



Online Series

2021. 02. 24. | CO 21-06

Why Did North Korea's Five-Year Development Strategy Fail?

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North Korea's '2016-2020 Five-Year Economic Development Strategy' seems to have failed. Its biggest impediment was the UN sanctions. Based on the UN Security Council Resolution 2397 adopted in December 2017, North Korea was banned from importing capital goods such as machinery and industrial metals, among others. Consequently, it is highly likely that North Korea's various investment projects have faced great setbacks. The Five-Year Strategy also contained inherent flaws. The Strategy sought to revive the inefficient, power-consuming heavy and chemical industries, which led to chronic power shortages and consequent economic hardships. Also, many of its projects failed to be finished in time due to unreasonable planning and frequent revisions in plans. In carrying out the Strategy, the North Korean government repeatedly relied on campaigns for raising work effort, which has likely aroused disappointment and demoralization among its people, and the weakening of work discipline. If North Korea does not shift to a whole new development strategy that includes denuclearization and opening, its economic crisis will continue.

At the 8th Party Congress of the Workers' Party of Korea that has taken place on January 2021, North Korean government presented a new '2021–2025 Five-Year Economic Plan' for the next five years. However, at the Second Full Session of the 8th Central Committee held in February, the cabinet's economic plan for this year faced harsh criticisms, and the newly appointed director of the Department of Economic Affairs was sacked on the spot a month after its appointment.

The unstable start shows the frustration that North Korea is facing due to the lack of past economic success. As evident from Kim Jong-un's statement that most of the goals set on the '2016–2020 Five-Year Economic Development Strategy' have been severely underachieved, the Strategy seems to have failed.¹⁾ Reflecting on the boastful words at the 7th Congress held in May 2016, the failure is but an abysmal disappointment; in the 7th Congress, Kim stated that "we have laid out a dazzling blueprint for the final victory of our revolution."²⁾

Will the new Five-Year plan remedy the shortcomings of the previous plan and revive the economy? As of now, the answer seems negative. The reasons for the previous failure stem from both objective conditions and limitations in strategy. Objective conditions will not change without a breakthrough in the denuclearization negotiations, and the directions of the new Five-Year Economic Plan are not much different from the previous strategy.³⁾

Setbacks Due to the UN Sanctions

One of the biggest impediments to the previous Five-Year Strategy was the UN sanctions on North Korea. The UN Security Council has incrementally strengthened its economic sanctions on North Korea from early 2016 to the end of 2017, and,

1) "Opening speech at the 8th Congress," Rodong Sinmun, January 6, 2021.

2) "7th Congress as the Historical Hallmark of the Juche Revolution Process," Rodong Sinmun, May 6, 2016.

3) Hong, Jea Hwan et al., "Analysis of the 8th Party Congress of WPK in North Korea (2): Economy, Society, and Culture" (KINU Online Series CO 21-02, January 15, 2021), pp. 1~7.

among them, the final sanction imposed in December 2017—UNSC Resolution 2397—has critically impaired the implementation of the Five-Year Strategy. UNSC Resolution 2397 banned UN member states from exporting (or North Korea from importing) machinery, metals, electrical and transportation equipment. The ban on exports of such goods, especially capital goods such as machinery and metals, has likely caused severe hindrance to North Korea's investment projects.

For instance, one of the flagship projects of the Strategy was the 'C1 Chemical Industry through the gasification of coal.' According to North Korean sources, 'C1 Chemistry' refers to the technology for making various chemical products from single-carbon matters such as carbon monoxide and methanol or compound materials like methane.⁴⁾ Methanol, one of the core materials, is usually extracted from natural gas but can also be extracted by gasifying coal. Since North Korea lacks natural gas, it planned to extract methanol through the gasification of coal and to produce various chemical products. However, after five years, the C1 Chemical Factory is still in construction, and production is nowhere in sight.⁵⁾

North Korea, it has been told, was planning to import modern, 21st Century coal chemistry technology and equipment from China to construct its C1 Chemical Industry. According to experts at the Nautilus Institute, the coal gasification factory, which was planned to begin production in 2019 at Sunchon, South Pyongan Province, is based on the technology from Beijing's Qingchuang Jinhua Technology Company.⁶⁾ However, the plan seems to have been postponed due to UN sanctions. According to a Chinese online news article, corporate personnel including ones from Qingchuang Jinhua have visited Sunchon in March 2019 and held a meeting for technology

4) Kim, Yong-hyon, "What is C1 Chemistry?" Chollima, 12, 1991, recited by Jongcheol Park and Euni Jung, "A Study on the C1 Coal Chemistry of Kim Jong-Un Era," *Journal of Northeast Asia Research*, 33(2): 2018, p. 225 (in Korean).

5) "Prime Minister Dok-hun Kim guides the construction site for the C1 Chemical Industry," *Rodong Sinmun*, December 13, 2020.

6) David von Hippel and Peter Hayes, "DPRK Investments in Coal Gasification Driven by Long-Run Juche and Sanctions Proofing," NAPSNet Special Reports, Nautilus Institute, February 6, 2019, <<https://nautilus.org/napsnet/napsnet-special-reports/dprk-investments-in-coal-gasification-driven-by-long-run-juche-and-and-sanctions-proofing/>> (Accessed February 15, 2021).

transfer. It also attested that Yangmei Chemical Machinery Company at Shanxi province has finished making of a coal gasification furnace that adopts Qingchuang Jinhwa's technology.⁷⁾ If China is abiding by the UN sanctions, the equipment would not have been, and will not be, until the end of the sanctions, handed over to North Korea. The C1 Chemistry project is likely to have been postponed for this reason. Although there is a slight chance that the equipment might have been sent over to North Korea despite sanctions or that North Korea would finish the project with their own equipment, there has already been a major setback in the construction schedule.

C1 Chemistry is but one of many cases. Other sectors have likely faced such setbacks. North Korea has made great efforts to localize machinery in line with the principle of self-reliant economy, so machinery imports accounted for only a small portion of its overall import volume. Still, as being completely self-reliant on machinery is almost impossible, finishing investment projects in time inevitably necessitates imports of certain equipment and components that cannot be self-produced. From the beginning of the Kim Jong-un regime to the end of 2017, North Korea's machinery imports had increased drastically, showing that they were crucial to the country's economic development. Therefore, the sanctions that began in 2018 seem to have caused major setbacks on many investment projects planned under the Five-Year Strategy.

Chronic Power Shortages

Basic directions laid out by the Five-Year Strategy were also important factors in the Strategy's failure. On the surface, the Strategy was aimed at industrial modernization by promoting the information, high-tech, and knowledge industries. In reality, however, it sought to reconstruct its traditional state enterprises centered

7) “中國煤氣化技術進軍朝鮮,” SOHU.com, March 27, 2019.
<https://www.sohu.com/a/304202780_697078> (Accessed February 15, 2021).

around the mining and heavy and chemical (metal, chemical, mechanical, and construction materials) industries. North Korea's traditional enterprises generally suffer from cost-inefficiency. They use too much raw materials, electricity, and manpower, but the production volume is not enough and the quality of products is low. The Strategy was regressive in that it was aimed at the reconstruction of the inefficient traditional industries, rather than shifting to more efficient modern industries.

The worst consequence of the regressive strategy was the chronic power shortages. In order to rely completely on local resources, North Korea's heavy and chemical industries depended on antiquated technologies, resulting in serious inefficiency. The main culprits were the coal chemical industry that relied on coal rather than petroleum and the steel industry that relied on '*Juche*-iron technology' which does not use cokes. The railway system was also centered around the electric railways, consuming too much electricity. In all, reconstructing the traditional state industries increased electricity consumption and, as a result, power shortages remained despite increasing supply.

Though Pyongyang tried hard to increase power supply, "major factories and enterprises [...] as well as local factories and farms around the country are eagerly demanding more electricity, and production at some coal and other mines has halted due to lack of electrical power," as pointed out by Kim Jong-un at the Second Full Session of the 8th Central Committee of the Workers' Party of Korea.⁸⁾ The cabinet, the State Planning Commission, and the Ministry of Electric Power Industry's plan for producing electricity this year lower than the present level implies that power supply is likely to further diminish in the future, despite Kim's criticism of the plan.

Why is power supply diminishing despite the construction of hydroelectric power plants and restoration of thermoelectric power plants during the Five-Year Strategy period? The stopping of equipment imports following the UN sanctions is the likely reason. The decade from the late 2000s to 2017 saw a sizable increase in the import

8) "Reporting on the 2nd Plenary Meeting of the 8th Congress," Rodong Sinmun, February 12, 2021.

of power generating equipment (generators, motors, small-scale power generating units, transformers, boilers, water turbines, solar panels, electric wire and cable, power distribution equipment, etc.). This shows that this period saw active construction and modernization of power plants and power distribution networks. Hence, the import ban that began early 2018 must have troubled investment projects in the power sector severely. Also, the prolonging of the sanctions limited the ability to repair and maintain facilities, frustrating even the maintenance of the current supply level.

Disruptions from Haphazard Adjustments

North Korea has also exhibited problems in the way they implemented the Five-Year Strategy. It has seen continued growth of markets and private economic activities, but most of its major industries such as mining, heavy and chemical industries, electric power industry, construction, and railways are under state control. State enterprises act on the orders of their superiors, not on market signals, and this feature appears even more pronounced among big enterprises in key industries and large-scale construction projects. While socialist economies are usually called planned economies, plans are not implemented as planned, but rather modified frequently in line with changes of situation and the political considerations of leaders, and sometimes whole new projects are added. In the process, economic disruptions may occur, damaging performance and wasting manpower and resources.

For instance, in July 2018, Kim Jong-un visited the construction site of Orangchon Power Station in North Hamgyong Province, one of the projects in the Five-Year Strategy. There, he lamented why officials left the situation to the point where constructions have halted due to the lack of resources and called for increase in production and transportation of all necessary equipment and materials at every level.⁹⁾ Orangchon's Palhyang Dam, which took 17 years to build 70% of, has been

9) "Comrade Kim Jong-un, the Chairman of the Korean Worker's Party, guided the construction

finished in just 15 months on October 2019 after Kim Jong-un's order.¹⁰⁾ This shows how the Five-Year Strategy's investment plans were unreasonably worked out and how projects that were not priorities have been neglected. The order of the Supreme Leader has enabled the completion of the once-neglected project, but it seems to have occurred as a result of diverting manpower and resources from other projects, causing them difficulties.

Haphazard adjustments that deviate away from the initial plan may disrupt not only existing but also new projects. For instance, let's look at the Pyongyang General Hospital which suddenly began to be built in March 2020. In July, four months after the first shovel, Kim Jong-un visited the site and criticized officials for not properly setting up a construction budget, managing the project carelessly, deviating from proper policies on supplying equipment and materials, and laying the burden on the people.¹¹⁾ The construction of the hospital was planned to be completed in October of the same year, but it still has not ended as of February 2021.

Such cases show the typical problems of a socialist command economy. Since Kim began his reign, North Korean leadership has shown a much stronger willingness to develop economy, which was often perceived as one of the favorable factors for economic development. However, the interest and willingness of the leadership can only bear fruit if they converge well with rational and efficient planning. All of the socialist countries that existed in the 20th Century have failed to carry out rational and efficient plans because, under a state-run command economy, it is extremely difficult to overcome the inherent problems of information and incentives.

These problems tend to get worse when leaders are overly motivated to pursue economic development. Leaders who are not familiar with detailed circumstances such as the lack of resources or manpower tend to push for unreasonable projects

site of the Orangchon Power Station," Rodong Sinmun, July 17, 2018.

10) "Monument of the Implementation of Party Policies – Orangchon Power Plant Palhyang Dam," Rodong Sinmun, October 6, 2019.

11) "Comrade Kim Jong-un, our dear Supreme Leader, guided the construction site of Pyongyang General Hospital on site," Rodong Sinmun, July 20, 2020.

under subjective judgments. It seems that many projects of North Korea's Five-Year Strategy have failed to be completed due to frequent changes in plan and disruptions on the supply of materials and manpower. Unfinished projects were commonplace in the communist USSR, China, and North Korea in the past, and the same phenomenon seems to be reoccurring today in North Korea.

Demoralization, Weakening of Discipline, and Stagnant Productivity

The Five-Year Strategy began with the '70-Day Battle (Feb. 23 – May 2)' and '200-Day Battle (Jun. 1 – Dec. 15)' in 2016 and ended with the '80-Day Battle (Oct. 12 – Dec. 30)' in 2020. In the process, Pyongyang has repeatedly launched campaigns for raising work effort and production. According to North Korean media, North Koreans seem passionate about production and well-disciplined for work. However, if such an image was true, there wouldn't be a need for the 'battles.' Campaigns for raising work effort are carried out because of the lack of work motivation. The fact that work campaigns were constantly at issue implies that it was hard to carry out the Five-Year Strategy.

Can campaigns for raising work effort increase production and construction? While the lack of data prohibits a clear answer, past experiences of socialist economies attest that such a policy may benefit the economy in the short-run, but is likely to have the opposite effect in the long-run. No one feels happy when hard work does not pay off. In cases like North Korea today where economic conditions are deteriorating due to external constraints, the opposite effect can hit much harder. The consequent dissatisfaction may cause demoralization, weakening of discipline, and stagnation in productivity.

To stop such a downfall, authorities should endlessly watch over producers, punish low performers, and reward high performers. However, in a deteriorating economy, monitoring and control become more difficult. Since making a living is a grave concern not only for the general population but also for the officials of power organizations, economic rewards should be given for them to faithfully serve their

role. North Korean officials seemed to be relatively more hard working under Kim Jong-un, but the motivation derived from the greater inflow of hard currency earnings made possible by favorable external conditions prior to the current sanctions.

However, with UN sanctions blocking the earnings, they must have been even more demoralized than ordinary people. As worsening economic hardships weaken discipline, interests of each sector, institution, department, enterprise, and ultimately individual will be increasingly put ahead of national interest. This weakening of discipline may intensify the economic disruption and contraction.

Kim Jong-un's strong criticism against the top officials during the Second Full Session of the 8th Central Committee seems to have stemmed from such worries. He warned that "if bureaucratism and corruption are individually committed anti-party and anti-people behaviors, privileges of some organizations and departmentalism are more severe anti-party, anti-state, and anti-people behaviors under the guise of department and organization." He also pointed out that "those officials in the economic sector have fallen into the traps of self-protection and defeatism where they take conditions and environment hostage, wait and see, and pretend to be doing something when they are actually not."¹²⁾ Such warnings or criticisms, however, are unlikely to prevent the demoralization, weakening of discipline, and economic stagnation. Purges and punishments will follow, but those measures would not provide the solution either. Those conducting the purges and punishments are also members of the bureaucracy, and they are also likely to experience dissatisfaction, demoralization, and weakening of discipline.

The COVID-19 Shock, Self-Reliance, and Economic Crisis

While North Korea's investment projects based on the Five-Year Strategy have been deeply hurt by sanctions against the import of capital goods since early 2018, consumption spending had not been affected until the end of 2019. The UN sanctions

12) "Reporting on the 2nd Plenary Meeting of the 8th Congress," Rodong Sinmun, February 12, 2021.

do not prohibit the import of ordinary goods other than capital goods, allowing North Korea to use existing foreign reserves to continue its imports. However, with COVID-19 related border blockades, imports have halted almost completely in 2020, exposing severe economic hardships. In other words, the external shock has made more strict self-reliance inevitable.

While North Korea has laid out its next Five-Year plan to improve the economic situation, prospects are grim. Unless North Korea accepts the international community's demand for denuclearization, sanctions will not be lifted. Prior to sanctions, North Korea had already been focusing on reviving its state-run economy based on self-reliance, and, since the sanctions have been imposed, it is pursuing a more rigid form of self-reliance under the title of 'frontal breakthrough.' Although lowering goals for a new plan under the name of 'maintenance and reinforcement strategy' can be deemed desirable, the basic direction of the planning is still retrogressive as indicated by its focus on the metal and chemical industries, which are at the heart of self-reliant, traditional economy. Likewise, excessively tightening state control over the economy is another undesirable measure that could regress marketization and economic management reform. North Korea's economic crisis will continue, unless it shifts to a whole new developmental strategy based on denuclearization and the economic opening to external world. ©KINU 2021

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