Relying on One’s Strength: The Growth of the Private Agriculture in Borderland Areas of North Korea*

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1. The Growth of Private Plots in North Korea
2. The Collapse of the State–Run Food Distribution System in the 1990s
3. Ordinary Peoples, Life Experiences “before” and “after” the PDS Collapse
4. Private Farming as an Anti-Social Activity
5. Sot’oci Farmers, Choice after “July 1st Measure”: Paying Tax or Bribing Officials
6. Sot’oci Farming and the State Farms
7. Scale and Efficiency of Private Farming: Some Preliminary Considerations
8. Conclusion

(Abstract)

The two decades which followed the collapse of the communist bloc were a period of dramatic social and economic transformation in North Korea. The 1990–2010 period was a time when market economy re-emerged in North Korea where once could be seen as the most perfect example of the Stalinist

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economic model. The present article deals with one of the major areas of socioeconomic change which, so far, has not been the focus of previous studies. The topic is about the growth of private agricultural activities in North Korea after 1990. This growth constitutes a significant phenomenon which has important social consequences and also is important from a purely economic point of view: it seems that the spontaneous growth of private plots played a major role in the recent improvement of the food situation inside North Korea.

The article deals with a situation in one locality – the city of Hoeryong, located in the North Hamgyong province, next to the Chinese border. This approach has its advantage and disadvantages: on one hand, it provides for better ‘resolution’ of the research. On the other hand, one has to be cautious when applying these findings to other areas of North Korea.

The current article treats sot’ochi farming as a major form of coping mechanism employed by the common North Koreans to survive the challenges of the new environment. Since the early 1990s, North Korea has experienced a revival of private agriculture which – at least in the area which is the focus of the present study – has come to play a major role in the nation’s economy. Sot’ochi farming is the major coping strategy for the least privileged strata of the North Korean population. It is usually used by the social groups whose members do not have money and/or connections which are vital for any North Korean who wants to become a vendor or produce things at home.

Sot’ochi farming in North Korea remains, at best, a semi-legal activity – and is perceived as such by both the authorities and sot’ochi cultivators. The local administration has begun to levy taxies on farmers, although they frequently evade taxation through bribery. Nonetheless, in a legal sense farmers are not owners or tenants, but essentially tolerated squatters. In fact, they can be evicted at any time. Like much market activities in North Korea, private
farming lacks a legal framework; it is neither legal nor illegal in a strict sense.

All things considered, the scale of sot’ochi fanning is impressive. To an extent we can describe the changes as “agricultural reform from below”, and it appears that the scale of this low-key but important transformation has remained under-appreciated.

Key words: private farming in North Korea, low-level passive resistance, the Public Distribution System (PDS), anti-social activity in North Korea, a market-oriented enterprise in North Korea

1. The Growth of Private Plots in North Korea

The two decades which followed the collapse of the communist bloc were a period of dramatic social and economic transformation in North Korea. It is remarkable that both Korean and foreign scholars have demonstrated a rare unity in their appraisal of the major trend which characterized this turbulent period. The social and economic changes in post-1990 Korea have been variously described as "spontaneous marketization" (Yi Yong-hun), grassroots capitalism (Lankov and Kim Seok-hyang), “market socialism from below” (So Chae-chin), “reforms from below” (Noland and Huggard).

3) S6 Jae-Jin, 7.1 Choch'I Ihu Pukhan Ch'aejae Pyŏnhwa: Araerobut, 6–ii sijang sahwajuui-wa kaehyok [The changes in the North Korean system after the July 1 measures, : reform and market socialism from below] (Seoul: Korea Institute for National Unification, 2004).
4) Stephan Haggard and Marcus Noland, Reform from Below: Behavioral and Institutional
Indeed, it seems that the 1990–2010 period was a time when market economy re-emerged in a society which once could be seen as the most perfect example of the Stalinist economic model. It is interesting that this revival of markets happened not as a result of some government initiative, as was the case in China or Vietnam. On the contrary, the market economy was essentially re-discovered by the North Korean populace themselves, often against the clearly expressed wishes of the authorities and in spite of the government’s efforts to suppress the social changes which were seen as ideologically dubious and politically subversive.

Throughout the last decade a number of publications have dealt with a multitude of new economic and social phenomena in North Korea. In most cases the research results have been published in Korean, but the number of English-language articles and books dealing with the topic is steadily growing as well.  

However, even a cursory look through these publications demonstrates that the attention of researchers has largely concentrated on markets and retail trade. This is an important topic, to be sure, but the newly born North Korean market economy does not limit itself to retail operations. The newly available material makes it possible to concentrate on those issues which have been difficult to study in depth until recently.

The present article deals with one of the major areas of social/economic change which, so far, has not been studied much. This topic is the growth in North Korea. Working Paper Series, WP 09–8 (Washington DC: Peterson Institute for International Economics, 2009).

of private agricultural activities in North Korea after 1990. This growth constitutes a significant phenomenon which has important social consequences and also is important from a purely economic point of view: it seems that the spontaneous growth of private plots played a major role in the recent improvement of the food situation inside North Korea.

The current article treats sot’ochi farming as a form of both coping mechanism and low-level passive resistance to the irrational demands of the state. The challenges which now face North Korean society are, actually, very similar to the problems experienced by China in the 1970s and by Vietnam in the 1980s. China and Vietnam found a way a solution to their troubles in jettisoning the notoriously inefficient state-run collective agriculture, but, the North Korean state has chosen a very different approach to the same problem. In this situation, the North Korean populace discovered ways to sabotage the government’s policies without challenging it openly.

An important peculiarity of this article is a deliberate focus on a particular geographic area – the city of Hoeryong, North Hamgyong province, and the adjacent part of the country. This approach has an important advantage: we could find and interview a large number of refugees from these areas, with manifold and diverse experiences, so it allows us to produce a "high resolution picture" of the situation. At the same time, one should be cautious when applying the results to other areas of North Korea. Although our informants insist that the situation in Hoeryong is fairly typical for borderland areas, further case studies will be necessary to determine the extent and peculiarities of Soto’ji farming in other parts of North Korea.

The article is based on the interviews with North Korean refugees conducted in South Korea in 2010–2011. These unstructured interviews have allowed us to concentrate on issues with which a particular interviewee may be most familiar. However, refugee interviews can be biased, as Jung and Dalton have
recently noted. To protect the refugees’ identity, we refer to them using only their numbers. The following Table 1 shows the list of our interviewees.

[Table 1] The List of Interviewees

<table>
<thead>
<tr>
<th>Age</th>
<th>Place of residence in North Korea</th>
<th>Main occupation in North Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1</td>
<td>44 Hoeryong</td>
<td>Sot’ochi, retail trade</td>
</tr>
<tr>
<td>b2</td>
<td>38 Hoeryong</td>
<td>Sot’ochi</td>
</tr>
<tr>
<td>b3</td>
<td>62 Hoeryong</td>
<td>Sot’ochi, retail trade</td>
</tr>
<tr>
<td>b4</td>
<td>66 Hoeryong</td>
<td>Sot’ochi, retail trade</td>
</tr>
<tr>
<td>b5</td>
<td>48 Hoeryong</td>
<td>Sofochi, retail trade</td>
</tr>
<tr>
<td>b6</td>
<td>46 Hoeryong</td>
<td>Sot’ochi, retail trade</td>
</tr>
<tr>
<td>b7</td>
<td>45 Hoeryong</td>
<td>Sot’ochi, retail trade, eventually currency exchange</td>
</tr>
<tr>
<td>b8</td>
<td>35 Hoeryong</td>
<td>Sot’ochi, bee keeping, wholesale trade</td>
</tr>
<tr>
<td>b9</td>
<td>45 Hoerydng</td>
<td>Sot’ochi, retail trade</td>
</tr>
<tr>
<td>b10</td>
<td>40 Musan</td>
<td>Police official, smuggler</td>
</tr>
<tr>
<td>b11</td>
<td>41 Hoeryong</td>
<td>City official</td>
</tr>
<tr>
<td>b12</td>
<td>31 Musan</td>
<td>Party (Korean Workers Party) official</td>
</tr>
<tr>
<td>b13</td>
<td>31 Hoerydng</td>
<td>Sot’ochi, retail trade</td>
</tr>
</tbody>
</table>

2. The Collapse of the State-Run Food Distribution System in the 1990s

Like other communist states, North Korea introduced collective agriculture in the early stages of its history. In 1956-58 all North Korean farmers were pressed to join agricultural cooperatives which were a close imitation of the

kolkhoz in the Soviet Union of Stalin’s era. However, in spite of many similarities, there were also significant differences between the agricultural management systems in the two countries. One of the peculiarities was that North Korea demonstrated a significantly higher level of the state control and was less tolerant of small-scale private economic activities.

For example, in North Korea the size of officially approved kitchen gardens was limited to merely 10–50 pyong (33–170 sq meters), depending on the area. This was enough to grow some spices and small quantities of vegetables which were normally not distributed through the ubiquitous Public Distribution System (PDS) – like garlic, chili pepper, radish etc. Nonetheless, the legally allowed kitchen gardens in the pre-1990 North Korea were too small to contribute significantly to the calorie intake of the average North Korean family, even though they played a useful role in providing people with vitamins and other nutrients.

It is also important to keep in mind that the above-mentioned 10–50 pyong limit is the maximum possible size. The state is under no obligation to give the largest possible kitchen gardens to the farmers or city dwellers – indeed, it is under no obligation to give them plots at all: “The size{of a kitchen plot} depends on the house floor plan and its place in the city. In some cases they allocate 10 pyong, in some other cases they allocate 2 pyong, and in some

7) According to a 1998 law, the maximum size of the kitchen gardens is limited to 30 pyong for farmers and 10 pyöng for industrial workers. See the law cited in: Pak II Su, Konan-ui haeggun ihu kaein soyugwon pyonhwa-e kwanhan yongu [A study of changes in the individual ownership system after the ‘arduous march’] (Seoul: Kyongnam Taehakkyo Pukhan Taehagwon, 2006). p.57. Some published sources, however, insist that the size of private plots can reach 50 pyöng. See: Im Su Ho, Kyehwaek-kwa sijangui kongjon: Pukhanui kyöngjiae kaehyok-kwa ch’aejae byonhwa chonmang [Coexistence of panning and market: prospects for economic reform and system change in North Korea] (Seoul: Samsung Economic Research Institute, 2008), P. 105.
cases they do not allocate anything at all. My kitchen garden was only 2 pyong large, we grew cabbage and onion and also kept our kimch’i jars there” (B3).

This is very different from the Soviet prototype, in the Soviet Union, in 1937, soon after the forced collectivization of agriculture, farmers’ individual plots provided more than half the country’s total production of potatoes (a major source of calories in Russia in those days) and a significant share of other vegetables. Nor did this situation change much in subsequent decades: in the early 1970s Soviet consumers obtained more than 60 percent of their potatoes and eggs from the private agricultural sector which also produced 40 percent of their fruit, vegetables, meat and dairy products.8) A similar situation could be observed in Vietnam where farmers were allocated merely 5% of the total land as their private plots. From the early 1960s through the early 1970s, farmers in North Vietnam earned between 60 and 75 percent of their income from the private cultivation of these “5 percent plots”, even though the plots were not officially allocated any state-supplied resources.9)

Kim II Sung, as was often the case with his economic policies, proved himself to be, so to say, more Stalinist than Stalin himself. In North Korea it was assumed that the entire population, including farmers, had to rely on state-run food distribution (Public Distribution System, PDS) for its nutritional needs. In North Korea, all foodstuffs produced in an agricultural cooperative were (and are) to be delivered to the state, and then the farmers were given their fixed rations whose size and composition were generally similar to the rations of urban workers. There was only one difference: in the cities the rations


were delivered twice a month while in the countryside the delivery took place once a year, soon after harvest, on assumption that farmers would be capable of storing the grain themselves.10)

This regular delivery of rations came to be seen as a part of North Korean “social contract”, a tacit agreement which implied that the masses will follow the rules as long as the authorities will take care of their basic needs. Linda Cook wrote about similar social contract in the Soviet Union: “The regime provided broad guarantees of full and secure employment, state-controlled and heavily subsidized prices for essential goods, fully socialized human services, and egalitarian wage policies. In exchange Soviet workers consented to the party’s extensive and monopolistic power, accepted state domination of the economy, and complied with authoritarian political norms.”11)

However, this system began to crumble in the 1990s. The discontinuation of the Soviet aid delivered a heavy blow to the North Korean economy. As Noland and Haggard put it: “The result [of North Korean government’s policy] was one of the world’s most input-intensive agricultural systems with unusually high use of chemical fertilizer and pesticides”.12) This dependency proved to be its Achilles heel, since an industrial crisis was bound to produce a highly disruptive impact on agriculture. Around 1994–95 agricultural production nose-dived, and the PDS ceased to function. A disastrous famine ensued, taking between 600,000 and 900,000 lives.13)

13) For a careful review of available estimates of the number of famine deaths, see Stephan Haggard, and Marcus Noland, Famine in North Korea: markets, aid, and
3. Ordinary Peoples’ Life Experiences “before” and “after” the PDS Collapse

Our informants tend to divide their life experiences into periods “before” and “after” the PDS collapse which is seen as a major turning point in the country’s history. They admit that the situation changed tremendously when the PDS was discontinued (in the Hoeryong area it happened around 1995), and for many this change appeared to be rather sudden. “Since 1995–96 rations stopped, only officials received a bit, but common people received nothing. Thus, people began to starve to death; the problem was especially acute among industrial workers and miners. Farmers could get some corn or other grain from the fields, but workers had nothing to eat” [B7].

In China and Vietnam, the chronic food shortage, occasional outbreaks of famine and, above all, incurable inefficiency of the state-run agriculture made the government initiate reforms which led, essentially, to the revival of the individual capitalist farming (sans large-scale private landownership). In terms of both agricultural efficiency and farmers’ livelihood, the change was an extraordinary success, producing what has been described as “the fastest rate of rural poverty reduction in world history”.\(^{14}\) However, the North Korean leaders did not follow the seemingly attractive examples of Vietnam and China, and did everything possible to keep the old, obviously inefficient system in operation even when the outbreak of mass famine demonstrated that it had moved from chronic to acute inefficiency.

This appears to be irrational, but it seems to be driven by political considerations. North Korean leaders obviously worry that in the peculiar

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situation of a divided country, with gross income differences between North and South, reforms are likely to trigger a dangerous political crisis.  

Since the central government remained passive and, indeed, took measures to keep the old system unchanged, the common people had no choice, but to find some ways to cope (in 1996–2000 a real alternative would be a death by starvation) — challenging and quietly sabotaging the system when necessary/possible. One of the most logical choices was to start to till fields for their own needs. Since all arable land was controlled by agricultural cooperatives, the only alternative was developing a small field of their own, somewhere in the mountains. Thus, small private fields, known as ‘sot’ochi’ were born (kitchen gardens, which can be seen as a much smaller sot’ochi, are referred to as “ttoaeiki pat”). Our interviews agree that the first soto’chi appeared in the late 1980s, but its real growth began after 1990 when the PDS ceased to function properly, and sped up in the years of famine (B5, B6, B7, B8, B9, B10).

Here is a success story of B7: thanks to the soto’chi, all of her family members were safe and untouched by the mid 1990s famine.

B7 worked at a mine until reunification. She married into a family which already had a sot’ochi. Her in-laws were among the first to acquire a sot’ochi in their village; this happened in the mid or late 1980s. This was initially three small plots with the total area being wary 100 pyong (900 square meters). The chief of the plots was located on a mountain next to the house, while two others were located 2–3 kilometers away from home. Starting from around 1990, the family began to increase their plots, so by the late 1990s the total area under arable land reached the size of 3,000 pyong (10,000 square meters).

Upon marriage, B7 quit her job at the nine rime later for housewifery, and six children later was her occupation a decade. Her in-laws family lived in a village which was some 25km away from the town. Eventually, she took up the retail trade which she said was more profitable. She sold linoleum and assorted household items and then became successful in money laundering. Nonetheless, her business success was impossible without B7 and her family initially earned by selling so’t’ochi produce.

At the field B7 and her family grew millet, com, soya beans, adzuki beans, rung beans as well as small amounts of turnips, watermelons, abelmoschus spinach and other vegetables. The most popular were adzuki and mung beans which are difficult to grow, but widely used in North Korean cooking. The produced millet was also sold at the market. Vegetables and melons were largely eaten at home.

The so’t’ochi was waked by B7, her parents-in-law and her husband and his married younger brother. When the need arose, they hired workers – 5 to 6 people at a time but only when such outside help was necessary, during weeding or harvesting. These hired hands were usually vagrants who were paid for their work in local currency. Their minimum wage was 3-5kg of rice a work day.

B7 sees her family as rich and successful by the standards of the village. At any rate, they remain untouched by the famine which killed millions.

At the same time B7 noted that from 1997 nearly all villagers in her village became involved in so’t’ochi.

Nearly all so’t’ochi fields are located on mountains, usually on steep slopes which are deemed unsuitable for normal agriculture, and often at a considerable distance from villages. In the northern part of the country, especially in the city of Hoeryong which is the major focus of the present study, development
of a field often requires clearing existing mountain forests. This is illegal, but in many cases sot’ochi farmers make use of forest fires and other natural disasters. It allows them to use land which is not officially considered arable.

Interestingly, in the years 1997–98 unusually intense forest fires suddenly raged through the Hoeryong area, destroying large parts of the original forests. At the time, rumors hold that these fierce fires were put up by South Korean spies who wanted to ruin the North Korean economy. In those days such statements were usually believed, but now some of our interviewees suspect that the actual arsonists might have been would-be farmers who hoped to clean some land for cultivation. This seems plausible, especially if one takes into account that slash and burn agriculture remained a constant feature of the area until recently, but we do not have any means of confirming this rumor at the time of writing (B1, B7, B8, B9).

This fits well into the entire “sot’ochi politics”, since sot’ochi cultivation can be seen as a form of quite resistance to the policy of the state which, for the sake of the system survival, chose to ignore the most basic demands of a significant part of the populace.

4. Private Farming as an Anti–Socialist Activity

Technically, private farming is seen as a profiteering activity, anti–socialist by definition, as a challenge to the state and its policies. Even though the official approach to soto’ochi farming softened around 2002, virtually all our informants still share the perception that while working at the sot’ochi field they were involved with activity is of somewhat dubious legality which was tolerated by the government only because the grave difficulties experienced by the country. But engaging in sot’ochi activities, they knowingly committed an act of minor insubordination, and even in our interviews they felt a need
to justify this action. It is similar to the trend observed by Alena Ledeneva in her studies of the informal activities under socialism: “Participants engage in a discourse that boils down to “the system made me do it”.  

Indeed, in our interviews, the sot’ochi cultivators justified their improper activities by emphasizing the government’s failure to keep its part of the unspoken social contract. “How could they expect farmers to follow the law and spend all their time on their cooperative fields, if they did not give farmers rations?” (B5). The remarks to this effect are heard commonly, and it seems that in the popular imagination the sot’ochi activity is perceived as an improper act which is, nonetheless, made justifiable by the inability of other side of the social contract to keep its perceived obligations – that is, to deliver rations which would suffice for survival.

The sot’ochi cultivators largely come from the bottom of the income/power hierarchy. This reflects one peculiarity of this activity – unlike private trade or household manufacturing, sot’ochi farming requires neither significant starting capital nor special skills. B9 said: “Selling and buying stuff at the market tends to be much more profitable than cultivating a sot’ochi field. But to start market trade, one needs to have money first. So, if you are really poor, you cannot trade. You had no choice but to do sot’ochi cultivation instead”. B8 who, being a bicycle wholesaler, that is, a relatively rich market operator, belongs to another end of the spectrum, agrees: “Sot’ochi is safe and does not require anything but labor. Everybody can do it. But one needs investment money to start a successful trade operation.”

A large part of the sot’ochi farmers are employees of the agricultural cooperatives. Since in the cooperatives the entire harvest is supposed to be given to the state in exchange for fixed rations, investing too much effort in

“official” farming does not make economic sense from an individual’s viewpoint, more so since in difficult times the official income/rations are not even sufficient for subsistence.

Another group of sot’ochi cultivators consists of industrial workers and assorted employees of state agencies (clerks, medical doctors, technicians etc.) who, being urban dwellers, suffered most during the famine.

In the case of Hoeryong, a significant part of the sot’ochi cultivators come from the non-farming population of the mining villages. The Hoeryong area used to be a major center of coal mining, so in the mid-1990s many of the miners and their family members, being suddenly deprived of their PDS rations, starved. Maintaining a sot’ochi field became a major coping strategy for them. In many cases, this was the only survival strategy which was available to a particular family. First, most of these people were too poor to start trading. Second, for inhabitants of isolated mining communities, trips to the nearest market might be prohibitively time-consuming (Bl, B7, B13).

For example, in Yuson-tong district of Hoeryong city (actually, not an urban district in a strict sense, but a mining village, located some 10-12 km away from the city proper), an estimated 70-80% of the entire population became involved with sot’ochi which became the major source of income after the local mine ceased operations (Bl, B7). B9 who lived in a remote village said that in her inminban (neighborhood group) only two out of 27 families had no sot’ochi of their own — and those people worked for hire at the fields of luckier neighbors. B7 said that in her rural inminban there were 24 families, all of whom were involved with sot’ochi cultivation. B13 said in her inminban there were 40 families, of whom about 60% were cultivated sot’ochi while the remainder were engaged in other kinds of money-making activities. In the last case, the ratio of sot’ochi cultivators is relatively low, and this might be explained by the location of B13, s inminban which is close to Hoeryong city.
proper: as a rule, the further a particular village is located from the city, the less alternative its inhabitants have to sot’ochi farming.

The Forestry department itself or its officials are the first point of contact for every aspiring sot’ochi cultivator. The Forestry department is responsible for all uncultivated lands in the area, its staff are supposed to look after existing forests, and plant new ones. All informants agreed that a proper agreement with the local forest inspector (kor.kamtokwon) is vital for sot’ochi success.

Sometimes personal connections play a role – as other state socialist societies, North Korea has its share of informal practices, including the reciprocal exchange of (often semi-legal) favors between individuals, similar to the Soviet ‘blat’ and Chinese ‘guanxi’. For example, B7 used her family relations with a local forest inspector. They agreed also that every autumn she will give a certain amount of the best produce to the inspector as a “present”. B9 also entered the same semi-formal agreement, even though she had no blood relations with the inspector himself. B8 presented the inspector with honey – he had a number of beehives. B1 did not pay anything, since her father was a forest patrolman himself.

In some cases, a government timber company does logging in a particular area, and then this area is taken over by illegal farmers who often are either loggers from the same company or otherwise are somehow connected with it (B2).

In theory, most of the sot’ochi land is supposed to be used for the forest re-cultivation. In some cases the sot’ochi fields also have tree seedlings planted, and agricultural use of such plots is considered to be provisional, to continue until the time when the forest matures. However, the presence of tree seedlings make farming complicated, and farmers are in no hurry to be evicted from their plots, so they intentionally damage the young trees. They have developed
...aginative methods to inhibit the growth of seedlings without making the treatment obvious. For example, a popular method is to uproot a seedling and then re-plant it again. It looks undamaged, and no traces of the manipulation are visible, but the seedlings grow very slowly after such treatment (B12).

It makes sense to damage the seedlings without attracting too much attention, since the Forestry department introduced a system of fines for dead seedlings at the sot’ochi field. For instance, a former official of the forest Department in Musan spoke about the fines which were leveled in 2008–2009 on farmers in his area. A dead larch seedling would incur a fine of 100 won, a fine for a seedling of Korean spruce was 70 won and acacia would be valued at 50 won (B12).

Sot’ochi use the lands which the government does not see as suitable for cultivation, meant that cultivating sot’ochi requires long daily trips to the remote mountains. In some cases the distance to the fields might be up to 10–12 km, while a walk of few kilometers to the field seems to be the norm (B7). Of our interviewees, B8 had a sot’ochi located merely one kilometer away from his home, while others had sot’ochi located between 2 and 5 km away. When possible, farmers use bicycles to approach the area, but since the sot’ochi are nearly always located high in the mountains, farmers have to push bicycles up with them (bicycles are still useful as a way to transport fertilizer and agricultural instruments, as well as to move harvested produce back home or to market).

Rumors about future crackdowns on the private farming circulated from time to time, together with stories of such crackdowns being conducted in other areas (B5, B7, B1). Nonetheless, it seems that in the Hoeryong area the authorities never seriously attempted to wipe out the sot’ochi system. This generally agrees with the attitude of the North Korean state to market...
activities in general: without approving it explicitly, the state often turned a blind eye to deviations from the officially approved policies.

5. Sot’ochi Farmers’ Choice after “July 1st Measures”: Paying Tax or Bribing Officials

Around 2002 the official attitude to the sot’ochi changed. In line with the attempts to formalize and regulate spontaneous marketization which followed the “1 July measures”, sot’ochi cultivators were expected to pay tax.\footnote{The relevant regulation was issued by the Cabinet in July 2002 (decision #52, of July 31, 2002). See the full text published: Pak II Su, Konan-ui haeggun ihu kaein soyugwon py6nhwa-e teahan yongu [A Study of Changes in Private Property Rights after the Arduous March] . MA Thesis. Kyongnam University} In the city of Hoeryong, the tax rate in 2009 – just before the November currency reform – was 165 won per one pyong (3.3sq.meters). It was a flat rate, to be paid irrespective of the land quality. This rate, however, varies between the counties, and seems to be decided by the local authorities. For example, in the neighboring Musan county the rate was fixed at a slightly lower level of l45won(B12).

The land is surveyed by Forestry department officials, but the tax is paid to the People’s committee taxation office (kor. chukkumso). However, in many cases the cultivator prefers to reach an informal agreement with forestry officials, bribing them to ensure that their fields are not registered or, at least, the arable area is underreported. This seems to be the norm: B1l and B12, both officials of the Forestry department, believe that only between one fourth and one third of all sot’ochi land is registered officially. BIO, a local police official, agrees with this estimate.
These measures agreed with the spirit of the times. In 2002 the North Korean government made some concessions to the market economy. These concessions were widely (and mistakenly) described as “market reforms”, but this description is misleading, since in most cases the “1 July measures” amounted to the belated admission of the activities the government knew it was not capable of controlling. Nonetheless, it was significant: the mighty North Korean state bowed to pressure from below and accepted the facts of economic life which clearly contradicted official doctrine.

Bribing Forestry department officials remained a viable alternative to paying tax. Usually it is cheaper to pay bribes, and kickbacks also help to maintain good relations with the Forestry department personnel. As B12 remarked, bribes tend to be paid in kind, rather than in cash, since in this case both sides do not consider the exchange an act of corruption, but rather as an exercise at legitimate gift-giving. B12 expressed his belief that North Korean law-enforcing agencies are more likely to be lenient if the bribes are of a non-monetary nature (we cannot verify whether this belief reflects the actual situation).

Apart from the official and unofficial fields, there are sot’ochi maintained by factories, plants, mines and other government agencies. The economic crisis of the 1990s led to a dramatic decline in industrial output, and many factories came to a standstill. So, factory workers effectively become jobless, and in some cases company management decided to provide them with food by starting a large “semi-official” farm (officially such activities were described as a manifestation of the self-reliance spirit which has been an important part of North Korea’s official ideology since the 1960s). Such a farm is essentially a large sot’ochi, which might employ dozens and even hundred people. Since a factory or company in question has its own means of transportation, like trucks, its workers can travel longer distances if necessary.
Quite frequently, these types of sot’ochi are created on the land of agricultural cooperatives whose management makes an agreement with the managers of the factory in question. To improve production, the company-owned sot’ochi are usually divided into the individual plots, so each worker toils the land on assumption that the entire harvest will be his or hers. (Bl, B8).

When the sot’ochi first appeared, they were essentially a type of subsistence farming, a coping mechanism. So, in most cases farmers grew what could be consumed by them or swapped for something valuable at the market (in the early 1990s barter was a common form of trade, largely replaced by monetary transactions by around 2000). Therefore, in the Hoeryong area private fields were initially used to grow corn and soya beans.

As time went by, the marketization of the North Korean economy progressed, so an increasing number of cultivators began to use sot’ochi fields for cash crops which were sold for financial gain. In the area of Hoeryong com and soya beans still dominate the sot’ochi farming, but tobacco, chili pepper and sesame as well as assorted vegetables and even water melons began to be produced for market (Bl, B2, B7, B9).

However, not all farmers can participate in the market-oriented activities in the same degree. Generally, the more affluent a family is, the greater is the share of produce they sell on the market. As B9, a poor farmer herself, remarked: “In our village, rich people grew food for sale, but we were poor, so we ate most of the things we produced at our sot’ochi. We still sold something, a third of the harvest perhaps, to buy clothes and shoes and other basic things.” It is also remarkable that in the course of time there seems to have been a steady increase in the share of produce which is sold on the market. No statistics are available, but some of our informants believe that such a trend became more pronounced from around 2002 (B7, B8).
In the early days of “marketization from below”, sot’ochi farmers often stored their produce at home and then used it for barter exchanges with itinerant vendors who at the time visited the villages in Hoeryong area in large numbers (for example, our interviewee from the village of Songdong-li stated that this village in the late 1990s and early 2000s on the average day was visited by “up to 80” vendors [B2]). In most cases, the vendors came from the cities of the eastern coast and were peddling dried fish, seaweeds and other sea products. These products were swapped for corn, other cereals and assorted sot’ochi produce. However, in recent years such activity has greatly diminished in scale, as vendors deal with professional wholesalers, rather than producers.

When interviewees were asked whether they perceived sot’ochi lands as their own, they unanimously replied in the negative. The land, they believed, belonged to the state. Nonetheless, in real life sot’ochi can be bought and sold. For example, B7 in 1995–2005 used to cultivate a large sot’ochi field, some 1500 pyong (~5000 sq.m) where she grew sorghum, millet and corn as well as mung beans and soya beans.

We have been told about rare cases when sot’ochi are ‘owned’ by successful merchants. Instead of working there themselves, they hire jobless people to do most of the work, acting as supervisors. B8 was one of such merchants. His major income was earned in a currency exchange business, but he still hired workers who cultivated a large sot’ochi and also had a number of beehives (these workers were supervised by his aged parents). However, such income-producing enterprises seem to be rare, almost exceptional. For the most part, sot’oji farming is still a survival strategy.

Nonetheless, the seasonal use of a hired workforce seems to be the norm, even in poor households. Workers are normally hired for a short period of time, a few weeks or so, in order to do specific labor-intensive jobs – usually,
planting, weeding and harvesting. Out of a dozen sot’ochi operators with whom we conducted our interviews, only two families said that they did not normally hire workers: Bl could handle her field because she had a large extended family whose members were ready to help with sot’ochi work, while B6 had only a very small sot’ochi field (and also used the traditional mutual aid groups).

Apart from hired labor, sot’ochi farmers usually rely on the Korean tradition of p’umasi, which requires that members of the same village or groups of friends work together moving from one household to another. On one day they help one household, and next day they proceed to do the same work for another (B8, B9). In the case of B6, this activity was done within one extended family, while others usually relied on the mutual assistance of their fellow villagers.

6. Sot’ochi Farming and the State Farms

Sot’ochi farming have uneasy relations with the state-controlled farming. In a sense, these relations can be described as “parasitic” since sot’ochi cultivators use bribery and connections to get access to cooperatives, property, essentially stealing the resources from the state. To use the classification which F. J. M. Feldbrugge applied to the Soviet “second economy” in the early 1980s, these relations can be described as “parasitic symbiosis”, that is, the situation when “second economy activities which are completely embedded in the first economy and sap its resources”.18) Such relations are especially prominent in two areas – the access to fertilizer and access to draft animals.

Since the sot’ochi normally are located high in the mountains, usually on steep slopes in areas which are deemed unsuitable for normal cultivation, and since the quality of the soil leaves much to be desired, the need for fertilizer is high. Sot’ochi farmers use different strategies to acquire fertilizer.

First, farmers steal fertilizer from agricultural cooperatives, both for use in their private fields and for re-sale. Farmers frequently use the opportunity to steal when they are assigned the task of laying down fertilizer in the ‘official’ state fields. They usually take vinyl bags to the fields and discreetly hide some fertilizer in these bags, in order to use at their private fields or sell (Bl, B4, B6). Second, the private farmers buy fertilizer on the market. Fertilizer comes to the market either as imports from China or as stolen foreign aid (in the latter case, fertilizer is often of South Korean origin) (Bl, B9, B3). Both methods are used by farmers, but it seems that in our sample the majority tended to purchase fertilizer from the market, rather than fertilizer stolen by farmers from the state enterprises.

The access to draft animals, essentially oxen, is another area where the sot’ochi cultivators have to make illegal use of cooperative farm resources. Tractors and other machinery are far too rare in the area to be of much use for private farming – indeed, they are seldom used for the public farming nowadays, after two decades of slow de-industrialization. In North Korea, oxen cannot be owned privately, but agricultural cooperatives have members whose primary job is to handle the cattle. The cattle are technically owned by the agricultural cooperative and are supposed to be used by the cooperative only, but in real life cattle-handlers are quite eager to plough for the sot’ochi farmers as they are paid a reasonable fee or given reward in kind (Bl, B7, B8).
7. Scale and efficiency of private farming: some preliminary considerations

In 1980, Dermis O’Hearn admitted: “It is virtually impossible to make a reliable aggregate estimate of the size of the second economy (in the USSR)”19) - even though he did research on the Brezhnev-era Soviet Union which could be seen as a remarkably open and transparent society if compared to North Korea. The shortage or absence of reliable data is a recurrent (and well-founded) reason for complaints by the students of North Korea. Still, some estimates might be possible - largely because in this particular study we concentrated on a relatively small area.

In the case of Songdong-li district, an official who has a regular access to local land survey materials, told the authors of this study that in 2009 the total area of officially registered sot’ochi fields was some 120 chongbo (1 chongbo is 0.99 ha) while the area under cultivation by the agricultural cooperatives was 230 chongbo. However, this official remarked that the survey data is seriously misleading and the actual sot’ochi area is much larger, since merely one third of all sot’ochi are formally registered. In the official’s opinion, sot’ochi fields occupy a total area of some 250–350 chongbo, and thus the total area of sot’ochi fields significantly exceeds that of “official” state-monitored cooperative fields. This data, coming from a person with access to the relevant government documentation, agrees with what interviewees say. B1, also from Songdong-li district, estimated that the sot’ochi land was some 60% of all arable land. B8, from Changhyo-li district, believes that sot’ochi farmers cultivate about half of the arable land there. B6, from Changhyo-li district, says that sot’ochi was some 60% of all arable land.

Thus it appears that in Hoeryong and its vicinity, private fields occupy an area which is at least similar to that of the agricultural cooperatives’ fields. Of course, we cannot be certain to what extent these findings are applicable to other parts of the country, but it seems that in the borderland areas of North Hamgyong province such levels are the norm. However HB12, himself a minor official, said that in his native Musan county (located next to Heoryong), the sot’ochi fields occupy “almost 90%” of the all land under cultivation. This might be an exceptionally high ratio, which is easy to explain by Musan’s peculiar geography: this rugged terrain has never been much used for regular cultivation. Indeed, a look at the aerial photos of Musan, available on Google Earth, confirms that the sot’ochi fields with their easily recognizable patterns constitute by far the largest part of land under cultivation in this county.

Most informants take it for granted that sot’ochi productivity, in spite of poor soil quality, is higher than that of cooperatives’ fields (B7, B6, B9, B1, B12). They consider this difference natural since “farmers work so much better for themselves” (B12). Only one person, B8, presumes that the productivity of the sot’ochi is “naturally, below that of the official fields. The opinion of B8 might be explained by peculiarities of his own experience with sot’ochi: his native Changhyo-li district has unusually good government–controlled farming: large plains and relatively good soil ensure that the cooperative fields produce better harvests than sot’ochi fields on the steep mountains slopes.

When asked to quantify the difference in the yield between the sot’ochi and cooperative fields, the interviewees gave different answers. For example, B7, B9 and B1 say that this difference is roughly twofold or slightly less, B12 believes that it is even higher.

These estimates are subjective and imprecise, to be sure, but it should be noted that similar opinions have been expressed by different people who share
the same experience, but are not even acquainted. Therefore, it seems highly likely that in the case of Hoeryong city the total agricultural output of private sot’chi farms exceeds • perhaps, significantly exceeds – the total output produced by state–managed “agricultural cooperatives”.

This is very different to China where agrarian reform in the late 1970s may also have began spontaneously, but in 2–3 years was recognized and encouraged by the state.\textsuperscript{20} The North Korean state has not shown the slightest intention to accept or encourage the switch to the private agriculture, and still keeps private farmers outside the boundaries of the legal system and out of lands best suitable for cultivation.

8. Conclusion

The last two decades of North Korean history have been marked by a spontaneous economic transformation which can best be described as a grassroots revival of capitalist, market economy. Earlier studies of this transformation paid special attention to the growth of the retail trade in the country. However, our research indicates that the process has greater implications. Since the early 1990s, North Korea has experienced a revival of private agriculture which – at least in the area which is the focus of the present study – has come to play a major role in the nation’s economy.

Sot’ochi farming is the major coping strategy for the least privileged strata of the North Korean population. It is usually used by social groups whose members do not have money and/or connections which are vital for any North Korean who wants to become a vendor or produce things at home. Sot’ochi

farmers themselves are usually poor farmers, unskilled workers, and/or inhabitants of remote communities.

Sot’ochi farming remains, at best, a semi-legal activity - and is perceived as such by both the authorities and sot’ochi cultivators. From 2002 the local administration began to levy taxes on farmers, although they frequently evade taxation through bribery. Nonetheless, in a legal sense farmers are not owners or even tenants, but tolerated squatters, so theoretically they can be evicted at any time. Like much market activity in North Korea, private farming lacks a legal framework, it is neither legal nor illegal in a strict sense.

Nonetheless, the scale of sot’ochi farming is impressive. Currently in the area of Hoeryong, the total output of private farms seems to exceed that of official agricultural cooperatives (which are, for all practical purposes, state-owned farms). Private farming, done by a majority of the local population is seen as the best way to cope with an unreliable supply of food.

One word of warning is important, though: one should be careful in extrapolating these results to other parts of the country. Hoeryong is a rather special place: official agriculture was never highly developed in this region of mines and factories, and a large part of the region is covered with mountains, so there is plenty of space for sot’ochi fields. The proximity to the Chinese border also might contribute to high level of sot’ochi farming in Hoeryong and in North Hamgyong province in general. Since the 1990s the borderland areas have witnessed a boom in all kinds of illegal and semi-legal activities, and this could not but make local authorities more willing to overlook relatively minor deviations from the prescribed order. So, it is possible (but by no means certain) that private farming is unusually prominent in the area under study.

Unlike their peers in China, the North Korean authorities do their best to marginalize private farming. It is not fully recognized, and private farmers are
pushed to the margins in the most physical sense. It is noteworthy that, in spite of all these significant physical and institutional handicaps, private farmers seemingly still manage to out-produce state-owned farms.

All things considered, the scale of sot’ochi farming is impressive. To an extent we can describe the changes as an “agricultural reform from below”, and it appears that the extent and significance of this low-key but important transformation has remained underappreciated.


Su Ho, Kyehwaek-kwa sijangui kongjon: Pukhanui kyongjae kaehyok-kwa ch’aejae byonhwa chonmang [Coexistence of panning and market: prospects for economic reform and system change in North Korea]


Pak Il Su, Konan-ui haeggun ihu kaein soyugwon pyonhwa-e kwanhan yongu [A study of changes in the individual ownership system after the ‘ardous march,’ ] (Seoul: Kyongnam Taehakkyo Pukhan Taehagwon, 2006)


Yi, Young-hun, “Pukhan-ui chesaengjok sojaghwa-wa kyongje kaehyok-ui chongae [The Spontaneous Marketization and Development of North
이른바 공산주의 지역이 무너지고 난 뒤 지난 20여 년 동안 북한에서는 사회적으로나 경제적으로 급격한 변화의 시기를 겪었다. 1990년~2010년 기간은 북한에서 시장경제가 다시 되살아나는 시간이었다. 사실 북한은 한 때 스탈린식 경제체제의 모범을 가장 완벽하게 구현한 사례로 평가를 받았던 곳이었는데 오늘날 이 곳에 시장경제가 다시 돌아오고 있는 것으로 보인다.

이번 연구에서 다루고자 하는 문제는 북한사회에서 나타나는 주요한 사회경제적 변화의 양상 중의 하나이면서도 지금까지 기존 연구에서 분석한 사례가 많지 않았던 분야로 평가된다. 이런 상황을 감안하여 1990년 이후 북한사회에서 개인의 이윤추구 활동 방식으로 농사를 짓는 현상이 급격히 중대한 사실에 주목하여 이번 연구에서 분석해 보았다. 집단농장을 운영하던 북한에서 개인의 이윤추구를 목적으로 농사를 짓는 현상이 급증하면서 사회적으로 중대한 결과를 초래하였을 뿐만 아니라 경제적으로도 매우 유의미한 변화가 나타났던 것으로 보인다. 개인 경작지고 급격하게 증가하면서 북한 내부의 식량 사정이 개선되는 효과를 유발하
은 것 같다.

이번 연구의 결과, 북한에서 이른바 소토지라고 하는 개인 경작지를 운영하는 것은 힘없고 가난한 농민의 관점에서 볼 때 어려운 시기를 극복하는 대처방안이기도 하지만 또 한편으로는 당국에 맞서서 소극적으로 대항하는 방법이라는 의미도 지니고 있는 것으로 판단된다. 소토지 농사를 짓는다는 것은 북한주민 중에서 가장 혜택을 받지 못하는 집단이 어려운 시기를 극복하는 방법인 것이다. 1990년 이후, 대다수 북한주민은 소규모 장사를 시작하거나 집에서 물건을 생산하는 가내수공업을 하면서 돈을 벌었는데 이런 일을 시작하려면 어느 정도 돈이 있거나 사회적 연결망을 활용할 능력이 필수적인 상황이었다. 그런데 소토지 농사를 짓는 사람들은 돈이나 사회적 연결망 측면에서 꼭 필요한 요건을 갖추지 못하고 있었다. 따라서 소토지 농사를 짓는 곳 북한에서 가장 가난한 농민이나 미숙련 노동자, 시내 중심에서 멀리 떨어진 곳에 거주하는 힘없는 사람들이 선택할 수 있는 위기 극복 방안이었던 것이다.

북한에서 자본주의 활동이 다시 등장하기 시작하면서 그랬던 것처럼 소토지 농사를 짓는 사람들도 처음에는 단순히 위기 극복 방안으로 이를 활용했었다. 그런데 시간이 지나면서 소토지 농사를 짓는 사람들도 사장 친화적인 자본가의 모습을 닦아가기 시작하는 것으로 나타난다. 쉽게 돈으로 바꿀 수 있는 작물을 심기도 하고 농사일이 바쁜 때에는 사람을 사서 일을 시키는 모습도 관찰된다. 그런 의미에서 2000년대 초반에 들어서면 소토지 농사꾼 중에서 어떤 사람들은 단순히 먹을 것을 구하는 차원을 벗어나 기업농민에 가깝다고 할 수 있는 정도에 이른다.

주제어: 북한주민의 개인적 이윤 추구형 농사, 소토지 농사, 낮은 수준의 소극적 저항, 식량배급제, 북한 내부의 반사회적 활동, 북한 내부의 시장친화형 기업 활동

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Relying on One’s Strength: The Growth of the Private Agriculture in Borderland Areas of N