functioned well, partly due to its inner workings, and partly because of strong support from the communist bloc⁴. As a result, North Korea commanded respect and goodwill abroad, as well as among students and intellectuals in South Korea.

Two Koreas

The division and subsequent war between 1950 and -53, however, totally destroyed relations between the two halves of the peninsula, each developing in total isolation from the other. During the ensuing cold war, the regimes in Pyongyang and Seoul were each backed by one of the two competing superpowers of that time, and each Korean regime used the other as a part of their *raison d'être*.

While military rule in South Korea were presented as liberal democracy, in the North the traditionally-based leadership cult with its strong sense of broken nationalism was disguised as a "people's democracy", i.e. communist dictatorship.

Half a century spent as antagonistic powers vying for national legitimacy has formed the two halves of Korea. In the South, nationalism and a period of "guided democracy" or rather benevolent but authoritarian leadership was gradually replaced by an American oriented two-camp political system with effectively a presidential democracy. This notwithstanding, a traditional deference to great leaders is not alien to South Koreans, who seem somewhat torn between their knowledge of democratic ideas, institutions and procedures, and an understanding of – sometimes a craving for – paternalistic power and, hence, strong leadership.⁵

The northern version of power has not been "contaminated" by Western ideas. In the relative isolation enforced upon the country by way of an effective trade embargo, and self-imposed by way of a proclaimed self-reliant development strategy, North Korea's political system has developed internally untainted by any foreign ideas other than those accepted by the leadership. Hence a leadership cult based on traditional values and norms and enforced by the one-party communist dictatorship has developed into a peculiar system which is hard for outsiders to comprehend.

Traditional Korean culture

Notwithstanding the economic failure, in order to understand this peculiar system, it is important to realize that the long period in almost total isolation has formed the way leaders and followers coexist; the way the individual versus the group are perceived; how people at large view the world outside their own country; and how they see their own role in society. A lot of traits

⁴ CIA reported in 1976 that North Korea in several areas, notable energy and heavy industry, were ahead of South Korea.

⁵ Helgesen, Geir, 1998, *Democracy and Authority in Korea. The Cultural Dimension of Korean Politics*, Richmond and New York: Curzon & St. Martin's Press.

attributed to the new political ideology and rationalized within that context, were actually already deeply rooted in the traditional culture. Examples are the emphasis on the collective before the individual, on ideologically-based leadership and the perception of society as a family writ large.

When people are virtually cultivated to see the leader as their father, his hardship and failures (which of course are theirs as well) will not necessarily make them turn against him. The results untold, people tend to believe that whatever the leader chooses to do, it is for their own good, as was assumed in the traditional paternalistic family. In his "Human Needs, Human Rights, and Regime Legitimacy" the influential American-Korean scholar Han S. Park writes that: "The ordinary people submit themselves voluntarily to the authority because they are not accorded with alternative choices or oriented toward doubting the virtue of the leadership".⁶ Are they then blind to the dire reality of their daily life? Do they not feel their own hunger and discomfort? According to Park, "the people in North Korea are sufficiently informed and socialized with the notion that their economic difficulty is due to the hostile international community and natural disasters for which their regime is not liable".⁷

Political socialization

In the particular North Korean version of *tradition-based communism*, political socialization has been designed to imbue a system of mass belief reminiscent of that often found in sectarian and fanatic religions. A basic goal of the mass belief system has been the creation of charismatic leadership.⁸ This again is based on a traditional patriarchal social and moral ideology informed by the teaching of Confucius, with which the Korean people were imbued throughout the Yi Dynasty (1392-1910) when Confucianism was the state ideology as well as a dominant social morality. The selective utilization by the political elite of certain aspects of a widespread and deep-rooted creed may explain the durability of the ideology, even beyond the material collapse of the system.⁹

The present North Korean worldview is to be understood as the result of a cleverly designed combination of political socialization and political propaganda, both based on a total information monopoly. The effect is that it sustains the support for the given system. The political socialization, an area of top priority in North Korea, has been emphasizing this Confucian-communist view, without any challenge from alternative ideas or views for 50 years. Nowadays, of course, this education and the resulting political culture are totally outdated and have no place in the contemporary world.

⁶ Park, Han S. 1998, *Human Needs and Political Development. A Dissent to Utopian Solution*, Cambridge, Massachusetts: Schenkman Publishing Company, p. 234.

⁷ *ibid.*: 225.

⁸ Park Han S., 1998, "Human Needs, Human Rights, and Regime Legitimacy: The North Korean Anomaly" in Chung-in Moon (ed), *Understanding Regime Dynamics in North Korea*, Seoul: Yonsei University Press. p. 230-1.

⁹ Helgesen, Geir, 1991, "Political Revolution in a Cultural Continuum: Preliminary Observations on the Korean *Juche* ideology with its Intrinsic Cult of Personality", *Asian Perspective*, Vol. 15, No. 1, pp. 187-214.

Lost in translation?

Why is it important to try to see the world as *they* do, when *they* obviously have quite a distorted view? The plain answer is that without this effort, communication between us and them may result in grave misunderstandings with possible unfortunate outcomes. An example of how difficult it can be to grasp the outcome of this political culture outside the relevant context is revealed in the following.

In October 2002 the US Assistant Secretary of State James Kelly visited Pyongyang and confronted the North Koreans about their clandestine nuclear program. The Northern counterparts reportedly responded that they had something even stronger than nuclear weapons. "US analysts initially concluded that the North Korean delegation was alluding to chemical and biological weapons", and "it took US officials weeks or months to clarify the meaning of the North Korean delegation's statement by speaking with foreign envoys [in Pyongyang] and the South Korean government".¹⁰ And what was the meaning? Not surprisingly, when interpreted "empathetically", the North Koreans just said something like: *as united behind the direction of our leader we constitute a fierce and undefeatable force and as such we will reject any sort of aggression.*¹¹

The miscommunication between Kelly and the North Koreans is touched upon in a DPRK Foreign Ministry statement:

"In October 2002, special envoy Kelly, who visited Pyongyang, said that he had intelligence data on the highly enriched uranium program and threatened us by saying that if we did not present it; not only DPRK – US relations but also DPRK – Japan and North – South relations will enter a catastrophic state. We were angered by the US side's extremely overt pressuring act that ignored not only our sovereignty but even the guests' etiquette to the host in the oriental culture. Thus our side clearly stated that we are entitled to possess even more powerful weapons than nuclear weapons to cope with the United States' growing maneuvers to isolate and crush us and we did not even feel the need to bother to explain to the US side, the most hostile country, what they [the weapons] are".¹²

Although the North Koreans may use a form of communication unfamiliar to the outside world, it seems clear that there is more to this matter than just translation difficulties. Had the American delegation been more familiar with Korean culture (note the reference to oriental etiquette), and North Korean political rhetoric, this incipient crisis could have been avoided. Sensitivity to Korean ways is needed. One possibility to acquire the necessary skills would be to have diplomats based in North Korea who could observe the situation first hand, build relations with officials and develop a more profound understanding of the people and the country.¹³ Another way is to make use of

¹⁰ Pinkston, Daniel A. and Phillip C. Saunders, 2003, "Seeing North Korea Clearly", *Survival*, Vol. 45, No. 3. p. 82.

¹¹ 'Panel One of the Hearing of the Senate Foreign Relations Committee', Federal News Service, 4 February, 2003.

¹² "US Hostile Policy Disrupting 6-Way Talks", issued 8 October 2004 by the Korean Central Broadcasting Station: Compiled and distributed by NTIS, US Dept. of Commerce/World News Connection. Available at www.dialogueselect.com

¹³ Pinkston, Daniel A. and Phillip C. Saunders, 2003, "Seeing North Korea Clearly", *Survival*, Vol. 45, No. 3, p. 79.

the available expertise on Korean affairs in academia.¹⁴ A third, and very important way, is to learn from South Korea, both from what they say and what they do.

One country, two systems

There are several reasons why South Korea must be the leading authority with regard to the North. The most important reason, however, especially when dealing with human rights, is that the South and North share the same cultural traditions. From a political and ideological point of view they are adversaries, but each party still has the key to understanding the other. The long time observer of the Korean scene, David Steinberg, writes: "In societies, such as Korea, in which individualism is not held as sacrosanct, a strong tradition of shared values, relationships, and social expectations, together with the acceptance of the political legitimacy of a particular regime, may create forces toward ideological conformity and orthodoxy that have both positive and negative attributes".¹⁵ From a Western viewpoint one may be inclined to dwell on the negative effects, especially in the case of North Korea, but foreign observers should be able to understand the context from a more objective position, including the historical perspective. In Steinberg's words: "Perceived external threats, in the Korean cases from either the left or the right in the instances of the South and the North, produce a sense and manifestations of nationalism that encourage the subjugation of individual or group concerns to the common, threatened, weal".¹⁶ One may disagree and find the social dynamics described by Steinberg as very negative, undemocratic and clearly against the human rights perspective. Nevertheless, until recently such social rules were entrenched in Korea, South and North, and they still are, not least in the northern part of the peninsula.

Western observers should take care not to employ their own worldview as the only measurement when observing and judging things going on in Korea. Individualism, civil society and the hard won independence between the state and the individual are not necessarily universal ideals. The role of the state versus society is different in Korea, and in East Asia as a whole, which means that the state has a much more active and interventionist role with regard to society as well as the individual than is normally accepted in the West. In Korea this has extensive historical precedent. "Koreans in both North and South", writes Steinberg, "rule on the basis of perceived moral authority, however defined, and that authority is likely to continue to give the leaders the motivation to act paternally. And the people to accept such actions from a regime that is regarded as politically legitimate".¹⁷

Lessons learned

The division of the country into two antagonizing camps brought about mutual hostility and kept alive repressive regimes in both halves of Korea for a prolonged period after liberation in 1945. Both regimes represented, to some extent, a continuation of the traditional political culture, although the

¹⁴ Outside South Korea, the best informed and qualified experts on North Korea are to be found in the USA.

¹⁵ Steinberg, David, 1998, Human Rights in North Korea: A Reinterpretation. In: Moon, Chung-in (ed), *Understanding Regime Dynamics in North Korea*, Seoul: Yonsei University Press, pp. 241-242.

¹⁶ *ibid*: p. 242.

¹⁷ *ibid*: p. 248.

differences between them were not trivial. In South Korea a democratic government has emerged, where human rights are seen as part and parcel of that system. Remnants from the authoritarian past still exist, however, hitherto legitimized with reference to the division of the country and the potential threat from the communist North. Such a remnant is the National Security Law (NSL) from 1948, which still allows "the state to impose ideological orthodoxy in matters pertaining to 'anti-state' organizations (i.e. North Korea) as the government wish".¹⁸ In a special report: *North Korea's Human Rights* in the independent/semi-official South Korean journal, *Vantage Point*, which follows the developments in North Korea, it is stressed that "many South Koreans have painful memories of their own country's poor human rights situation in the past".¹⁹ The NSL is still heatedly debated in South Korea, (and heavily criticized by the North) and will probably be abolished as a result of the improving relations with the former brother-enemy²⁰.

The lessons learned from comparing the developments in North and South Korea must be that a) North Korea is not a total anomaly in the family of nations, and b) when conditions improve and relations with the outside world grow better and stronger, the authoritarian and repressive aspects of the political culture, regardless of the system, will ease and slowly evaporate.

The economic decline

Although the system held the banner of independence high, North Korea's economy could not survive the consequences of the collapse of the Soviet Union and communist Eastern Europe as well as the shift to a market economy in China. From about 1990, all sectors declined, and the self-proclaimed, self-reliant economy was thus disclosed to be rather dependent upon economic and technical support and on trade by barter. It can be said that North Korea has failed to adapt to a changing world, and this leads us to the problem at hand: will the necessary change eventually take place, and if so, how can this process best be supported by outside forces?

It is important to acknowledge that ideas of making any substantial change did not occur to the North Korean leadership before the economy lay in ruins. Whether this was due to a lack of reliable flow of information from the shop floor to the leadership, or whether it was an effect of the political ideology which constantly blames outside forces for internal problems, thus making self-assessment and reflection difficult, is hard to say. Most probably both aspects played a significant role. The results, at any rate, were economic collapse, famine and hunger which necessitated a search for ways to remedy the disaster.

¹⁸ *ibid*: p. 245.

¹⁹ *Vantage Point*, 2004, "North Korea's Human Rights", *Vantage Point*, Vol. 27, No. 11, p. 4.

²⁰ On September 6, 2004, in a televised panel discussion, South Korea's President Roh Moo-hyun touched on the human rights situation in the South during previous regimes: "The National Security Law has been used mostly to oppress people who opposed the government rather than to punish those who threatened the country into crisis. During this process, tremendous human rights abuses and inhumane acts have been conducted." (Asian Centre for Human Rights, 27.09.04. available at www.achrweb.org).

Effects of the Juche ideology

A state ideology which emphasized self-reliance in economy, politics and defense made it difficult to find a remedy that would not put the survival of the system at stake. How sacred, then, was the ideology? In brief, the *Juche* or self-reliance ideology was established to escape pressure from China and the Soviet Union during the disputes between these large neighbors in the late 1950s and early 1960s. Each of these communist powers wanted to recruit North Korea into an alliance against the other, but North Korea needed support from both of them, and remained independent while benefiting from their continued joint support.

The ideology thus helped to rescue the nation, and increasingly became a sacred philosophy, holding a quasi-religious status. A central part of *Juche* in this connection is the role of the leadership. While the nation is described as the family writ large, the political leader takes on the role of the father, in the same way as this role would be fulfilled in the traditional hierarchal, patriarchal family. The North Korean leader Kim Jong Il's legitimacy stems from within this system. His father Kim Il Sung, the great leader, chose his son as heir, and the son's political project is sanctioned, simply because he is the faithful guardian of the heritage received from his father. This is no coincidence, but rather a consequence of an all-embracing ideological construction of reality, imbued upon the population through upbringing and education as well as through clear-cut and extensive political socialization. In the absence of alternative interpretations, the state ideology completely monopolizes the way in which the world is perceived by most people in the North.

Isolation preserves the system

It may still be difficult to understand how the North Korean system is able to survive, when it has been unable to feed its population and unable to introduce necessary reforms in order to revitalize the economy. A collapse of the system has actually been expected since 1994, when the founding father of North Korea, Kim Il Sung, died. Today, however, due to a growing insight among observers of North Korea's political culture, this expectation is less prevalent. It is now widely acknowledged that the North Korean polity has been created based on images of neo-Confucianism, combined with aspects of Shamanism, the original Korean belief system, as well as elements of evangelical Protestant Christianity, (Pyongyang used to be the centre of Christian mission in Korea). In other words the system has utilized the most important Korean religious traditions and historical legacies to legitimize its authority and power. The implicit message is that the cult is not simply an imposition on an unwilling populace, but a response to what has for centuries been perceived as true and right. It seems quite clear that the effect of continued isolation has been conducive to North Korea's ideological project. Hence a continued isolation will contribute to preservation of the system in its present state.

The above emphasizes that cultural sensitivity is needed in order to rationally and constructively deal with North Korea. To further stress this point, it is recommended to make a comparison with other, non-communist, countries in the region. South Korea has already been mentioned: here a leader (both in politics and business) is expected to command power, but also to be a caring person. Here, too, a leader is respected, feared and seldom openly

challenged, and the description of a model leader most often evokes references to a father or a teacher. Further south, in Japan, the emperor is still seen as an important symbol of national power and unity, and despite the highly propagated consensus democracy in modern Japan, hierarchical power relations permeate all institutions.

Change without change

What made sense in the past does not always make sense at present, however. The North Korean leadership is probably greatly constrained by the ideas and institutional structures that have long served them well. This may also explain why a rational response to the growing concerns of the North Korean economy has been so long overdue, and why it still seems highly problematic for the leadership to fully acknowledge these concerns, take responsibility, and move forward in a new and viable direction. According to well informed sources, the North Korean leader was impressed when he visited Shanghai and other booming parts of China. He also expressed this to his entourage, but added: this can not be realized in my country due to political reasons²¹.

The political reasons which make it difficult for the North Korean regime to follow the path of China or Vietnam have been outlined above: the rigidity of a outdated system that manages to remain in charge despite its failures, partly because no alternative exists, and, just as important, because the entire population is trained to perform its role, like cogs in the wheels of a huge social machine. Another reason that this particular system has survived and resisted change longer than any other system under some form of communist rule has to do with the division of the country and the traditionally hostile relationship with the USA, Japan and South Korea. Although relations have taken on a more accommodating tone lately, the loss of its former communist allies still provides the regime with reasons for maintaining a siege mentality.

North Korea's concern over its own security is well known and also reasonably justifiable. The ceasefire agreement of 1953 has never been replaced by a peace accord. US troops in South Korea are there to deter a North Korean attack, but from Pyongyang's point of view, these troops and the annual joint military maneuver with South Korean forces may have a more proactive agenda. This fear has become more acute especially after the war in Iraq. Within this context, the North Korean missile development program and its nuclear tests, though worrisome, are not irrational.

Political isolation has been good for the maintenance of the North Korean system. Due to the de facto economic collapse, however, it is impossible for the regime to maintain its isolationist policy. To survive, the system must open, but opening up is the same as signing its own demise. Engagement thus ensures a political change in North Korea in the long run.

It seems indisputable that dealing with North Korea implies dealing with Kim Jong Il. This is inevitable and implies that every action – from relief aid to development projects – will appear to support the present leader and his system. But, in isolation the regime remains unchallenged. With international

²¹ Interview with Professor Park Jae Kyu, President Kyungnam University, Seoul, January 15, 2004.

involvement in North Korea, isolation is undermined. The subtle dialectic characterizing the present situation in North Korea means that the international community has a chance to establish relations that will inevitably promote change. This is the realization of the dictum "*change without change*",²² a Buddhist-like approach to reality that we need to understand in order to cope with apparently bizarre and mysterious parts of the world that are seldom approachable with our own ways.

Despite the many different reasons for the North Korean leadership to avoid change, we will argue in this report that change is underway and that the process will most likely gain speed, even with the current regime intact. Sophisticated engagement is thus preferable, and both the necessary cultural sensitivity and an engagement policy that takes the interests and policies of the different players into account are called for.

The latest development in the six party process, the international dialogue between the two Koreas, China, Japan, Russia and the USA dealing with North Korea's nuclear ambitions, may well signal a general change in the international approach to North Korea. Until recently North Korea and the USA maintained an antagonistic stand towards the other, making hopes of a diplomatic breakthrough seemingly futile. A change in the US approach to the problem, acknowledging North Korea as a legitimate entity and acknowledging the fact that the two parties, North Korea and the USA, as former enemies of war were imbued with mutual hostile feelings and zero mutual trust, opened a new venue for improvements. The positive mood after the six party agreement reached in Beijing, February 2007, has now lasted for more than half a year and a summit between the leaders of the two Koreas in early October may solidify the positive developments. It is recommended that other international parties outside the above mentioned dialogue process find ways to contribute to the process and thus to strengthen peace and stability in the region and development in North Korea.

²² Professor Moon Chung-in, one of the architects behind the Sunshine Policy used this Zen Buddhist expression when explaining why South Korea should continue its engagement policy. (Personal conversation. January 13, 2004).

Chapter Two: From humanitarian aid to development assistance

For a couple of years North Korea has argued that the time for humanitarian aid is over. This did not mean that they declared to be able to manage the situation without international support, but that they wanted the support provided as development assistance. From all the many years of experience with international aid and assistance it is common knowledge that after the rescue operation it is important to help those in need to be able to take care of their own situation. This is not different with North Korea. What was different was their political system and that they were seen as a possible military threat by their neighbors and by the Western world. Lately with demonstrated missile and nuclear capacity this made up a total obstacle for any change in our support. The breakthrough in the six party talks in Beijing, made public February 13th 2007, and the draft agreement that was negotiated in five working groups in the spring of this year, has altered the situation fundamentally. This is the background for the following which suggests a change in the Norwegian support to North Korea.

The North Korean crisis: a closer look

In the following we will look into different aspects of famine relief, rehabilitation and development aid in order to suggest reasonable ways of dealing with the North Korean crisis. In order to reach this stage we will also discuss some of the "established facts" about the present situation in the country, and some of the myths as well. Then we will deal with the situation before the crisis and discuss some of the reasons for collapse. This is done to substantiate a recommendation of moving ahead from humanitarian aid to development assistance.

Humanitarian assistance, famine relief, or regime support?

Since the first shipments of aid to North Korea in 1995 there have been different opinions about the consequences of aid. One position has maintained that aid, which was purely humanitarian, had to be politically blind and should only concentrate on relieving human suffering. The other view has been perceiving aid without conditions to a communist country to be hidden regime support. From this position there has been speculation about the amount of humanitarian aid that has been channeled to the Party and military elites, or, that because international support was given to people in need the indigenous supply could be used by the elites. This simple dichotomy, right or wrong, is probably morally defensible, but might not capture the real situation in the country under study.

Based on the premise that North Korea, from want of a better term, is "a different country"²³, it might be more relevant to understand the present situation as a time of survival where the actors try to adapt to the given realities, and possibilities, but do not necessarily adhere to existing rules and regulations, indigenous or international.

²³ This label is borrowed from Cumings, Bruce, 2004, *North Korea. Another Country*, New York & London: The New Press.

This is a more liberal view of aid and on the relations between donors and recipients. From this perspective the current process can be seen as a test-ground for more basic changes in North Korea. This invites another but more dynamic dilemma: that of a failed system which is struggling to find a balance between heterodoxy and orthodoxy, between accepting local initiative and keeping central power, between change and continuity.

A challenged ideology

When North Korea in 1995 approached the outside world asking for humanitarian assistance, it was a great blow to *Juche*, their state ideology hailing national sovereignty, independence, and collective self-determination. This version of "communism" is unique and it can, as was discussed in the introductory chapter, barely be understood outside the Korean cultural context. In short it is a Koreanized ideology with strong nationalist traits. The history of the DPRK has been a struggle for self-determination, and the ideology underlines that a united people under the wise leadership of a supreme leader is invincible. Nothing is impossible as long as the people follow the leader, and carry out his instructions. Is this still the case, or have the difficulties and disappointments tempered the ideology?

In a joint 2007 New Year editorial from the DPRK official news agency, the text glorifies all the victories during the past year, and ends as follows: "Kim Il Sung's Korea is a formidable socialist power that is dignified by a great idea, powerful with the single-minded unity and ever-victorious advance of our army and people, who are endeavoring to bring earlier the day when they would enjoy happiness in socialist paradise with nothing to envy in the world."²⁴

There is no need to survey all the *Juche* texts or past joint New Year editorials from Pyongyang, the core message is the same: collective self-determination under wise leadership will bring success. Where does foreign aid come into this equation? It seems clear that not only is there no space for foreign actors in this version of reality foreign actors are apparently seen as the antithesis to the idea of national sovereignty and independence, Korean style. Consequently, just by appealing for foreign aid the North Korean authorities have failed their *Juche* obligation. And by accepting the presence of foreign aid personnel in the country and their travels, including control and monitoring activities, the authority of the North Korean regime has potentially been undermined. How do the authorities cope with this dilemma? Apparently they believe that the undermining only happens, *if* the regime admits that this is the case. If they acknowledge and declare that they need foreign assistance *because* they themselves could not provide enough food and daily necessities to the population. Do they admit this?

They do and they don't. Unlike Stalin in Soviet Union and Mao in China, the North Korean leader Kim Jong Il did admit that his country faced problems that the government was unable to deal with by itself. In 1995, (which was already too late), North Korea appealed to the outside world for aid. This fact should be credited to the present leadership, but there is a long way to go

²⁴ Statement issued through DPRK embassies in Western countries: "Joint New Year Editorial Calls for Ushering in Great Heyday of Songun Korea", January 1, 2007, p. 8.

before this leadership will acknowledge its responsibility, if ever. They are more likely to compensate for this dependency by intensely denouncing it. In 2000 the newspaper of the Workers Party of Korea proclaimed that "The imperialists' aid is a tool of aggression...a dangerous toxin which brings about poverty, famine, and death, not prosperity."²⁵ This said, it should also be mentioned that these days the North Korean government express gratitude towards countries and organizations that provide aid and economic support. This happened after the latest floods in August 2007.²⁶

At present the authorities see the current problems as having originated from outside forces, both natural forces and acts by hostile countries. North Korea has been hit by consecutive floods and droughts on a grand scale, and these happened shortly after the collapse of Soviet communism, at a time when North Korea had limited resources with which to withstand the crisis. In other words: from its own perspective the regime is not to blame. It is in this light the above quote should be read. It is in this context that it is possible to understand, (which does not imply acceptance), the fact that North Korean ideology is intact, although the economy lies in ruins.

Why help if it is not fully appreciated?

The ideology is an indigenous affair. Unlike other ideologies developed in the communist world, this one seems to survive, even despite the collapse of the economy and the government's inability to supply the people with sufficient food and daily necessities. Left alone in isolation, the authorities can explain away any problems and mistakes, and blame the outside world for everything that haunts the undeserved nation. For this very reason aid to North Korea is extremely important. Obviously first and foremost from a humanitarian perspective: there are people in need, and mostly it is the vulnerable people that suffer. But it is also important as a measure to help enlighten the, until now isolated, population. Every time a North Korean meets a foreigner, a possibility arises for him to become informed about foreign affairs.

Seen from a security perspective, aid to North Korea is no less important. Consider what a stressed and provoked military apparatus could do, if confronted with its own possible or even likely demise. In a less spectacular scenario North Korea might limp through the crisis, receive humanitarian aid, but remain closed and isolated. In this case the international relations in the region will continue to be precarious and military tensions highly probably. By seeing the foreign presence in North Korea as a channel for a much needed dialogue, one can foresee the slow growth of a more relaxed regional international and political climate and a North Korea among the family of "normal" nations.

The Famine: how bad was it?

Information about North Korea has, since the division of the country, been deeply tainted as it has usually been filtered through a cold war prism.

²⁵ Noland, Marcus, 2003, "Famine and reform in North Korea", p. 4, paper: Institute for International Economics, 1750 Massachusetts Avenue, NW, Washington DC 20036, USA.

²⁶ All the countries supporting North Korea after the late summer floods of 2007 was thanked by North Korea's foreign minister, who said that "Such sympathy and aid will promote mutual understanding and trust and encourage the Korean people in the endeavors to heal the aftermath of the natural disasters." Pak Ui Chun/KCNA, September 5, 2007.

Positive news was ignored and real problems were exacerbated. Official North Korean news and propaganda agencies made things worse by describing the country's situation as being close to a paradise. Information-wise North Korea was a black spot to the outside world. When the Korean economy collapsed and natural disasters made a bad time worse, Western powers had a hard time believing this information. North Korean appeals were seen as a corrupt regime's attempt at cheating. When it was then realized that the crisis was real and serious, the worst case scenario was easily accepted, and the number of hunger victims were believed to be huge. A figure of three million was extrapolated from a 1998 survey of North Korean migrants and refugees in China, and this figure was published in the highly regarded British Medical journal *The Lancet*.²⁷ Since then this figure has been endlessly repeated in media and reports on the North Korean famine, but it has never been cross-checked. It was easy to believe the worst case scenario because of the country's bleak reputation and also because official figures could not be trusted at all.

"The extent of famine-related mortality in North Korea remains unclear" writes Bruce Cummings in his: *North Korea. Another Country*, where he supports the figures calculated by his wife for the Asia Development Bank Institute: "she estimates about half a million dead from the famine and its consequences."²⁸ Marcus Noland suggests between 600,000 to 1 million people, or 3 to 5 percent of the population.²⁹ A third well informed and independent analyst following the North Korean crisis is Hazel Smith, who believes: "There is no doubt there was a terrible humanitarian disaster in the 1990s. The most reliable evaluation, carried out in a doctoral thesis at the University of Warwick by South Korean economist Suk Lee, shows that up to 660,000 people died from starvation and malnutrition-related diseases. However, the truth is that nobody – including the government – probably knows the real figure."³⁰

Do cadres and soldiers consume food-aid?

Just as the death tolls remains disputed there are other issues that also remain unclear and create a negative image of the country. It is well-known – and often strongly criticized – that North Korea has a huge military force. A standing army of more than a million men make up a vast non-productive force in a small and poor country, and it is understandable that Western North Korea observers, especially in the media, speculate on to what extent the international food aid is diverted to the military, and to the political elite.

Several sources dispute this assumption, however, including representatives of aid organizations in North Korea itself, who generally claim that there is an egalitarian sharing of the food aid.³¹ "[N]o international aid agency that has been involved in the regular delivery and distribution of food aid to North Korea has ever reported systematic diversion of food aid." writes Hazel

²⁷ Smith, Hazel, 2006: "Intelligence Failure and Famine in North Korea," *Japan Focus*, p. 3, available at <http://www.japanfocus.org/products/topdf/1634>.

²⁸ Cummings, B., 2004, p. 179.

²⁹ Noland, Marcus, 2006: "Transition from the Bottom-Up: Institutional Change in North Korea, p. 2, paper: Institute for International Economics, 1750 Massachusetts Avenue, NW, Washington DC 20036 USA.

³⁰ Smith, H., 2006, p. 3.

³¹ Cumings, B., 2004, p. 187.

Smith.³² Regarding the idea that an elite helps itself first, Smith underlines that the elite in North Korea is a “small group of people close to Kim Jong Il and his family.” And then she continues: “Pyongyang elites, like those elsewhere, have gastronomic choices.”³³

What about the military then? Since the announcement of a “military first” policy, would it not be reasonable to assume that the soldiers are fed first? According to Smith, “The armed forces receive first priority from the country’s own domestic food production – this is public knowledge, and openly and frequently stated by the government.”³⁴ And what is equally well-known in North Korea is that people prefer the locally produced “sticky rice” to potatoes and millet, or the various kinds of corn, wheat or brown rice most commonly distributed as food aid.³⁵ In other words, the military may avoid the food that civilians have to accept, as they have no choice. This said, it should be added humanitarian workers and foreign visitors report seeing skinny soldiers throughout the country which clearly indicates that the military are not exceptionally well off.³⁶ The problem may primarily rest with the foreign observer’s judgment, taking it for granted that there is a clear border between civilian and military affairs. A recent study maintains the opposite: “it is impossible to clearly distinguish between civil and military sectors due to the militarization of the North Korean society.”³⁷

Military involvement and marketization

This militarization, however, is also of a peculiar kind. While it is justified to characterize the North Korean society as uniform, and the command structure in civil organizations appears quite similar to the top-down structure typical of military systems, it is also important to see the civilian role of the military, especially their contributions to the construction industry and during harvest time at the countryside. Jon Bennett from Oxfam makes this characterization: “The army is inevitably a prioritized sector of the population, yet it has also been a key component in the production and distribution of food to civilians and in providing labor for reconstruction projects. Those who argue for a strict division of army and civilians in the distribution of food misunderstand the political and socioeconomic nature of North Korea as a country on permanent military alert where hundreds of thousands of civilians are under temporary conscription.”³⁸

Whom does the system serve? Is there any indication that the people are taken care of, that the system in any way operates for the good of ordinary people? The question is necessary as, due to constant negative reporting in the media, North Korea is widely regarded as a huge prison camp where the inmates slave for the people in power. An example of a “welfare measure” could be the Public Distribution System (PDS), the organization which controls the rationing system. Although the fact that there is such a system may be seen as negative, its functioning may nevertheless convey another story.

³² Smith, H., 2006, p. 5.

³³ Ibid: p. 4.

³⁴ ibid.

³⁵ ibid.

³⁶ Ibid: p. 5.

³⁷ Schloms, Michael, 2004, *North Korea and the Timeless Dilemma of Aid. A study of Humanitarian Action in Famines*, Münster: LIT Verlag, p. 100

³⁸ Bennett, Jon, 1999, North Korea: “The Politics of Food Aid.” p. 2, Relief and Rehabilitation Network Paper, Overseas Development Institute, London: Portland House.

While the unfortunate fact is that there is too little of the basic foods available, it is important that reports based on accounts from UN and various NGO missions state that this system (PDS) used to be a highly sophisticated multi-tiered system of subsidized food allocations related to a person's age and the demand of the work. Locally many PDS managers managed to adjust the system to the advantage of the local people, and for instance introduced barter and in different ways managed to help those most vulnerable.³⁹ Bennett writes that "One can look at the PDS (and, indeed, the healthcare system) as a failed system (because it is corrupt and/or cannot be adequately supplied) or as a system adapting to realities (being 'localized', using coping mechanisms and the initiative of local managers)." ⁴⁰ It seems obvious that the way this is approached affects how the system is understood.

Bennett mentions corruption. How much is this vice affecting the distribution system, especially with regards to the distribution of international food aid? It was mentioned above that no systematic diversion of food aid could be detected, but it can be observed that grain from international aid has shown up for sale at markets. Again it appears that a clear distinction is problematic. Noland (2006) notes that

"The availability of supplies outside state control – siphoned off from cooperative farm output, diverted from aid, and obtained through trade with China – was both encouraged by and contributed to the development of the institutional infrastructure of a market, such as traders, transporters etc. There is evidence that the military has been deeply involved in this process, though not to gorge themselves on WFP protein biscuits – they have first draw on the North Korean harvest. Rather because in the absence of well-defined property rights or dispute resolution mechanisms, their existing organization, as well as resources in the form of men, trucks, fuel, and, it should be said, guns, make them ideally situated to perform the role of middlemen distributors." ⁴¹

In the previous pages we have discussed some of the "established facts" about North Korea and it seems clear that preconceived ideas about the country determine how the outsider sees and understands it. It is possible to carve out another picture of this "strange" country, however, through the different observations presented by representatives from foreign organizations and institutions stationed in North Korea, combined with analysis by relief and country experts. In the section below we will concentrate on *how it was* and *what went wrong*.

North Korea's Great Leap Backward⁴²

Unlike other major crises resulting in famine the North Korean crisis happened in a largely urban, industrial society where about 70 percent of the population is employed in the urban-industrial sector.⁴³ In contrast to African disasters, where disintegration of the state and a collapse of civil society is a norm, the North Korean crisis occurred in a country "characterized by

³⁹ *ibid*: pp. 3, 9-10.

⁴⁰ *ibid*: p. 9.

⁴¹ Noland, M., 2006, p. 10.

⁴² The phrase is borrowed from Woo-Cumings, Meredith, 2002, "The Political Ecology of Famine: The North Korean Catastrophe and Its Lessons", ADB Institute Research Paper 31, Tokyo: ADB Institute, p. 21.

⁴³ *Ibid*: p. 21.

stability, centrality and civil order".⁴⁴ Before the crisis it was not a poverty-stricken country. Although the arable land in North Korea only amounts to about 20 percent of the total land area and the season is short, (and Western economists claimed that North Korea lacked the comparative advantage in food production and therefore was unlikely ever to become self-sufficient) the 1990 grain production reached eight million tons, while the often quoted figure for basic food needs is between five and six million tons of grain.⁴⁵ This was achieved in an agricultural sector where the process of collectivization took place between 1953 and -58 as "a relatively well planned and orchestrated affair", and where the basic production unit was more decentralized than in most collectivized socialist agricultural sectors.⁴⁶ Another remarkable achievement was the electrification of the rural sector which was completed by 1969. Electricity was from then onwards widely used to power water-pumps for irrigation and for drainage, and this system became the pride of the country:

"In North Korea, impressive irrigation programs connected vast networks of waterways, comprising a double-circular system of drainage as well as irrigation, for protection against floods as well as drought. These waterworks pass through mountains and rivers, with one waterway lifting water 230 meters up by 13 stages, irrigating fields 340 meters above sea level (some of these also trace back to the Japanese period). By 1992, 25,800 pumping stations and 1,700 reservoirs interconnected a waterway system of 40,000 kilometers."⁴⁷

It seemed like the North Korean authorities were beating the odds and had realized a self-sufficient agricultural sector. Furthermore, North Korea, before the crisis, manufactured 80-90 percent of its own fertilizers. And when it comes to mechanization, the case is the same. Although one might believe that in a mountainous country with scarce arable land, tractors would be of little use, tractors were nevertheless preferred to the ox. As a symbol of modernization and self-reliance, their own brand of tractors was produced from 1958 onwards. In the 1970s there were four tractors in use per 100 hectares.⁴⁸

How could all this end in disaster? There is no one convincing answer but a mix of interrelated reasons for this sudden change from success to failure, and it seems like the failure was already hidden in the success.

North Korea aimed at self-reliance in all economic fields and self-sufficiency in agriculture. The *Juche* regime developed a national economy where the different parts were inter-related. Industry was geared to serve agriculture, and both fields were based on the availability of energy, predominantly electric energy. The weak link of this model of balanced and integrated development, striving for self-reliance, was the energy sector, and here huge problems occurred in the 1990s. The energy sector, both thermal power plants using coal, and hydroelectric plants, originated either from the colonial times or was built with Soviet assistance between the mid 1950s and 1980. Subsequently, when the facilities needed to be refurbished, spare parts were

⁴⁴ Bennett, J., 1999, p. 4.

⁴⁵ Woo-Cumings, M. 2002, p. 23.

⁴⁶ Ibid: p. 25.

⁴⁷ The author mentions that accurate and detailed statistics actually exists in this field (Woo-Cumings, M., p. 25).

⁴⁸ Ibid: p. 26.

out of stock (the Soviets had left) and expensive to buy. And, with a fully mechanized agricultural sector, the annual need of petroleum was about 140,000 tons.⁴⁹ Without indigenous oil reserves, North Korea was totally dependent on foreign imports, and, after the collapse of the Soviet Union and the transformation of the Chinese economy, oil had to be paid for in foreign exchange, something North Korea could not provide. These changes hit North Korea hard. The economic and technical exchange and support, based on friendship and solidarity relations, suddenly ceased to exist. The terms of trade had also abruptly and totally changed. One would expect that the regime would be forced to promote change. Why did this not happen?

A series of shocks

The early 1990s provided several shocks to the North Korean authorities. The collapse of the Soviet Union, the main partner covering 3/5ths of North Korea's total trade (of the not totally self-reliant North Korean economy), was a disaster. This was remedied by upgrading trade with China. Then China established diplomatic relations with South Korea, and demanded payment at standard international prices in hard currency from the North, and the situation worsened. There were no other possible providers of what North Korea needed but could not pay for: food and oil. According to the then-director of the South Korean intelligence agency, the North then asked for 500,000 tons of rice from the South, on condition that it be supplied secretly.⁵⁰ The situation was critical and in 1992, after another bad harvest, the authorities launched a "Let's Eat Two Meals a Day" campaign, a desperate solution for a leadership who quite successfully and for some time had provided almost everything to the population "free of charge".

Then came the sudden death of Kim Il Sung in June 1994, which did not make the situation any easier. In most places the death of a leader would not make that much of a difference, but in North Korea it did. Kim was not only a leader, but *the* leader, the one and only leader the country had ever had, and as such a leader who became the subject of (or created) a cult. This leadership cult, not unknown in other communist systems, was, in the Korean case, developed in line with traditional myths and philosophies, and outside this particular context the phenomenon is incomprehensible.

Kim Il Sung had been superhuman and omnipotent. His leadership style was known as "on the spot guidance". He gave his advice and encouragement at numerous places. He may have conveyed what experts had found out or the party had decided, but the words came from him. What he said could not be wrong. He had developed the *Juche* ideology, but now this ideology could not provide any answer to the current impossible situation. What further exaggerated the consequences of this loss and the crisis was possibly the leadership vacuum that followed. As the leadership cult was based on traditional systems of thought, among others especially Confucianism, the eldest son had to enter a three year period of mourning after the father's death. This was at least what contributed to secure Kim Jong Il's position as the heir of his father. Other reasons may have contributed in keeping the son away from the leadership position for three years, for instance some kind of shock and indecisiveness because of the crisis and lack of tools to solve it. As

⁴⁹ *ibid.*

⁵⁰ *Ibid*: p. 21.

Woo-Cummings speculates: "Kim Jong Il may also have resisted taking full power (and thus taking responsibility) in the midst of a famine catastrophe, given the age-old relationship between the Korean king and the "mandate of heaven" (a term the North Koreans used frequently in the mid-1990s).⁵¹ No matter how the case is interpreted the demise of the great leader was a serious blow to the already sorely tried country.

On top of it all; ecological disaster

The above may suffice to explain the North Korean collapse, but there was still more to come. In the midst of an economic disintegration and the breakdown of both trade and "subsidies" the climate turned sour. In 1995 heavy rains poured on the earth and caused flooding. From June to August the rain continued and when it stopped, 5.4 million people were displaced, 330,000 hectares of agricultural land were destroyed and almost 2 million tons of grains were lost.⁵² The floods in 1995 were followed by floods in 1996, and then in 1997 came, according to the FAO/WFP Mission Report of July 1997, the worst drought in decades. After two normal years another drought hit the country in 2000, and the FAO/WFP representatives now reported empty reservoirs. The drought in 2000 was succeeded by the coldest winter in decades and drought again in 2001. Woo-Cummings summarizes this series of natural disasters by concluding that North Korea seems to have been at the centre of a global ecological disaster.⁵³ In the conclusion of her report she states that:

"The famine in isolated North Korea was part and parcel of a global ecological disaster, happening with greater frequency as the result of the global warming. A North Korea never wanting to join the world – or only to do so on its own terms – and which went to an extraordinary length to remain as autarkic as possible, ended up being nearly wiped out in a global ecological disaster. A capricious climate, then, became a sad reminder that North Korea lives in the same world climate regime that we all do.

North Korea probably occasions less sympathy around the world than any other developing country, but its withdrawal from the world was *for* development, it was in the search of wealth and power for the country. It did not simply stagnate like Myanmar or Albania, something that makes this little known case all the more interesting."⁵⁴

North Korea truly made a great leap backwards, but it was not intended. The whole world changed and North Korea was squeezed, and nature contributed in turning the situation from bad to worse for the people at large. The West was waiting for the regime to collapse, but it did not happen. Neither is it likely to happen in the near future, because the North Korean regime is stable. Western expectations were based on distorted information and probably also wishful thinking, as information about North Korea had always been filtered through a cold war prism.

⁵¹ Ibid: p. 23.

⁵² Noland, Marcus, Robertson, Sherman and Wang, Tao, 1999, "Famine in North Korea", p. 4, paper: Institute for International Economics, 1750 Massachusetts Avenue, NW, Washington DC 20036, USA.

⁵³ Woo-Cummings, M., 2002, p. 28.

⁵⁴ Ibid: p. 33.

The responsibility of international actors

The present leadership in North Korea is holding power for many different reasons, some of them indigenous and some of them international. The Japanese colonization of Korea, clandestinely accepted by the Western powers, was unfortunate, and unjust, but it can not be undone. The division of Korea is unfortunate and unjust, but it is a historical fact and neither can this action be undone. The Korean War was catastrophic, but it happened, and the dead cannot come back to life. The long period of cold war, during a time when the two Koreas saw each other as the chosen enemy was lamentable, but it happened. And it still affects the way people of the two halves of the country see each other. All this and much more make up the background reasons for the present extremely complicated situation.

North Korea became isolated and made a virtue out of necessity. What has happened cannot be erased from history. It can, however, make up the basis for another future. As the highly problematic Korean situation in the 20th Century was sealed by decisions made by outside forces, the solution of the same problems also needs the positive contribution of the world community. For a small country like Norway without any other hidden agenda than an aspiration to help people to help themselves and to support the present positive development towards peace and tolerance in the North East Asian region, time is ripe to consider a change from humanitarian aid to development assistance.

Chapter Three: The North Korean Economy

North Korea's economy is difficult to grasp. Information is scarce, official statistics non-existent or flawed, and the gap between the official doctrines of the socialist planned economy and its realities are immense.⁵⁵ Visiting North Korea, however, leaves one with a very clear impression of a country in severe economic difficulties. Somehow it seems able to muddle through despite natural calamities, relative isolation and strong ideological constraints. In the following we will take a closer look at important aspects of North Korea's economy, its recent collapse and its present and future potentials.

Economic history

When Korea was divided in the aftermath of WWII, the Northern part was equipped with the major share of the country's heavy industry and mining (but very little arable land). Factories established during Japanese colonial rule were located in the eastern part of the country close to the mineral deposits. This pattern of industrialization – including its localization – was continued by the Soviet-backed liberation government. It followed the classical communist path prioritizing coal, steel, chemicals and machine tools. This was seen as the necessary foundation for an independent economic development (and for an indigenous military industry), i.e. as the basis for the subsequent development of light (consumer product) industries. The second phase never gained momentum, however, moreover it was localized around the capital, which created problems in a country emphasizing local self-sufficiency. It is thus safe to state that "heavy industry mass-mobilization" strategies successfully guided the economy as it recovered from the devastation of the Korean War. But these same principles failed to take North Korea to the next level of economic development.⁵⁶ The development of the North Korean economy was successful up until 1970. Over the span of about 20 years, an urban, industrial society was created. The post-1970 period, however, can be characterized as two decades of stagnation and one of disastrous decline.⁵⁷

With the collapse of the communist bloc in 1990–91, North Korea not only lost its market but also essential economic support from the Soviet Union. A self-reliant political ideology could not rescue the North Korean economy as isolation fell upon the country. Structural weaknesses in the planned economy developed into clear-cut disasters. What followed was gradual economic collapse and human tragedy.

⁵⁵ Most of the statistical data used in this chapter is provided by the Bank of Korea (Seoul), which has the most comprehensive and reliable data available (See: Brown, William B., 2006, "Changes in the North Korean Economy and Implications for the Energy Sector: Is North Korea Really Short of Energy?" in North Korea: Economic Update. Georgia Tech Workshop on North Korea. Oct.31 – Nov. 2, 2006, Atlanta, GA.

⁵⁶ Oh, Kongdan and Ralph C. Hassig, 2000, *North Korea Through the Looking Glass*, Washington, D.C.: Brookings Institution Press, p. 187.

⁵⁷ The Economist Intelligence Unit, *North Korea Country Profile* 2003, p. 75.

Economic indicators

From 1990 to 1998 the North Korean economy was in recession for nine consecutive years. Consequently the economy shrank by up to 55 percent and reversed the North Korean living standard to the level of two decades before. From 1999 and until 2005 the GDP was stabilized with a positive growth rate, marking a slow recovery from the hardship of the 90s. In 2006, however, North Korea's economy took another downturn and went into recession with a negative growth rate at 1.1 percent. This was mainly due to a slow down in the agricultural production and in construction.

Table 1: North Korea's GDP Growth Rate

(Year and %)

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
- 6.3	- 1.1	6.2	1.3	3.7	1.2	1.8	2.2	3.8	- 1.1

Source: Bank of Korea

The positive stabilization in the beginning of the new millennium cannot overshadow the fact that the nominal GNI during 2006 (USD 25.6 bn) was only one thirty-fourth of that of South Korea. The per capita GNI was only USD 914, which is less than one fifteenth of that of South Korea.⁵⁸ The human consequences behind these figures are, needless to say, alarming.

Table 2: North Korea's Economic Indicators (2006)

Population (m)	23.1
Nominal GNI (US Dollar bn)	25.6
Per capita GNI (USD)	1,108
GDP Growth Rates (%)	-1.1
Export (USD m)	950
Import (USD m)	2,050
Trade balance (USD m)	-1,100

Source: The Bank of Korea. Inter-Korean trade is excluded in the export/import figures.

North Korea's debt was estimated in 1997 by the South Korean National Intelligence Service to be USD 11.9 bn. Of this USD 7.4 bn are owed to Russia and China and USD 4.6 bn are owed to Japan and to western governments and banks.⁵⁹ Very little has been paid back since the 1980s and this has further hampered North Korea's international reputation.

The civilian economy

North Korea can be described as having two economies: a civilian economy and a military economy. We will return to the latter below. The civilian economy consists of the state-owned production as well as an emerging private sector. The private economy is equivalent to the farmers' markets and black markets that emerged in 1995, as the planned economy of consumer goods collapsed.

⁵⁸ Source: The Bank of Korea.

⁵⁹ The Economist Intelligence Unit, *North Korea Country Profile 2003*, p. 85.

Key sectors of the state industry include coal mining, construction, electricity, machinery, steel and transport. However, the single most important contributor to the state industry is the agricultural sector - a fact that underlines the economic crisis of this highly industrialized country. The state-owned production is marred by a still partly planned distribution of industrial goods, lack of raw materials, a poor infrastructure and a devastating shortage of energy. All sectors are in a dire state and as a result, only between 20 and 30 percent of the industrial capacity is utilized.⁶⁰ As a consequence, the employees are only receiving 50–80 percent of their salaries.⁶¹

Table 3: North Korean Industrial Sector (2006)

(% of total GDP)

Agriculture, Forestry, Fishery	23.3
Mining	10.2
Manufacturing (Light industry 6.7%; Heavy industry 12.8%)	19.5
Electricity, Gas, Water	4.5
Construction	9
Services (Government 23.7%; Other 9.8%)	33.6

Source: Bank of Korea

The planned economy

It is debatable whether the North Korean economy can still be characterized as a planned economy. It has collapsed, but the old structures still partly function, although far from adequately to supply the people with minimum requirements. Constrained and limited markets, official as well as black, have emerged, filling the gap left by the former all-inclusive public distribution system.

The public distribution system supplies the North Koreans with rice, the traditional staple food. It is organized so that different categories, like children, workers, soldiers, older people, etc., are allocated different rations. The rice rations, however, are not enough to cover basic requirements and people are therefore forced to purchase rice or other food at the government sanctioned markets as well as at the black markets. Some of the more successful state owned enterprises have taken over the responsibility of purchasing rice rations for their employees, which is regarded as a better and more reliable system.

It is important to note that although the public distribution system is in general insufficient, the distribution of rations at least appears to be fair. No international aid workers have reported any "cheating on the scales" or use of bribes to get bigger rations. What the international aid workers have seen is instead a preferential treatment of those in most need.⁶² This is fortunate as

⁶⁰ Interview with Professor Koh Byung Chul, director, Institute for Far Eastern Studies, Kyungnam University and Senior Economist Park Suhk Sam, Bank of Korea.

⁶¹ FAO/WFP Special Report, 2004, "Assessment of DPRK's crop and food supply", *Vantage Point, Developments in North Korea*, Vol. 27, No. 1, p. 50.

⁶² Bennett, J., 1999, pp. 5, 13.

all food provided as humanitarian aid is distributed through this system. In this regard it was also interesting to learn from our talks with ordinary North Koreans that they know exactly when their daily rations are from international donations or domestically produced. This is deduced from the fact that North Koreans produce round, "sticky" rice (which they themselves prefer), whereas most donated rice is of the long type produced in Vietnam or Thailand.

The planned economy, however, consists of far more than the public distribution system. On a practical level, most industrial goods are still distributed according to plans, though lacks of raw materials, fuel, and electricity have made this system even more inefficient. The planned economy derives from a particular way of economic thinking, which is still dominating North Korean economic politics. Economic activity is, for example, measured in terms of input and output, not on expenses as in the West. This way of thinking is also present whenever North Koreans discuss development aid with the international community. Here it is obvious that there are a lot of very tangible inputs on the wish list whereas teaching programs or more "invisible" inputs are not in demand. This way of economic thinking, combined with an ideological straitjacket, turns the focus away from the economic micro-mechanisms, which are far more important factors in achieving economic growth. For example, instead of learning how to utilize rural local knowledge to the fullest they spend time and money on importing a new breed of double-sized rabbits from Germany, in the hope that this "input" will be the quick fix saving rural economy.

The arguments for preserving a partially functioning system are manifold. Obviously there is a lot of control embedded in such a system, not least the public distribution system, which the regime (or strong forces in the elite) clings to. This was evidenced in 2005 when private sales of grain were banned in an attempt to resuscitate the public distribution system.⁶³ Another argument we heard from a North Korean official, was that the planning system was needed exactly because of the scarce resources. From a market economic point of view the reply would be that planning is inefficient due to high transactions cost and ultimately scarce resources are a consequence of the absence of a free pricing mechanism. This is to some extent true, but one have to keep in mind that the rationing system in our own countries during the Second World War was introduced for the exact same reasons. The need to control resources is a natural measure used in a time of crisis and when a war-like mentality is dominating. And it still is in North Korea.

Trade and the trade balance

Foreign trade has, in accordance with *Juche* principles, played a minor role in North Korea's economy, amounting to about 10 percent of GNP. The most characteristic feature of North Korea's foreign trade is the chronic trade deficit, which has been increasing in volume.⁶⁴ The current negative trade balance at USD 1380 million illustrates these difficulties, as North Korea's imports are twice the size of its exports (2005 figures, see below). As a result, North Korea is left with a severe lack of foreign currency. Efforts have continuously been made to increase production for export, but so far with

⁶³ Noland, M., 2006, pp. 2-3.

⁶⁴ Choe Sang T., Kim Suk-Hi and Cho Hyun Jeong, (2003) Analysis of North Korea's Foreign Trade: 1970-2001, *Multinational Business Review*; Vol. 11, No. 1; p. 108.

limited results.⁶⁵ North Korean exports are dependant on the agricultural sector and in 2001 animal products became the most important export item, surpassing textiles, which have been decreasing due to stagnating trade with Japan.

Earning foreign currency is essential if North Korea is to cover its own domestic consumption, mainly the provision of food, and to purchase much-needed energy for further production. In the long run this lack of foreign currency is all the more devastating because it restricts necessary investments in foreign technology and know-how. This vicious circle endangers North Korea's economic recovery.

North Korea has two main partners in foreign trade: China and South Korea. In 2005 these two nations accounted for 65 percent of the total trade. This dependency on a very few countries does make North Korean foreign trade extremely vulnerable. This can be seen as a repetition of the dependency of Soviet support and trade before 1990.

Table 4: North Korea's Export and Import by Country (2005)
(USD M; %)

	Export	Import	Total	Trade Share%
China	499	1,081	1,580	39
South Korea	340	715	1,056	26
Thailand	124	206	329	8.1
Russia	8	224	232	5.7
Japan	131	63	194	4.8
Other countries	236	429	665	16.4
Total	1,338	2,718	4,056	100.0

Source: Ministry of Unification.⁶⁶

China has sustained North Korea since 1990 with a cumulative deficit of more than USD 4 bn. As this implies, the distinction between trade and aid is blurred⁶⁷. Some trade takes place on real market terms, but there is also a great deal on favorable conditions, especially with regards to essential inputs like oil and fuel. The Chinese state, however, has also released its most potent force, namely its private sector. Chinese businessmen have over the last couple of years invested heavily in North Korea in a variety of sectors. This development is extremely significant as Chinese investments in 2003 were registered at USD 1 million and only two years later, in 2005, they had increased to as much as USD 100 million.⁶⁸ Apparently the weak protection of private property and lack of a legal framework does not seem to be a problem for these Chinese business people as they are used to operating in such an environment. They have taken advantage of the chaotic state of the North Korean economy, which has lead to a de facto decentralization of the decision making power. Thus, Chinese businessmen are able to cut a deal with local

⁶⁵ Lee Young-hoon, "Escaping the Poverty Trap: North Korea's Economic Development Strategies" in *EAST ASIAN REVIEW*, Vol. 14, No. 2, Summer 2002, p. 112.

⁶⁶ The Ministry of Unification, Seoul (www.unikorea.go.kr/en). 22 January 2007.

⁶⁷ The Economist Intelligence Unit, *North Korea Country Profile* 2003, p.23.

⁶⁸ Kim Young-yoon, 2006, "North Korea's Economy in Fourth year of the July 1 Reform Measures: Evaluation and Prospects," *Vantage Point*, Vol. 29, No. 10, October 2006, p. 55.

officials or do whatever is needed to acquire licenses and establish a relatively safe environment for their investments (as they have done in China). Some of the most noticeable investments by the Chinese are in North Korean ports. This type of investment is negotiated on a more formal level, for example the leasing of the port of Rajin has been agreed between the Chinese border city of Hunchun and the North Korean city of Raseon. This particular deal will provide north eastern China with access to the Sea of Japan. The plan envisages developing the needed infrastructure, building a 67 km highway between Hunchun and Rajin and a 5-10 square km industrial zone. This boom in Chinese investments has obviously increased North Korea's dependency on Chinese capital. That North Korea has been willing to accept this development is an example of the economy being prioritized over ideology.

In 2002, South Korea, the other main partner, for the first time took the position as North Korea's most important export market. This development is remarkable in two ways. First, North-South trade was (officially) non-existent as recently as 1988.⁶⁹ After a slow start, trade has increased markedly over a short time span, and the construction of the Kaesong Industrial Complex has already enhanced this development (see below).

Second, the political consequences are obvious, as the North becomes increasingly dependent on the South. This might not ease the at times aggressive rhetoric, but it will constrain the two Korea's actions towards each other to a greater extent. On a long-term perspective the increased contact between the people of North and South may turn out to be the most decisive factor in opening up the North Korean regime.⁷⁰ The expectation is thus that an increase in economic cooperation will produce important political effects.

As the only country with which North Korea has a trade surplus, Japan makes an interesting case. Historic issues, such as North Korea's kidnapping of Japanese citizens and Japanese fear of North Korea as a nuclear power, have hampered not only trade but also relations in general. Consequently, from 2001 to 2005 total trade decreased with as much as 85 percent.⁷¹ A new momentum in trade is therefore heavily dependent on the settlement of the nuclear and kidnapping issues.⁷² Also notable is Russia's tiny influence compared to the crucial role played by the Soviet Union before its collapse in 1991.

Up till 2002 the EU played a still more important role as a trading partner to North Korea, mainly due to increasing exports of machinery to North Korea (See table below). Since 2002 trade has, with some fluctuations, been decreasing.⁷³ The latest downturn can be attributed to the prolonged nuclear crisis, which has made trade with North Korea a touchy subject.

⁶⁹ Ibid: p. 84.

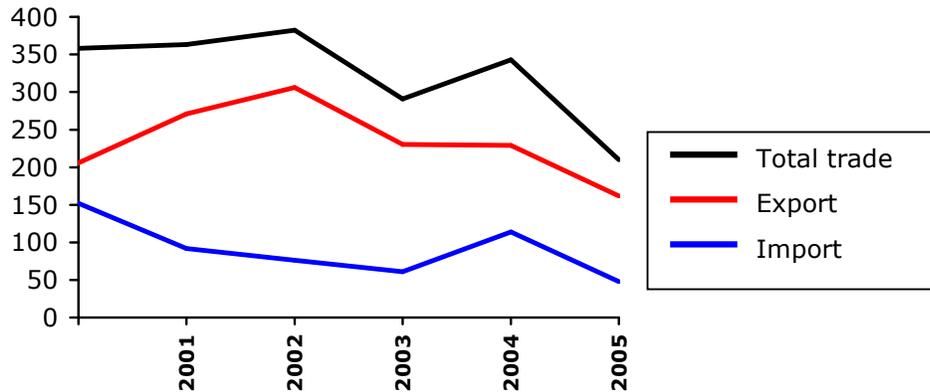
⁷⁰ Interview with former President Kim Dae-jung.

⁷¹ The Ministry of Unification, ROK (www.unikorea.go.kr/en). 22 January 2007.

⁷² At the time of writing (September 2007) *all* trade has been put on hold by the Japanese side.

⁷³ Source: KOTRA Overseas Trade Center Reports.

Figure 1: EU's (25)⁷⁴ trade with North Korea
(In EUR m)



Source: Eurostat

The military economy

The military economy benefits from the “military-first” policy announced by Kim Jong Il on 1 January 1995. In September 2002 it was refined into “developing defense industry first”, replacing the old Marxist doctrine of “developing heavy industry first”.⁷⁵ The intention was to give first priority to military production with regard to distribution of the scarce resources. This has been achieved at the expense of the already run down civilian economy. Historically, the military has been organized as a people’s army, based on self-reliance so as not to be a burden to the people.⁷⁶ Thus, the military has developed its own production facilities, not only to cover its demand for arms, but also to produce a range of goods to supply the civilian economy. The former Director General of the South Korean National Intelligence Service, Lim Dong-won, assesses the military economy to be more affluent, which is logical considering the priority given in the political ideology.

In an assessment of the North Korean economy, the military is often put in a special category, as its share of the entire production is hard to measure. The military operates several hundred factories, employing up to half a million people.⁷⁷ Since 1997 military spending has officially been about 14 percent of the national budget, but qualified estimates suggest that a more accurate figure is 18-20 percent.⁷⁸ What is certain is that the “military-first” priority is a political one, and should be regarded as such. It is not a guarantee of the most efficient distribution of resources. Having said that, not much in North Korea is in line with the law of the market and the military economy does, through wages and supply production, contribute to the economy as a whole.

The export of missile technology is often viewed as a way to provide hard currency, of which North Korea is in dire need. But, as evidenced by the fact

⁷⁴ EU 25 comprises all 25 European Union member states, thus including the 10 new members.

⁷⁵ Park Hyeung-jung, 2003, “North Korea’s Economic Policy in the Era of “Military First””, *International Journal of Korean Unification Studies*, Vol. 12, No. 1, pp. 116-117.

⁷⁶ Oh, K. and R. C. Hasing, 2000, p. 108.

⁷⁷ The military personnel amount to 1,170.000 soldiers according to South Korea (ROK Ministry of National Defense publication. *Participatory Government, Defense Policy 2003*, p. 26.)

⁷⁸ Seong Chaki, 2003, “A decade of Economic Crises in North Korea: Impacts on the Military”, *KIDA PAPERS*, No. 3 October 2003, p. 4,6.

that the value of arms export is nearly the same as the value of arms import, most of the foreign currency earned in this way does not leave military circles. Contributions to civilian production in terms of foreign currency reserves therefore remain limited.⁷⁹ Furthermore, the export of missile technology has been the main argument for the US to list North Korea as a terrorist state, thus making its entry into the international community difficult.

If North Korea stays on the reform track, as anticipated, the borders between the military and civilian economies will most likely become blurred and develop into a mishmash of overlapping ownership structures characterized by a complete lack of transparency, as has been the case in China.⁸⁰ Whatever happens, the military is currently deemed to continue to play an important role in the future North Korean economy. The development of more normalized foreign relations, which would ease the tension and the North Korean feeling of insecurity, is thus a precondition for further economic growth.

⁷⁹ Ibid: p. 5.

⁸⁰ The Economist Intelligence Unit, *North Korea Country Profile* 2003, p. 84.

Chapter Four: North Korean Market Reforms

A new line of reform measures introduced in July 2002 has altered the future prospects for North Korea's economy. Most notably, a money economy has been created as the private economy emerged concurrent with the collapse of the planned economy for consumer goods. Despite this, the direction of economic policy has been ambiguous and presumably undecided.

The value of the political signal given by the July 2002 measures was stressed time and again by most of the South Korean experts we interviewed back in 2004 (see Appendix). It was widely perceived to be an unmistakable sign that North Korea had begun serious market-oriented reforms. The speed, with which these reforms would be implemented, and the reasons behind them were debated, but the market-oriented direction stood clear. This assessment did not turn out to be entirely accurate. The main reason for this was a general underestimation of the immense inertia in the North Korean bureaucracy, resulting in resistance to even the slightest change and a lack of will to try to change policies.

The market-oriented turn

To understand the current situation it is necessary to look at the initial reasons behind the market-oriented turn in the North Korean economy. First, already under Kim Il Sung's leadership in the early 1980s, there was an emerging understanding that something had to be done to revitalize the declining economy. This acknowledgement led to the initiation of a range of measures to support the planned economy, but more importantly, the first experiments with special economic zones were initiated. Second, after support from the Soviet Union was cut off, the planned economy gradually declined and the public distribution system of consumer goods virtually collapsed in 1995.

This vacuum was filled by the emergence of a private, partly black-market, economy, evolving around the officially accepted farmers' markets. While money traditionally had had an insignificant role in the state economy, this situation was reversed in the private economy.⁸¹ Money (mainly foreign currency) therefore became increasingly important in order for people to survive. Also, factories became more interested in selling goods on the private market at much higher prices than in fulfilling the plan. As a result of rampant corruption, state assets and resources started to appear on the farmers' markets. Consequently two levels of pricing emerged, the official one and the free-floating kind found on the farmer's markets.

Most significantly, the free market took over the task of distributing commodities, which was traditionally performed by the state. The North Korean leadership recognized this, and understood it to be a problem, as evidenced by the fact that one facet of the 1 July 2002 measures was actually to close down the farmers' markets in an attempt to bring new life into the state sectors through the wage and price reform. This did not happen, simply

⁸¹ Park Hyeung-jung, 2003, p. 123.

because it could not be carried through. Too many people had become dependent on the market for earning an income. The solution was to grant the farmers' markets official status in March 2003. At the end of that year there were more than 300 markets spread throughout the country, with about 40 in the capital.⁸² As such, the markets are a result of pressure from below. That is to say, the state was forced to make a market-oriented adjustment, accept reality and bring the state economy more in line with this more vibrant part of the economy.⁸³

Visiting the biggest market in Pyongyang, the Tong-Il market, sheds light on an important feature of the private economy in North Korea, namely the lack of domestic products. A North Korean official assessed the origin of goods traded at the market to be 70 percent Chinese, 20 percent domestic and 10 percent Russian and Japanese. The domestic share is almost entirely made up of agricultural products, whereas almost all manufactured goods are imports from China. In a country where labor is even cheaper than in China this 'division of labor' is obviously absurd, but hardly a surprise. It is a result of a strong focus on heavy industry at the cost of light industry and a commodity economy. The consequence is that North Korea is flooded with Chinese products which they themselves could have produced. The traders are making a profit, but other parts of the economy are not benefiting from the free markets. This type of import-business is called "running" in North Korean jargon. It requires a lot of capital for the initial purchase of goods in China and for transportation by cargo trains, ship or trucks. The "first run" from China to North Korea is done by the few privileged in North Korea who are influential or rich enough to acquire the right permits. The "second run" occurs inside North Korea by wholesale traders who distribute and resell the imported goods to local businessmen. Obviously, the "first run" is the most profitable. There are also examples of what could be termed a "third run", where local businessmen offer the imported goods to people in remote rural areas in exchange for agricultural products.⁸⁴

The private share of the economy is difficult to estimate due to the lack of reliable information. Its impact, however, seems to be related to the type of goods traded, i.e. mostly daily necessities that the state cannot provide any more. The impact of the private sector also lies in the change of mentality that the market creates.

Another important effect of the private economy is that on the monetary system, which has been seriously damaged, partly as a result of the private economy. The central bank has lost control of the cash flow because it has lost its means of retrieving cash. Normally, the central bank would retrieve cash through the state sector and when people deposited money in their savings accounts. But the failure of the state sector has forced people to purchase goods on the private market, leaving the state without income. In addition, a lack of trust in the official system means that money traded on the private market ends up in people's closets and not in savings accounts in the

⁸² Vantage Point, 2004, "Number of Pyongyang's Markets Increasing Rapidly", *Vantage Point, Developments in North Korea*, Vol. 27, No. 1, p. 29.

⁸³ This is also the assessment of Lee Dong-Cheol, Director General, North Korea team, KOTRA. In an interview he explained: *"the reforms were accepting realities a justification of what was already going on"*.

⁸⁴ Kim Min Se (January 2007), "Analysis of North Korea's 'Market reforms' I", *Daily NK*, (see: <http://www.nkeconwatch.com/category/economic-reform/>).

central bank.⁸⁵ As a consequence, the central bank cannot control the cash flow, which is the most important monetary tool. The flawed monetary system continues to be a time bomb under the North Korean regime.

Reform measures

Back in October 2001, Kim Jong Il introduced an important front-runner of the reforms in a lecture entitled: "On improving and strengthening socialist economic management towards the need for construction of a powerful and prosperous state". In this lecture, several policy innovations with regard to economic management were explained. The main purposes were: to decentralize the planning process to lower organizational levels and firms; to establish an exchange market between firms for a certain percentage of their production; to strengthen an independent accounting system and rationalize production and distribution; to institute a better mobilization of surplus workers from factories to the agricultural sector and to urban renovation; and to strengthen the link between contribution and economic compensation and reduce the free supplies from the state.⁸⁶ All of these instruments are connected to overall economic management and the management structure. The general purpose was to transfer power and responsibility to managers in order to increase profits.⁸⁷

This transfer of power seems to have been quite successful as most managers of the state owned enterprises we visited were keen on exploring new market opportunities. They still, however, have to deal with scarce resources, complicated procedures and what could be termed a hostile business environment. Most of the managers we met had, for example, no mobile phone, email account or internet access.⁸⁸ For exporting businesses these basic shortcomings are, needless to say, devastating.

Price and wage reform

As one of the most important parts of the 1 July 2002 initiative, a price and wage reform was carried out in order to limit the gap between the official prices and the free floating prices on the farmers' markets. Workers' wages and consumer prices were significantly increased, thereby establishing a money economy. Suddenly, North Koreans had to pay for housing, transport and electricity, and prices on food also rose dramatically. This adjustment of prices naturally resulted in inflation, but as wages were simultaneously raised, the impact on the North Koreans' livelihood came down to a question of purchasing power. According to international monitoring the overall effect of the price and wage reform is that people in the urban areas, who rely only on their salaries, find themselves in worse conditions, as they have to spend 70 to 80 percent of their income on food. The rural population meanwhile has benefited slightly from the increase in agricultural product prices.⁸⁹

⁸⁵ Park Suhk Sam, "Banking and Price System of North Korea", paper contributed to forthcoming White Book of North Korea Economy 2003 by Korea Institute for International Economic Policy (KIEP), 2004, pp. 1-3.

⁸⁶ Park Hyeung-jung, 2003, pp. 118-119.

⁸⁷ Interview with Professor Koh Byung Chul, Kyungnam University (Institute for Far Eastern Studies).

⁸⁸ This experience is not shared by one of the few Norwegians doing business in North Korea as he has been able to maintain contact with his North Korean counterparts via both email and mobile phone.

⁸⁹ FAO/WFP Special Report, 2004, "Assessment of DPRK's crop and food supply", *Vantage Point, Developments in North Korea*, Vol. 27, No. 1, 2004, pp. 44, 49.

The price and wage reform also included certain priorities. Groups earning special wages have had the size of their wages increased 55 times, giving them stronger purchasing power after the reform. For example, coal miners have been given a special wage increase, as the much-needed production of energy depends upon the supply of coal.

Another part of the 1 July measures was a change in the foreign currency exchange rates, in other words, devaluation. Before the devaluation, one USD was traded at around two NK won. After 1 July, one USD was traded at NK won 150, which is a 75-fold devaluation. This is a drastic measure, but one year later in June 2003 the black market exchange rate had already increased to as much as NK won 920. By January 2007 the black market rate stood at NK won 3,270, indicating the weakness of the NK won. The intention behind the reform measures might have been to increase exports, putting North Korean industry in a better position to sell their products on foreign markets after the devaluation. As the export figures in the former chapter suggest, this has not had any, or only a very limited effect, probably due to the lack of energy, raw materials and the absence of a legal framework and means of communication.

Another consequence of the devaluation was that people holding their savings in USD strengthened their purchasing power. This indicates that those benefiting the most from the reform would mainly be from the elite, which is not an entirely new situation in North Korea.

In sum, by allowing money and markets North Korea has taken a first step, which has had an immense effect on society as a whole. In economic terms it was a huge and necessary step if the price mechanism was to work properly and thereby secure the benefits of the market. The effects of this will be beneficial to North Korea's economy in the long run. The second step, establishing the legal framework to protect property, capital and resources, has, however, not been taken. Consequently there are few incentives for North Koreans to invest whatever money they might have stored away. Whether this will be a serious problem continuing to block economic progress is debatable. Particularly one should take care not to over-emphasize the role of property rights. In China, for instance, a weak property rights regime has not slowed down growth. What seems to have been more important in the case of China was the unambiguous political signal legitimizing market economics and entrepreneurship. Such a clear and definitive signal has not been given yet in North Korea which might be a bigger problem than the lack of property rights.

Earned income index

Another important aspect of the 1 July measures was the introduction of an "earned income" index, which is now the main criterion for assessing the management of a firm and its production. The index represents the sum of social net income plus wages of a particular firm. The main purpose is to measure production in monetary terms, thereby matching the money-economy created through the price and wage reform. Moreover, the earned income index assesses the value of a firm on its sales, and not, as previously, on its ability to fulfill the goals of the plan, regardless of sales. The earned income index provides an incentive for the firm to reduce expenditures, heighten efficiency and profitability – a certain amount of the earned income

is distributed to the managers and employees, making salaries dependent on production.⁹⁰ Also, firms are allowed to “leave the plan”, that is, to change production if new market opportunities arise.

As such, the earned income index relates the interests of managers, the employees and the state to the income of a firm. The overall direction towards the use of market mechanisms is obvious, but one has to keep in mind that the overall intention and direction is only one side of the story; the implementation of reforms in practice is another story altogether. Nonetheless, economic incentives are gaining ground in North Korea, while huge differences and local solutions are still the general picture.

New identities and mindsets

With the money economy North Korea has also seen the emergence of new identities. It is now possible to find people who define themselves as businessmen rather than party members, workers or chairmen of this and that. This shift is significant as a whole new group of entrepreneurs with a strong interest in economic liberalization is now being formed. We have seen the effect of this type of development in China, where the Communist Party in 2002 went as far as to open up for entrepreneurs (read: capitalists) to become party members. In the case of China this was a natural development as the Party had already changed its policies radically due to the demands of the private sector and the entrepreneurs operating therein. In due course, North Korea might follow the same path as the importance of the private sector increases. A necessary first step for this is the emergence of people identifying themselves as businessmen.

These business people are also the best examples of a wider change of mindset for most North Koreans. With the money economy they are now looking for ways to capitalize on whatever skills or assets they might have. This capitalization ranges from pianists selling evening lessons to people putting up stalls selling fruits on the street corner.

Economic management

The reform initiatives tell us a lot about how the economy is managed. First, the reforms clearly indicated acknowledgement of the failure of the former system. The backlashes, however, indicate that the internal evaluation is still ongoing and that different factions in the elite are fighting over which economic path to take. Second, the reform measures and the creation of a money-economy is an attempt to bring the state sector and the private economy closer together. This is a significant step, because the emerging private sector means that some people are no longer entirely dependent on the state. This factor could be important in the years to come, as individual households will take more responsibility for themselves and increasingly rely on their own capability to earn a living. On the other hand, the leadership of North Korea has gained the most basic tool in the management spectrum: the use of economic incentives. This is now being applied to many sectors of the economy.

⁹⁰ Park Hyeung-jung, 2003, pp. 125-127.

The economy continues to be weak and therefore extremely volatile. The North Korean leadership, though cautious in fully embracing a totally free market, does not as a rule seem to assess the weakness of the economy as a reason to use gradual measures. North Korean macroeconomic management can best be described as radical, ad hoc and, as a matter of principle, non-transparent.

One of the biggest tasks ahead in relation to economic management is to regain monetary stability. With the cash flow out of control economic stability cannot be achieved. North Korea simply seems to lack adequate knowledge of the functions of a money and market economy. The problem increases as some people start to benefit from the private economy. Lack of trust in the central bank combined with the absence of property rights will endanger further investments by the people themselves.

Special Economic Zones

Experiments with special economic zones have been taking place now for more than a decade. Although inspired by the Chinese success, experiences so far have not measured up to those of China.⁹¹ The first special economic zone, Rajin-Sonbong, was started in 1991, close to the Russian and Chinese borders in the northeast. It has failed to attract sufficient foreign capital and is still lacking in infrastructure.⁹² In January 2007 it appears that a new agreement has been reached between North Korea and the South Korean company "Tumen River Development Limited Company", which might bring the zone back to life. Tumen River Development Limited Company is based in Vladivostok and plans to build a chemical industrial complex in the Rajin-Sonbong district.

Another attempt with economic zones was made in December 2002 with the establishment of the Sinuiju Special Administrative Region in the city of Sinuiju, located at the Chinese border. The intention was to introduce a Hong Kong-type special zone linking the North Korean economy with the world market. The initiative started well but despite warnings from Beijing, the North Koreans appointed the Chinese entrepreneur, Yang Bin, as the first chief executive of the zone. Yang Bin's idea of a "Special Political Area" with full separation of legislative, executive and judicial affairs seemed to widen the Chinese concept of an economic zone too radically. Furthermore, the Chinese side had opposed the idea of locating a special economic zone close to China, mainly due to competitive reasons, as they did not want the Sinuiju special zone to attract capital away from the old industrial belt in Northeast China. Accordingly, Yang Bin was arrested in China, accused of corruption and sentenced to 18 years in jail. In April 2004, at an informal heads of state meeting, Kim Jong Il asked the Chinese President, Hu Jintao, for the release of Yang Bin. This did not happen, but after yet another visit to China in 2006 by Kim Jong Il some kind of agreement seems to have been reached, according to persistent rumors. This agreement will surely not bring back Yang Bin but it might finally turn Sinuiju into a "Special Administrative Region" – this time with Beijing's approval. There are no public announcements to support these rumors, but reportedly a lot of activity is going on in both the administration and private sector of Sinuiju.

⁹¹ Interview with Professor Moon Chung-in, Seoul, January 13, 2004.

⁹² The Economist Intelligence Unit, *North Korea Country Profile* 2003, p. 86.

One key player in the establishment of industrial zones in North Korea continues to be the South Korean Hyundai Asan Corporation. The late founder of Hyundai was born in the northern part of the country, which later became North Korea. This tie to North Korea made him commit Hyundai Asan to an active pro-unification and engagement stance. This has already resulted in heavy investments, with huge projects in the pipeline.

The first step was taken in the late 90s with the establishment of the International Tourism Zone known as Mt. Kumgang. The first tour to this resort area was launched in November 1998 and so far about 1.4 million tourists, mostly South Koreans, have visited Mt. Kumgang. However, the number of visitors per year has been decreasing due to the tense situation in general and especially so in 2006, when North Korea conducted both missile and nuclear tests. Thus in 2006 the number of visitors per year dropped below 250,000, which is well below Hyundai Asan's initial goal of 400,000. Still, on the symbolic level this traffic between North and South Korea makes an important contribution to inter-Korean reconciliation. However, the limits of this process are obvious, as a fence surrounds the whole area, keeping the contact between tourists and locals at a minimum. A recent agreement has expanded the tourist area to 8,000 acres, to be developed by Hyundai Asan. The profitability of the project is difficult to assess, but so far Hyundai Asan has been losing money and the nuclear issue has obviously further jeopardized profitability. This one firm alone has invested USD 145 million in facilities and another USD 412 million in the acquisition of business rights and land use. Additionally, the Korea National Tourism Organization has invested USD 73 million in tourist facilities at Mt. Kumgang.

The second project by Hyundai Asan is the Kaesong Industrial Complex, which is now well under way. The Kaesong Industrial Complex is located at a convenient proximity to Seoul, just across the border to North Korea. From a business perspective this is a highly strategic and attractive location, close to the market and resources of South Korea, but it is also extremely politically sensitive because of the military implications for North Korea. The ambitious end goal in 2020 is a Kaesong special economic zone covering 16,300 acres with 2,000 companies in operation. The population is projected to be 450,000, with 250,000 people in employment. Figures for the capital necessary to reach these results are so far unavailable.

Hyundai Asan aimed to have up to 300 South Korean companies operating by 2007, mostly within textile production, apparel and electronics. These plans have been delayed firstly due to internal disagreements on the South Korean side, and secondly due to the South Korean governments decision to stop expanding the inter-Korean business venture as a reaction to North Korea's missile tests in July 2006. The initial 2007 milestone project was budgeted at USD 184 million, which will be a joint investment by Hyundai Asan and the Korea Land Corporation.⁹³ To date 22 South Korean companies have started production in Kaesong Industrial Complex employing 12,500 North Koreans, including the construction workers who are building factories, roads, etc. in the complex. Recently, the South Korean Unification Ministry announced that an additional 35 small factories, mostly clothing manufacturers, will move into the complex in 2007.

⁹³ Vantage Point, 2004, "North Korea Adopts Measures to Govern Operation of Kaesong Industrial Complex", *Vantage Point, Developments in North Korea*, Vol. 27, No. 1, p.37.

In order to realize the benefits of this future investment, certain laws and regulations were agreed upon in November 2002. A land use right for 50 years has been granted to Hyundai Asan and the area is established as a duty-free zone. The North Korean side has guaranteed the full property right of Hyundai Asan as well as the right to hire and dismiss employees and the right to hire South Koreans and foreigners. A stable supply of employees has also been guaranteed. Furthermore, sales of products produced in the Kaesong area will be allowed in North Korea, and there will be no restrictions on the use of communications and IT.⁹⁴ The standard corporate tax rate will be 14 percent, and 10 percent for so-called "encouraged industries", such as infrastructure and light and high-tech industries. Tax benefits include a tax exemption during the first 5 years and a 50 percent deduction for an additional 3 years. The approved labor regulations secure a basic wage of USD 50 per month and 48 working hours per week. In a more recent agreement, North Koreans working for the project will receive a monthly salary of USD 65. From our interviews with North Korean officials working in Kaesong we learnt that North Korean employees are not paid directly from their South Korean employer. Instead the hard currency is paid to the local authorities who then pay the workers in NK won or, if requested, in rations like rice, cooking oil, etc. The North Korean officials assessed that it was a good place to work, but not especially well paid. At the same time they expressed some dissatisfaction with the fact that Kaesong city had not experienced any growth after the Kaesong Industrial Complex started operating. There had simply been no spin-off production that Kaesong city could benefit from. These personal statements are probably quite accurate and they underline how effective the North Korean government has been in controlling its market experiment and in isolating the local populace from South Korean influence.

To most North Koreans Kaesong Industrial Complex is the "unimaginable project". This term was used by one North Korean official who explained how difficult this project was to swallow for a militarized nation. Suddenly they found their Dear Leader giving away the same land that they had fought to win every inch of. Obviously, they accept Kim Jong Il's decision, but this way of thinking also underlines that in this instance even the Dear leader is constrained by a strong sense of North Korean nationalism. In other words, Kim Jong Il's appeal to a wider Korean nationalism, which includes South Korea and aims at unification, is not easily accepted.

A major problem for the special economic zones is still the attraction of sufficient capital. The insecurity stemming from the confusion surrounding the direction of reforms has scared off investors. Also, the lack of information and stability, monetary as well as political, makes it a high-risk business. These facts indicate the initiatives taken by Hyundai have a political as well as an entrepreneurial nature.

China as an example

When analyzing North Korea's experiences with special economic zones one should be careful when comparing with Chinese experiences. The simple reason being, that these zones are placed in a North Korean context, which is very different from the Chinese. For example, when asked about the reasons

⁹⁴ Hyundai Asan *News Update*, December 2003.

for establishing Kaesong Industrial Complex all the North Korean officials employed in the zone that we interviewed said that it was established as a way to help South Korean medium-sized companies. This explanation refers to the meeting between the two Kim's, Kim Dae-Jung and Kim Jong Il, in 2000, when Kim Dae-Jung asked for this type of assistance. When asked again, the North Korean officials also stress the long term goal of unification as a reason for establishing the zone. These explanations strike one as being somewhat immature for a country in a prolonged economic crisis. In contrast to this, the zones in China came to be the very symbols of market experiments thereby legitimating a wider change towards marketization in the society as a whole. The zones also symbolized openness towards the rest of the world, thereby legitimizing the use of Western technology, management principles and ultimately capitalism. All these important symbolic aspects of the Chinese special economic zones are currently absent in the North Korean context. This lack of political signaling probably partly explains why there is still a lot of uncertainty with regards to the direction of the economic reforms in North Korea.

After July 2002: Backlashes or slowdown?

Most Western observers have been disappointed with what has, or rather what has not, happened after the first set of reforms in July 2002. It is evident that no major market oriented steps have been taken, and, as mentioned, an obvious backlash occurred in 2005 when a ban on private grain sales was implemented in an attempt to resuscitate the public distribution system.⁹⁵ However, the lack of visible market oriented steps does not mean that nothing has happened. The focus seems to have been on reorganizing the state bureaucracy in order to make it more suitable to support the July 2002 market reforms. For example, the North Korean government has: 1) established an office for "money collection" (equivalent to a Western tax office) in all ministries, 2) reorganized offices under the Finance Ministry in order to secure state revenues, 3) restructured the "State Finance and Banking Committee" in an attempt to strengthen financial institutions, and 4) abolished various government subsidies and decreased the number of enterprises and social organizations under the state budget.⁹⁶ All these changes can be seen as adjustments to the new economic landscape of North Korea. Whether they are effective or sufficient is at this stage impossible to assess. What we can say with certainty is that something is happening and that it is related in one way or another to the market reforms. Positively evaluated the bureaucracy seems preoccupied with adjusting to these new developments and re-organizing departments and functions. Negatively evaluated the speed with which these adjustments happen illustrates the inertia of the system and the vested interests in the old systems. The truth is probably somewhere in between these two analysis or rather a mixture of both.

The economic base and competitive sectors

Due to the prolonged period of economic downturn, there seems to be no remaining strength in any of the North Korean economic sectors. General problems are a shortage of energy and a poor infrastructure. The traditional

⁹⁵ Noland, Marcus 2006, pp. 2-3.

⁹⁶ Kim Young-yoon, 2006, p. 50.

communist planned economy with emphasis on heavy industry has aggravated conditions considerably. Still, North Korea is in the process of change, however reluctantly. What is there, then, to build upon? Below we will point to the educational level and cheap labor and land as the major assets of the economic base, and light industry and tourism as the main sectors for potential growth.

Education

The educational level, or the quality of existing human resources, is probably one of the most important "soft" aspects of a country's economic base. Education in North Korea is an important part of the ideological schooling project and takes place constantly from cradle to grave; nevertheless, the system must be termed a success story. Literacy was attained in the early post-war period and a free and comprehensive primary and secondary school system has long been the pride of the North.

In quantitative terms, school enrolment and educational attainment in the North are comparable to that of South Korea. Recent statistics are not available, but in 1987 the enrolment ratio in primary and secondary schools for children between 6 and 15 years of age was 96 percent in North Korea, compared with 95 percent in South Korea. Also, the tertiary level of education in North Korea is comparable to that of South in quantitative terms, with about 14 percent educational attainment for those above 15 years of age. This shows that North Korea has a higher level of educational attainment than several other transitional economies, not only China, but also the former communist countries in Europe.⁹⁷

It is most likely, however, that the quality of education in North Korea is lower than that in the South due to insufficient provision of educational resources, outdated curricula and thus also a lower quality of instruction. On the other hand, and seen from the perspective of usefulness in a transitional economy, the emphasis on science and technology in higher education may well endow North Korea with a comparative advantage over many other countries struggling to develop their economies. According to The Economist Intelligence Unit's Country Profile for North Korea 2003, "over 200 higher colleges train specialists, mainly in science and technology".⁹⁸ Another characteristic often seen as a positive aspect from the development perspective is the discipline of the workforce, and this is obviously connected to the socialization implemented in the educational system.

New initiatives are also being implemented within the educational field. For example, the "Pyongyang Business School" was established in 2004. The school is sponsored by Switzerland and supported by the European Business Association – an association of foreign business people who are resident in North Korea and who represent European enterprises. The very existence of a school aimed at training North Koreans in the functioning of a market economy is a positive sign of both new initiatives gaining ground in the educational field and of the wider market oriented turn in policies. These tendencies are also evidenced by North Korea's participation in a Swedish

⁹⁷ Lee Jong-Wha, 2001, "Policy Reforms and the prospects of Economic Growth in North Korea", in Yoon Chang-ho and Lawrence J. Lau (eds.), *North Korea in Transition. Prospects for Economic and Social Reform*, Cheltham UK/Northampton, MA.: Edward Elgar, pp.105-106.

⁹⁸ The Economist Intelligence Unit's Country Profile for North Korea 2003, p.71.

educational initiative, where North Koreans study macroeconomics at courses in Vietnam.

Cheap labor and land

From a foreign investor's point of view, the competitive edge of North Korea is its cheap labor and low land rent. With regards to cheap labor even Chinese textile producers are looking to North Korea in an attempt to cut labor costs. The cheap labor obviously remains one of the very few relative advantages of the North Korean economy.

Another economic factor, especially with respect to joint venture projects with foreign companies, is the land rent. Compared with prices in South Korea, those in the North are low. This must be seen in relation to the status of land and existing facilities for production. With an underdeveloped infrastructure, a problematic energy supply and a primitive telecommunication system, the rent is probably priced accordingly.

In the following, some possible development areas, mainly within the light industry and service sector, will be dealt with. The focus will be on areas in which North Korea has a substantial potential for growth.

Light industry

Traditionally, the industrial sector has focused on heavy industry, leaving light industrial consumer products in the hands of local areas and provinces. This is one reason why these sectors are even less developed than the rest of the economy. In addition, development is uneven and dependent on local circumstances. There is, however, much room for development in light industry, and a local as well as a regional market for cheap consumer products. Moreover, in order to curb inflationary pressure, the government is forced to increase the supply of domestically produced consumer goods. This means a stronger emphasis on light industry.

Paradoxically, for a country dependent on foreign aid and a people suffering from malnutrition, North Korea is a potential exporter of food products. Scallops, shellfish (especially crabs) and squid are regional delicacies, locally caught. There is development potential both in the fisheries and in the processing of luxury foods (see the chapter on North Korean fisheries).

Another area in which there has always been export potential is that of textile production. Cheap ready-made suits were even exported to Japan, before the current freezing of trade by the Japanese.⁹⁹ Other consumer products cannot easily be pinpointed, but all labor intensive productions are potentially competitive.

South Korean companies have in recent years developed joint ventures with North Korean counterparts in the low-tech, labor-intensive light industrial sectors. Assembly shops exist to which South Korean companies send material, and sometimes machinery, for manufacturing in the North. For instance, consumer electronics are assembled in the North. This kind of cooperation, processing by commission, is also happening in Kaesong

⁹⁹ The Economist Intelligence Unit, *North Korea Country Profile 2003*, p. 81.

Industrial Complex and seems to be a model for future economic cooperation, as it has yielded the highest returns so far.¹⁰⁰

Tourism

Tourism is seen as an obvious possible sector of growth in North Korea. There is a clear over-capacity of hotels that have served small groups of Western tourists, (and before 1990, larger groups of East European tourists as well). From the globetrotter's point of view, North Korea may be one of the few remaining blank spots on the map, and as such, potentially attractive.

In this era of alternative and more demanding forms of tourism, such as "nature-tourism" or "culture-tourism", North Korea presents an interesting – and demanding – alternative. Not only are there huge statues of the late Great Leader, Kim Il Sung, (Eternal President of the DPRK) and other "retro-Stalinist monumental kitsch",¹⁰¹ but there are also beautiful mountains in the east and north as well. The long isolation of the country may well turn out to be an attraction, in that the traditional cultural heritage here, under the political veneer, can be experienced in its pure form.

On the east coast, Mt Kumgang was already a local resort centre before Hyundai entered to develop the area with better tourist facilities. The area has been the preferred site in the North (and until recently the only site open for South Korean tourists). Also here capacity clearly exceeds demand. Tourists in the area are captivated by the scenery as well as by the seafood delicacies. This provides a possibility for change in the organization of tourism from its current status as a state enterprise with a host of political/ideological obligations and restrictions, to a privately operated business aiming at the well-being and satisfaction of customers (obviously within the existing laws and regulations of the country). Whether this can be realized and create a basis for international cooperation, apart from the present North–South cooperation, remains to be seen.

IT Industry

It may seem strange for a country with a backward economy to promote information technology (IT) as a possible growth sector. This is nevertheless a relevant issue, and the idea is not even totally new. When Kim Il Sung visited Europe in 1984, he pushed for various technological cooperation agreements with his hosts. Later (1988–91), a plan was launched for long-term development of North Korea's IT industry. These efforts continued during the second three-year plan (1991–94); the goal was the computer-aided automation of different economic sectors by the year 2000. Since 1996 the present North Korean leader has stressed: "this is an era of science and technology, which are the foundations of economic development".¹⁰² North Korea did not develop as a high-tech society, however, and compared to the other countries in the region, it must still be considered backward. Many different reasons contribute to this state of affairs: an unreliable power supply on the material side combined with extensive political-ideological control,

¹⁰⁰ Tait, Richard, 2003, "Playing by the Rules in Korea. Lessons Learned in the North-South Economic Engagement", *Asian Survey*, Vol. XLIII, No. 2, p. 322.

¹⁰¹ The Economist Intelligence Unit, *North Korea Country Profile 2003*, p. 83.

¹⁰² Bae Seong-in, 2002, "North Korea's IT Industry and North-South Cooperation", *Korea Focus*, Vol.10, No.2, p.90

making internet a threat towards the system, spell out a hostile environment for an IT future.

The regime has, nevertheless, designated IT as an important area, one in which they are prepared to aim high. For instance, at our visit at the state owned Korean Computer Center we were surprised to learn that they reported directly to Kim Jong Il. Apart from being an example of Kim Jong Il's attempt to micro-manage North Korea it also signals that IT has been given the highest priority, as it is seen as a means to revive the economy. In this connection it is worth noting that the software part of the IT industry is labor-intensive, and not unreasonably capital intensive. The goal of the second three-year plan has obviously not yet been reached, but important preparations have been made – here, the quality of education in the areas of science and technology lays the necessary foundation for further advancements.

The younger generation, moreover, is undoubtedly highly motivated to engage in IT development, and they would probably like nothing better than to replace compulsory ideological teaching with computer training. New programs have been launched in schools around the country, including a program directed towards young people gifted in the use of computers.¹⁰³ A North Korean survey (a rare commodity) "reports that single women overwhelmingly hope to marry someone who is working in the computer science or engineering field."¹⁰⁴ In the 1980s the hope of the younger generation was reported to be a membership in the Workers Party of Korea. Such signals of change should not be overlooked. At least, the younger generation has most likely adopted the new way of thinking.

It is reported that the North has assigned about 1000 researchers to develop computer software, and developments are promising in the fields of voice and fingerprint-recognition, encoding and animation.¹⁰⁵ It seems that attempts are made to promote this work by using incentives similar to those discussed above.

But what about the political control and basic lack of freedom which severely hamper the development of the IT sector? This problem is obviously not likely to be solved anytime soon. It will, however, be increasingly difficult for the regime to maintain its ideological grip when computers and the internet have spread to larger parts of the population.

Another stumbling block to a take-off in the IT sector is the embargo system imposed by the US, which prohibits the export of certain high-tech products to countries considered to be a security risk. This presents a very real and practical problem for North Korea's development ambitions. A South Korean representative of a huge corporation operating in the North explained that they had observed the problem of outdated computers and suggested providing state-of-the-art equipment to their North Korean counterparts.¹⁰⁶ This was stopped by the South Korean government because of the Wassenaar Agreement (on Export Controls for Conventional Arms and Dual Use Goods

¹⁰³ Nam Kwang-sik, 2002, "One Year of a 'New Way of Thinking'", *Vantage Point, Developments in North Korea*, Vol. 25, No. 2, p. 12.

¹⁰⁴ Bae Seong-in, 2002, p. 92

¹⁰⁵ Kim Youn-Suk, 2002, "Economic-political layout for Science & Technology Collaboration with DPRK", *Korea Observer*, Vol.33, No.1, p. 73

¹⁰⁶ Interview with Jang Whan Bin, Senior Vice President, Hyundai Asan, Seoul, January 2004.

and Technologies), which replaced the Cocom agreement.¹⁰⁷ It seems likely that this situation will continue until a sustainable agreement has been reached concerning the North Korean nuclear program.

Due to the skilled but cheap labor in the North Korean IT industry, this sector is interesting from the point of view of South Korean companies. At present a number of companies engage in different projects with North Korean counterparts. About 40 companies and institutions in the field of IT, including such giants as SK Telecom, Samsung Electronics, and Hyundai Asan (all from South Korea) formed the North-South IT Cooperation Council in April 2001.¹⁰⁸ Joint development of software is taking place, although the restrictions due to the Wassenaar Agreement are limiting the scope of this activity. Thus an IT production and training center (The Hana Program Center) was established in Dandong, China in August 2001.¹⁰⁹ The main activities of this center are to jointly develop software and to educate and train IT personnel from North Korea.¹¹⁰

After an agreement has been reached between the U.S. and North Korea concerning the nuclear problem, a revamping of the underdeveloped communication infrastructure in North Korea will be a huge task where international cooperation will be needed. The provision of fiber-optic cables to North Korea's Internet system will be an important task in many respects, and clearly a valuable input to the country's modernization project.

¹⁰⁷ Lipson, Michel, 1999, "The Reincarnation of Cocom: Explaining post-cold war export controls", *The Nonproliferation Review*. (Winter 1999)

¹⁰⁸ Bae Seong-in, 2002, pp. 94-95.

¹⁰⁹ Another center operated by the South Korean Samsung and the North Korean Choson Computer Center had already been opened in Beijing in 2000.

¹¹⁰ Bae Seong-in, 2002, p. 82.

Chapter Five: The Energy Sector

In a country which lacks basically everything the lack of energy is probably the most obvious for any visitor in North Korea. Firstly, there is hardly any heating on anywhere and freezing is a part of life during the winter season. Secondly, in an attempt to save energy the regime has lowered the voltage, which has severely reduced the intensity of lighting in North Korea. A view of Pyongyang by night is therefore a strange sight because of the dim light that leaves one with a vague impression of what this city could look like one day.

There are numerous reasons for the North Korean energy crisis, including the collapse of the Soviet Union, grave mismanagement by those in charge of different sectors of the economy, natural disasters, and finally the problematic triangle of Pyongyang, Seoul and Washington.

According to The Economist Intelligence Unit's Country Profile 2003 for North Korea, the country had one of Asia's largest electricity networks in 1980 (p. 74). Since the collapse of the Soviet Union and a downscaling of oil deliveries at friendship prices from China, energy provision has been a main problem. Before the economic collapse the registered energy consumption was 2.4 tons (coal) per person, which was two times that of China and two thirds of Japan's per capita consumption.¹¹¹ From 1973 to 1992 oil consumption increased by 8.1 percent annually, coal consumption by 2.4 percent and hydroelectric power by 5.1 percent annually.¹¹² The Nautilus Institute for Security and Sustainable Development,¹¹³ a Berkeley based non-profit organization funded by grants and research contracts, has estimated that the generation of electricity fell from 46 billion kWh in 1990 to 25 billion kWh in 1996.¹¹⁴ The decrease has continued, and the latest estimate holds that the total amount in 2002 was 20 billion kWh.¹¹⁵ Thus, the output of the energy sector had been reduced by more than 50 percent. In addition, the equipment is now worn out or obsolete, causing transmission losses of around 30 percent. It is a widely held assumption that the North will be unable to overcome economic stagnation without securing energy resources and achieving normalization of the operations of its energy infrastructure.

A vicious circle

The problem began in 1990 with difficulties in maintaining the energy infra-facilities. Due to a lack of spare parts, earlier supplied by the Soviet Union, turbines, generators, transformers and power-transmission lines were not properly repaired and kept in order.¹¹⁶ And the floods in 1995 and 1996

¹¹¹ Williams, James, V. Hippel and Nautilus Team, 2002, "Fuel and Famine: Rural Energy Crisis in the DPRK" *Asian Perspective*, Vol. 26, No. 1, p. 112.

¹¹² Lee Su-hoon, 2003, "North Korea's energy shortage and the second nuclear weapons crisis", *Vantage Point*, Vol. 26, No. 8, p. 46.

¹¹³ See: www.nautilus.org.

¹¹⁴ Williams, James H., David von Hippel, and Peter Hayes, 2000, *Fuel and Famine: Rural Energy Crisis in the Democratic People's Republic of Korea*, Institute on Global Conflict and Cooperation, University of California.

¹¹⁵ Hilpert, Hans-Günther, 2003, *Nordkorea vor dem ökonomischen Zusammenbruch?*, Stiftung Wissenschaft und Politik (SWP).

¹¹⁶ Lee Su-hoon, 2003, "North Korea's energy shortage and the second nuclear weapons crisis", *Vantage Point*, Vol. 26, No. 8, p. 46.

destroyed not only arable land, but also roads, railways, bridges, some coal mines and, even more importantly, power transmission lines.

The basic source of energy in North Korea has always been coal, but with a very limited oil supply, coal became even more important. Although coal mining continued, it was severely hampered by the lack of electric energy for lighting, jackhammers and ventilators. Delivery on schedule to the power plants – on electrified railroads – became difficult, and a vicious circle began. The energy shortage in its turn affected fertilizer production (before 1990, the domestic production covered 80–90 percent of the demand), and irrigation facilities ceased to function, since there was no electricity to supply the pumps. In 1990 the consumption of diesel oil on farms was about 120,000 tons. The oil supply dried out by 20 to 30 percent annually, thus 70 to 80 percent of rice mills and farm machines had stopped running by the mid 1990s. The consequences of the energy crisis had by then become general, fiercely affecting agriculture – and thus food production. In September 1995 the regime made an international appeal for help. The *Juche* economy had failed.

South Korea offered electricity supply

At first the South Korean authorities underplayed the problems in the North, but in 2000 the Kim Dae-jung administration declared that it was ready to help re-establish and reconstruct the North Korean electrical infrastructure. This was also on the agenda at the 2000 Pyongyang summit, at which North Korea specifically asked the South to supply them with electricity. The preparations for this were carried out by the Ministry of Industry and Resources and the Korean Electricity Company. The goal was to help the North overcome the pending electricity shortage, and in the future the project was supposed to bring about mutual profit. In the meantime, the new administration in Washington decided to close down all relations with North Korea while reviewing the former administration's policies and agreements with Pyongyang. The general distrust of North Korea in Washington had a negative influence on the atmosphere of reconciliation that had been created through the Sunshine Policy of Kim Dae-jung. Seoul's study of the possibility of an electricity supply was shelved due to US intervention, and Washington requested that talks on an energy supply to the North be put on hold.¹¹⁷

Lack of investments

The reasonable conclusion to draw from the above could be that North Korea's total crisis was attributable to the energy shortage.¹¹⁸ But the energy crisis was partly caused by poor planning and mismanagement and could have been dealt with in a much more effective way. The planned economy, however, ruled out the use of economic incentives (i.e. pricing energy), which could have improved the situation. Another aspect is that the power shortage is a basic symptom of the lack of investments in energy. But currently the North Korean government cannot increase investments because it cannot squeeze consumption more than it already has done and it seems reluctant to cut down on public spending (not least the military). As a consequence, while

¹¹⁷ Lee Su-hoon, 2003, "North Korea's energy shortage and the second nuclear weapons crisis", *Vantage Point*, Vol. 26, No. 8, p. 51.

¹¹⁸ As claimed by Lee Su-hoon, *ibid*: p. 52.

improving the capacity within the energy sector, the international community should keep an eye on whether North Korea manages to increase consumption as this will determine the level of investments in the long run.

The international dimension

Today the energy crisis has developed into a total economic and social crisis with a crucial international dimension. No matter how much the crisis can rightly be attributed to the collapse of the energy sector, it seems clear that an economic recovery will not occur without a major reversal of the present tense situation between North Korea and the USA. At present, a solution to the energy crisis hangs on the concerns of the US and of North Korea's neighbors with regard to its nuclear weapons program. The question of North Korea's nuclear ambition is thus of paramount importance, and without a solution that is acceptable to both the US and North Korea, the crisis will deepen with unforeseeable consequences for the population of North Korea as well as for the whole region. As has already been briefly mentioned, and as is confirmed by most media reports mentioning the incipient new relationship between North Korea and the USA, *the nuclear crisis* may soon be a part of the difficult history between North Korea and its neighbors.

The present situation

Today, around 80 percent of North Korea's energy consumption is based on coal whereas electricity production is split evenly between coal-fired thermal power and hydro power. Coal is the sole domestic fossil fuel, and there are substantial reserves of anthracite and lignite coal, of which a continued utilization seems necessary. The quality of this coal varies, however, and low quality coal is only a little better than dirt in terms of energy value. It is even questionable whether poor coal is usable in a modern coal-fired power plant, but technologies that can upgrade poor coal by separating the ash and improve the fuel value exist, and could be of valuable support to the energy sector. North Korea's thermal power capacity remains underutilized due to two factors: 1) a lack of fuel, which is needed in order to run the power plants and ironically, 2) the electricity shortage, which has hampered coal transportation by rail.¹¹⁹

With regards to hydro power, most plants are operating below potentials due to obsolete equipment dating back to the Japanese occupation. The North Korean Ministry of Electric Power and Coal Industry (now named the Ministry of Electricity Industry) assesses the total potential to be 10,000 – 12,000 MW of which only 4,000 MW was developed in 2002.¹²⁰ The dependency on hydro power for electricity production has been a problem because of the changing weather conditions. In 1996, for example, floods destroyed dams and machinery, and the lack of rain in 2006 has left the water reservoirs empty. Below we will point to ways to strengthen North Korea's hydro power capacity.

Hydro power set aside North Korea has not developed other sources of renewable energy, like solar or wind power, on any notable scale. The North

¹¹⁹ North Korea Energy Data, Statistics and Analysis – Oil, Gas, Electricity, Coal (see: www.eia.doe.gov/emeu/cabs/North_Korea/Full.html, 20/12-2006).

¹²⁰ Norconsult, 2002, 'Rehabilitation and modernization of hydropower plants', Field Survey, April 2002, (Report no.: 6042500 – R2).

Korean government has, however, expressed a keen interest in these areas, especially in wind power where the geography for once could turn into an advantage.

North Korea has no oil extraction of its own, and all oil for domestic consumption is imported from China on terms that are closer to aid than trade.¹²¹ Surveys for oil have been conducted in the past, but without any luck. In 2001, however, the company Sovereign Ventures of Singapore was awarded an off-shore concession in the Tachon-Rajin area close to the Chinese border. The first seismic survey has indicated modest oil and gas reserves. Drilling began in 2003, but results are still unknown.¹²²

Pricing energy

Re-vitalizing the energy sector is made difficult due to the lack of a market for energy. Combined with the Juche ideology's focus on self-reliance this has made import of energy on a commercial basis impossible. Furthermore, there are hardly any laws regulating this sector. For companies, state owned or joint venture, operating in North Korea, the basic problem is how to obtain electricity - not to pay for it.

With regards to pricing a shift in mentality might be on the way as is evident from the introduction of electric meters. These domestically produced meters are now being installed in new housing compounds in Pyongyang. With this system each family will have to purchase a special card, which is good for a certain amount of kW. Obviously, this system will radically change to incentive structures and consequently save a lot of energy. It is projected to be implemented firstly in Pyongyang and then in enterprises all over the country. It is still too early to say whether this change of mentality will have any effect on the macro-level, which would mean establishing an energy market.

Disobedience

As mentioned, lowering the voltage has been the easy solution to the energy crisis, but it is not a very smart or efficient one. Most electric equipment does not work properly or function at all at a lower voltage level and more energy consuming devices, like pumps, might even break down. Also, most people need their electronic equipment and therefore they purchase a power adaptor to turn up the voltage. This practice consumes energy and the government is therefore far from happy about it. A government attempt to ban power adaptors has, however, been a very limited success. As such, this is an example of civil disobedience.

Another example of disobedience has to do with paying for electricity. All citizens have to pay a very limited amount of money related to how much energy they consume. But it is very easy to cheat in the current system, and, according to our sources, most people do. The new electric meters are also intended to put an end to this practice.

¹²¹ Today, oil makes up approximately 6 percent of the primary energy consumption.

¹²² North Korea Energy Data, Statistics and Analysis – Oil, Gas, Electricity, Coal (see: www.eia.doe.gov/emeu/cabs/North_Korea/Full.html, 20/12-2006).

Over-consumption

It is obvious that North Korea is not getting value for money with its present outdated and inefficient end-use electric equipment, which causes energy over-consumption. Improvements in furnaces and boilers for residential and institutional end-use would considerably heighten the quality of life for the people concerned and save a lot of energy. Another aspect of energy over-consumption is the generally low quality building construction and lack of insulation. Installation of window frames that actually fit the hole in the wall and the addition of double frames or sealed glazing units would be highly efficient and save capital. Supplementary insulation of houses, apartments and institutions would have the same positive effect.

Projects in the energy sector

In the following we will point to some of the most valuable and urgent projects within the energy sector in North Korea:

Transmission and distribution

It is well-known that North Korea's power grid is obsolete. The Ministry of Electricity Industry informed us that transmission losses amounted to up to 20 percent. However, they also admitted that they really had no way of knowing, as there are no electric meters measuring the end use. As mentioned above, The Economist Intelligence Unit (2003) estimates the loss to be as much as 30 percent.

In 2001 The Nautilus Institute for Security and Sustainable Development conducted a study of the energy situation in North Korea. They suggested a full-scale rehabilitation of North Korea's transmission and distribution system, which will require new conductors, substation equipment, switching equipment, and modern control facilities. The overall cost of complete grid reconstruction was estimated at USD 3 to 5 billion.¹²³

The above huge project is an immediate necessity in order to rehabilitate the energy sector in the North, and would have to be supported by international stakeholders.¹²⁴ It would be advisable to link up with South Korean counterparts who already have prepared for a massive contribution in this field, and who also have conducted extensive surveys covering the implications of such a mammoth project. Moreover, it seems important to develop the system in North Korea so that power transfers from the South will be possible, and eventually, the other way round as well.

Hydro power – large scale

In April 2002 Norconsult conducted a field survey in order to assess the power supply in North Korea and point to requirements for rehabilitating and modernizing hydro power plants and transmission facilities. This study was commissioned by the Norwegian Ministry of Foreign Affairs (through

¹²³ Hayes, Peter, David Von Hippel, and Nautilus Team, 2002, "Modernizing the US-DPRK Agreed Framework: The Energy Imperative", *Asian Perspective* Vol. 26, No. 1, pp. 14-15.

¹²⁴ An agreement with Asea Brown Boveri (ABB) was signed in December 2000. The Swiss-Swedish company agreed to a long term cooperation to improve the industrial base and the outdated electrical transmission system in North Korea.

Norwegian Agency for Development Cooperation, NORAD). Out of the six hydro power plants that Norconsult visited five were built under Japanese rule in the 1930s and 1940s. Norconsult found most of the equipment in operation to be obsolete, but in general well maintained. Most of the rotating machinery and auxiliary equipment was of the old Japanese design. The efficiency of the turbines had been negatively affected by long term usage. Consequently, the reliability of the turbines as well as other components is deteriorating and they need to be renovated in order to increase power production and avoid the risk of breakouts and interruption of the power supply.¹²⁵

To date this report remains the most thorough study of its kind and it provides the best possible platform if a large scale rehabilitation of the biggest hydro power plants is to be realized. Such rehabilitation is of course extremely costly, but the need is unquestionable if North Korea is to catch up with the rest of the world.

The North Koreans expressed some dissatisfaction with the fact that nothing had come out of their openness in allowing the study to take place and they might be reluctant to let anyone else conduct the same field survey.

Hydro power – small scale

Within the energy sector one of the most valuable projects would be to help establish small and medium-sized hydroelectric power plants. Such projects would go down well with the North Korean government which has shown a keen interest in renewable energy and particularly in small hydro-electric power plants. In 2001, for example, about 250 small and medium-sized hydro-electric power plants were built in the country, according to the central North Korean news agency. Exploiting existing in-country natural resources is obviously in accordance with the Juche ideology, which will help such projects through the North Korean bureaucracy.

There are two options with regards to small hydro power projects: Updating existing facilities or establishing new ones. The existing and newly built small and medium-sized hydro power plants have not impressed foreign experts, who recommend more cost-efficient and reliable equipment. One solution is to exchange the propeller/turbine variety currently manufactured in North Korea with "cross-flow or pelton turbines that have proven easy and cost-effective to manufacture in other developing countries."¹²⁶ The other option, acquiring new small hydro power plants was on top of the wish list for the Ministry of Electricity Industry when we met with them.

Small hydro power plants are not the most efficient way of producing energy, but they can supply areas which so far have been lacking electric power. According to the Ministry of Electricity Industry, small hydro power plants can be part of a local grid and thus remain isolated from the nationwide power grid. This will enable rural areas to benefit to a greater extent from such projects by providing the much needed electricity for agricultural production. Furthermore, hydro power can be timed for the most energy consuming periods of the agricultural activities. In order to heighten the energy efficiency

¹²⁵ Norconsult, 2002.

¹²⁶ Hayes, Peter, David Von Hippel, and Nautilus Team, 2002, p. 21.

hydro power plant projects should be linked to local (training) programs aimed at rationalizing the use of energy.

The main purpose for establishing hydro power plants is obviously electric power generation. Hydro power plants, however, can also be beneficial in terms of flood control, transportation, irrigation, water supply, fish breeding and in some instances tourism (utilizing the water reservoirs). This wide range of possibilities related to a hydro power plant makes local involvement extremely valuable and even a precondition if full utility is going to be realized. The Ministry of Electricity Industry was fully aware of this need for local involvement and they did not perceive this as a problem.

To keep the hydro power plants on a small to medium sized scale is preferable to large scale projects as it would help avoid the complexity of the greater distribution plan for electric power. Also, small projects function as simple inputs, which are easier to handle in a planned economy. As projects get bigger they will involve a number of agencies (transport, energy, land, etc) and will in general be more difficult to deal with, especially in a centralized state where there are very few people who can take an overall responsibility. In this regard it is also worthwhile to highlight some of Peter Hayes recommendations based on the lessons derived from energy aid projects from 1994 to 2004. He recommends:

- 1) Small, fast, cheap, incremental, and many energy projects delivered by NGOs and private companies on short time lines (less than 6 months) and
- 2) projects in provincial towns targeting the most at-risk population.¹²⁷

¹²⁷ Hayes, Peter 2006, "Options for DPRK Energy Sector Engagement" (PowerPoint slide show) , DPRK Energy Expert Study Group Meeting, Four Seasons Hotel, East Palo Alto, California, USA, June 26 – June 27, 2006.

Chapter Six: The Agricultural Sector

The agricultural sector has never recovered from the economic shocks and natural disasters of the early and mid 90s. The economic difficulties have had severe consequences and the interplay of a range of factors have contributed to a negative spiral, which North Korea is still struggling to stop. First and foremost, North Korea is a case of an industrialized country with a relatively modern agricultural production experiencing a severe energy shortage as well as a breakdown in the supply of agricultural inputs. Consequently, the 90s and the beginning of the new century have been characterized by a gap between the demand for food and the actual production of cereals. Since 2002 the agricultural sector has experienced a slow recovery after the famines throughout the late 90s. North Korea's total crop production for 2005 is estimated at 3.9 million tons (excluding potatoes), which will be an eight percent increase from the previous year.¹²⁸

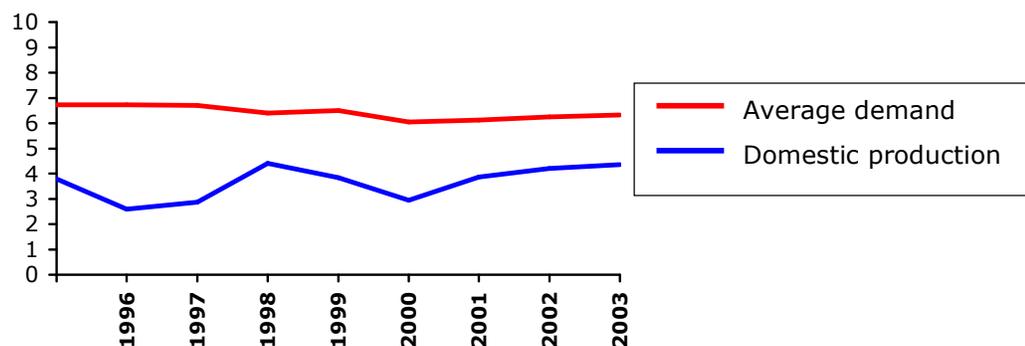
This recovery since 2002 is attributed to:

- more favorable weather conditions,
- provision of fertilizers from the international community (mainly South Korea),
- increased reliability in the supply of energy,
- improved irrigation systems, and
- better utilization of agricultural equipment.¹²⁹

However, even with continued support from the international community, North Korea has been far from meeting minimum requirements. Malnutrition is therefore widespread. The figure below illustrates the crisis.

Figure 2: North Korea's Cereal Production and Demand

(In tons)



Source: *Understanding North Korea*, 2004, Institute of Political Education for Unification, Ministry of Unification, ROK, and FAOSTAT.¹³⁰

¹²⁸ "Crop Prospect and Food Situation – No. 2 July 2006: Food supply and demand in the Democratic People's Republic of Korea", FAO Corporate Document Repository.

¹²⁹ Woo, Seongji 2004, "North Korea's Food Crisis", *Korea Focus*, Vol. 12, No. 3, p. 3.

¹³⁰ Numbers for average demand are presented in "*Understanding North Korea*", 2004, Institute of Political Education for Unification, Ministry of Unification. Precise estimates of North Korea's cereal production are difficult to obtain. Here numbers from FAO are used, even though the same time series (meaning unclear?) is highly inaccurate prior to 1995. See: Noland, Marcus, 2003.

Lack of energy and machinery

The lack of energy is estimated to have led to an 80 percent reduction in the use of agricultural equipment. Spare parts cannot be produced, water pumps necessary for irrigation and draining cannot operate and tractors and other machinery are left obsolete. In 2004 only 36,836 tractors were operational out of a total of 64,062. As a direct effect of the energy crisis, the rural population has turned to cutting wood as a source of energy, with deforestation and soil erosion as a foreseeable but unavoidable consequence. This has been a problem throughout North Korea's short history. In recent years this practice seems less prevalent and international aid has been channeled into re-forestation.

Arable land resources

North Korea is characterized by huge geographical differences. Most of the arable land is concentrated in the lowland plains along the western coast. Here, adequate rainfall and a longer growing season allow an intensive cultivation of a variety of crops. A narrow strip along the eastern coast is also arable. The vast mountainous area covering most of North Korea's interior contains the main part of North Korea's forest reserves. Between the major agricultural regions, foothills provide grazing for North Korea's livestock and fruit tree production.

Out of North Korea's 12 million ha of land, 80 percent is mountainous and generally unsuitable for agriculture. This leaves about 2 million ha of arable land used for agricultural production and 1.4 million ha suitable for cereal production, which is equivalent to only 0.06 ha per capita.¹³¹ Cereal production is broken down into 590 thousand ha used for paddy production (rice), 500 thousand ha for maize, 200 thousand ha for vegetables, 100 thousand ha for wheat and barley and 190 thousand ha for potatoes.¹³²

Overall there has been a decrease in the number of corn-growing fields, while potato-growing fields have seen a dramatic increase. Through specifically targeted policies based on prior experiments and experiences, potatoes have in a decade become a major crop in North Korea's agricultural production. This has happened against the backdrop of deep-rooted traditions. Measured in hectares, the potato fields have expanded from 48 thousand ha in 1996 to 190 thousand ha in 2005.¹³³ Cultivation of potatoes is generally assessed to hold a substantial potential for further increased food production.

Unfavorable weather conditions

North Korea's agricultural capacity is heavily constrained by unfavorable weather conditions. Rainfall patterns are generally not suitable for crop production as spring is often dry and some 60 percent of the rain falls between mid-June and mid-September. Moreover, rain often falls as torrential storms causing crop damage and flooding.

¹³¹ Randall Ireson, Feb. 2006, "Food Security in North Korea: Designing Realistic Possibilities", p. 8. Asia Pacific Research Center, <http://shorenstein.stanford.edu>

¹³² Data provided by FAOSTAT, FAO 2006 and "Fertilizer Use by Crop in the Democratic People's Republic of Korea, FAO, Rome, 2003.

¹³³ Data provided by FAOSTAT, FAO 2006.

A series of natural disasters through the 90s illustrates the challenges to North Korean agricultural production: In 1995 and 1996 floods resulted in overall damage estimated at USD 15 billion and USD 2.27 billion respectively. A big drought in July 1997 left 466 thousand ha of arable land damaged (approximately a quarter of total arable land) and 80,000 heads of livestock were lost. A tidal wave the following month damaged 289 km of sea dykes, and flooding caused by sea water damaged 108 thousand ha arable land. Again in 1998 floods caused damage estimated at USD 2 billion and 15 thousand ha of arable land was damaged. In late Spring 2000, a drought damaged 400 thousand ha of arable land and 530 thousand ha were affected by insect infestation. A few months later, a typhoon resulted in damage estimated at USD 6.1 billion out of which the agricultural sector sustained USD 165 million. In August 2001, heavy rainstorms resulted in the loss of 85 thousand ha of grain and general damage amounting to USD 4.8 billion.¹³⁴ As late as July 2006, torrential rain caused severe flooding and rendered 12,500 families homeless.¹³⁵ No reliable data is yet available with regards to damage caused on arable land. According to North Korean press releases the latest floods damaged 241.000 houses and affected close to one million people, while 268.000 hectares of farmland were destroyed.¹³⁶

As weather conditions are not likely to improve, the future will undoubtedly bring similar examples of disasters to the North Korean people. Unfavorable weather conditions are the terms under which North Korea's agriculture has to be able to operate. Damage prevention and control might therefore also be one area where international humanitarian aid could be targeted.

Fertilizers

Fertilizers are needed in any agricultural production, but the poor quality of soil in North Korea makes the availability of sufficient fertilizers a must. Compared to the situation in the 80s North Korea's consumption of fertilizers has fallen considerably. The shortage of energy has resulted in low domestic production of chemical fertilizers and imports have been limited due to a lack of foreign currency. Even with the support from international donors, the consumption of fertilizers in North Korea is still well below recommended rates.

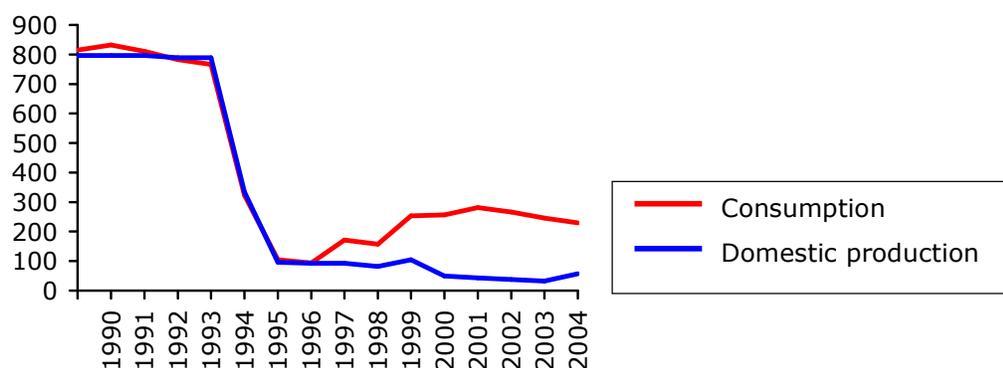
When interviewing farmers as well as NGO representatives working in rural areas, the lack of fertilizers along with agricultural machinery was pointed out time and again as the main obstacle hindering an increase in agricultural production. Those cooperatives who have engaged in livestock breeding are to some extent able to use manure as a substitute for fertilizers, whereas others are left with no other option than to hope for an increase in the amount of fertilizer allocated by the planned distribution system.

¹³⁴ Mun Jong Nam, 2002, "Investment in land and water in DPR Korea", FAO Corporate Document Repository.

¹³⁵ "Programme Update: Democratic People's Republic of Korea", International Federation of Red Cross and Red Crescent Societies, Appeal No. MAA54001, 6 October 2006, p. 10.

¹³⁶ Korea Central News Agency (KCNA) telegram dated 5 September 2007.

Figure 3: North Korea's Total Fertilizer Consumption & Production
(In 1.000 mt)



Source: FAOSTAT

The lack of fertilizers has had a huge negative influence on the overall agricultural production and food security in particular. In 2004, according to the latest figures from FAO, we see that total consumption amounted to 230,174 tons of fertilizers, a decrease of 6 percent from 2003. Out of the total consumption in 2004, 72 percent were provided as humanitarian assistance, with South Korea accounting for 82.8 percent, the EU 12.9 percent and NGOs 4.3 percent respectively.¹³⁷ North Korea's domestic production of fertilizers increased in 2004 by 75 percent, but still made up only 28 percent of total consumption.

Crops and yields

Due to inadequate supplies of fertilizers, lack of machinery and unfavorable weather conditions, average crop yields for the four traditional main crops: rice, maize, wheat and barley have been well below potential. 1996 and 2000 were especially harsh years, but from 2001 and onwards yields have been more stable though still below potential.

Table 5: Actual Crop Yields and Potentials

(Yield in t/ha)

	1989	1996	2000	2004	2005	Potential
Rice	3.4	2.5	3.2	4.1	4.2	6.5
Maize	5.4	1.4	2.1	3.5	3.2	6.5
Wheat	1.6	1.3	0.8	2.1	2.5	3.0
Barley	2.5	2.2	0.9	2.0	2.0	3.0

Source: FAOSTAT 2006, "Fertilizer Use by Crop in the DPRK", FAO 2003 and "FAO/WFP and Food Supply Assessment Mission to the Democratic People's Republic of Korea", 22 November 2004.

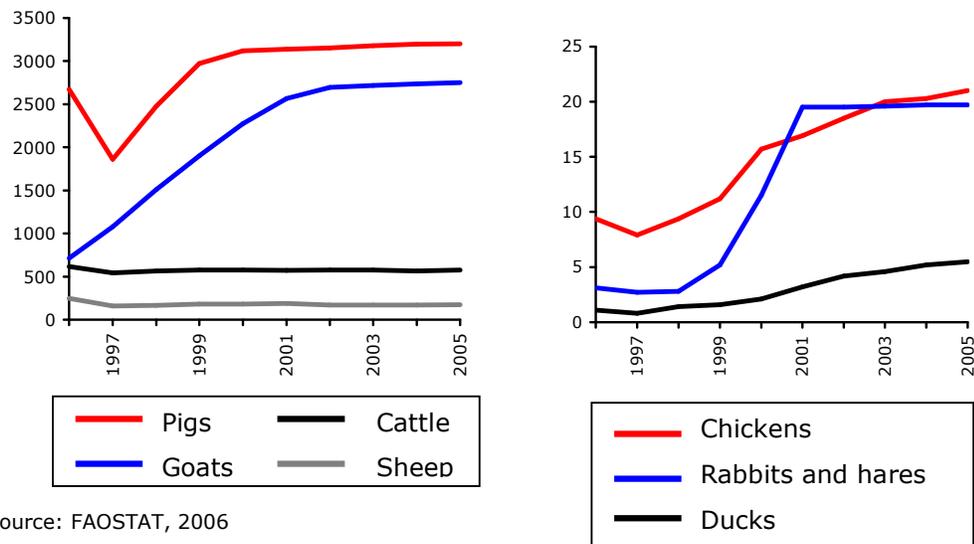
¹³⁷ Special report, "FAO/WFP and Food Supply Assessment Mission to the Democratic People's Republic of Korea", 22 November 2004, p. 9.

A double cropping program was launched in 1997 with support from FAO and UNDP. The program has so far yielded substantial results and it has been expanded from 47 thousand ha in 1997 to 192 thousand ha in 2001. The success of the program has reduced the need for food aid. However, double cropping is constrained by a number of factors. For one thing, it requires a higher consumption of fertilizers and more labor power. Furthermore, due to the heavy time constraints, double cropping is even more vulnerable to the general shortcomings of the North Korean agricultural sector, such as inadequate use of machinery. In a recent study from November 2004, FAO assesses that double cropping has reached its limit with the current level of mechanization.¹³⁸ Another problem is that a delayed planting of the second crop, for example due to a prolonged seasoning of the first crop, will reduce yields.¹³⁹

Livestock

In recent years North Korea has encouraged the development of livestock industry in an attempt to improve people's dietary nutrition. Allegedly, Kim Jong Il in 1996 received a report from the North Korean ambassador to Switzerland suggesting that cooperatives should engage in whatever kind of agricultural production that suited the local area best.¹⁴⁰ Consequently, some cooperatives have been given greater freedom to exploit local resources more rationally and shift to livestock production even at the cost of less crop production for markets. Policies have mainly been targeted at grass-fed livestock, especially goats, which have increased in numbers markedly since the mid 1990s to 2001. Limited availability of fodder, however, has made it difficult to expand cattle, pig and sheep cultivation.¹⁴¹ Cultivation of ducks, chickens and most significantly rabbits, has also increased.

Figure 4: Livestock production
(In 1.000 heads)



Source: FAOSTAT, 2006

¹³⁸ Ibid: p. 11.

¹³⁹ FAO: "Fertilizer Use by Crop in the Democratic People's Republic of Korea", Rome, 2003.

¹⁴⁰ Interview with Kim Il Hwu, Chairman of Cooperative (Kubin Stock Farm), Nov. 2006.

¹⁴¹ Woo, Seongji, 2004, "North Korea's Food Crisis", *Korea Focus*, Vol. 12, No. 3, p. 7.

(Mis)Managing agriculture

North Korea's agricultural crisis cannot solely be attributed to natural disasters, energy shortages and limited supply of agricultural inputs. Well-known problems with lack of incentives under the quota production system, structural rigidity, centralism and general mismanagement have also played their part. Central planning has disregarded the use of local knowledge and experiences, a problem that has been exacerbated by the huge regional differences and worsening weather conditions.

Examples of mismanagement take many forms. It has for instance been practice in many cooperatives to select the smallest potatoes as seed potato. While this will increase the share of marketable potatoes the first year, it is also deemed to result in decreasing yields the next harvest. This is not necessarily an example of short-term thinking, but more of lack of knowledge or a disregard of common knowledge among farmers.

Another example has to do with decision-making. A couple of years ago a NGO sponsored first-class dairy processing plant was built in a rural district, but to this day it is still not functioning due to its high consumption of energy. While this fiasco is on the one hand a result of energy shortage it is on the other hand also an example of decisions being informed not by facts of life, but by wishful thinking.

All humanitarian aid or development projects must guard against this tendency among North Korean decision-makers to prepare for the ideal society and not for realities. Responsibility also rests with the international aid donors who report on a successful finalization of a project, but disregard its failure to produce.

Reform programs

Framed by Communist ideology and Juche principles, North Korea's attempt to increase production through agricultural policies have often had limited or unexpected results. But the agricultural sector has not been left untouched by the reform program and the incipient change in mentality. Since 1996, new and promising initiatives in the management of the agricultural sector have been implemented. Production quotas were lowered and it was permitted to sell above-quota production. These policies, which tend to follow the lines of the Chinese model, initiated a marketization of the agricultural sector.

The most visible sign of this marketization was the expansion of farmers' markets, which have improved distribution of agricultural products. However, with regards to the sale of above quota production it is not the farmers themselves who actually go to bigger cities like Pyongyang and sell their products. Instead an extra layer of government sanctioned intermediary traders have been added and they obviously take their share of the profits. Still, farmers have on the whole benefited from the increasing marketization.

Experiments with an increase in privately farmed land, the so-called kitchen gardens, have been conducted and even positively evaluated in North Korean media, but further expansion of the experiments are yet to be seen. On their day off (every tenth day) farmers can go themselves to local farmers' markets and sell vegetables produced in these kitchen gardens. This is a positive sign of an incipient change in mentality, but in financial terms the

change is limited as families, according to the local chairmen of the cooperatives we visited, have only 30 pyong (about 0.01 ha) for private use according to the land law.

The above mentioned reforms are, however, far from adequate if local expertise and economic incentives are to be fully exploited. From the cooperatives we visited it was maintained that the farmers themselves, represented by their elected chairmen, had some say in the planning of production. The procedure is such that after harvest the cooperative conducts a mass meeting to evaluate the work done throughout the year and discuss how to increase production. The cooperative then writes up a production plan partly based on the cooperative's own evaluation and partly in accordance with guidelines (quotas) from the Ministry of Agriculture. This production plan is then submitted to, and sanctioned by, an upper agency. It is unclear whether the cooperatives go to great lengths to try to please the authorities or whether they in fact submit their suggestions based on local expertise and economic rationality. In other words, the degree of sanctioning is difficult to tell, but when the quotas are agreed upon it is at least up to the cooperative to decide where to plant what and when. On the whole, it is obvious that productivity would increase if the decision-making power with regards to the use of land was localized to a far greater extent.

Another important step would be to lift the travel restrictions which make it impossible for people without the right certificates to travel in and out of cities. Removing this legal barrier would significantly reduce transactions costs for the cooperatives. Such a step, however, depends on an easing of the security situation and therefore ultimately a solution to the nuclear issue.

Deviations from the Chinese model

Looking through Chinese lenses might not always be the best way to prescribe reforms for North Korea's agricultural sector. A complete de-collectivization, for example, would be the Chinese recipe for an expansion of North Korea's agricultural production. But this step might not be as straightforward as it might seem. For one thing, the North Korean rural families simply don't have the necessary farming equipment, due to the mechanization of the whole agricultural sector. Furthermore, prior to the Communist style collectivization the farmers were already organized in village clans, not independent family units. As such there are no historic traditions to fall back on if a complete de-collectivization was initiated. Instead the international community should look for ways to support a strengthening of the cooperatives, especially in terms of decision-making power. In this way they could function more as Chinese village enterprises, being able to use economic incentives, engage in agricultural industrial production, etc.

International help

North Korea cannot fight its way out of the agricultural crisis by its own means. The simple reason being, that there is not enough arable land for complete self-sufficiency. In this regard, it is important to keep in mind the recommendations from the 2004 Consolidated Inter-Agency Appeal, which can be summarized as follows: While humanitarian assistance must be continued there is a dire need for development assistance if North Korea is to

overcome its severe economic difficulties.¹⁴² In other words, North Korea depends on support from the international community in the short run and even more so if long-term investments are to be realized. As described above, harsh climatic conditions do not make North Korea an ideal place for crop production and food security is therefore difficult to obtain even if agricultural inputs were abundant. In the long run it might therefore be more profitable for North Korea simply to import the needed foodstuffs. However, in the short run we cannot expect North Korea to give up the stress on self sufficiency derived from Juche ideology or to experience a miraculous economic upturn that would enable them to buy their way out of the food crisis.¹⁴³ While it might be worthwhile to sell the idea of food security as being the ability to produce or purchase food, a rebuilding of North Korea's agricultural sector still remains a necessity and investments are needed in many areas.

A look at the recent history reveals that protection of the agricultural capacity is needed to withstand future natural disasters. Dykes need to be strengthened to protect against flooding. Likewise, better pumping facilities and steady energy provision can maximize utility of reservoirs and irrigation systems, which will lessen the effects of droughts. The massive deforestation needs to be dealt with in order to prevent soil erosion caused by sandstorms and heavy rainfalls.

The rebuilding of North Korea's agricultural sector depends upon a well-functioning supply of energy as well as fuel for agricultural machinery. Without energy the irrigation systems do not work, chemical fertilizers cannot be produced, and crop yields will remain low. A continued lack of these essential components will make it impossible to rebuild the agricultural sector on a large scale. Setting aside these preconditions, North Korea also needs a massive transfer of agricultural technologies in order to strengthen its self-sufficiency. More knowledge about new varieties of crops suited for North Korea's climate, soil fertility, and seed selection and breeding is needed. The North Korean side has shown an interest in these matters, where the acceptability of such proposals is helped along by the emphasis on science in the Juche ideology.

Agricultural assistance

North Korea is concerned about its food security and is therefore eager to engage in projects related to agricultural production. The following projects are targeted at areas where support can yield best results in the near future.

1) Provision of fertilizers and expanding domestic production

As pointed out above, lack of fertilizers is one of the key obstacles to an increase in agricultural production. Furthermore, providing fertilizers is five times more cost-effective than donating food.¹⁴⁴ In addition to increasing provisions of fertilizers it would also in the short run be highly valuable to support North Korea's domestic production of chemical fertilizers. This could happen through either building new or updating existing North Korean

¹⁴² 2004 Consolidated Inter-Agency Appeal for DPRK, p. 11.

¹⁴³ Food self-sufficiency was also the policy of many Western countries; hence the big state subsidies for agricultural production in Europe.

¹⁴⁴ Randall Ireson, 2006, p. 11.

factories producing fertilizers. Existing facilities are reportedly outdated and inefficient.¹⁴⁵ As heavy use of fertilizers has an acidifying effect on the soil, knowledge and training is also needed to deal with the negative effects of an increasing “chemicalization” of agricultural production.

2) Agricultural machinery

North Korea’s agricultural sector is to a large extent industrialized. This means that outdated machinery, lack of spare parts and fuel, and energy shortage in general become almost insurmountable obstacles in the efforts to increase agricultural production. New machinery is needed for almost all facets of production:

a) Irrigation pumps

New and more energy effective pumps are needed in order to make the irrigation systems function properly. Too advanced technology should be avoided as the North Koreans need to be able to repair the pumps themselves. The local supply of energy should be taken into consideration as the low voltage, according to a Red Cross employee, often causes the pumps to break down. Training will also be needed in order to make effective use of modern pumps and increase knowledge about crop requirements.

b) Tractors

Tractors with multiple functions are needed to replace or supplement the old Chollima tractors, which are now outdated and too energy consuming. The Chollima tractor has one big advantage though: The North Koreans know how to repair them and they can produce the spare parts themselves. Again, this serves to remind us, that supplying new technology will require maintenance, spare parts, and training in order to repair.

c) Trucks

Trucks for transportation are needed in order to make tractors available for farm work. Transportation by trucks is simply faster and much more energy effective. At the same time better transportation facilities would also lessen the cooperatives dependency on “coordination units” which normally organize all transportation from the counties to the cities.

d) Mobile threshers

With mobile threshers crops are easily moved from the fields to secure storage, which reduces post-harvest losses and speeds up crop processing. At the same time mobile threshers save the farmers from carrying the whole crop, both grain and straw, to the stationary thresher. This also leaves the farmers with the possibility of returning straws, which are important organic matter, to the field.

e) Seed drills

Seed drills for small grain like wheat, barley, corn and soybean leave better room for each grain to develop and secure improved plant vigor. Seed drills are expected to increase yields by more than 20 percent.¹⁴⁶

¹⁴⁵ Ibid: p. 8.

¹⁴⁶ Ibid: p. 20.

3) Improving livestock quality

Cooperatives engaged in large-scale stock breeding and dairy production have a need for improving livestock quality through sperm projects. A particularly interesting area for Norway could be with regards to the quality and milk producing capabilities of goats. At our visit to the Kubin Stock Farm we were informed that their goats produced only 1.2 l of milk per day - three times lower the potential. A sperm project could also benefit from a special (political) emphasis on goats dating back to 1996, which has been able to increase the number of heads manifold.

Chapter Seven: North Korean fishery

In order to help North Korea to help itself it is important to identify fields where there is a potential for growth. It is also vital that there are a substantial number of people who are acquainted with this field and that there is a basic knowledge which can be developed. Further, any country that is considering support programs for North Korea needs to offer something from a field where they have a well-known and respected area of expertise, so that it is easier to be the recipient, to admit one's own weakness and lack of resources, and to follow the advice of foreigners. This is an essential precondition for successful assistance. The field that this report will point to as relevant for North Korea as recipient and Norway as donor is the fishery production.

This chapter is not based on visits to fishing villages and cooperatives in North Korea, as we were not permitted to see such places. Despite the relative importance of North Korean fisheries, and not least the potential importance of this field in a country where food security is a main problem, the scarcity of information is surprising. The following is based on secondary sources such as Library of Congress Country Studies; various UN papers, and in particular the FAO working paper 6: "Democratic People's Republic of Korea: Report of the Fisheries Development Programming Mission.". The final paragraph is based on an interview and information provided from a North Korean trading company with interests in the fishing industry.

The history and size of the trade

With the limitation of arable land, aquaculture and fisheries play an important role in the livelihood of the majority of the Korean people. North Korea's coastline is about 2,500 km long. Although this is only ten percent of the Norwegian coastline, the potential for fishery is better than in most countries. This is because the water consists of a mixture of warm and cold ocean currents and the enrichment of nutrients from rivers and streams of mainland China and the Korean Peninsula that drain into the West Sea create favorable conditions for developing marine fishing and coastal aquaculture in these waters. The fishing industry started to operate in the 1950s and investment in vessels, equipment and port facilities rapidly increased in the 1980s. Deep sea fishery began in the 1970s.

The East Sea, which has a surface area of about 970,000 km², has approximately 650 cold and warm water species. The cold water fish of commercial importance caught by Korean vessels in this sea include Alaska pollack, herring, flounder, and silver fish. The warm water species include sardines, anchovies, mackerel and halfbeak.

The West Sea, with a surface area of about 430,000 km², has around 250 cold and warm water species, including anchovies, Spanish mackerel, hairtail, herring and cod. The country also cultures and harvests molluscs, such as short necked clams, oysters and ark shells as well as seaweed and kelp for domestic consumption and export.

As regards freshwater fisheries, North Korea has 60,000 ha of inland waters (9,000 ha of rivers and streams; 41,000 ha of lakes and reservoirs; and 10,000 ha of reclaimed tide land) available for the accelerated development of aquaculture and aquaculture-based fisheries. There are 163 freshwater fish species, 20 of which are being cultivated. These include common carp, Chinese carp, rainbow trout, and mullet salmon. The country has reportedly produced millions of fingerlings for annual stocking in rivers and reservoirs but produced only a small amount of marketable-sized freshwater fish from culture and culture-based fisheries, estimated at only about 5,000 mt¹⁴⁷ per year.

Total catch, increase and decline

The total catch grew from 465,000 tons in 1960 to 1.14 million tons in 1970. In 1984 it was reported that the plan target of 3.5 million tons was met, but in 1990 the total output was down to 1.5 million tons. The principal catch of the coastal fishery in the East Sea of Korea is pollack, sardine and squid, and from the west coast (the Yellow Sea) the most common catch is yellow covina and hairtail. Deep-sea catches include herring, mackerel, pike, and yellowtail. The main fishing port facilities are located on the east coast, but fishing cooperatives are found along both coasts in traditional fishing villages. Aquaculture and freshwater fishing take place at cooperative farms. For the development of coastal aquaculture, high priority is given to the increased production of Laminaria (kelp) seedlings for distribution to cooperative farms, and to the artificial propagation of trout and salmon as well as left-eye halibut (plaice) for stocking in the sea.

According to the annual fish production statistics from 1988 to 1997 provided by the Ministry of Fisheries, the highest production of 3.7 million mt was recorded in 1989. Since then production has declined steadily to only 990,000 mt in 1996 and 720,000 mt in 1997. Amongst the major marine fish species caught, Alaska pollack has contributed substantially to the total production. They are caught both in the North Korean exclusive economic zone and in the high seas, including the Bering and Okhotsk Seas. The largest landing of Alaska pollack, estimated at about 120,000 mt, was recorded for 1995. The production declined sharply to 15,000 mt in 1996 and rose again in 1997 to about 66,500 mt. It is believed that over-fishing was the main cause of the decline of landing of Alaska pollack. There was also a distinct decline in the landings of sardines from approximately 20,000 mt in 1994 to only 5 mt in 1996 and nothing in 1997. However, the production of squids and cuttlefish rose steadily from 4,600 mt in 1994 to 14,000 mt in 1997.

Organization of the trade

Under the Ministry of Fisheries there are three departments overseeing the aquaculture and fishery in North Korea, the Freshwater Fish Culture Bureau; the State Fisheries Bureau and the Cooperatives Bureau. Under their auspices there are 77 fishing plants, 32 coastal aquaculture farms/plants, 200 fishery cooperatives and 100 freshwater fish farms. In addition the Ministry manages shipyards, ship repair and maintenance plants, fishing gear factories and fish processing plants.

¹⁴⁷ mt = metric tons

The statistics provided by the Ministry of Fisheries indicate that the fishing fleet is relatively small and outdated. There are a total of 1,553 mechanized fishing vessels used in marine capture fisheries, of which only eight are large (each more than 80 meters in length and with a 2,250 HP engine). The others are medium and smaller-sized boats. Of the total number of mechanized fishing boats, the Cooperatives Bureau owns about 200, equipped with low horse-power engines and more than 4,000 small non-motorized boats used for collecting kelp, clams and sea cucumbers. Only medium-sized vessels that have engines of more than 200 HP are equipped with trawl nets for bottom trawling. The majority of the smaller fishing boats with low-power engines are equipped with stationary gear such as set trap nets. Almost all of the vessels in operation were built in the country. Some of the smaller wooden boats are rather old and need major repairs. Some of these fishing boats should be installed with bigger marine engines and equipped with more modern types of fishing gear to enable them to increase their catches, particularly in short-necked clam fisheries. The shortage of fuel and lack of spare parts due to the prevailing economic difficulties have substantially limited fishing activities of these boats in both the exclusive economic zone and the high seas. In general the equipment used is outdated and not energy efficient.

At the provincial level, each government operates its own fisheries department, which receives policy directives, technical guidance and administrative orders from the Ministry of Fisheries to facilitate their work towards rational fisheries management and the sustainable use of the fishery resources.

Marine R & D

Marine fishery research plays an important role in the sustainable development and management of the fisheries. There are eight fishery research institutes operated by the Technical Bureau of the Ministry, with a total number of staff about 2,000, half of whom are research personnel. Constraints impeding progress of aquaculture research includes lack of research facilities; lack of experienced research staff; and an urgent need of suitable equipment for searching techniques.

An important input required for successful fishery research, as for planning and development, is reliable information as well as timely and accurate statistical data. The Bureau of Statistics is responsible for the compilation and presentation of fisheries statistics, but few statistical data are published and available such as a yearbook of fishery statistics.

In North Korea there is a need to strengthen the capability of both the East and West Sea Fishery Research Institutes to undertake applied research related to resources appraisal. Advice from the Institutes based on sound scientific evidence would help optimizing the fishing activities. A technical assistance project aimed at increasing the capability of the scientists of the two fishery research institutes in the assessment of marine fishery resources is needed.

High expectations, insufficient input

The Ministry of Fisheries, through its State Fisheries, Cooperatives and Freshwater Fisheries Bureaus, operates several factories, plants, hatcheries

and cooperative farms in its attempt to achieve the production target set by the government.

The third seven year plan (1993) emphasized the modernization of the fishery industry and stipulated an increasing number of modern stern-trawlers, processing ships and fishing vessels in order to expand the marine production. A modernization and rationalization of the industry was called for which included new equipment, processing facilities and cold-storage. This plan was never realized as the crisis of the early 1990s stopped any development in the field.

The post-harvest technology development is underachieving. Fish processing facilities and product development need substantial improvement both regarding product enhancement and quality assurance. Fish processing facilities were installed in many fisheries plants in the fifties and sixties, and now they are obsolete. Most fish and fishery products (about 80 percent) are traditionally processed using salting, drying, fermenting, boiling and steaming. Only a limited quantity is processed on board a few vessels that have fish processing facilities. There have been no measures to upgrade the standard of freshness of the products. Without an adequate amount of ice for preserving the catches on board, the products kept in cold storage are usually partly spoiled. The freezing facilities and cold storage in the main West Sea fishery port of Nampo are outdated and have limited capacity, and there is also a need for an adequate supply of freshwater and improved sanitary conditions in the processing plants. The possible use of vacuum packaging and other techniques with low investment should be explored by the fisheries companies and cooperative plants in order to extend the shelf-life of traditionally processed products for domestic consumption.

In recent years, the government has continued to give high priority to sea farming and coastal aquaculture as well as to freshwater fish culture. The conservation and sustainable development of marine fishery resources and the upgrading of the quality of fishery products have also received increasing attention, but unfortunately not the much needed investments.

Serious difficulties in brief

- The country has experienced natural calamities which have severely affected the production of aquatic organisms in the marine, inshore and inland waters. Sea farming facilities and hatcheries have been damaged and there is an acute need for material and supplies;
- Marine resources research has been impeded by limited budget and outdated scientific instruments and equipment, including computers and acoustic instruments for assessing the sizes of the resources;
- A general lack of experienced scientists and personnel as well as scientific equipment and instruments for artificial breeding of aquatic organisms prevails;
- Huge areas of tidal land cannot be used effectively for shrimp culture because of the lack of funds and experience as well as essential materials;
- Current post-harvest practices are rudimentary and quality assurance is non-existent. The processed products for export are not of standard quality, thus limiting the volume of exports.

Prospects for a near future

Is it realistic, with the above serious problems and difficulties in mind, to expect an impending change for the better in this field. The 1998 FAO report of the fisheries development in North Korea maintain that there is. The report bases this on the past fisheries performance of the country and claim that it is realistic to expect that growing demands can be met by intensifying both aquaculture and capture fisheries development. The precondition is, however, that rational management measures are implemented to ensure an effective and sustainable use of the fishery resources.

Marine fisheries and coastal aquaculture have for a long time played a vital role as a provider of nutritious food for the Korean people. The total demand for fish and fishery products by 2010 may be more than two million mt, including some amount for export. There should be potential for an expansion to meet this demand because the country does not have overcapacity in the fishing fleet. The size of the fleet is small, comprising mainly small and medium-sized fishing boats used in small-scale fisheries in coastal and inshore waters. Then there are tidal lands of more than 100,000 ha, especially on the west coast of the country, and this could be used for expanding coastal aquaculture production. Moreover there are more than 50,000 ha of inland waters, which could support the expansion of freshwater fish culture.

If North Korea intends to compete in international markets, however, and increase its export of fish and fishery products to earn much needed foreign currency, it is essential that basic requirements in the field of production are met. This can hardly happen without substantial input from abroad. In order to satisfy its long-term requirements for the rehabilitation of the fishing industry, the government should therefore seriously consider obtaining long-term loans from financing institutions. Another possibility is to undertake joint-venture arrangements with interested parties, as laws and regulations relevant to joint ventures have been in existence in North Korea since 1984.

Support is needed for:

- Nets, cages, ropes and floats for aquaculture production.
- Feed and fertilizer for aquaculture products.
- Fish processing facilities and procedures for quality assurance.
- Fishing boats with modern, energy-saving engines.
- Research equipment and manpower support in research and development.

A possible joint venture

Although the fishery industry in North Korea is in a poor situation, and natural calamities as well as shortage of fuel hamper even the most active and creative actors in this field, it would be unfair to characterize the whole industry as entirely bleak. The incipient marketization of the North Korean economy is also visible in this field, and during our visit in the country we met twice with representatives from a quite important newly established (1991) general trading company called "Korea Paekho 7".

Although a state enterprise the Paekho company seems to be managed strictly according to business principles, and is surprisingly independent. Its main fields of activity are in food and pharmacy, production and trading. It

exports pine mushrooms to Japan and South Korea, it produces 80 percent of the country's consumption of bottled water, and some for export, and it produces a special kind of Korean vodka, mainly for export, and a cognac, mainly for local use, as well as many varieties of health-food. Paekho also has interests in mining companies, (coal, iron and titanium), it owns seven ships for transportation of fish to foreign markets (cold-storage carriers, container ship and a ship for transportation of living fish) and it operates restaurants in North Korea and in China.

The reason why our first meeting with this conglomerate was followed by a second, and this time with the president of the entire company, was their interest in developing salmon fish farming. They had studied the field, and there was no doubt in their mind that a Norwegian link would secure the best possible development of something they had already started – with some success themselves.

The Paekho company is one of the five biggest fishery enterprises in the country and has at its disposal 120 fishing vessels operating from both the east and the west coast of North Korea. The catch covers squid, pollack, saury, sea urchin, hairy crab, snow crab and various clams. Various shellfish such as short-neck clam and oyster are produced in aquaculture projects on both coasts. The company have processing factories and trading centers in the major cities, and it also exports to Japan, South Korea and China.

The Paekho company had carried out a feasibility study for salmon fish farming in the north-eastern Korea Bay, explicitly in Ra Jin Bay (latitude 42 12' and longitude 130 18') and in Rak San Bay (latitude 42 07' and longitude 130 10'). It is suggested that the hatchery for the salmon fry should use waste water from the power plant in Bu Ryong County, North Ham Gyong Province, in doing so the water temperature would not be lower than 4 C in the winter time and not higher than 12 C in the summer. The feasibility study informs as follows about the water in Ra Jin and Rak San Bay:

Table 6: Wave height (2004)

Wave height (2004)
2.5 – 3 m (no tidal wave)

Source: Table provided by the Paekho company

Table 7: The annual average water temperature (2004)

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1.6	0.8	1.5	3.2	7.6	12.2	16.1	18.5	16.8	13.4	10.5	1.8

Source: Table provided by the Paekho company

Table 8: Seasonal water quality information (2004)

	Spring	Summer	Autumn	Winter
Saltiness (%)	32.38	30.23	33.12	33.10
ph	8.20	8.24	8.41	7.90
Oxygen	7.61	7.67	7.44	11.24
Oxygen saturation	114	130	107	141
Phosphate	54	7	27	84
Silicate	23	480	226	
Calcium	0.224	0.386	0.129	0.307
Magnesium	1.208	1.375	2.140	1.710
Color	7	9	6	4
Transparency (m)	9.3	5.9	10.4	18.0
Biomass (Individual/m)		2260	36210	

Source: Table provided by the Paekho company

Representatives of the company were convinced that the water quality as well as the location in the two north eastern bays would be excellent for fish breeding. And they were eager to establish contact with a Norwegian aquaculture company who would take this opportunity to establish a joint venture in East Asia.

Recently a new company was established in order to develop a Salmon Joint Venture Corporation with foreign companies. The idea is to set up a large-scale salmon breeding project in the north-eastern part of the country, close to the Russian as well as to the Chinese border, in an area where the water should be excellent for this kind of fish farming. It was also stressed that from this area there is short transportation to the two northern neighbors, Russia and China, as well as to the neighbor in the south, Japan.

The North Korean population needs nutritious food with a high amount of protein, and they are probably also a slowly emerging market. From a pure business perspective, South Korea, Japan, China and Russia are all nearby lucrative markets for high quality fish products and as such a joint venture with the Paekho Company might be less hazardous than one might expect. From a North Korean point of view it is clear that Norwegian companies would be preferential partners in future developments in this field.

Chapter Eight: The North Korean Health Situation

It is common knowledge that health is more than the absence of illness. It is also quite clear that people's well-being is linked to more than their physical health, although this is a basic part of it. A difficult general life situation over a prolonged period of time may be a strain on the physical and mental health for most people. In North Korea the situation is difficult, and has been so for quite a while. The everyday life of people is characterized by insufficiencies in: food supplies, heating and lighting of flats and houses, public transportation, and medical treatment.

It seems clear that this generally very difficult situation must affect people negatively and take a toll on their well-being. One aspect that may help people endure hardships is if they see it as inevitable, as inflicted upon them from outside forces. According to available information in North Korea, this is the case. In previous chapters we have discussed the political situation in the country, and most observers agree in seeing the North Korean population as politically loyal.

In the following pages we will focus on the present situation within the health sector in North Korea in order to provide a general overview of the sector and in particular to point at areas where international humanitarian aid is needed.

The present health care situation

It is inevitable that the health situation in North Korea is strongly affected by the economic collapse and subsequent widespread malnutrition. Before the present crisis, the health care in the country was good, even compared to international standards, and it was in many respects ahead of the South Korean System. But in the late 1990s the situation deteriorated and although the infrastructure and staff were left intact, the lack of medicine, medical instruments and not least the lack of energy created a critical situation.

The infrastructure

The latest available figures regarding the health infrastructure shows that in 1995 North Korea had 2,342 hospitals and 4,999 clinics, 229 sanitary and epidemiological stations, 131 sanatoria and 225 medical drug management agencies. There were 136 hospital beds per 10,000 populations.¹⁴⁸ These figures have hardly changed dramatically in ten years, although the efficiency of the system in some areas may have deteriorated and in other areas it may have improved. Overall one can observe a depleted capacity of the health care system, since there have been no new investments in it since the early 1990s. Nevertheless, the existing physical infrastructure in the health sector seems to adequately serve the distribution of health services to the North Korean population.

This assumption is supported in a recent UNICEF publication,¹⁴⁹ which states that the North has a very extensive network of health care institutions and

¹⁴⁸ WHO, 2002, Country Health Profile, DPR Korea, p. 4.

¹⁴⁹ UNICEF, "Analysis of the Situation of Children and Women in the Democratic People's Republic of Korea" (Pyongyang 2006).

providers, which includes household doctors attached to every work team, one per 130 families, as well as health clinics and hospitals covering both cities and the countryside, and more specialized institutions covering counties and provinces. The health system is equally prophylactic and curative, and women and children are offered special support.¹⁵⁰ In North Korea the ratio of doctors to population is 317/100,000 compared to 162/100,000 in China and 48/100,000 in Vietnam¹⁵¹ and unlike in most developing countries urban-rural disparities are minimal. If one compares the proportion of births attended by skilled health personnel in the above mentioned three countries, the WHO figures (in percentages) are: 85 for Vietnam, 83 for China, and 97 for North Korea.¹⁵²

This health care network, which is free of charge by law, is described as a major achievement and an advantage in the provision of health care to the population. The problem here, however, as in other sectors, is lack of resources: "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."¹⁵³

Present health problems and international aid

The North Korean nuclear test in October 2006 and the negative international reaction to this may obviously have grave consequences in the health sector. In a recent donor update UNICEF states that only 46 percent of the funds appealed for to North Korea in 2006 were met, and the organization "strongly advocates that the right to survival and development of Korean children should not be negatively impacted as a result of UN sanctions and calls donors to continue supporting essential basic social services for children."¹⁵⁴

It is common knowledge that in the population infants and small children, their mothers and old people are those most vulnerable to the development of diseases. According to a recent UNICEF background report, chronic malnutrition and underweight rates among children in North Korea remain high.¹⁵⁵ The following 2005 figures illustrate the seriousness of the problems:

- About 20 per cent of children under the age of two suffer from diarrhea caused by contaminated water and poor hygiene practices.
- About one third of mothers are malnourished and anemic.
- Lack of high-quality obstetric care contributes to a reported maternal mortality rate of 110 deaths per 100,000 live births.¹⁵⁶

Compared to the situation in 2002 there has not been much improvement.¹⁵⁷ This does not imply that nothing has been achieved. UNICEF and World Food Program (WFP) have run an extensive aid program focusing on children and mothers. Their vaccination programs have been successful. More than 90

¹⁵⁰ Ibid: p. 76.

¹⁵¹ Ibid.

¹⁵² www.who.int/reproductive-health/global_monitoring/data.html.

¹⁵³ "Analysis of the Situation of Children and Women in the Democratic People's Republic of Korea" (2006), p. 40.

¹⁵⁴ UNICEF Humanitarian Action, DPR Korea Donor Update, 8. December 2006.

¹⁵⁵ www.unicef.org/infobycountry/korea.html

¹⁵⁶ *ibid.*

¹⁵⁷ *ibid.*

percent of children under the age of one have been vaccinated against tuberculosis, polio, measles and hepatitis B, and 80 percent have been vaccinated against tetanus, pertussis and diphtheria. Two million children under five years old have received shots of vitamin A, and de-worming tablets. Moreover, 3,000 severely malnourished children received lifesaving emergency assistance (2005) and 2 million children and 300,000 pregnant/lactating women received vitamin-fortified food. Finally, more than 5 million people were provided with clean water by improved water treatment systems.¹⁵⁸

The above immunization programs, the emergency actions as well as the prophylactic projects (water and sanitation) carried out by UNICEF and WFP were successful due to the long term commitment of these organizations and due to a close cooperation with North Korean authorities. However, the economic difficulties and especially the energy shortage have directly undermined the health system when it was most needed. The UNICEF analysis points to the fact that North Korea previously produced its own drugs, but due to economic problems these factories now "run well below their potential"¹⁵⁹ and the country is dependent on external support for even the most essential and basic drugs. An example where the energy shortage directly influences efforts of preventing diseases is exemplified in the immunization program. Prior to 1990 this program was effective, and the UNICEF report refers to it as "A major area of comparative success".¹⁶⁰ However, a lack of equipment and shortage of electricity to power the cold chain has made it impossible to ensure that vaccines are kept at a low temperature to secure their potency.

In the UNICEF Donor Update warnings are voiced concerning present difficulties in keeping up with the good work. The organization states that: "The current overall reduction in international assistance risks compromising the progress made over the past decade."¹⁶¹

A third humanitarian organization which has maintained a constant presence in the country since the first appeals for international aid is the International Federation of Red Cross and Red Crescent Societies (IFRC). Of particular importance is the widespread presence of local R.C. groups, comprising more than 300,000 volunteers in North Korea. Hereby community based assistance and development is possible and effective. The Federation focuses on providing clean water and sanitation facilities, access to health care (local first aid stations), and disaster preparedness.¹⁶²

The village based assistance takes a holistic approach of trying to improve the whole life situation for vulnerable people. This means that the building of flood barriers can be seen as preventive health care, because the frequent flooding used to mean that clean water sources were contaminated, commonly resulting in waterborne diseases.

¹⁵⁸ *ibid.*

¹⁵⁹ *ibid.*

¹⁶⁰ *ibid.*

¹⁶¹ UNICEF Humanitarian Action, DPR Korea Donor Update, 8. December 2006, p. 2.

¹⁶² Laatio, Helena, 2006. "Rural villages in DPRK benefit from community-based assistance", available at <http://www.reliefweb.int/rw/RWB.NSF/db900SID/AMMF-6VQF2S?OpenDocument>, Nov. 20, 2006.

Another important part of the R.C. aid is to provide hospitals with medicine and utensils - they deliver a "basic kit". Without this support, as well as coal for heating in wintertime, many hospitals could not function at all. With this support, they function on a low scale. Usually the maternity ward is the only heated area at the hospital in wintertime. The Norwegian Red Cross has realized this acute problem and has provided coal to hospitals with positive effects: "Testimonial evidence indicates that the provision of coal for heating hospital facilities during the winter months had a very positive impact on their operational efficiency."¹⁶³

Central (international) representatives for the Federation in Pyongyang confirm that the assistance work in the rural areas is successful due to the local volunteers, and concede that the cooperation between international and national representatives functions well, considering the rigidity of the overall system.

A central IFRC representative stresses that one important and often overlooked aspect of the local assistance is the improvement of people's awareness with regard to hygiene and sanitation. Even if there are problems in providing clean water, they know how to deal with that situation. This knowledge is invaluable.

Local, traditional knowledge

Another fundamentally important insight when trying to grasp the life-situation for people in North Korea is their world outlook, their beliefs and ideas about life and death, their values and norms that guide their understanding as well as their aspirations for the future. This aspect has hitherto been almost totally neglected among donors and aid workers and accordingly the following pages will draw a brief sketch in order to provide the reader with a basic understanding of this huge and difficult field. In the communication between donor representatives and aid workers on the one hand and North Koreans on the other, system representatives and civilians alike, the cultural difference is as important and difficult to bridge as the language barrier.

The spiritual world, the self-perception and health beliefs

As a declared communist country, North Korea is usually perceived to be a non-religious, materialistically oriented country with a population strongly affected by communist, ideological socialization and education and thus indifferent to religious creeds. This basically captures the official picture; but it misses a very important part of the Korean perception of self and society, an insight without which it may be difficult to understand and to deal with health issues and care in a Korean context.¹⁶⁴

Perceptions of self and society are clearly created, but not at will. We are dealing with a historical construct, real as any artifact, but invisible and intangible. Traditional ideas, values and norms linger on, and where little

¹⁶³ IFRC Programme Update for DPRK, 6 October 2006, p. 7.

¹⁶⁴ The following is based on: Helgesen, Geir, 1998, *Democracy and Authority in Korea. The Cultural Dimension in Korean Politics*, Richmond, Curzon Press.

foreign influence has affected people, as in the case of Korea, the past is even more important in order to understand the present.

The religious world of the Korean people is not focused and monotheistic as in the Christian West but broad and pluralistic. The original religion was animism, where the whole of nature is seen as having spirits, including rocks, trees, plants, animals and inanimate objects as well. The most important spirits are the ancestors, and unhappy ancestors can cause misfortune. A shaman can make contact with these good or evil spirits, and shamanistic rituals are a fundamental aspect of Korean religious activity.

The shamanist ancestor worship linked well with Confucianism, a social morality and a social-political norm-system originally imported from China, but which took root and developed stronger in Korea than in any other East Asian country. The more than 500 years of the Korean Yi Dynasty (1392-1910) was fully Confucian in that both the state ideology and the social morality were based on the creed. The family-centered teaching of Confucius, with its stress on hierarchy and education, and of patriarchal leadership, is a foundation of the present collectivist and leader-oriented North Korean society.

Buddhism, also an import from China whereof it came from India, was received favorably in Korea although at times it competed with Confucianism for social and moral impact on the wider society. Buddhism, that saw life as a continuing circle of sufferings, promoted disengagement from material wealth as well as from people, and saw the final ascendance to "nothing" as the aim of life. This religion promoted stamina and acceptance of hardship as a life condition. Buddhism was nevertheless affected by shamanism and Confucianism and is why ancestor worship became a part of the creed in Korea.

Christianity came to East Asia with Western missionaries. Their success was limited in China and Japan and initially in Korea as well. But the missionaries brought new knowledge in medicine and education, and during the colonial period many of them sided with the national resistance, so they managed to stay and finally base their creed with the pluralist oriented Koreans. However, the Christian belief that exists among Koreans is strongly marked by animism/shamanism and Confucianism, as well as by Buddhism. It is not far-fetched to point at the leadership cult in North Korea as being partly modeled on the Messiah figure in Christianity.

This religious and philosophical tradition has been communicated through primary socialization in the family, from generation to generation, and in formal and state organized education for about one thousand years. The world outlook, and the basic understanding of self and society, is thus fundamentally affected by the above mentioned traditions. This is not to claim that each and every Korean, from North and South alike, act and think exactly the same way and relate to the world today as they did in the past. However, disregarding Korean cultural roots may be offensive and can create misunderstanding as well as prevent mutual understanding that is necessary for cross-cultural cooperation. It is for instance vital to acknowledge and respect Korean communication patterns when in contact with patients in the health care setting to promote rapport and ensure compliance.

Below are a few examples of Korean communication patterns:¹⁶⁵

- Eye contact, especially between people of different genders and ages, may be uncomfortable.
- People may be comfortable with quite long periods of silence, and while serious conversation is highly regarded, small talk is seen as pointless and possibly as a demonstration of lack of intelligence as well as respect.
- Communication of feelings through non-verbal, facial expressions is uncommon. (Smiling at inopportune times represents a lack of respect and of intelligence).
- The non-translatable word 'kibun', which can best be understood as mood, feelings and a state of mind, is of great importance in understanding social relations. In a relationship it is always oneself who is responsible for maintaining the other's 'kibun'. Disrespect may easily destroy a person's 'kibun'. ("Face" is a similar but not so comprehensive cultural expression).
- Touching another person's body is poorly accepted in Korea. In relation to health care, touching is accepted if it is a required part of the treatment, but "therapeutic" touching may not be accepted.

Diet and health

The traditional diet in Korea consisted of vegetables, rice and small amounts of fish or meat. Among the three daily meals breakfast was seen as the most important. Kimshi, a hot, fermented cabbage was, and is, a very important side-dish to all meals. Common seasoning includes garlic, ginger, red and black pepper, soy sauce, green onion and sesame oil. If available, ginseng is used as a common additive to food. Ideas about the curative effect of different kinds of food are widespread and dishes are often served with comments such as: this is good for your stomach, this for your liver, this for your eyes etc.

Beside this firm idea of "food as medicine", illness is often attributed to disharmony in the natural forces e.g. yin and yang. A yin related illness is cold and a yang related illness is warm, and treatment is given through the use of the opposite force. A common cold is thus best treated with hot soup (made from bean sprouts). Congestion can be cured by adding dried anchovies, hot spices and garlic to the soup.

In times when malnutrition and even hunger occur in the country, and a proportion of the population depends on humanitarian aid, the donors should bear in mind how people in Korea traditionally see food as more than just something to fill the stomach and try to provide what is seen as nutritious and curing.

Traditional medicine

Herbalists and herbal shops are widespread in Korea, where traditional medical treatment is based upon physical assessment and observation of

¹⁶⁵ The following is based on: Kemp, Charles, Korean-American Health Care Beliefs and Practices, http://www3.baylor.edu/~Charles_Kemp/asian_health.html

behavior. In Korean traditional medicine metaphysical and cosmological means of treatment are utilized. There is extensive use of herbs, cupping and moxibustion (the burning of a soft material under a "cup" at specified spots) and acupuncture. When traditional medicine is used at hospitals the practitioners are medical doctors with a basic education within what is termed Western medicine, and after that they have an additional three year's traditional training.

Outside hospitals there may be folk practitioners, usually shamans who heal the body and soul by spiritual service as well as by the use of herbal medicine. In folk medicine illness is seen as a problem of disharmony and the shaman's service is offered to restore the harmony. While the physician is seen as powerful and trustworthy, the shaman has a very low status and may often only be approached as the last resort. In modern Korea, North and South, the usage of folk medicine and the practice of shamans as healers may be played down or flatly denied, as it is seen as a remnant from the past. Folk medicine is nevertheless quite widespread and more or less professional shamans practice in both parts of Korea.

The above brief introduction offers a glimpse into traditionally based ideas and views which are seen as relevant for how Korean people understand social interaction in general and illness and its treatment in particular. A much more detailed study is needed in order to equip foreign health workers in Korea with sufficient knowledge of this field. It is our hope that what is offered here is enough to demonstrate that there are some important differences that must be acknowledged and respected before cross-culturally communication – also regarding health care – can be successfully accomplished.

Conclusion

One could rightly state that a main problem of the North Korean health sector is lack of resources. This may seem to be a banal statement, but it also implies that there is a health sector, and with both infrastructure and personnel existing, it is imperative to include this sector and to cooperate with it if foreign aid is going to be successfully channeled into this field.

In dealing with the North Korean health system from a foreign aid perspective it is worthwhile remembering what the then Director General of the World Health Organization (WHO) Gro Harlem Brundtland said after a visit to the country in 2001: "International donors who look at meaningful assistance to DPRK should pay special attention to the health sector."¹⁶⁶ The press release also stated that Brundtland was "impressed with the resolve of the health ministry and the local health personnel to make the best out of the limited resources available."¹⁶⁷ One fundamental good reason for making the health sector a priority for foreign donors was that "the basic health system structure traditionally reaches out to all communities and [thus] is a good building block for the future."¹⁶⁸

¹⁶⁶ Press Release WHO/50, 20 November 2001

¹⁶⁷ *ibid.*

¹⁶⁸ *ibid.*

Assisting the health sector

Norway should base its health care aid on people's right to survival and on a general concern for the humanitarian situation in North Korea.

Norway should continue to support the health sector through the current Red Cross activities in North Korea. For the time being energy to hospitals and clinics is of paramount importance, and so is the delivery of a "basic kit" with important medicine and basic tools for the health care system.

It is also important from a health care perspective to help North Koreans with their extensive water and sanitation problems. This is both an urban and a rural problem, and support can be given at the national as well as local level. It is recommendable to join already established projects.

Chapter Nine: Change in North Korea, and how to assist it

In this concluding chapter we will point at important features of North Korean society and discuss the options for change. First we will look at proclaimed changes in the agricultural sector, as an example of existing difficulties in changing long standing traditions. Then we will briefly mention a serious obstacle for change, namely the securitization of society, which has been the main reason why nothing much has changed in that society. Recently a long awaited breakthrough in the Six-Party talks have started a process that ultimately may alter the security landscape in North East Asia, and fundamentally place North Korea in a new and much more favorable position with regards to reforms and change. Finally in this chapter we will discuss options for change based on the hard won experiences of a Norwegian company¹⁶⁹ which has endeavored to establish joint ventures with North Korean companies. In this section the practical consequences of the above mentioned mentality will be exemplified.

How much will actually change?

An example from the agricultural sector can illustrate the complexity in designing a viable path for North Korea. According to the Bank of Korea (Seoul), each North Korean farmer's family now has the opportunity to expand ten fold the land they cultivate privately. This was reported in the wake of the 2002 economic reform, and as such it was a decision by the highest political authority. Nevertheless, this information could not be confirmed during our visit to North Korea in late 2006. What we heard, and saw, was that families cultivate steep hillsides and other places where the cooperative finds it difficult and non-profitable to grow vegetables, corn or other crops. What the Bank of Korea saw as the beginning of a fundamental change in North Korea's agricultural economy may have been ideas on a piece of paper, and not much more. Whether this is a sign of reform difficulty, or rather of mistaken expectations is difficult to say. We tend to believe the latter. The planned economy is still dominant, and this will probably not change in the near future

As we have underlined in the chapter on North Korea's agriculture, cooperatives in North Korea tend to be based on traditional modes of cooperation rather than on Marxist or communist ideas of agricultural production. It has always been necessary for people in the countryside to help each other and work together. This happened when they built houses, during the harvest, and most importantly when irrigation channels and irrigated fields were prepared for sowing. Instead of waiting for an unrealistic privatization of agriculture, it might be more important to ask what can be done to modernize and rationalize the cooperatives and make them work better, so they can produce the much needed provisions.

Although cooperatives most likely will survive, it does not mean that reforms and change have no place in the country's agriculture. International

¹⁶⁹ The company shared information with us on condition of anonymity, since they have an ongoing cooperation in North Korea.

assistance is needed and appreciated, and it is a positive factor that the North Koreans apparently make quite good use of the assistance they receive. We have interviewed NGO representatives with working experiences from different parts of the world who underline that the North Koreans are hard-working and inventive. In particular, they are very good at repairing tools and machinery, in order to make them last far longer than would have been the case in most other countries. "Sometimes we can't recognize the machinery that we delivered", one aid worker said, "but whatever they did to it, it still works." This ability is good for a poor country, but there may also be negative effects of this capability. For instance, North Korea also produces tractors, trucks and jeeps, based on early post-WWII Soviet models. These vehicles work, but they are not particularly effective and are absolutely not energy efficient and it would be better if they were replaced with more modern alternatives. The balance between frugality and backwardness is subtle, and must be negotiated between the farmers and the international donors.

Due to the present scarcity of resources, frugality is a must. It is also partly due to a great sense of pride. Regardless of the shape and quality of the machinery, if it is home made it is good. Such an attitude may be explained by a combination of indoctrination and extreme isolation, but also a kind of inferiority complex not often discussed in international relations, but still of significant importance. The biggest problem now within North Korea is thus probably related to the mentality that the system has imbued in the whole population. This stands in the way of change, and change is needed.

Some of the problems discussed above are due to the isolation of the country, some to the general lack of resources, and some due to traditional and/or orthodox communist thinking. But the most important reason why several reform initiatives remain undeveloped plans is related to the security situation.

Securitization

The North Korean leader has said that the new situation demands new ways of thinking. However, any new thinking which reaches the security ceiling will immediately be curbed, if it has not already been stopped by self-censorship. This happens because it may be judged as dangerous or as a challenge to the leadership. To challenge the leadership is seen as benefiting the enemy. In a situation where the North Korean authorities feel threatened all new ideas are easily related to or defined as a question of security. Because of this their take on reality is subject to this special logic, where all issues - economic, political or ideological - are subordinated to one consideration: security.

As long as this situation prevails, the inflexible system will be maintained. This system included restriction of movement, division of the population in different groups according to their assumed level of loyalty, mobilization of people (including schoolchildren) to mass meetings and mass parades in honor of the leader and the state. Ideological training enables everyone to correctly understand the society and the surrounding world, keeps them from receiving contaminated information from the West, and controls, controls, controls.

To think new thoughts in this environment may be close to impossible, which is why a new security environment and new relations to former enemies must

be developed before North Korea as a country can prosper, and before the North Korean people can be part of this prosperity.

Six Party breakthrough - and then?

The goal of the six parties concerned was a denuclearization of the Korean Peninsula, but included in the agreement was a number of issues that hitherto had stalled the talks and made even a dream of an agreement far fetched. What was reported out of Beijing on February 13th 2007 was a surprising draft agreement between the parties, especially of course between the USA and North Korea.

It is not inaccurate to say that Washington made the biggest concessions seen in the light of earlier disagreement between the parties. The reason for this does not concern this report. What is clear is that the parties agreed on the end goal and that they also agreed to act in a phased manner, "action for action". North Korea is ready to "shut down and seal for the purpose of eventual abandonment"¹⁷⁰ its nuclear facilities, and to accept inspection of all of them.

Although the nuclear issue has had top priority among the other countries, for North Korea this may be less important than other aspects of the agreement. One long-standing demand of North Korea has been to be removed from the list of countries sponsoring terrorism. This will happen now. The US will also abolish the Trading with the Enemy Act with respect to North Korea. And last but not least: the parties will start bilateral talks aiming at moving towards full diplomatic relations. This has been on the North Korean wish-list for a long period of time. Less importantly, the same agreement relating to the establishment of full diplomatic relations applies to North Korea - Japan relations.

The oil for bombs agreement (North Korea have initially received 50.000 tons of heavy fuel oil, and will later receive 950,000 tons) may seem spectacular, and it was also what the media first focused on, but much more important is what has been mentioned above regarding relations between the parties. By establishing full diplomatic relations the probability of the opening of a comprehensive US support program exists, and from Pyongyang's point of view this may be the most crucial part of the deal. And almost equally important is that the parties, primarily the USA and North Korea, have agreed to negotiate a permanent peace regime to succeed the ceasefire treaty of 1953 (something that North Korea has suggested time and again in the earlier fruitless dialogues with its enemies).

Critical voices have pointed at all the many possible obstacles to this draft agreement, and at all the many agreements in the past that failed to be realized. This doubt is understandable, and may be seen as a realistic approach to this "never-ending conflict". However, this time the parties have agreed on a schedule and a timetable, and they have also agreed on a working method where all the main issues will be dealt with separately in working groups, operating independently of each other and reporting directly to the Six-Party heads of delegation. These are important practical measures

¹⁷⁰ Quotation from the draft agreement provided by the Chinese foreign ministry, see Appendix in this report.

for keeping the dialogue alive. Crucially in this connection, the parties have reaffirmed that they will take positive steps to increase mutual trust.

With little or no mutual trust, it is realistic to judge this broad agreement as unlikely to produce anything but more words, more negotiations, and, after another breakdown, more distrust. If this evil circle is to be broken, however, now seems to be the time. The fact that the February 13 Agreement still stands, despite occasional obstacles and habitual delays, seem to us to be a good sign.

In an optimistic view what this agreement can achieve is the beginning of a changed political climate in North Korea. As a result the securitization of North Korean society may be lessened. More aid and other forms of assistance and thus more foreigners will help to ease the political climate in the North. More North Korean students in foreign countries will push in the same direction. And the more success due to foreign supported activities in the North, the more positive views ordinary people will acquire with regards to foreigners and new thoughts in a new world.

North Korea is, however, an extraordinary challenge. In this report we have emphasized why and how North Korea is a different and quite peculiar case. In the following we will discuss some of the practical problems this brings about by referring to the experiences a Norwegian company has shared with us. We will describe what the company has gone through, their considerations regarding this and then our reflections. This will be done in some detail, because their experience can help others to avoid similar hardships, and also because these experiences illustrate the difficulties in matching people and institutions from a closed society with their counterparts in an open society.

A Norwegian company's experience with North Korea

The relevant company has been trying to establish activities in North Korea since 2000. In the beginning much time and energy, as well as money were used to examine opportunities and difficulties in this quite closed and isolated country. Among the projects that were considered the following shows the breadth and scope of the possible activities: upgrading and refurbishing of shipyards and hydropower stations; pig breeding and poultry farms; fish breeding; mining activities and manufacturing companies. Existing projects were visited, evaluated and remedies suggested. Often plans were drafted with technical specifications and economic needs.

In particular, fish breeding projects were developed in detail and over a longer period of time in collaboration with North Korean counterparts in the field. Over a period of two years the company used about 2.5 million NKr of their own money for research and technical preparations. Based on this preparatory work, an agreement was reached with the North Korean counterparts regarding the establishment, operations as well as earnings and risks. In this project the comparative advantage was the natural conditions which are probably the best in Asia for fish breeding and aqua culture industries. And it was also seen as an advantage that huge markets are located within a comparatively short distance.

The project was to be designed and established according to the Norwegian company's instructions, and the operations including product export would

also be their responsibility for a period of ten years. Investment and operations costs would be shared 50/50, and the ownership was 51 percent to the Korean partner and 49 to the Norwegian company, with a Norwegian chairman of the board with a double vote. Both partners agreed to establish a reserve of two million US\$ (one from each) and to reinvest part of the profit to expand the facilities and production. The agreement was signed in 2004 and the facilities were due to be built during 2005.

However, the project has not materialized due to a series of unexpected problems. For one thing the North Korean diplomat in the embassy's trade department, who was the contact person for the Norwegian company, defected. Then the North Korean counterpart wanted to reduce their economic investment in the project, which the Norwegian company accepted provided the North Koreans took care of the infrastructure and buildings. Furthermore there was a delay in the North Korean investment, because they wanted to receive all technical details of the project before they would transfer any money. The Norwegian company declined. Then it was reported that the North Korean counterpart was unable to continue the cooperation, and that a new company would take over without consulting the Norwegian company. The Norwegian company saw this as a "hostile takeover", but they also understood that the project had become prestigious for the North Koreans to the extent that the state leadership in one way or another had been involved.

During the period of problematic consultations several other companies tried to take over the project, and the North Koreans also turned to other foreign investors, in this case Taiwan, who apparently was more "cooperative", that is: had fewer demands. After this quite tumultuous period the North Korean counterpart nevertheless showed up with a delegation in Norway to re-sign the contract, and at the time of writing it is agreed that the building of infrastructure facilities will start in 2007.

Another project that the Norwegian company has focused on, together with North Korean authorities and counterparts, is a pig breeding facility. In this case the comparative advantage of North Korea is cheap labor and, as in the above project, a geographical location close to huge markets such as China, Japan and South Korea. The project was also promoted in South Korea where the Norwegian company had meetings with both the foreign ministry, investors in the same field as well as with the most important South Korean private investor in North Korea: Hyundai ASAN. The South Koreans supported the project. As part of the project it was agreed that apartments should be built for the employees and a kindergarten and a school for their children. It was also agreed that the production facilities should be first class; these included a slaughterhouse and a cold-storage plant.

Ownership shares and investment etc. followed the above described fish breeding project. Investment from each side was stipulated at 2.5 million US\$, with one million each in reserves deposited in a foreign bank. Of the production (10,000 pigs for breeding) 90 percent was meant for export, 10 percent and the intestines for the local market. In addition some of the production was targeted to improve the genetic material in the country. By introducing the right breeding material, using top quality imported food, and by being on location with supervisors, the Norwegian company saw this as a chance for North Korea to develop its capacity within this field, and establish

itself as a main producer of quality meat for the region. The agreement was signed in 2003.

The Norwegian company contacted a Danish contractor for the delivery of buildings and facilities. When this agreement was made, the papers were sent to the North Korean partners. Instead of accepting the agreement, however, the Koreans approached the Danish contractor to buy the equipment directly. The Norwegian company became aware of this only because the Danish contractor informed them immediately. This led to new negotiations where the North Korean counterpart demanded a sophisticated automatic feeding system at a cost of 50,000 US\$, to be borne by the Norwegian company. It was impossible to convince the Koreans that this, from an economic point of view, would be unreasonable, as one of the comparative advantages in North Korea was the cheap labor. They wanted state-of-the-art facilities and nothing less. The argument was that this was a must, because the system was on the photos of the pig breeding facilities that they had seen. The Norwegian company refused to carry this extra expense.

These were tough negotiations taking place in Oslo. Negotiations were expected to continue the next day, but the North Korean delegation did not show up. The apartment where the NK delegation stayed was empty. They had left. Where? They went to Denmark, to the Danish sub-contractor, whereto the Norwegian company decided to follow them. The Koreans' reason for the abrupt departure was to invite the Danish company to invest in the project. They accepted, and now the second pig breeding facility is under construction. According to the Norwegian company, it is operated under Korean supervision, and from visits the operations seemed less than optimal.

General problems in joint ventures

The following reflections generalize what we have learned from representatives of different foreign companies with activities in North Korea. Although the Koreans dealing with management and production apparently understand that a 50-50 ownership may be acceptable and even advantageous for NK, this is not understood, or accepted, at higher levels. Here the opinion is that foreign companies should invest the full amount and take all the risk.

Another problem is lack of communication between different companies. Everybody plays with hidden cards, and there is no knowledge sharing between companies within the same field. Every company tries to be the best, to demonstrate this to the leadership, by introducing the newest technology etc., and in practice they are less interested in whether this will work after the opening ceremony. This happens again and again, and a huge part of the investment is spent on prestige rather than on what is needed and necessary for an effective production.

An experienced foreign businessman explains: We have had North Korean delegations visiting our company to inspect the facilities. They have then seen sophisticated installations, taken photos and shown these to their leaders. Based on what they have seen these leaders develop certain expectations. When we then specify durable installations with a high degree of the use of manpower, there are problems in having the necessary approvals and

signatures.¹⁷¹

After an optimistic although prolonged period of investigations and negotiations ending with agreements and signatures, the above mentioned Norwegian company's North Korea projects seems to have an uncertain future. For one thing, it is difficult to know whom one is planning a project with. To be acquainted and develop some mutual trust is necessary for a business partnership to grow and prosper. It is also, from a Western point of view, impossible to conduct business if agreements and contracts time and again are overruled or continuously changed. The idea of keeping a partner in the dark about alternative business ventures as a substitute to the one both parties have committed themselves is unacceptable.

Several foreign companies have invested both money and manpower in North Korean prospects, without success, and they express disappointment and hesitation in continuing the relationship. In an effort to make things happen they have in vain tried to pressure their North Korean counterparts, leaving them in doubt regarding the future. It is well-known that foreign partners have been expelled from the country due to disagreements. Thus one must conclude that there is a risk involved in investing in North Korea. A possible solution could be to create some sort of mixed credits where public funds could be available to secure at least part of the private investment.

Further reflections upon the hard won experiences

The Norwegian company has certainly played a pioneering role in their efforts in North Korea. A difficult market has been explored and difficult partners dealt with. They have acted according to well established international norms in trade and cooperation, and have not spared themselves in showing a serious and committed attitude as future partners for a developing economy. Yet the result is quite unsatisfactory leaving the company in doubt whether their efforts have been worthwhile.

From our point of view the Norwegian company is commendable and what went wrong can only indirectly be attributed to their actions, or rather planning. It is probably not possible for a private company to operate in a country like North Korea single handed. They conclude that cooperation is needed with state institutions to avoid total losses. We support this viewpoint, but will add that there are other reasons why mixed credits and mixed responsibility should be realized in cases like North Korea. Operating in foreign markets, one also operates in foreign and unfamiliar cultures. What is right and true, and acceptable business practice in one part of the world is not necessarily so in another. In the case of North Korea, as we have sought to describe and explain in this report, good conduct and moral behavior is not a copy of ours. We may be right and they are wrong, but if we want to help North Korea into the world community, we must give them time to learn the art of international business relations. In the meantime we must learn to relate to their ways. Not because we should accept everything and excuse it as a question of culture, but in order to assist their difficult voyage from isolation to globalization. Such assistance will never be the duty of a private company, but may well be the ambition of a country's foreign policy.

¹⁷¹ The interviewed businessman who shared his experiences with us spoke on the condition of anonymity.

Thus, to enter this highly difficult field a close cooperation between private and state institutions is necessary, and part of what the state can contribute is academic insight into culture, cultural differences and cross-cultural communication.

What academics can provide in this field is some guidance to understand "the other's" attitudes and behavior, some explanations that may put the Norwegian or any Western actor in a position to comprehend and relate adequately to sayings and signals that otherwise may be "lost in translation". Based on the problematic experiences of the Norwegian company, we suggest that the following is taken into consideration:

- the relative insignificant role of written contracts,
- the importance of personal relations to the right people,
- the difference between a political signal and a practical suggestion,
- the problem of creating "face-losing" situations, and
- the need to be sensitive with regards to how politics restricts cooperation.

These suggestions would not necessarily help the given company to avoid all the problems they have encountered in North Korea, but it would probably have made it easier for them to find the right response and thus the chances to reach sustainable agreements with the counterparts would have been better.

Also of utmost importance for a private company dealing with North Korea would be the power and authority stemming from its link and cooperation with a Norwegian state agency. Without such a backing the North Korean partner may well feel superior with his state apparatus behind him, while his foreign partner just has to rely on himself. The North Korean actor sees himself as working for the fatherland, for the state and the supreme leadership, at any rate for a higher purpose, while he cannot help but see the foreign partner as working for a lower purpose - something he has learned to detest, namely profit. In this relationship the North Koreans feel on a higher moral ground and whatever they do is done in the interests of the people etc.

How to contribute to promoting change in North Korea?

North Korea has only recently left the location of the "outpost of tyranny" and its membership of the "axis of evil". We have pointed at the positive developments in the Six-Party talks as a new beginning for North Korea. To move away from a cold war situation with an aim of developing neutral or even friendly relations demands a lot from all parties. In the past a war and a lengthy period of division and hostility created the worst possible relations between the parties, and these relations were painted even bleaker by ideologies and propaganda aiming at producing a picture of the other, the enemy, as mean and inhuman. Such ideologies had much success on both sides. In reality the East Asian countries have more in common with each other than has hitherto been admitted, and in order to deal with North Korea in this problematic situation, where continuity and change are struggling for domination, it is important to compare with developments in the neighboring countries.

Seen from outside, in this case from a European or Nordic position, the North Korean "military first" policy still sounds alarming, threatening and inappropriate from an economic point of view. The alarming and threatening part of it is linked to the hitherto hostile relationship especially between North Korea and the USA. Whether it is disadvantageous from an economic point of view, however, is more doubtful. The Norwegian company who shared their difficult experiences with us maintains that in practice the companies with success in North Korea are owned by the military as the military establishment has wider freedom to operate. The development in all three neighboring countries (China, Japan, and South Korea) has passed through periods of authoritarianism with similar policies prioritizing the military and with hostile relations with the West.

North Korea is a latecomer, still authoritarian, still putting the military first, and still with problematic relations with the West. This is now, however, slowly changing, and Western countries are in the position of contributing to speeding up this positive process. Communication and ways of relating to negotiations and agreements are different and a big challenge. Also different is what is seen as important in concrete development projects: the practical workability or the fact that everything has to have a state of the art standard. We have mentioned and discussed this above, but will add here that during its development process South Korea had several disputes with Japan because it was disappointed that Japan refused to provide its newest technology to joint-ventures with South Korea. Other examples of earlier South Korean practice in international relations were where companies bought support from people, institutions and countries, if the reason was important enough, such as the national ambition of the country with regards to a sports event.

Today one can hear North Korean government officials high up in the hierarchy expressing statements like: "I will not change, but younger people will". And it is possible to meet younger people, also in the bureaucracy, who exemplify this generational difference. North Korea is sending students and academics abroad to learn how to deal with the world outside North Korea, and they may well become the backbone of reform in their own country.

The nationalistic pride and the cult of leadership have been imbued into the body and the mind of the North Korean people. It has served a purpose, now it is basically counterproductive. It is nevertheless a strong feeling and as such it can not be erased at will. We have heard people in North Korea criticizing the fact, that the land that "we fought for, inch by inch with our blood, now is given away to South Korean capitalists." But these same people are affected by meeting foreigners and hearing about the rest of the world which for them hitherto was depicted as a version of Hell. The change may be slow, and setbacks may arise but instead of regretting the pace, one should realistically see this as an advantage. A fast change cannot be carried out by people immersed in the old system, and it may even create a mental crisis for a majority of the population.

Our advice would be to accept that the necessary change follows the generational change and to help the younger North Koreans to acquire the necessary skills and a broader world outlook to enable them to be a part of the global society.

Appendix A: Institutions Visited and People Met/Interviewed in 2006

MINISTRY OF FOREIGN TRADE, D.P.R. KOREA

- Ryu Kyong Suk, Director (European Dept.)
- Ri Chol Baek, Section Chief (Nordic Countries)

STATE PLANNING COMMITTEE, D.P.R. KOREA

- Li Son Sin, Section Chief for Energy (Dept. of Economic Research)
- Jang Su Oh, Official (Dept. of Economic Research)

MINISTRY OF ELECTRICITY INDUSTRY, D.P.R. KOREA

- Yun Dai Jong, Director (International Relations)
- Hong Jong Hui, Manager (Dept. of Foreign Economy & Co-operation)

KOREA COMPUTER CENTER

- Kim Chang Ryop, Director (Marketing Dept.)

PYONGJIN BICYCLE J.V. COMPANY

- Pak Song Gun, President

KOREA JONGSONG PHARMACEUTICAL INSTITUTE

- Vice Manager and two employees

KAESONG INDUSTRIAL PARK

- Kim Sang Won, Chief Councilor, General Bureau for Special Development Zone
- Choe Gyong Jin, Official, Kaesong People's committee (Section for external affairs)

SHINWON EBENEZER KAE-SONG

- Hwang Woo Seung, President

EMBASSY OF SWEDEN, PYONGYANG

- Mats Foyer, Ambassador
- Ingrid Johansson, First Secretary

CHILGOL COOPERATIVE FARM, MANGYONGDAE COUNTY

- Chairman of Chilgol Cooperative Farm

KOREA PAK HO 7 TRADING CORPORATION

- Kim Man Bok, President
- Ryo Un Ryong, Director
- Kim Yong Su, Manager
- Han Un Ju, Manager

KUBIN STOCK FARM, KANGDONG COUNTY

- Kim Il Hwu, Chairman of Cooperative (Kubin Stock Farm)
- Kim Jin, Chief for work team at Milk Processing Shop)

KORYO MEDICAL ACADEMY (PYONGYANG)

- Hyon Chol, Vice Chief Doctor
- Sin Kyong Hui, Official (Section for External Affairs)

INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES, D.P.R. KOREA

- Terje Lysholm, Program coordinator (Pyongyang)
- Pak Un Gyong, Health Officer (Pyongyang)
- Fidel Pena, Watsan Coordinator (Sri Lanka Delegation)

PMU INTERLIFE (SWEDISH NGO FINANCED PARTLY BY SIDA)

- Svend-Erik Johansson, Project Leader

MINISTRY OF FOREIGN AFFAIRS, D.P.R. KOREA

- So Chol, Section Chief, Nordic, Baltic & British Section, European Dept.
- Ri Hyon Yong, Researcher, Nordic, Baltic & British Section, European Dept.
- Paek Sung Chol, Chief Official, Nordic, Baltic & British Section, European Dept.

CENTRE FOR THE STUDY OF GLOBAL ISSUES (GLOBIS), UNIVERSITY OF GEORGIA

- Han S. Park, Director

EMBASSY OF CANADA, SEOUL

- Marius R. Grinius, Ambassador
- Jess Dutton, Counselor
- Anna G. H. Song, Political / Economic Affairs Officer

EMBASSY OF DENMARK, BEIJING

- Susanne Hækkerup, Political Councilor, Deputy Head of Mission
- Karsten Biering Nielsen, Political Councilor

Appendix B: Institutions Visited and People Met/Interviewed in 2004

EMBASSY OF DENMARK, SEOUL

- Leif Donde, Danish Ambassador to South Korea

KIM DAE-JUNG PRESIDENTIAL LIBRARY

- Kim Dae-jung, former President of the Republic of Korea.
- Lim Dong-won, former Director General, National Intelligence Service, and Special Advisor to former President Kim Dae-jung.

OFFICE OF THE PRESIDENT FOR NATIONAL SECURITY, THE BLUE HOUSE

- Ra Jong-yil, Senior Advisor to the President for National Security
- Jun Bong-geun, Policy Advisor to the Minister

MINISTRY OF FOREIGN AFFAIRS AND TRADE (MOFAT), SOUTH KOREA

- Moon Ha-Yong, Director General, Policy Planning

BANK OF KOREA

- Kim Tae-dong, Member of the Monetary Policy Committee
- Park Suhk Sam, Senior Economist, North Korean Economic Studies Section
- Ahn Ye-hong, Senior Manager, North Korean Economic Studies Section

KYUNGNAM UNIVERSITY, INSTITUTE FOR FAR EASTERN STUDIES

- Park Jae-Kyu, President, Kyungnam University, Chairman of Korean University President Association
- Koh Byung Chul, Director, Institute for Far Eastern Studies
- Lee Su-hoon, Director of Research, Institute for Far Eastern Studies
- Ryoo Kihl-Jae, Professor of Political Science,
- Graduate school of North Korean Studies

YONSEI UNIVERSITY

- Moon Chung-in, Presidential advisor, Dept. of Political Science

INSTITUTE OF FOREIGN AFFAIRS AND NATIONAL SECURITY (IFANS), MOFAT

- Woo Seong-ji, Assistant Professor

HYUNDAI ASAN CORPORATION

- Jang Whan Bin, Senior Vice President, Int'l Finance & Investor Relations
- Yoon Man Joon, Advisor

KOREAN TRADE-INVESTMENT PROMOTION AGENCY, SEOUL (KOTRA)

- Lee Dong-cheol, Director General, North Korea team
- Kim Kwang-il, North Korea team

MERIT/BURSON-MARSTELLER

- Michael Breen, Managing Director

CHINA INSTITUTE OF INTERNATIONAL STUDIES, BEIJING

- Ruan Zongze, Vice President, Senior Research Fellow

Appendix C: Joint Statement

Joint Statement: Six-Party Talks on N. Korea Disarmament

Tuesday, February 13, 2007; 11:07 AM

Joint statement following Six-Party Talks on North Korea's nuclear weapons program, as released by the People's Republic of China (<http://www.fmprc.gov.cn/eng/zxxx/t297463.htm>)

Initial Actions for the Implementation of the Joint Statement

13 February 2007

The Third Session of the Fifth Round of the Six-Party Talks was held in Beijing among the People's Republic of China, the Democratic People's Republic of Korea, Japan, the Republic of Korea, the Russian Federation and the United States of America from 8 to 13 February 2007.

Mr. Wu Dawei, Vice Minister of Foreign Affairs of the PRC, Mr. Kim Gye Gwan, Vice Minister of Foreign Affairs of the DPRK; Mr. Sasae Kenichiro, Director-General for Asian and Oceanian Affairs, Ministry of Foreign Affairs of Japan; Mr. Chun Yung-woo, Special Representative for Korean Peninsula Peace and Security Affairs of the ROK Ministry of Foreign Affairs and Trade; Mr. Alexander Losyukov, Deputy Minister of Foreign Affairs of the Russian Federation; and Mr. Christopher Hill, Assistant Secretary for East Asian and Pacific Affairs of the Department of State of the United States attended the talks as heads of their respective delegations.

Vice Foreign Minister Wu Dawei chaired the talks.

I. The Parties held serious and productive discussions on the actions each party will take in the initial phase for the implementation of the Joint Statement of 19 September 2005. The Parties reaffirmed their common goal and will to achieve early denuclearization of the Korean Peninsula in a peaceful manner and reiterated that they would earnestly fulfill their commitments in the Joint Statement. The Parties agreed to take coordinated steps to implement the Joint Statement in a phased manner in line with the principle of "action for action".

II. The Parties agreed to take the following actions in parallel in the initial phase:

1. The DPRK will shut down and seal for the purpose of eventual abandonment the Yongbyon nuclear facility, including the reprocessing facility and invite back IAEA personnel to conduct all necessary monitoring and verifications as agreed between IAEA and the DPRK.
2. The DPRK will discuss with other parties a list of all its nuclear programs as described in the Joint Statement, including plutonium extracted from used fuel rods, that would be abandoned pursuant to the Joint Statement.

3. The DPRK and the US will start bilateral talks aimed at resolving pending bilateral issues and moving toward full diplomatic relations. The US will begin the process of removing the designation of the DPRK as a state-sponsor of terrorism and advance the process of terminating the application of the Trading with the Enemy Act with respect to the DPRK.

4. The DPRK and Japan will start bilateral talks aimed at taking steps to normalize their relations in accordance with the Pyongyang Declaration, on the basis of the settlement of unfortunate past and the outstanding issues of concern.

5. Recalling Section 1 and 3 of the Joint Statement of 19 September 2005, the Parties agreed to cooperate in economic, energy and humanitarian assistance to the DPRK. In this regard, the Parties agreed to the provision of emergency energy assistance to the DPRK in the initial phase. The initial shipment of emergency energy assistance equivalent to 50,000 tons of heavy fuel oil (HFO) will commence within next 60 days.

The Parties agreed that the above-mentioned initial actions will be implemented within next 60 days and that they will take coordinated steps toward this goal.

III. The Parties agreed on the establishment of the following Working Groups (WG) in order to carry out the initial actions and for the purpose of full implementation of the Joint Statement:

1. Denuclearization of the Korean Peninsula
2. Normalization of DPRK-US relations
3. Normalization of DPRK-Japan relations
4. Economy and Energy Cooperation
5. Northeast Asia Peace and Security Mechanism

The WGs will discuss and formulate specific plans for the implementation of the Joint Statement in their respective areas. The WGs shall report to the Six-Party Heads of Delegation Meeting on the progress of their work. In principle, progress in one WG shall not affect progress in other WGs. Plans made by the five WGs will be implemented as a whole in a coordinated manner.

The Parties agreed that all WGs will meet within next 30 days.

IV. During the period of the Initial Actions phase and the next phase - which includes provision by the DPRK of a complete declaration of all nuclear programs and disablement of all existing nuclear facilities, including graphite-moderated reactors and reprocessing plant - economic, energy and humanitarian assistance up to the equivalent of 1 million tons of heavy fuel oil (HFO), including the initial shipment equivalent to 50,000 tons of HFO, will be provided to the DPRK.

The detailed modalities of the said assistance will be determined through consultations and appropriate assessments in the Working Group on Economic and Energy Cooperation.

V. Once the initial actions are implemented, the Six Parties will promptly hold a ministerial meeting to confirm implementation of the Joint Statement and explore ways and means for promoting security cooperation in Northeast Asia.

VI. The Parties reaffirmed that they will take positive steps to increase mutual trust, and will make joint efforts for lasting peace and stability in Northeast Asia. The directly related parties will negotiate a permanent peace regime on the Korean Peninsula at an appropriate separate forum.

VII. The Parties agreed to hold the Sixth Round of the Six-Party Talks on 19 March 2007 to hear reports of WGs and discuss on actions for the next phase.