



2022.7.31.

National Assembly Futures Institute

2021 NAFI Annual Report



NATIONAL ASSEMBLY
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President's Message



The National Assembly Futures Institute (NAFI) predicts and analyzes the changes in the future environment and identifies national mid- to long-term development strategies to conduct research that will strengthen the policy capabilities of the National Assembly and contribute to national development, according to the purpose of establishment under the National Assembly Futures Institute Act.

In 2021, NAFI conducted mid- to long-term research focusing on the core agenda. We have reformed our research project system to focus on future core issues on the national level, including inequalities, climate crisis, innovative growth, low birth rates and aging society, national integration, and welfare systems. Also, based on in-depth analyses on related policies and domestic and international cases, and future prospects, NAFI proposed directions for mid- to long-term strategies that include a legislative perspective.

To expand the diplomatic contribution of the National Assembly, experts from Korea and overseas came together for a joint research project to build a global research network based on a core global agenda. With events including global strategic discussions, there were opportunities to identify possible solutions and discuss mid- to long-term global strategies at the National Assembly level.

To encourage evidence-based research on the future, NAFI increased the level of openness for the institute's data to be applied in various areas. NAFI systematically accumulated research and analysis data on the public, and disclosed the data to be applied in policy designs. By conducting research on improving the quality of life of the Korean people, NAFI secured a stable base of quality data to establish a foundation for research on the future.

For the past year, NAFI served as an executive secretariat for the National Mid- to Long-term Agenda Committee which was established as an advisory organization that directly reports to the Chairman of the National Assembly. NAFI published the research findings from "Future Vision 2037: Transition from Growth-Oriented to Matured Society" that forecasts the next 15 years. We expect that the National Assembly will play an active role in the consultation and coordination process on the mid- to long-term agenda at the national level, which the three governments should continue to pay attention to.

For those of you who wish to learn more about NAFI's 2021 research, we highly recommend that you read individual reports. All reports from NAFI can be downloaded on the NAFI website (www.nafi.re.kr).

I hope that this report can help you understand research on the national mid- to long-term agenda and NAFI.

July 2022

Kim Hyeon Kon

President, National Assembly Futures Institute

김현곤

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Research Projects in 2021



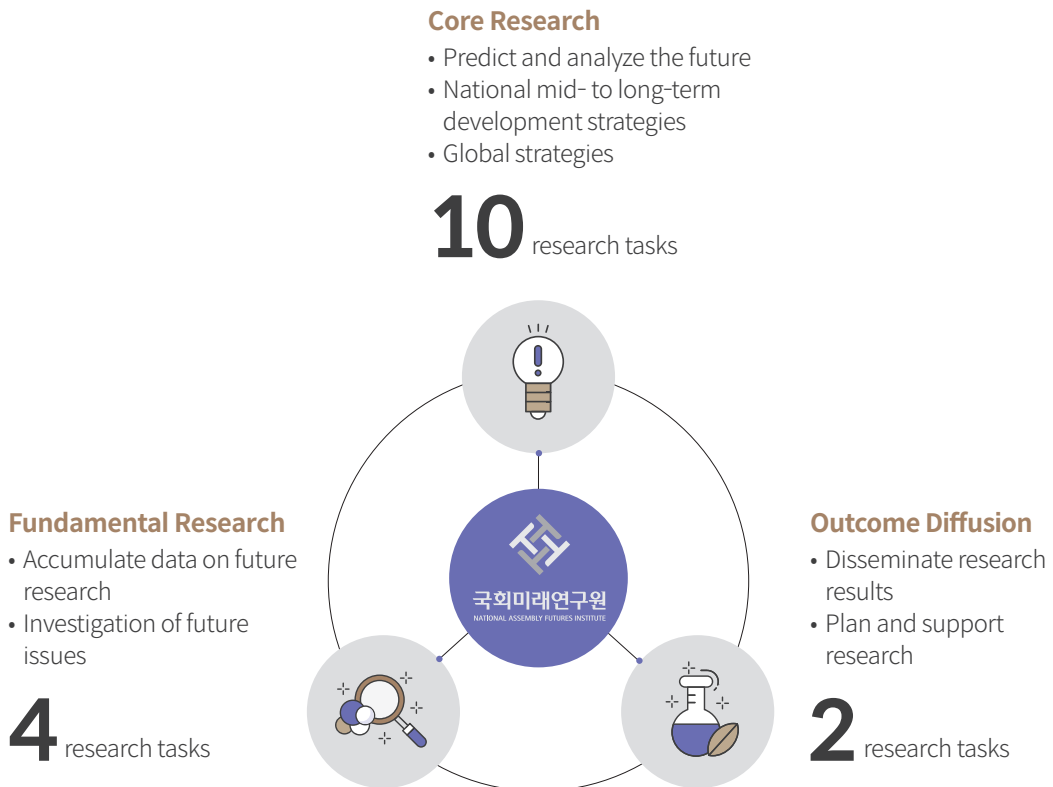
NATIONAL ASSEMBLY FUTURES INSTITUTE



1. Characteristics of Research Projects
2. List of Research Outcomes
3. Research Reports
4. Brief Reports
 - (1) National Future Strategic Insight
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1. Characteristics of Research Projects

▣ Strengthen core research areas to achieve the purpose of the institute



- **(Overview)** Reform the research project system to include “Core Research,” “Fundamental Research,” and “Outcome Diffusion,” and select and focus on necessary research projects that fit the purpose of the institute

- **(Core Research)** Predict changes regarding future circumstances, conduct in-depth policy research to respond to the future, and conduct research on mid- to long-term global strategies and how to support of the diplomatic efforts of the national assembly based on projects related to predicting and analyzing the future, national mid- to long-term development strategies*, and global strategies
 - To continuously implement research related to the core future agenda that should be focused at the national level, select core projects focusing on the eight major agenda* by accumulating ideas from within the institute and outside the institute
- * Future prediction, inequalities, climate crisis, innovative growth, low birth rate and aging society, national integration, welfare system, global strategies
- **(Fundamental Research_Accumulate Data)** Plan, implement, and accumulate data regarding research on various topics including the happiness of the Korean and indices to respond to the future to build a foundation for future research

Overview on the Major Activities Related to Creating and Accumulating Data on Future Research

| Year | Major Activities Related to Major Research Projects on Data | | |
|------|--|--|---|
| 2018 | <ul style="list-style-type: none"> • Preferred values pertaining to the future(Foundational research) | - | - |
| 2019 | <ul style="list-style-type: none"> • Study on values of adolescents (Pilot) | <ul style="list-style-type: none"> • Happiness index system • Foundational research based on measuring happiness | - |
| 2020 | <ul style="list-style-type: none"> • Study on the values of the future generation (Actual research) | <ul style="list-style-type: none"> • Study on the happiness of the Korean • Changes in life after COVID-19 | <ul style="list-style-type: none"> • Develop indices to respond to the future(Foundational research) |
| 2021 | <ul style="list-style-type: none"> • A Study on the Happiness and Values of the Korean | | <ul style="list-style-type: none"> • Improve indices to respond to the future • Analyze the government's mid- to long-term plans with the indices |

- **(Fundamental Research_Investigative Research)** With investigative research based on the areas of specialization of the research staff, make theoretical, academic and political contributions, and apply the findings to identify topics for research plans for the next year
- **(Outcome Diffusion)** Strengthen the role as a platform for exchange and cooperation on future research, and promote and disseminate research outcomes via various communication channels

▣ List of Research Projects in 2021

| Field | Project | Research Tasks |
|----------------------|--|--|
| Core Research | Foresight and Analysis | Advancements in Methodologies to Investigate Emerging Issues and Predicting the Development of Major Issues |
| | | Inequality and Education: Suggestions to Improve Possibilities to Move Up the Social Ladder |
| | | A Study on Legislation Challenges to Support Industry in Response to Climate Change and Predicting Policy Effects |
| | National Mid-to Long-term Development Strategies | A Study on Identifying Strategy Tasks for Innovative Growth in the Post-COVID Era |
| | | A Study on Strategies to Adapt to an Era of Low Birth Rates and Aging Society |
| | | A Study on Policy Governance for National Integration |
| | | Transition of the Social and Economic System and Suggestion for a New Welfare System |
| | | Organizing the National Mid- to Long-term Agenda Committee |
| | Global Strategies | The Effects of the US-China Conflict on International Relations and the Roles of the National Assembly |
| | | A Study on Agenda to Strengthen Diplomacy at the National Assembly and Strengthening Global Networks |
| Fundamental Research | Accumulate Data on Future Research | A Study on the Happiness and Values of the Korean People |
| | | A Study on National Preferences regarding Future Policies |
| | | A Study on Building Indices for the Future Society and Their Management |
| Outcome Diffusion | Exploratory Research | A Study on the Improvement of Professional Expertise of Research Staff Members and Investigation for Planning Future Core Research |
| | Disseminate research outcomes | |
| | Plan and support research | |

2. List of Research Outcomes

| Field | Project | No. | Research Reports | PI |
|---------------|--|-------|---|-----------------|
| Core Research | Foresight and Analysis | 21-01 | The Analysis of Emerging Issues | Park Seong-won |
| | | 21-02 | Education Inequality and Social Mobility in Korea | Sung Moon-ju |
| | | 21-03 | Lifelong Learning Experience and Social Mobility of Underprivileged Groups of Labor Market | Sung Moon-ju |
| | | 21-04 | A study on legislative measures for industrial support in response to the climate crisis | Jeong Hoon |
| | | 21-05 | A study on industrial policy measures and the prediction of policy impact in response to a carbon border adjustment mechanism | Jeong Hoon |
| | | 21-06 | Towards a more resilient Korean innovation system: Investigating the innovation strategies for building resilience for the post-COVID-19 era | Yeo Yeong-jun |
| | National Mid-to Long-term Development Strategies | 21-07 | Comparison and analysis of demographic structure and social expenditure in OECD countries | Lee Chae-jeong |
| | | 21-08 | Evaluation of response policies for low birth rates and an aging society | Lee Chae-jeong |
| | | 21-09 | Reviewing strategies for adapting to low birth rates and an aging society | Lee Chae-jeong |
| | | 21-10 | A Study of National Governance for National Unity: The Politics of Coalition | Park Hyeon-Seok |
| | | 21-11 | National unity : A preliminary review to form a social citizenship-centered agenda | Park Sang-hoon |
| | | 21-12 | A Study on the Transformation of the Global Economic Paradigm: US Economic Policy and Growth Scenarios | Lee Sunhwa |
| | | 21-13 | Design of a new welfare system that reflects changes in the socioeconomic system | Lee Sunhwa |
| | | 21-14 | Comparison between the socioeconomic system transition and response system by welfare state typology | Lee Chae-jeong |
| | | - | Future Vision 2037: Transition from Growth-Oriented to Matured Society | Kim You-bean |
| | Global Strategies | 21-15 | An analysis of the US-China Tech Competition and Korea's Strategy | Park, Sung Jun |
| | | 21-16 | The Future of US-China Competition for Technological Hegemony : Analysis on the Global Strategies and its implication for the South Korean Strategy | Cha Jung-mi |
| | | 21-17 | The Future of US-China Tech CompetitionGlobal Perceptions, Prospects, and Strategies | Cha Jung-mi |
| | | 21-18 | Foreign Policy and the role of the Parliament: A Cross-National Comparison | Park Hyeon-Seok |

| Field | Project | No. | Research Reports | P.I |
|----------------------|------------------------------------|-------|---|----------------|
| Core Research | Global Strategies | 21-19 | The Role of Congress in the Peace Process: Directions and Alternatives for the National Assembly in the Peace Process on the Korean Peninsula | Kim Tae-Kyung |
| | | 21-20 | Climate Change and International Politics: U.S.-China relations and International climate cooperation | Cho Haein |
| | | 21-21 | The US-China Tech Competition and Korean Economy | Park, Sung Jun |
| Fundamental Research | Accumulate Data on Future Research | 21-22 | Descriptive Analytic Research on 2021 Koreans' Happiness Survey (1 ST Wave) | Heo, Jongho |
| | | 21-23 | In-depth Analytic Research on Koreans' Happiness Survey and Future Values Survey | Heo, Jongho |
| | | 21-24 | A Study on Policies for a Better Future and People's Preferences | Park Seong-won |
| | | 21-25 | Preparing Society for the Future: Indicator System and Monitoring Plan | Min Bo-gyeong |

3. Research Reports

The Analysis of Emerging Issues

P.I Park Seong-won

In the field of futures studies, signs and signals of the future are called emerging issues. Emerging issues are issues that would bring huge changes to society in the future, although insufficient data regarding emerging issues have appeared at present. In order to identify emerging issues in advance and prepare for them, major futures research institutes around the world put a lot of effort into emerging issue analysis under various names such as weak signals, wild cards, and early warnings.

The National Assembly Futures Institute collaborated with Professor Min Song's research team at the Department of Library and Information Sciences, Yonsei University to collect 1.5 million academic literature items and applied its own computer algorithms and machine learning to derive emerging keywords. Emerging keywords are ones that are receiving new attention from experts and are expected to be mentioned more frequently in the future. About 100 domestic experts were provided with emerging keywords and asked to pick out emerging issues using the keywords, and about 70 emerging issues were identified. Researchers at the National Assembly Futures Institute rearranged these into 36 emerging issues and sent them back to 42 experts to evaluate them based on their possibility and social impact.

For example, the escalating conflict between the United States and its global allies and China, new space appeared in response to climate crisis, radical energy transition in transportation and logistics, the increase in asocial behavior, and the appearance of the mosaic family have been raised as emerging issues that will have a great impact on society.

In addition, emerging issues such as robot autonomy and social consensus, emphasis on the public nature of land, entering life in space, and eco-fascism, which are relatively unlikely to occur, but that may have ripple effects on society, were also identified.

Emerging issues research can be said to be important in terms of promoting and enhancing the capability of citizens to think about and formulate responses to various changes regarding the future by assessing issues that society has not yet determined the nature of – whether they are problems or opportunities.

Education Inequality and Social Mobility in Korea

P.I Sung Moon-ju

This study investigated the trend of educational inequality in Korea, focusing on the extent to which family and income background and gender affect access to higher education.

Chapter 1 briefly addressed the discourse on overall education inequality in Korea as an introduction.

Chapter 2 addressed the inequality and gender gap in college entry, analyzing the latest panel data. Through the analysis, it was found that in terms of admissions to four-year and prestigious universities, the gender gap completely disappeared and differences only existed between classes. However, it was found that the gender gap between men and women in lower class is growing with respect to admissions to college and four-year universities. Meanwhile, the gap between men and women in the selection of science and engineering majors was not narrowed, but instead was strengthened.

Chapter 3 focused on educational inequality and gender gaps in graduate school advancement in Korea using the latest data. In the graduate school entrance analysis, the influence of the socioeconomic class of the student's family on advancement to graduate school was confirmed. The results showed that the socioeconomic class of the student's family had a statistically significant correlation with graduate school advancement in Korea. In addition, it was demonstrated that the degree of the correlation between parents' income and education level and graduate school advancement differs by gender. The findings imply that family background is a more important determinant for women going to graduate school than men.

Lastly, Chapter 4 provided implications for policy-making based on these findings.

Lifelong Learning Experience and Social Mobility of Underprivileged Groups of Labor Market

P.I Sung Moon-ju

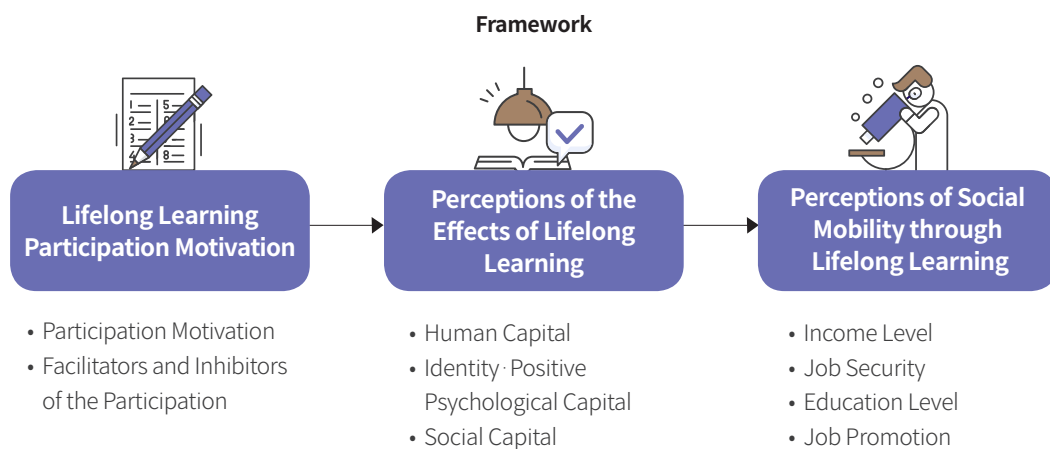
The rapid changes in the labor market caused by technology advancement are expected to have a great impact on underprivileged workers who are not highly educated or skilled. For this reason, lifelong learning is necessary for those workers to continuously develop their knowledge and skills in order to deal with changes in the future labor market and improve the social mobility of their social class.

The purpose of this study was to understand how and why the lifelong learning experiences of the underprivileged in the labor market have had an influence, or not, on their social mobility. This study specifically explored the motivations of the underprivileged to participate in lifelong learning programs, as well as their perceptions of opportunities and access to the programs. This study further explored how the underprivileged perceive the effects of lifelong learning in terms of changes in human, psychological, and social capital, and how those effects contribute to improving their social mobility.

To accomplish the purpose, this study conducted five focus group interviews with 19 workers and one-to-one interviews with seven workers from underprivileged groups in the labor market. The results of this study showed that the underprivileged who participated in lifelong learning programs have, to some extent, experienced changes in human, psychological, and social capital, and those changes contributed to entering labor market or promoting their employability. However, the effectiveness of lifelong learning programs on social mobility was shown to vary according to the social contexts in which the workers were placed, the types of learning programs and curricula offered, and the workers' motivations to learn and overall learning strategies.

This study provides implications for lifelong learning policies that are aimed toward underprivileged workers. Various strategies need to be planned and implemented to improve underprivileged workers' physical and psychological access to lifelong learning in formal and non-formal educational contexts. As positive experiences in lifelong learning can lead to continuous efforts to learn, comprehensive learning supports need to be provided for underprivileged workers, so that they can experience changes in their work and lives as a result of their participation in

lifelong learning. Also, policies need to be established and implemented to integrate lifelong learning and career development programs for underprivileged workers. In addition, certification systems and recognition of prior learning needs to be advanced and sophisticated in a way to be highly reliable and easily utilized in the labor market and formal education system.



A study on legislative measures for industrial support in response to the climate crisis

P.I Jeong Hoon

As climate change accelerates, the world has been pushing for Carbon Neutrality. Thus far, over 130 countries have declared their intent to eventually achieve Carbon Neutrality, and the developed countries, including the EU, have been reorganizing their climate change policies and laws from a long-term perspective with the goal of achieving carbon neutrality and sustainable development. Korea has also joined this effort, declaring its intent to achieve carbon neutrality in Oct. 2020, and has been preparing to reorganize its climate change policies and laws.

Furthermore, these global movements to respond to climate change request industries to take environmental and social responsibilities. ESG (Environmental, Social, and Corporate Governance) and RE100 are corporate initiatives that are spreading worldwide, and the European parliament has proposed the introduction of the Carbon Border Adjustment Mechanism (CBAM) to prevent carbon leakage and secure a level playing field for EU producers. As Korea, which is highly dependent on exports, can be particularly affected by the introduction of such a system, it is necessary to prepare response strategies.

From this point of view, the National Assembly Futures Institute (NAFI) has sought the direction for improving the domestic legal system and policies to enable an effective response to climate change. To this end, we investigated the problems of existing domestic climate change legislation and policies. We compared and analyzed domestic and foreign climate change legislation and policy trends through literature research and a Semantic Network Analysis (SNA). A Delphi survey of 25 climate change experts was also conducted.

Based on our analysis of domestic and foreign policies and laws and the results of the Delphi survey, a direction for improving Korean legislation to the level of advanced countries and policy measures for industrial support were presented.

A study on industrial policy measures and the prediction of policy impact in response to a carbon border adjustment mechanism

P.I Jeong Hoon

To respond to the accelerated climate crisis, the world is aiming to transition to a carbon-neutral society. The transition to a carbon-neutral society is a large and difficult task that requires extensive transformation of the fossil fuel-based economic and social system that has driven the development of modern human society. If we do not develop a thorough plan to guide this transition, not only will we lose trust in the international community, but the national economy will also suffer.

In particular, the introduction of the Carbon Border Adjustment Mechanism (CBAM), which was recently announced by the European Union (EU), heralds a change in the international trade order. This is expected to have a significant impact on the Korean economy, which is highly dependent on exports, and hinges on major industries that emit large amounts of greenhouse gas. Not only is the steel industry affected, as it is expected to apply CBAM from 2023, but the scope of CBAM is likely to expand in the future. This is why we have to preemptively respond to CBAM in order to ensure the competitiveness of our export industries.

Accordingly, the National Assembly Futures Institute (NAFI) has analyzed the impact of the introduction of CBAM on domestic industries by calculating the amount of additional burden on domestic industries following its implementation. NAFI subsequently proposed policy measures to support industries as they respond appropriately. The study found that the amount of additional burden on the domestic industry could reach trillions of won if the EU CBAM is fully introduced in 2030. The full introduction of CBAM here means that CBAM would be applied up to Scope 3 for all industries. It was also confirmed that the additional cost burden caused by the full introduction of CBAM can lead to declines in major macroeconomic indicators such as GDP, social utility, and investment.

However, it was also confirmed that the faithful implementation of the existing energy transition, as well as policies to support industry – such as R&D subsidies – can reduce the burden on industries and restore the economic indicators that have fallen. Through these results, we can see how urgent and important the response to CBAM is, and how important it is to design and implement effective policies.

Towards a more resilient Korean innovation system: Investigating the innovation strategies for building resilience for the post-COVID-19 era

P.I Yeo Yeong-jun

Our socioeconomic system is facing grand challenges from the future environment, along with structural problems accumulated from the past. In particular, with the COVID-19, we were able to experience many changes in the economic system, in terms of global supply chains, industrial competitiveness, local communities, and society in general. Therefore, it is now time to establish a national strategy to prepare for a “new normal”, not simply discuss recovery. In order to promote the sustainable development of the socioeconomic system of the future, it is necessary to consider securing resilience capabilities with in-depth understandings of the characteristics of future environmental changes.

With this background, by combining quantitative and qualitative approaches, we have attempted to derive megatrend scenarios that characterize mid- to long-term socioeconomic changes in the post-COVID-19 era, and proposed policy alternatives for each scenario.

Accordingly, we have tried to explore various future possibilities by identifying the key drivers and their interactions which are related to the efforts to search for innovative alternatives to respond to socioeconomic changes in the post-COVID-19 era. Based on these quantitative findings, we have proposed 10 key megatrend scenarios such as, promotion of digital transformation for social innovation, wide spread of telemedicine ecosystem and relevant institutional changes, etc. In addition, by proposing policy options for each major scenario based on the qualitative approaches, we aimed to explore mid- to long-term policy directions to secure the transformative resilience capability of the Korean innovation system. We expect that the key findings of this study will provide opportunities to reflect on the direction to be taken for the recovery and great transformation of our socioeconomic system and to gather policy efforts.

Comparison and analysis of demographic structure and social expenditure in OECD countries

P.I Lee Chae-jeong

This report examined the changes in the demographic structure of each Organisation for Economic Co-operation and Development (OECD) country and reviewed the factors associated with changes in fertility rates. After the Korean War in 1953, Korea showed a high fertility rate of 6 births per woman in 1960, but has steadily declined since the early 1960s. In addition, during the global oil crisis in the 1970s, the fertility rate fell due to the global economic downturn in the early 1980s, and declined again following the 1997 economic crisis. Since then, the total fertility rate has continued to drop due to a sharp decline in the proportion of married women.

Through analyzing the characteristics of each OECD country, its social expenditure structure, and its resource allocation efficiency, it was found that Korea has a lower tax revenue relative to its economic level (GDP per capita), and Japan's elderly population ratio exceeds 25%. In addition, Korea has the highest ratio of working-age people in the population when compared with countries with similar economic levels. Further, its fertility rate is the lowest among all OECD countries, approaching the 1.0 births per woman range.

As a result of examining the relationship between the characteristics of OECD countries and the amount of social expenditures, it was found that there is a strong and positive correlation between total tax revenue and social expenditure in Korea. Korea is a low-burden, low-welfare country; the ratio of the elderly population is equivalent to what is identified in middle- and low-income countries, and the size of the country's social expenditure is lower than that of other countries with the same ratio of older adults. Meanwhile, Korea is a country with a high ratio of working-age people and has low social expenditures, which differs from the average country, and may reflect the fact that the Baby Boomers have not yet retired. Despite the low fertility rate in Korea, the scale of social expenditures is low and falls beyond the confidence interval.

In addition, in order to understand the social expenditure efficiency, the Stochastic frontier analysis (SFA) method was used to analyze the social expenditure efficiency in OECD member countries. The analysis identified that while income inequality or subjective life satisfaction did not vary greatly between countries, Korea showed a median level across both variables; further, income

and job efficiency were low, and housing conditions and work–life balance were high in light of efficiency versus budget inputs.

For 15 years, the Korean government has been promoting a step-by-step policy in response to its low birth rates and aging society. However, it has undergone large and small changes each year, and basic plans have been developed based on changes in the country's regime and policies. With respect to the required budget, some differences were identified, but the budget across policy fields tended to increase each year, and the growth rate also increased.

When establishing its second basic plan, the government attempted to achieve the following: ① expand the policy target to dual-income households and Baby Boomers to enhance satisfaction with and effectiveness of the policy; ② establish and promote multilateral and comprehensive measures; and ③ promote pan-social policy cooperation. The third plan differs from the previous two plans in that it attempts to provide a comprehensive and structural approach by creating a paradigm shift in how to respond to the low birthrate and aging society. The third plan underwent a restructuring process, in which the number of tasks was reduced and its effectiveness was increased. Tasks not related to policy goals were excluded from the basic plan to maintain the budget and focus on the most effective tasks; existing tasks were classified and various levels of autonomy were granted based on importance. In order to efficiently reorganize the basic plan that aims to address the low birth rates and aging society in Korea, which is the top basic plan in Korean social policy, it is necessary to clarify the priorities of individual policies and seek specific measures to enhance the efficiency of these major policies.

Evaluation of response policies for low birth rates and an aging society

P.I Lee Chae-jeong

This report examines the distribution of social risks by life cycle, conducts a meta-evaluation using the results from a performance evaluation of policies included in the government's Basic Plan for Low Fertility and Aged Society from 2007 to 2018, and analyzes the distribution and gaps of regional social services for children and the elderly. By evaluating the policies developed in response to the low birth rate and aging of society, the report derived the following implications.

First, the study found that material poverty, which refers to direct poverty experiences and income poverty, is related to physical and mental health and suicide. However, the government's policies have not reflected policy issues that required policy intervention, such as mental health or suicide risk. Further, there were no policy implementation tasks related to the establishment and management of delivery systems, which are essential for alleviating problems through the provision of various social services. Overall, the provision of cash benefits, such as income security policies, as well as a systematic policy mix should be prepared by making linkages with various social services, including education, medical care, and housing.

Second, the budget execution rate for policies that target children, adolescents, and middle-aged people is low, so it is necessary to analyze policies that target these groups by type to seek improvement measures in the policy planning and execution stage. These results suggest that when implementing government policies, a high proportion of the budget was invested in those policies that target the elderly, so that the Basic Plan for Low Fertility and Aged Society may have been promoted for the elderly after retirement.

Third, considering that the degree of achievement of policies for the middle-aged is insufficient, it is necessary to strengthen policies for middle-aged adults in the future. Given the social shock that resulted from the retirement of middle-aged adults, and the subsequent increase of the elderly population, it is necessary to establish a strategy that eases the transition to a super-aged society through various social policies for the middle-aged.

Fourth, with respect to income security policies, the budget execution rate was lower than that of other policies, but the target achievement rate was higher. Further, it will be easier to achieve goals of income security policies when compared with other policies because there are many cash transfer policies, such as the child allowance and basic pension. However, to change the overall social structure and to develop an infrastructure that responds to future population changes in

society, it is necessary to identify measures to improve the target achievement rates for health, medical, job, and settlement projects with low target execution rates. In addition, it is necessary to examine the possible policy changes that could be triggered by demographic changes, so that income security policies – which receive continuous investments in the form of large budgets – can be efficiently implemented.

Fifth, it is necessary to analyze the distribution of and gaps in major social services by region to identify ways to establish and operate an efficient social service delivery system in response to changes in the demographic structure. When looking at the distribution and gap analysis results of major social services that target children and the elderly, it was found that different approaches are needed to reorganize the social service delivery system based on the type and region of service provided. Considering the distribution of the population by region, measures need to be implemented in areas where the expectations on service providers are excessive; alternatives are needed to inform the quantitative and qualitative expansion and adjustment of delivery systems by service type.

Reviewing strategies for adapting to low birth rates and an aging society

P.I Lee Chae-jeong

This report reviewed strategies that could be adopted in response to the low birth rates and an increasingly aging society, and which could be adjusted by policy type. It also explores plans to rebuild delivery systems based on the main contents of the National Assembly Futures Institute's reports, "Comparison and analysis of demographic structure and social expansion in OECD countries" and "Evaluation of response policies for low birth rates and an aging society." The implications associated with adopting strategies that can be adapted to low birth rates and an aging society by policy type are as follows.

First, the income security policy needs to identify ways to reform the current child allowance and basic pension system to reflect changes in the demographic structure. It is necessary to discuss areas where the level of support is insufficient when compared to advanced countries, and it is important to highlight the need to expand these supports, as they provide insufficient income security. It is also essential to resolve the burden of local expenses and review the effectiveness of the variable subsidy system.

Second, in the area of health care policies, various strategies were discussed by dividing young people and the elderly into different target groups. Health care policies for young people were examined and found to focus on mental health support policies. Youth mental health policies were mostly aimed toward mental illness prevention and early diagnosis, so multidimensional approaches to solving problems are insufficient. With respect to mental illness prevention, concerns about fundamental problems should precede early diagnosis. Access to the interlayered crisis structure faced by young people has not yet been sufficiently achieved, and active linkages with economic, labor, and housing policies are expected after fully considering the socioeconomic situation of young people.

Health care policies for the elderly that focused on aging in place (AIP) were examined. AIP has been proposed as a new long-term care model with the development of the concept of deinstitutionalization and communitybased care. It has emerged as a key concept in the policies on aging in various countries. Long-term care insurance for the elderly in Korea also proposes AIP in policy and aims to establish home care benefits as a priority. To ensure continuous AIP, it is necessary to design a system that considers the situations faced by the elderly together with financial sustainability.

Third, discussions on the educational care policy pertained to its efficient future implementation. Although the number of policy targets continues to decline, it is necessary to derive policy improvement tasks for the efficient and effective operation of childcare systems, particularly given that the number of previously established care service providers or personnel such as childcare teachers, kindergarten teachers, and after-school care providers has not changed. Regarding the financial resources of the childcare system, it is necessary to adjust the amount of financial resources available in situations where low birth rates continue, as current financial grants for local education secure financial resources regardless of changes in the demographic structure.

Fourth, the job policy discussions focused on job policy strategies for middle and old-aged people. The government's desire to create jobs requires continuous management to prevent jobs from being concentrated in the public or social service sectors, rather than in the private sector, to prevent the mass production of low-wage, short-term jobs. The increase in local governments participating in senior job programs, as well as the increase in the number of applicants, are encouraging. However, to accommodate as many applicants as possible under budget constraints, it is more likely that public or social service jobs centered on low-wage short-term contracts will be developed.

Fifth, the housing policy focused on supporting young people and newlyweds. In order to promote a reasonable policy that supports these groups, it was necessary to establish a target group. Rather than focusing on the specific age group of young people and newlyweds, it is necessary to comprehensively grasp the overall population and household structure, as well as the economic and housing situations of various households when readjusting or redistributing priorities. In the mid-to-long term, it is essential that measures be developed to support those in various types of marriage arrangements (e.g., a de facto marriage or other types of marriage).

Last but not least, this report reviewed the plan to rebuild the delivery system for strategies that adapt to low birth rates and an aging society. The government needs to improve the overall delivery system if it plans to implement a care-based safety net to meet the various social service demands that are not typically met by cash benefits. When reorganizing the social security system with a care-based safety net, the question of how to establish this delivery system is almost similar to the question of how to reorganize the existing social service delivery system, which is a state-funded program. Alternatives to the current service provision model, including social insurance and welfare assistance programs, include linking social service delivery systems with specific ministries to establish a care-based safety net that is centered on local communities.

A Study of National Governance for National Unity: The Politics of Coalition

P.I Park Hyeon-Seok

This study aims to find an optimal alternative approach to political governance promote national unity and to manage social conflict through the democratic process. We suggest that electoral laws be changed to increase the proportionality of representation and to reform political institutions to reduce the executive monopoly on political power. Our case study on political governance in the Northern European countries indicates that the coalition politics face gridlock due to the emergence of the right-wing populist parties as major political actors. However, the flexibility of coalition politics either tames the radical preferences of the populist parties or excludes the extremist parties from governing coalitions. In contrast to the concerns about conflicts between presidentialism and multiparty coalition politics, the cross-national analysis in this report shows us that multi-party presidentialism has been surprisingly successful in terms of political performance through coalition politics. Our study also suggests that coalition politics has been useful in dealing with socio-economic crises in Korea. To reduce economic inequality and political polarization in order to promote national unity in Korea, it is important to build a political environment that can encourage coalition politics.

National unity : A preliminary review to form a social citizenship-centered agenda

P.I Park Sang-hoon

The purpose of this report is to explore the tasks associated with national unity and social cohesion by focusing on the high rates of suicide and workplace fatalities in our society. National unity can be addressed from the perspective of political citizenship, but this report is characterized by its approach to social citizenship. Achieving social citizenship should be the goal of national unity; however, as a group that is not focused on this aim, we are trying to look at the agenda of national unity from the perspective of people who have died by suicide or those who are the victims of industrial accidents. Those who have died by suicide are those who have abandoned their status as citizens without saying a word. People who have been victims of industrial accidents are thought to have abandoned their right to work without dying. If their stories are worth exploring to help inform the future of our society, then the findings are expected to expand into research on the poor elderly, those who are living with disabilities, North Korean defectors, and migrants who have moved far away and cannot care for their families and local communities.

A Study on the Transformation of the Global Economic Paradigm: US Economic Policy and Growth Scenarios

P.I Lee Sunhwa

This study provides an in-depth analysis of the changes in long-term economic growth and the factors that brought about those changes in the United States, and provides a long-term outlook for the future growth and transformation of its socio-economic system.

First, developed countries such as the US recorded high economic growth and productivity since World War II until the early 1970s, but growth rates have since slowed. Supply-side economists such as Robert Gordon argue that the slowdown in economic growth that has been seen since the 1970s was due to slowing technological innovation and stagnant growth in productivity. Increased industrial activities since the 1990s also contributed to the lowered productivity growth by worsening allocative efficiency. On the other hand, Keynesian economists such as Lawrence Summers argue that a number of factors, including a slowdown in population growth since the 2000s, have increased savings compared to investment demand, which contributed to stagnant aggregate demand, leading to a fall in the real equilibrium interest rate and finally resulting in long-term economic stagnation. More progressive researchers hold the position that conservative economic policies represented by neoliberalism, along with growing inequality, adversely affected aggregate demand and productivity growth. We emphasize the need to better understand the stagnation of productivity and economic growth from an integrated perspective that encompasses both supply and demand sides, based on a variety of studies that suggest how aggregate demand can affect aggregate supply.

Next, we review in detail the recent rapid transformation in macroeconomic policy, and based on this review, present a long-term growth outlook for the US economy over the next 10 to 30 years. In response to the COVID-19 pandemic, governments in advanced capitalist countries have tried to minimize the adverse effects of the crisis by implementing strong fiscal expansion policies to preserve income and jobs for citizens and support businesses. These macroeconomic policy changes are based on recent developments in macroeconomics that emphasize the role of active fiscal policy.

Recent macroeconomic studies emphasize “the hysteresis effect,” in which demand-side shocks can adversely affect supply-side productivity and potential output through investment in recent technologies or long-term unemployment, and the efforts to overcome them. In particular, it is

argued that productive fiscal spending is beneficial for economic growth and the fiscal soundness of the government, as it is unlikely that the government debt ratio will rise when the interest rate on government bonds is lower than the economic growth rate.

Based on this view, the Biden government of the US is promoting a large-scale public investment plan that includes infrastructure and social safety nets to overcome the COVID-19 economic crisis and boost economic growth. As recent technologies are developing in various fields, it is also forecast that productivity and growth rates will increase in the 2020s if such technological innovation and aggregate demand expansion are combined. The Biden administration is also making efforts to strengthen anti-monopoly regulations on large technology companies, and to improve institutions to strengthen workers' bargaining power. If successful, these reforms could help increase productivity and stimulate aggregate demand. This series of economic policies will lead to transformations of the socio-economic system in the direction of balancing the powers of three actors – the government, capital, and labor – a move away from the neoliberal stance in favor of giant corporations.

Finally, we present the long-term economic growth rates of the US, based on a high-growth (recovery) scenario and a low-growth scenario. The growth recovery scenario is one in which long-term stagnation ends and high growth is realized by accelerating technological innovation and the government's active fiscal expansion in the 2020s. It expects that in the US, the annual real GDP growth rate will be 3.3% from 2021 to 2031. Alternatively, the low growth scenario presents an economic growth rate of 1.9% over the same period, in which economic reform and productivity improvement efforts fail and economic growth stagnation persists.

Since the 1980s, fiscal conservatism, which emphasizes fiscal soundness, has dominated economic policy in Korea, and this tradition has been largely influenced by the US government and international economic organizations. If a paradigm emphasizing the government's fiscal role is established as an economic policy stance for international organizations and advanced economies, this will also lead to a significant change in Korea's economic strategies.

Design of a new welfare system that reflects changes in the socioeconomic system

P.I Lee Sunhwa

This study analyzed the characteristics, structure, origin, and evolution of the Korean welfare system, focusing on its relationship with the production system, and evaluated strategic alternatives for a sustainable welfare system.

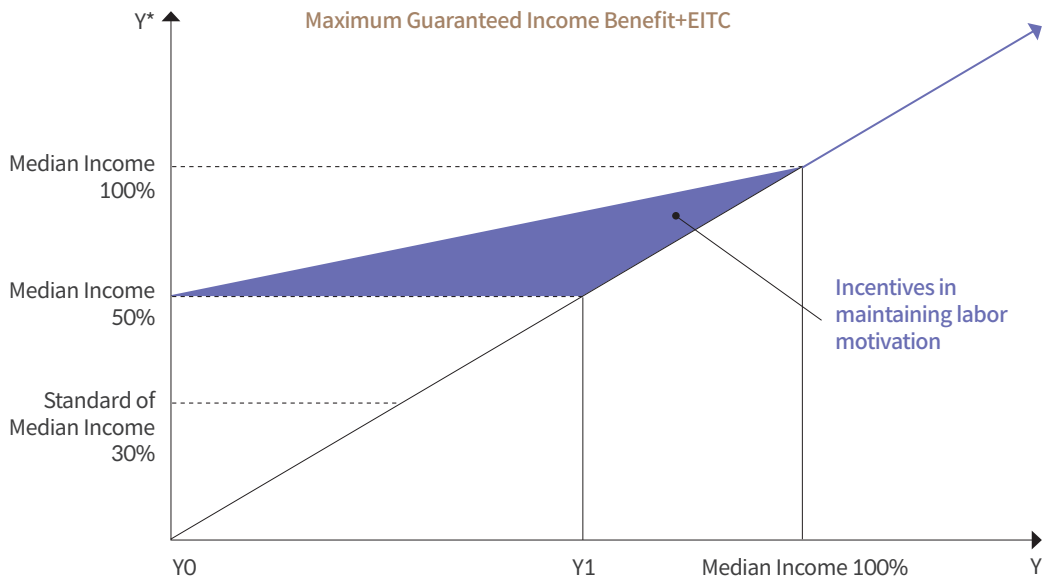
First, we confirmed that Korea's welfare system is a subsystem of the production system, as it supports economic growth during early development. In addition to its low burden and low social benefits, the welfare system in Korea is characterized by an increase in the tax revenue, which is centered on social insurance and offers a dual-structured public and private security system. Since 1987, the Korean welfare system can be best understood through the concept of 'reverse selectivism.' This concept describes the reality that institutionalized welfare policies in response to individual risks, such as unemployment, disease, and aging, are concentrated on those social groups with a relatively stable employment and income. As for public social security, Korea's public welfare system developed as its social insurance expanded following the IMF financial crisis. However, the system was limited to wage workers who were in a relatively stable employment situation and who paid social insurance premiums. Further, the private security system is implemented through private insurance or housing assets, and both the taxes and financial system in Korea are designed in favor of those who can accumulate private assets. Therefore, it can be said that the private welfare system is primarily available to those in higher income brackets.

In short, the reverse selectivity of the Korean welfare system is not just a matter of public welfare, but a combination of private asset accumulation, economic growth model development, labor market trends, and a low taxation system. Korea's production and welfare systems faced a structural transition period following the IMF financial crisis, which has strengthened the contradictions of the Korean welfare system that originated during the industrialization period.

Based on the production and welfare systems of Korea, we derived strategic alternatives for a sustainable welfare system in response to the changes in the socioeconomic system. These alternatives consist of methods which assume that the current production system does not change, and which induce the transition of the production system through the welfare system. We prefer the second strategy, which is designed as follows: First, the public social security system, which was developed to alleviate social risks, should be converted from a system based

on employment relations to an income-based system. Second, for groups who do not engage in income-generating activities, an additional income security system is required to support them to earn a basic living. Finally, in order for the new welfare system to contribute to the innovation of the production system, it is important to improve and restructure the system for companies and to upgrade human capital.

Welfare System Combining Guaranteed Minimum Income Benefit(Median Income) and EITC



Comparison between the socioeconomic system transition and response system by welfare state typology

P.I Lee Chae-jeong

This report examines the patterns in demographic changes, labor market changes, and deepening inequalities in major welfare states classified as having different welfare systems, while understanding how each country is preparing a response system to convert its existing welfare system. To this end, we looked at the changes in demographic structure, labor market, and deepening inequalities faced by the UK (liberalism), Germany (conservatism), Sweden and Finland (social democracy), and examined which response policies they are pursuing.

First, regarding the changes in demographic structure, the institutional response was discussed with respect to the fact that each country is facing an aging population. A comparison of the provision of pensions, medical services, and care services was performed.

In the case of the pension system, reforms were implemented to increase the sustainability of pensions in all countries. As the aging population intensified across all countries, the age of pension benefits was delayed, and the system was changed to help those members who were otherwise unaided by the pension system due to a lack of work history. In the case of medical and care service provision, the problem of financial sustainability was found to be a serious threat as the elderly population increased. Since the state's public responsibility for medical services is strong, and population groups other than the elderly are also subject to these policies, major reforms have rarely been implemented to improve financial sustainability. Meanwhile, in some countries, measures have been taken in the care services to ensure that operators of frontline service delivery systems can carry out their policies efficiently, as they can strengthen the authority of local governments, which govern the service delivery system.

Next, changes in the labor market were examined, which focused on employment status and each country's response to their specific labor market conditions.

In the case of the UK and Germany, as the platform economy expands, it was noted that knowing how to respond to increases in unstable jobs, such as gig jobs and 450 euro jobs, is a challenge. Specifically, the policy implementation method that sought to determine how to include platform workers in the existing social security system should be adjusted according to whether these individuals are regarded as workers or self-employed people. In addition, considering that a large

number of platform workers are earning low wages, discussions are underway on how to establish a social protection system for them. Next, Sweden was found to have experienced fewer challenges related to its welfare system following expansion of its platform economy. This is because in Sweden, a social democratic welfare state that has developed around social allowances, the existing welfare system acts as a mechanism to buffer various problems arising from the platform economy. However, despite Sweden's continuous promotion of active labor market policies, the increasing unemployment trends have not been dampened, raising the need to confirm the effectiveness of active labor market policies. In the case of Finland, a lawsuit is underway in which the administrative court requests judgment on the legal status of platform workers, and no specific discussions are underway to determine how the existing welfare system will respond to the increase in platform workers.

Lastly, individual welfare states' responses to deepening inequalities were approached by introducing discussions on inequality, which should be resolved through continuous consultations with the scholars from each country who participated in this study.

In the UK, wealth inequality and income inequality are intensifying, and wealth inequality again intersects with the issue of intergenerational inequality. However, the wealth tax committee concluded that revisions to existing inheritance and capital gains taxes need to be pursued instead discussing the introduction of a net wealth tax. In Germany, income inequality continues to expand, and the gap between East and West Germany continues to be observed. The expansion of income inequality tended to intensify after COVID-19. In addition, wealth inequality is deepening, and the necessity of discussing tax reforms in recent elections has emerged as a major policy agenda. Sweden is a country with relatively low income inequality when compared to some of the major developed countries; however, the gap between the upper and lower-income groups is gradually widening. Moreover, as a result of examining the difference between the Gini coefficient of after-tax income and the Gini coefficient of pre-tax income, it was confirmed that the redistribution effect of wealth through tax and social policy was weakening. This trend was found to have intensified since COVID-19. Finland, like Sweden, is showing a growing gap between its upper and lower-income groups, and the increase in the working poor has emerged as a major social problem.

Future Vision 2037: Transition from Growth-Oriented to Matured Society

P.I Kim You-bean

Korea was able to modernize at an unprecedented pace, yet the growth of the nation came with social issues that harm individuals and the society, including division and conflict, injustice and polarization, and hostility and confrontation. Against this backdrop, the National Mid- to Long-term Agenda Committee proposed “A Mature Society” as a national vision. This vision is based on the pluralistic view of the society. Instead of sacrificing the society and individuals to realize the development goals of the country, all citizens and leaders should be on equal levels and plan the future of the community together. Moreover, people should be able to lead their individual lives, at their own pace.

For the transition of the Korean society, the National Mid- to Long-term Agenda Committee proposed “Transition from a Growing Society to a Mature Society” as a national vision. The ultimate values of the vision are: “A society that develops based on autonomy and decentralization, led by the country”; “Transitioning from focusing on economic growth to focusing on pluralistic values”; and “Warm community that prioritizes socially vulnerable groups.” To realize the visions and values, the committee proposed 12 mid- to long-term agendas under four core goals of “Empowering individual capabilities and quality of life,” “Community that lives together,” “Paradigm shift and sustainable growth,” and “Global conflict resolutions and cooperation.”

By realizing the vision and agenda of a mature society, the various life values and lifestyles of individuals will all be respected. Everyone will be recognized as a proud democratic citizen, and will be able to create social relationships. It will be possible for the society to expand the scope of social dialog with a sense of solidarity and various communities while reducing inequalities and social gaps. With the “coexistence” of scientific technology, the environment, and man, as well as a paradigm shift for qualitative growth, the country will be able to develop new innovative engines. By restoring trust, politics will create social integration. As a new powerhouse, Korea will be able to establish its own international order while securing balanced diplomacy, and ultimately strengthening the country’s position in the world.

Instead of a top-down approach, Future Vision 2037 focuses on the citizens and proposes a “joint promise” between the government and the citizens for the next 15 years as it reflects on the past

and present, and develops the outlook for the future. For everyone to keep this promise, political leaders from political parties and administrative departments, social leaders from the labor and management sectors, as well as from the community, and citizen leaders from all classes, ages, gender, and professions must come together for discussion. Discussion items that were agreed upon should be used to develop related legislation and systems, and implement policies. A sustainable management system should also be established so that the agreed-upon items can progress as implementation strategies across all individual, local, and national levels.

The National Assembly of the Republic of Korea is a place for resolving disputes and challenging the discourse between different political views, values, beliefs, and interests, as well as a place to discuss and conciliate various opinions and interests within the society. Although it may take a long time, the National Assembly can create “long-lasting change.” An important role of the National Assembly is to bring together individual rights and the role of the country with politics. The active role of the National Assembly is critical for guiding the transition from a growing society to a mature society. In order to have a long-term perspective on the national mid- to long-term agenda and consistently recommend possible directions, there should be discussions on the new roles of the National Assembly to set future agenda and plan state affairs.

※ This research was conducted with the National Mid- to Long-term Agenda Committee, an advisory body of the Chairman of the National Assembly, as part of the “Management of the National Mid- to Long-term Agenda Committee” task, a core research project of the National Assembly Futures Institute in 2021.

An analysis of the US-China Tech Competition and Korea's Strategy

P.I Park, Sung Jun

Recently, there has been a growing tension between the United States and China. The two great powers are competing with each other, trying to maintain or seize global technology leadership. Achieving high levels of technological progress in key areas of the Fourth Industrial Revolution will grant either country an opportunity to become a superpower. Hence, both countries are struggling to promote their own high-tech industries and firms, while trying to suppress those of the other country.

Against this backdrop, the current study aims to analyze the development in the US-China tech competition and its implications for Korea. It then discusses how Korea should react to this change. To this end, the recent changes in the global value chain are explored in relation to China's industrial policy. The competitiveness of both countries in terms of their advanced technology products is also analyzed. Further, the so-called "tech alliances" for both the United States and China, where allies are integrated based not only on the technology, but also on political systems, are analyzed. In addition, 10 key areas of technology competition are intensively explored, providing detailed information on the important characteristics of each technological area, the competitiveness of each country in the area, and the strategies adopted by both countries. Finally, Korea's policy options in each technological area are provided, and comprehensive strategies for Korea are discussed.

The Future of US-China Competition for Technological Hegemony : Analysis on the Global Strategies and its implication for the South Korean Strategy

P.I Cha Jung-mi

With intensifying US-China strategic competition, technology has been the critical arena for the great power competition for global leadership of the future world. Especially, under the spread of the perception that emerging technologies like Artificial Intelligence (AI) will be central to future economic growth and military competition, contribute to the condition whereby US-China strategic competition's 'technology-security-values' are closely intertwined in a complex competition. In addition to this US-China technological competition and increasing competition to form technology alliances, global concerns of potential bipolarization of the world order and the economic decoupling are rising.

A Comparative Analysis Chart of the Perception and Strategy of US-China Technological Competition of Major Countries and Continents



US-China Technological Competition is not simply an issue between two superpowers but affects the whole world. Each state in the world, depending on differences of system and diplomatic relationships, has different perceptions of Chinese technology and the competition between the US and China for technological hegemony. This research draws upon the participation of prominent regional professionals and scholars to provide a comparative analysis as the foundation for understanding the future outlook on the world's perceptions of and strategies for the future. In the conclusion, this study analyzes the policy implication of comparative analysis on the different countries' strategies toward the US-China tech competition. It also suggests the South Korean national strategy regarding the US-China tech competition and the role of National Assembly.

The Future of US-China Tech Competition- Global Perceptions, Prospects, and Strategies

P.I Cha Jung-mi

With the Chinese technological rise and the US' threat perception towards it, the geopolitical and geo-economic competition between the US and China has been intensified. Especially the emerging technologies such as artificial intelligence and space technologies have been the critical arena for the great power competition. The US and China are perceiving these emerging technologies as the defining factors for obtaining the global hegemony and global leadership and both countries are driving the global race for technological supremacy. The technological hegemony competition and political tensions between the United States and China are now felt on every continent and in every country. Economic and diplomatic pressures stemming from the great power strategic competition have had impacts on the other parts of the world. Hence, most countries are concerned about the negative impacts and significant challenges amid intensifying US-China technology competition.

There have been a lot of discussions and reports on the US-China technological competition. However, the discourses and discussions on US-China technology competition have been dominated by a few great powers. Even though many countries have confronted the economic or political challenges related to this US-China Tech Competition, there has been little attention to the middle and small states' perceptions and strategies on the US-China tech competition issue. Despite the lack of study on the middle and small states' strategies on the US-China tech competition, the perceptions and strategies of these countries are very important factors to influence the future of the US-China tech competition.

Therefore, this project is designed to share the diverse perspectives, ideas, and strategies of different states and continents. It also aims to facilitate the global discussion on the economic and political impacts of the US-China tech competition. We believe that using collective wisdom based on open discussions can be the best way to solve problems and pave a better future. These are the base motives for starting this global collaborative research.

This global research project was made possible with the great dedication of 13 distinguished and excellent scholars from all over the world. We believe that this report can be the starting point to share the different views and communicate the diverse ideas on very timely global issues, which call for global cooperation.

Foreign Policy and the role of the Parliament: A Cross-National Comparison

P.I Park Hyeon-Seok

The role of the parliament in the formation and implementation of foreign policy has been re-established with the emergence of a new global order. In many democracies, the executive has monopolized initiatives on foreign policy. Parliament influences the foreign policy process by reviewing and monitoring the activities of the executive. However, the high level of global interdependence and its domestic implications have started to increase the importance of parliament. Global challenges that go beyond the traditional scope of national security, such as the international financial crises, terrorism, and environmental issues, have enabled parliament to influence the foreign policy process. In addition, in Korea, the political reforms that followed Korea's democratization have made the National Assembly more influential compared to the past. This report analyzes cases of the US, Germany, Finland, Japan, and the European Union to compare the role of parliament in the foreign policy process. These case studies indicate that parliaments are starting to influence foreign policy making in addition to monitoring, reviewing and ratifying the foreign policy decisions initiated by the executive.

The Role of Congress in the Peace Process: Directions and Alternatives for the National Assembly in the Peace Process on the Korean Peninsula

P.I Kim Tae-Kyung

This study examines overseas cases that provide reference points to the peace process on the Korean Peninsula from a comparative perspective, highlighting the role of Congress in the peace process. Through this, it explores the role of the National Assembly in the peace process on the Korean Peninsula, and draws implications in preparing for future inter-Korean parliamentary talks. The study analyzes three cases of peace processes: the cross-strait relations, the Irish peace process, and the Germany-France reconciliation and cooperation. Each case has distinct features in terms of the structure of the conflict and the agreement and implementation processes of peaceful coexistence or integration between the conflicting parties. Nonetheless, all three cases have comparative implications for the role of the National Assembly in the peace process on the Korean Peninsula.

The study insists that in the process of peace on the Korean Peninsula, the National Assembly is required to have its own initiative on the national goals of “peaceful unification policy” stipulated in Article 4 of the Constitution as a constitutional institution. Drawing from theoretical literature of federalism and consociationalism, as well as from the analyses of overseas cases, the study proposes three directions and alternatives.

First, the National Assembly should establish a consociational principle that encompasses all parties to the peace process on the Korean Peninsula participating at the negotiating table from the mid-to-long-term perspective of peace and integration on the Korean Peninsula. The National Assembly, as the representative organization of the people, is a space that covers divisions and confrontations in Korean society related to the peace process on the Korean Peninsula and future integration. It can contribute to the establishment of collective recognition and responsibility through the implementation of consociational principles in which all conflicting parties communicate and argue as equal entities.

Second, the National Assembly needs to make concrete progress in institutionalizing the peace process as a legislative body that gives democratic legitimacy and stability to the peace process

on the Korean Peninsula. As a policy partner, not in struggling but in exchanging relations with the administration, the legislature should function independently in the issues of peace and integration on the Korean Peninsula through reviewing and revising inter-Korean agreements and domestic laws.

Third, the National Assembly shall secure a democratic foundation for the peace process at the policy level, along with the implementation of consociational principles, and the improvement of the laws and systems of the peace process. It specifically needs to design and promote policies that contribute to the preparation of peace and integration from the perspective of future generations. By discovering and supporting various programs of youth education, culture, environment, and civil society, and by promoting wide-ranging participation of society including women, border areas, or local small towns, the National Assembly can contribute to enhancing the stability of the peace process and democracy through “investment” for future integration, rather than

The Role of Congress in the Peace Process: Implications on the Korean Peninsula

| | | Cross-strait relations | The Irish peace process | French-German reconciliation and cooperation |
|---|----------|---|---|--|
| Main Character istics | Positive | <ul style="list-style-type: none"> Revitalization of exchanges and cooperation in economic, social, and cultural areas since the post-Cold War | <ul style="list-style-type: none"> Institutionalization of Consociationalism Peace process at the people's level (Trust building process) | <ul style="list-style-type: none"> Institutionalization of reconciliation and cooperation in the historical context of European integration (transnational design of communities in the early stages of integration) |
| | Negative | <ul style="list-style-type: none"> Structural asymmetry in parliamentary exchanges and cooperation Change in Taiwan's national identity and polarization of Taiwan's domestic politics China's authoritarian response to Hong Kong protest and change in China's peaceful unification policy | <ul style="list-style-type: none"> Retrogression since Institutionalization The possibility of a deadlock and regression caused by the power-sharing of the extreme political parties | <ul style="list-style-type: none"> French-German Cooperation in response to recent Brexit and other threats of European integration |
| Relative implications on the Korean Peninsula | | <ul style="list-style-type: none"> Differences in the political systems between the “two governments” Non-zero-sum characteristics of Taiwan's domestic politics and cross-strait relations The impact of the US-China strategic competition on international landscape | <ul style="list-style-type: none"> Consociational model for the institutionalization of sustainable peace ustworthy peacemaker Despite the regression of the peace process, having faith on the peace process itself | <ul style="list-style-type: none"> Transnational design and institutionalization of European integration in the larger context of bipartisan cooperation Development of policy cooperation agenda and programs (promoting cooperation and participation of youth and future generations, border areas and local small towns) |

being trapped in a polarized confrontation over the current peace process and integration of the Korean Peninsula. Through preparations for peace and integration from the perspective of future generations, the National Assembly can lay the groundwork for “bipartisan cooperation” and lead the moral imagination of peace and integration, new narratives, and identities in the future.

Climate Change and International Politics: U.S.-China relations and International climate cooperation

P.I Cho Haein

Climate change is a global phenomenon that has borderless effects, meaning that it requires international cooperation and collective efforts from around the world. Thus, the two biggest greenhouse gas emitters, the United States and China, are always at the center of discussions on international climate cooperation.

Bridging the divide between the two nations is key to global climate cooperation. In this sense, this year was remarkable insofar as the two made ambitious promises to battle against climate change. China took a very proactive approach by pledging to achieve carbon neutrality by 2060, and the United States (US) returned to the Paris Agreement and made an executive order to stop fossil fuel subsidies.

Above all, in April 2021, the US and China jointly announced a commitment to global cooperation for climate change.

The European Union (EU) welcomed the return of the US to the Paris Agreement, and encourages cooperation between China and the US. It is yet not known to what extent the EU, China, and the US share common ground in the field of trade rules that would allow such protection to be introduced. The EU shares with China the fight against poverty, which is expected to give rise to a common understanding of how to bridge financing gaps.

India, as the third largest emitter of greenhouse gas emissions in the world, has discussed the competition in climate leadership between the US and China. While the Biden administration makes efforts to reclaim the US's leadership on climate action, China and India are stepping up and becoming global climate leaders. India's 2070 net zero pledge puts pressure on the US and China to act more ambitiously to deliver on their stated commitments.

As a middle-power country, Indonesia considers the motivations of the two countries as inseparable from economic and geostrategic interests. They expect to see productive competition rooted in the current rivalry, tension, and competitiveness between the two countries. Indonesia regards China as a role model in terms of balancing economic growth and environmental protection. Indonesia plans to use multilateral platforms to cooperate and become involved with diverse international counterparts for climate change cooperation.

Russia indicates that despite the rivalry between the US and China, there certainly are shared

intentions for bilateral cooperation toward climate change actions. Both countries could benefit from this, and Russia could still continue to express its interest in cooperating with the US and China to address diverse climate-related areas. Russia agrees that climate change requires international-level efforts. Thus, multilateral venues such as the United Nations (UN), G20, EU, and BRICS, and bilateral actions with the US or China are highlighted.

Korea has the chance to lead climate change efforts at an international level in both bilateral and multilateral settings. Given that carbon pricing would be applied, there is an emphasis on maintaining the resilience of the US–Korea supply chain. Similarly, strengthening trade ties with China is key for both economic development and low-carbon transitions. Moreover, building partnerships with neighboring countries through multilateral platforms and regional cooperation would be necessary not only to resolve trade issues, but also to foster international climate cooperation.

The US-China Tech Competition and Korean Economy

P.I Park, Sung Jun

The United States has long been considered the only superpower in the world. Now, China is challenging the United States with its economic power and achievements in advanced technology, most of which leverage huge government subsidies. Since technological leadership is key to becoming a (single) superpower in the world, the tech race between the two countries is intensifying. These nations are struggling to win the race, not only by achieving technological progress, but also by keeping the other from accessing needed resources. Attempts by the US to build its supply-chain resilience provide a good example.

Against this backdrop, the current study attempts to analyze the recent developments in the US-China tech competition while drawing policy implications for Korea. This study is organized as follows. First, changes in the trading environment resulting from the US-China tech competition are reviewed. Then, the so-called “de-coupling” issue is discussed at the country, industry, and firm level, since the US-China tech competition may have different implications for governments, industries, and firms. The impact of the tech competition is also different for the various industries and firms, and is situation-dependent. Lastly, comprehensive strategies for the Korean economy are provided based on previous discussions.

Descriptive Analytic Research on 2021 Koreans' Happiness Survey (1st Wave)

P.I Heo, Jongho

Despite its high level of economic development, Korea is known as one of the countries with a relatively low level of happiness. Nevertheless, data for rigorous research on happiness are scarce. To address this, we conducted the “Korean Happiness Survey” to ① track the level of happiness and inequality among Koreans, ② predict various social phenomena, ③ clarify various determinants that determine levels of happiness and inequality, and ④ increase the level of happiness among Koreans. In 2021, a first wave survey was conducted targeting approximately 17,000 citizens aged 15 or older. The average happiness score for Koreans in 2021 was 6.56 points out of 10. However, we also found low happiness scores in vulnerable groups, confirming that inequality is a major problem. It is necessary to suggest policies that can improve happiness through enhancing quality of life for these groups based on these findings.

In-depth Analytic Research on Koreans' Happiness Survey and Future Values Survey

PI Heo, Jongho

Developed countries are actively conducting various studies to support data-based policy design. Now, not only the government but also the National Assembly need to pursue legislative activities and policy development based on research evidence rather than political decisions. To address this need, it is necessary not only to accumulate high-quality data, but also to actively conduct in-depth data analysis by experts in the field. This research report is a joint analysis with more than 25 experts in the field from within and outside of the institute using data built through the survey on the Korean Happiness Survey and the Korean Future Values Survey, conducted in 2020. In addition to comprehensively analyzing various aspects related to happiness, including socioeconomic determinants, daily socialization, social capital, social environments, job circumstances, leisure, generation, and region, we also checked for problems with the surveyed data, and determined whether it is valid and reliable for researchers to use. In conclusion, we suggested policies and strategies to increase Koreans' happiness level and reduce the disparities between subgroups, based on a better understanding of the characteristics of Koreans' happiness.

A Study on Policies for a Better Future and People's Preferences

P.I Park Seong-won

A study on policies for a better future and people's preferences is a research project in which the National Assembly Futures Institute conducts with the participation of the public every year. In 2021, we forecasted various futures 15 years in the future and suggested a preferable future that our society should move in. To this end, a survey of 100 experts, a survey of 3,000 people nationwide, and a public deliberation survey of 202 people were conducted.

As a result, it was confirmed that the people believe that our society should move from the era of economic growth to the era of maturity. This transition suggests that the era of low economic growth should not be viewed negatively or anxiously in contrast to the paradigm of growth at all costs or unlimited growth, but should be reconsidered as an opportunity to enter into an era of maturity in all fields.

In the age of maturity, there should be the emergence of a community that helps all individual citizens grow, an inclusive society that considers minorities and the weak first, a nation that is driven by autonomy and decentralization rather than state-led initiatives, and a society that promotes pluralistic values such as social and environmental values as a priority.

In the age of maturity, each individual is guaranteed a decent human life, and can design and promote their own future based on their autonomous capabilities. In the past, our society damaged the environment in the relentless pursuit of economic growth, but in the age of maturity, our society should prioritize pluralistic values such as social and environmental values over economic values, and establish a new direction for social development based on such pluralistic values. In the midst of structurally accumulated conflicts and confrontations, the voices of the socially weak and minorities who suffer from various social problems should be heard clearly in the public sphere, and the government and parliament should take an active role so that differences are respected.

Our society is facing enormous challenges such as climate crisis, progress of the 4th industrial revolution, widening socioeconomic inequality, low birthrate, aging population, and pandemics. It is necessary to engage in diligent efforts to identify and realize the future desired by the people without being unnerved by rapid and sudden changes.

Preparing Society for the Future: Indicator System and Monitoring Plan

P.I Min Bo-gyeong

This study analyzes the preparedness indicators for the future of society, presents a systematic indicator system, and provides a methodological framework for monitoring through the use of indicators. The purpose of this study is to establish a monitoring system that can check for policy changes caused by megatrends, review Korea's response capabilities, and present sustainable operation plans.

In this paper, we present the strategies needed to prepare society for the future using expert interviews and scenarios that present strategies on how to avoid dangerous situations while engaging in strategies that contribute to a desirable future. By ranking various key strategies during expert surveys, 'creating a social environment to improve social sustainability' was found to be the most important strategy. In addition, 'building a healthy super-aged society,' 'building a social

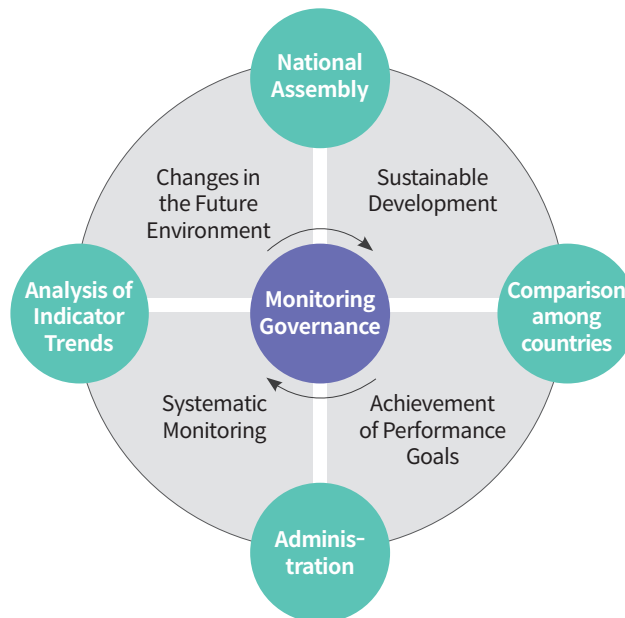
Selection Criteria for Preparedness indicators for the Future of Society

| Criteria | Meaning |
|--------------------|---|
| Future Orientation | <ul style="list-style-type: none"> Indicators with future society relevant meaning (future vision, secure association with future strategy) Indicators that can be guided by the purpose and the strategy that can define the image of future society and its future image Indicators that has more meaning from the futuristic perception rather than the present |
| Measurability | <ul style="list-style-type: none"> Using aggregate data that are produced in reliable institution Indicators that can be presented in numerical expression by either investigating or measuring the relevant content, when existing data are not available |
| Time Series Data | <ul style="list-style-type: none"> Indicators that can secure time series data that can reflect changes over a certain period of time Indicators that can continuously examine for the future society monitoring |
| Validity | <ul style="list-style-type: none"> The degree of scientific measurement of the aggregate data, the degree of proof of indicator and reproduction rate must be high A strict methodology that can produce data that can be trusted by experts, or the general public must be applied |
| Reliability | <ul style="list-style-type: none"> Must have high reliability that can yield consistent results even over repeat measurements |
| Science | <ul style="list-style-type: none"> Factors that are empirically in previous studies and theoretically verified Factors that enable direct policy intervention (For similar indicators, select indicators that can be resolved by policy intervention) |

system that emphasizes coexistence to resolve social conflicts,' 'creating a safe living environment and forming local communities,' 'establishing a flexible education system that respects diversity,' and 'transitioning to a carbon-zero society and green infrastructure' were also found to be beneficial strategies.

We reviewed previous studies in this area and selected indicators that could be used to measure core strategies for the future, based on criteria such as future orientation, measurability, time series data, validity, and reliability. We understood the link between these indicators and the government's mid- to long-term plans, and proposed a plan to monitor the government's mid-to-long-term strategy and related policies using these indicators. In a follow-up study, we will examine whether our society is preparing well for the future by comparing goals and overall performance using specific indicators and empirical data on mid-to-long-term government plans that aim to prepare society for the future.

How to Establish the Monitoring Governance System



4. Brief Reports

(1) National Future Strategic Insight

No. 10

A Survey on the Future Values of Koreans

Writer Min Bo-gyeong

Min Bo-gyeong, the head of the Quality of Life Group, conducted a “Survey on the Future Values of Koreans” to identify the values of younger Korean generations and predict the future Korean society.

According to this report, most of the participants predicted that the future will be hopeful, but the level of happiness of individuals will be similar to the one in the present. It was found that the elderly and low-income groups had a less hopeful outlook for the future. Although the participants expected that the future will be fairer than the present, they also expected that there will still be serious conflicts. Accordingly, it was highlighted that there must be preemptive measures to address potential future conflicts.

In terms of comparison and analysis among different generations, it was found that younger generations considered leisure to be more important than older generations, and they also had less of a sense of duty regarding work. In addition, younger generations preferred a more autonomous and fulfilling life, and considered new challenges important.

Lastly, younger generations were highly accepting towards new ideas about the family and scientific technology such as companion animals and human robots. Accordingly, future strategies should take into account these characteristics.

For the “Survey on the Future Values of Koreans,” the research team of the National Assembly Futures Institute defined younger generation to be those currently in their teens and twenties. These findings were based on a survey of 5,321 men and women aged 13 and over living in Korea as of 2020 to identify implications for future policies.

An Investigation into and Future Challenges regarding Education Policies to Expand Psychological and Social Capital

Writer Sung Moon-ju

Associate Research Fellow Sung Moon-ju presented challenges related to education policies to expand “psychological capital,” healthy and positive psychological states of individuals, and “social capital,” intangible capital that comes from the social relationships between people and lead to individual or public benefits in her report.

After identifying the current levels of psychological and social capitals of the members of society, it was found that it is necessary to improve the levels of both types of capital. Particularly, levels of resilience, participation and networking, and public trust were especially low, and so it was concluded that these levels must be significantly improved.

In terms of the low-income, it was found that the state must actively intervene to improve the levels of psychological and social capitals. The role of university education to expand psychological and social capitals also needed to be strengthened.

Based on these findings, the report listed the following challenges in relation to education policies: implementation of various types of evaluation methods and evaluation criteria for elementary and middle school education, and the separation of student evaluation at the classroom level and at the national level; increase of the opportunities for students to participate in developing national elementary and middle school education curricula and decision making processes of schools in terms of the education curriculum; development of a program to improve the level of psychological capital for university students at the university level; increase of the accessibility and the number of programs for adults to improve resilience; and establishment of an education organization that strengthens intangible social learning.

No. 12

One Year with COVID-19 : How Did People's Lives Change?

Writer Heo, Jongho

Associate Research Fellow Heo, Jongho investigated the changes that came to the Korean people in terms of “Changes in jobs and income,” “Changes in family relationships,” “Changes in the awareness of value and actions related to infectious disease prevention and control,” and “Changes in health.” The findings identified the damage experienced by the people from COVID-19, especially by the vulnerable groups. It predicted that if the pandemic is to go on, there will be greater socioeconomic inequality.

In terms of “Changes in jobs and income,” among the respondents aged 20 and over, 5.5% experienced a change in jobs such as layoffs or closures of business. Among the 5.5%, 55.6% were female and 44.4% were male. Of the total respondents, 19.6% answered that their income decreased, and the amount of decrease of monthly income was KRW 795,000 on average. Although 88.2% of employees (who receive income from an employer) did not experience a decrease in income, 61.2% of those who were self-employed responded that their incomes decreased, and 9.7% of self-employed responded that their monthly incomes decreased by at least KRW one million on average.

In terms of “Changes in family relationships,” 14.8% of the respondents said that their family relationships became better after COVID-19. However, for households in Seoul metropolitan area, public assistance recipient households, and one-person households, family relationships became worse rather than becoming better.

For “Changes in the awareness of value and actions related to infectious disease prevention and control,” 69% of the respondents agreed that it is necessary to sacrifice some aspects of daily life to prevent the spread of the virus. Among the respondents, 55% agreed that those who were infected with the virus were at fault for being so, and 63.2% agreed that it is necessary to disclose information on the movements of those confirmed to have the virus. The percentages of those living in Seoul metropolitan area who agreed with the three statements were approximately 3%–7% lower than those of those not living in Seoul metropolitan area.

For “Changes in health,” 16.6% of the respondents said that they became healthier after COVID-19. It was also noted that the percentage of one-person households who took action to stay healthy was approximately 1%–5% lower than that of other households. The percentage of females who are at high risk of depression was 10% lower than that of males, 19% of the respondents aged 20 and older said that they reduced smoking, whereas 6.9% responded that they smoked even more. Smoking was reduced more for females than for males (Male 18.6% vs. Female 24.2%). Of the respondents, 13.0% answered that they reduced drinking by 1.6 times a week on average. The

percentage of males who responded that they reduced drinking was 2.5 times greater than that of females, and 22.0% of those aged 20 and over responded that they reduced drinking.

The study was conducted by the research team of the National Assembly Futures Institute last year, and was based on the responses related to COVID-19 in the “Survey of Happiness of the Korean People” conducted on 14,000 males and females aged 15 and over from all around the country.

No. 13

International Conflicts and Trade Dispute in Northeast Asia

Writer Park, Sung Jun

Park, Sung jun (Associate Research Fellow) has studied on changes in Korea-Japan and Korea-China bilateral relationships with the Global Database of Events, Language, and Tone (GDELT) project, which is a big data service that offers various data collected and analyzed while monitoring the world's broadcast, print and web news. In particular, major Korea-Japan/Korea-China conflicts and trade disputes in the late 2010s were compared with the GDELT data to find a pattern how those conflicts had been reflected in the GDELT, visualizing the aspect of international conflicts to ensure more intuitive observation and analysis.

According to the comparison made by Park, it was confirmed that the number of cases recorded in the GDELT database increased during the trade dispute, and negative tone was appeared in documents. Especially harsh languages were observed between Korea and Japan immediately after the South Korean Supreme Court's ruling that workers used as forced labor by Japan during World War II were entitled to financial compensation and Japan's restriction on the export of high-tech materials used in semiconductors and displays.

The number of verbal and material conflicts between two countries were elevated during the trade disputes. Verbal conflicts tended to increase upon the background events, such as the Supreme Court's ruling on war-time forced labor and the THAAD system on the Korean Peninsula, while both verbal and material conflicts significantly boosted at the same time when “economic reprisal” had intensified the trade dispute.

No.14

Current Status and Takeaway of Domestic and Foreign Energy Transition Policies

Writer Jeong Hoon

Jeong Hoon (Research Fellow) has reviewed the current status of energy transition policies in Korea in this report. He has also sought the future direction by evaluation of the relevant policies and global indices for Germany, the United Kingdom and France, leading countries in response to climate change. The followings are takeaways drawn referring to those leading countries: ① determining the best energy policies considering the priorities appropriate to the national situation as the socio-economic systems and circumstances are different depending on countries and the optimal energy transition pathway is not outlined; ② establishing long-term challenging goals for carbon neutrality and to lay a foundation for continuous energy transition by reflecting relevant laws and policies; ③ raising public awareness of the need for transition to a carbon-neutral society and encouraging citizen participation; and ④ evaluating the policy implementation and establishing a feedback framework to achieve the implementation of the long-term goals and transition to a carbon-neutral society

Korea was placed at the 48th position among 115 countries in the 2020 Energy Transition Index, and at the 31st position among 32 advanced countries, which is not very desirable scores. Korea was also ranked 31st position out of 108 countries in the 2020 Energy Trilemma Index.

No. 15

Challenges and Innovative Measures of Mid- to Long-Term Plans for Strengthening Future Capabilities: Focusing on Science and Technology Sectors

Writer Yeo Yeong-jun

Yeo Yeong-jun (Associate Research Fellow) has defined major policy issues that Korean government tends to face in the mid- to long-term plans for science and technology sectors as follows: ① limited adaptation to changes in policy environment due to low autonomy; ② impaired continuity of policies depending on the party which is in power; ③ limited policy coherence due

to insufficient coordination between ministries and agencies; ④ unproven feasibility due to the constraints of evidence-based policy making; and ⑤ impaired effectiveness due to vast number of policies implemented simultaneously.

Yeo's study was performed based on his awareness of that Korea's lack of policy effectiveness although it has established a variety of mid-to-long-term plans for science and technology across the diversified fields every 5 years. He pointed out that improvement has not been actively carried out without systematic studies to support learning and understanding of the failure causes. Accordingly, 10 major policy innovations were presented to enhance the effectiveness of mid- to long-term strategies in the national science and technology sectors as follows: ① mutual coherence between the national mid- to long-term visions and plans; ② systematic information on the feasibility of the planning process; ③ systematic consideration of inter-ministerial cooperation and cooperative governance; ④ comprehensive consideration of various stakeholders involved in the goal; ⑤ development and diversification of methodologies to strengthen policy learning; ⑥ validity and objectivity of step-by-step performance goal; ⑦ systematic review on compatibility of technical elements; ⑧ enhanced logical causality between goals, strategies, and tasks in the plan; ⑨ flexible and strategic revisions in accordance with changes in the environment; and ⑩ legal engagement and frameworks for meta-evaluation of mid- to long-term plans.

This report was written based on the combined outcomes obtained from text network-based quantitative analysis and interview-based qualitative analysis, found in the "Meta-Evaluation of Government's Mid- to Long-Term Plans: Science and Technology Sectors" conducted last year at NAFI.

No. 16

Proposal of Reform Agendas to Explore National Long-Term Development Strategy

Writer Lee Sunhwa

Research Fellow Lee Sunhwa has presented the reform agendas for the national long-term development strategy: ① demand-oriented integrated development strategy, ② redefined role of the bureaucracy, ③ framework for decentralized decision-making and policy communication, and ④ strengthen decision-making function of the National Assembly.

For the “demand-oriented integrated development strategy”, agendas suggested by Lee include coordination of policy ownership and inter-ministry cooperative system, emphasizing the role of control tower across all ministries. For the “redefined role of the bureaucracy”, she divided the bureaucracy system into recruitment and promotion and suggested innovative solutions for each section, including reformation of public service examinations and employments, recruitment of talents from the private sector in the civil service, and performance- or competency-oriented promotion framework.

For the “framework for decentralized decision-making and policy communication”, her suggestion include a decentralized local governance framework and a strengthened local service supply chain, separated from a central-leading model, in various sectors such as housing, local communities, healthcare, employment, and labor-management relations, on the premise that administrative districts should be reorganized to establish new regions encompassing local hub cities and satellite towns for increasing the effectiveness of the decentralization. For the “strengthen decision-making function of the National Assembly”, she derived the reform agendas including the National Assembly’s institutionalized role in resolving social conflicts and a cooperative framework of the National Assembly and the financial authorities for sustainable finance.

This report was prepared based on the NAFI’s “National Long-Term Development Strategy Research Series” for seeking a comprehensive solution from the viewpoint of the national operation system to the political, economic, social and structural obstacles challenged by South Korea.

Need for Happiness Report and National Happiness

Writer Heo, Jongho

Associate Research Fellow Heo, Jongho has confirmed the inequality of happiness depending on region, age and socioeconomic position based on “2020 Korean Happiness Survey” and emphasized the need for in-depth research and policy proposals. In particular, he conducted “Korean Happiness Survey” in November 2020 with about 14,000 males and females aged ≥ 15 nationwide as respondents; it asked respondents to think of overall happiness score, meaning of life, accomplishment, freedom to make decisions in life, a position they feel they stand at the present time on the Cantril ladder, and satisfaction 5 years ago and after. The outcomes show that average overall happiness score is above 5 despite of the COVID-19 pandemic; however the vulnerable groups, such as elderly population (aged 60 and over), single-person households, groups with low education and income levels, and groups with poor health, demonstrate much lower scores than average, thus it can be concluded the inequality is the critical factor to happiness. Further, the most notable variation is observed across regions instead of gender or socioeconomic indicators; Jeonbuk, Jeonnam, Gwangju, and Gyeongnam regions show a higher degree of happiness, but Gyeongbuk and Jeju have the lowest scores for all matrices.

Heo suggested to establish policies based on the peoples’ rating of their own lives in order to improve the quality of life and gross national happiness; especially, South Korea needs to institutional approaches to ensure significance improvement in well-being of vulnerable groups, including elderly, single-person households, low-income groups, local residents living in Gyeongbuk and Jeju regions.

No. 18

Intuitional Approach to New Phase: Functioning National Assembly

Writer Cho Inyoung

Associate Research Fellow Cho Inyoung, as a principal investigator, has explained the current status and challenges of the National Assembly in terms of improvement of the legislative branch by cross-national comparative research and game theory approach, and suggested measures addressing such challenges on the recognition that one of the biggest cause would be incongruity of the current institutional arrangement.

This brief presented four policy proposals that: ① it is necessary to refrain from reinforcing or undermining the rights that the majority and minority respectively have in relation to the assembly proceedings at the same time; ② it is necessary to avoid pursuing institutional reform as “Talking National Assembly” in which the only vote-winning majority takes the lead in the assembly proceeding; ③ it is necessary to institutionally balance between the majoritarian democracy and the consensus democracy to the extent of the political system for successful organizational and institutional reform into “Working National Assembly”; and ④ it is necessary to, if system reform to change the majority to the consensus is not available in the near future, it should be made at least to alleviate the conflict of values pursued by “Confronting National Assembly”.

“Korean democracy is based upon majority rule rather the consensus decision-making, thus low effectiveness may be expected even if the systems are reorganized to build up ‘Working National Assembly,’ because they do not correspond well to the majoritarian democracy,” explains Cho. “If the reform is ultimately aimed at ‘Working National Assembly, we need to consider fundamental and complement institutional arrangement, instead of institutional reform resulting in conflicts.”

On the other hand, this study also paid attention on the inefficiency and low trust of the Korean National Assembly focusing on conflict between effectiveness and representativeness of the political system. The researcher’s analysis resulted that that the Korean National Assembly displays an outlier in the context of comparison with the OECD members.

Exploring Improvements in Framework for Early Childhood Care and Education Service

Writer Lee Chae-jeong

Lee Chae-jeong (Associate Research Fellow) reviewed the need for preventive response to the crisis of daycare centers and kindergartens arising from the continuing decline in the number of newborn babies upon discussion of alternatives.

This study categorized the early childhood care and education (ECCE) services in the OECD members in terms of the government intervention in the social policy implementation process, and conducted analysis on whether the supply chain of ECCE services has been balanced with the distribution of infants and toddlers in 2019 and 2045 for each region.

Referring to the analysis of the OECD member states, Lee concluded that Korea's ECCE services is overly dependent on market only and should be improved; she also presented rearrangement of ECCE service providers in consideration of demographic changes with the demand-supply gap analysis, emphasizing that dissection on the mid- to long-term plans is required to achieve a supply-demand balance of the ECCE services considering the demographic change resulting from rapid aging of the population.

No. 20

Proposal of New National Development Model

Writer Kim Hyeon Kon

Kim Hyeon Kon, the NAFI President, presented a new people-led development model centered on lifelong health, lifelong learning and lifelong employment, addressing the new paradigm shifts in the 21st century and socioeconomic challenges.

As proposed by the President, this new model shall: ① deal with the new paradigm shifts in the 21st century, such as AI revolution, longevity revolution and climate crisis; ② contribute to solving the economic and social obstacles accumulated in the process of compressed growth, such as inequality, polarization, social conflict, educational bias and aging population, ③ ensure a people-led development that promotes and utilizes the freedom and autonomy of the general public, smarter than ever before supported by digital adoption and transformation. He emphasized that our country should ultimately pursue a human-oriented community based on the freedom and autonomy of the people.

In this report, President Kim also assessed the importance, role and historical flow the national development model and newly proposed Korea's future vision – "Country Where All People Dream and Achieve Their Dream, Country Where 50 Million Dreams Exist".

Detour to the Desirable Future

Writer Park Seong-won

Park Seong-won, the Head of Innovative Growth Group, proposed a detour strategy that could lead to the people's desirable future based on the multi-dimension investigation and analysis of the prolonged conflicts in the Korean society.

Based on the future perception surveys conducted over the past three years, he has concluded that the Korean society is suffering from conflicts and confrontations in national and economic growth, environmental preservation, efficiency and equity. Korean society has emphasized growth, efficiency, meritocracy so far, but recently calls for new social vision raises for individual growth, environmental conservation, fairness and equity, which is expected increase further in the future.

In his opinion, the long-term desirable future striking a balance among economy, environment and personal achievement can only be accomplishment by a "detour", a individual-centric alternative to abandoning the blind obsession with economic growth. Korea should aim at new dimension (society II) different from the existing society (society I) which was a combination of growthism and environmental damage; the detour will show us new perspectives and opportunities to reconstruct a goal our society wants to build up.

No. 22

Addressing the Rapidly Growing Suicide Rate

Writer Park Sang-hoon

Park Sang-hoon et al. pointed that since 2004, starting with the 1st 5-year comprehensive measure of suicide prevention from the Ministry of Health and Welfare, various policies for suicide prevention have been implemented, but they have not achieved much effect. This is a problem and a limitation of the existing approach focused on suicide prevention and suicide risk suppression. Explaining that it is also wrong to treat suicides as social maladaptive behavior or to make the bereaved family feel guilty for failing to prevent suicide, he called for improvements to the existing common-sense and complacent administrative approaches.

Park said that approaching suicide on an individual level has its limitations, stressing that the focus should be on the "social suicide" rather than on the individual. The suicide rate is a social indicator representative of the degree of national unity in the country. Only when the power of society becomes stronger can the suicide rate be reduced. Eliminating and managing individual-focused suicide risk factors alone make it difficult to respond to high suicide rates. Suicide prevention policies must be based on the foundation of socio-economic policies, from expanding the safety net to improving the unfair labor market.

What countries that are considered as successful cases of suicide prevention have in common is that they have made socially integrated efforts based on the resources and environment of that country. Finland responded by developing a psychological autopsy policy, a comprehensive psychological approach based on social security policies, while Denmark pursued a welfare support policy from a multifaceted perspective. Japan has implemented a Plan-Do-Check-Adjust (PDCA) rotation that has been driven by systematic efforts and attention to policy by the Executive Branch.

In fact, compared to 1985, Denmark saw a significant change, falling from a country where 28.6 people per 100,000 people (7th) committed suicide to 9.4 (26th) in 2017. Japan recorded a very high suicide rate in the late 1990s, but in 2019, the total number of suicides in Japan continued to decline for 10 consecutive years, reaching an all-time low. South Korea, on the other hand, had a high suicide rate, rising from a low suicide rate of 11.2 (23rd) in 1985 to 23.0 (1st) in 2017.

Literature Review to Derive Emerging Issues

Writer Kim You-bean

Kim You-bean, the Director General of Research Support Office, has proposed an algorithm to derive issue candidates from a vast amount of literature data based on the definition of “emerging issues,” finding the literature with a pattern similar to such a definition.

Emerging issues mean issues (discoveries, events, or phenomenon) that have not been influential or important in the past but might be influential in the future. In order to respond to future environmental changes, it is important to continuously identify emerging issues that are now negligibly influential but potentially turned into future or mega-trends, since the emerging issues are likely to become dominant in about 5-10 years and act as a driving force for social changes.

Studies so far have mainly explored various issues through listening to opinions of experts, interviews, and brainstorming, but had limitations to discovery and evaluate issues from multiple perspectives due to expert bias and excessive amount of multidisciplinary information. In this study, Kim proposed a new methodology to search for issue candidates covering science, technology, humanities and society by using a vast amount of literatures, which is a literature-based algorithm to define entering issues and quickly derive candidates from literatures in consideration of novelty, fast-growth and impact, followed by selection of final issues through peer review on the candidates. Keywords from various perspectives were derived when applying the proposed algorithm to the digital transformation, including ICT-based technology, digital literacy, digital adaptation, and new opportunities.

No. 24

Overcoming Disaster toward Innovation

Writer Jeon Jun

Jeon Jun (Associate Research Fellow) has explored the concepts of disaster and innovation from a new perspective, and presented ① a future with more disasters and inequality, ② a future with less disasters, and ③ a future with higher social acceptance of disasters as plausible future scenarios. Jeon predicted that it is highly likely that Korea will face the dark sides of both scenarios ① and ②. This is because our society is recognizing “disasters” only as the Acts of God or unpredictable large-scale accidents, and innovative strategies to respond to them also tend to be temporary. The scenario ③ is presented as a preferred example to show the direction we should be heading rather than the scenarios ① and ②, although it still includes several risk factors. In such a scenario, social conflict is not a mere problem, but can be a useful tool by which various public opinions can be collected.

He also proposed future innovations that can respond to social crisis and disasters in a broad sense, which are categorized into “democratic innovation” and “flexible innovation”. They aim at ensuring that individuals facing everyday disasters give their specific opinions for innovation, diversifying the subject of innovation, and enhancing social and organizational resilience in crisis situations.

Happiness Depending on Where You Live

Writer Min Bo-gyeong

Min Bo-gyeong, the Head of Quality of Life Group, has concluded that it is necessary to prepare regional-centered strategies for enhancing people's happiness in her study, because among "local living conditions," "health" and "leisure" were major factors positively affecting happiness in urban areas, while "economy" was in non-urban areas.

With satisfaction (5-point scale) for living conditions of the residence for all respondents by sector, the "health" (3.70) was ranked #1, followed by safety (3.50), environment (3.44), social relationship (3.43), education (3.43), leisure (3.40), and economy(3.31) in this order. Policy implications considering the difference between urban and non-urban areas include ① the need for strategies to enhance people's happiness in response to the increasing population risk; ② the need for region-oriented strategies reflecting regional characteristics; ③ the need for continuous studies on happiness from a regional point of view.

In this study, the nationwide satisfaction of living conditions was referred; difference in happiness factors between urban and non-urban areas was sought based on NAFI's 2020 Korean Happiness Survey (respondents: males and females aged ≥ 15 , $n = 13,824$); and residential regions of respondents were classified into urban and non-urban areas according to administrative districts defined by the Statistics Korea for finding out difference by region.

No. 26

Major Issues and Suggestions of Job Change Support Service for Aging Society

Writer Sung Moon-ju

Associate Research Fellow Sung Moon-ju has proposed the policy direction based on issues derived from a support service framework for employment and lifelong learning, out of the mid- to long-term government plans for responding to the aging society, and outcomes obtained from metal-evaluation for such plans.

Key policy issues in this report include: ① levels of new jobs (quality, diversity and sustainability); ② lack of interconnection between policies and policy governance; ③ effectiveness of the job change support service; ④ accessibility gap between the metropolitan area and the provinces for the job change support service. Based on those issues, she proposed four policy directions. First, “policies designed to increase decent jobs”: when establishing mid- to long-term strategies, labor market projection should be included, and policies should be designed on the basis of analyzed causes of problems in the job change support service and problem-generating mechanism. Second, “systemically-improved frameworks built up by interconnection between policies”: governance should be reorganized to enable comprehensive control and fine adjustment for improving quality of life and for developing new career and new talent of middle-aged population. Third, “appropriate policy goals and indices”: the government’s mid- and long-term plans for the job change support service should be linked with national vision, major policy goals of response to the aging society, deriving proper performance indicators. Last, “enhancing employment and job change support programs”: metrics should be found, such as a link between employment services and career development program, local service accessibility, and effectiveness of the job change support service.

Domestic Industry and Countermeasures upon Introduction of the Carbon Border Adjustment Mechanism

Writer Yeo Yeong-jun, Cho Haein , Jeong Hoon

According to Yeo Yeong-jun (Associate Research Fellow), Cho Haein (Associate Research Fellow) and Jeong Hoon (Research Fellow), the total burden of domestic industry in 2030 is projected to be about KRW 8,245.6B as the Carbon Border Adjustment Mechanism (CBAM) will be fully operational in the European Commission, which is expected to decrease by about 11.7% to 15.0% in policy scenarios assuming technological development and efficient energy transition following the implementation of carbon neutral policies. Their proposal also includes potential CBAM responses including: ① establishing a monitoring framework and relevant governance for overseas tread such as international CBAM; ② protection and support for carbon-intensive industries expected to be most affected by the CBAM; ③ improving energy efficiency by encouraging alternative cleaner production processes; ④ expanding renewable energy access; and ⑤ investment in promising low- and zero-carbon technologies (LZCs) and expansion of technological innovation. They have also emphasized that the CBAM is not a trade restriction; it is a momentum for more effective implementation of the domestic responses in terms of industrial structure and energy system in the global trends of carbon neutrality.

Emerging the carbon neutrality declarations and relevant policies around the world, in July 2021, the European Commission adopted a proposal for a new Carbon Border Adjustment Mechanism (CBAM) ensuring that production of carbon-intensive goods does not shift to countries outside the EU to take advantage of less stringent climate policies while preventing loss of competitiveness of their domestic industries. In this report, the amount of CBAM burden in 2030 when the CBAM will be fully in place is projected by sectors using an environmentally extended input-output table (EEIO) model, in consideration of variances caused by Korea's carbon neutral policies, thereby suggesting takeaways upon the establishment of mid- to long-term strategies in response to the EU CBAM.

No. 28

Future Policies and the National Assembly in the Viewpoint of Legislative Assistants

Writer Park Hyeon-Seok

Research Fellow Park Hyeon-Seok conducted a survey for legislative assistants of the 21st National Assembly on their opinions for future policies and the role of the National Assembly; they answered that the most urgent tasks are inequality and polarization and it is difficult to pay attention to mid- to long-term issues requiring a bipartisan agreement but compromised by political polarization. NAFI's survey was performed with 373 staffs working in the National Assembly Office as respondents to investigate their recognition of future policies and the role of the National Assembly.

Among the various agendas, most of legislative assistants shared the recognition that inequality and polarization are the most urgent agendas, regardless of party, position, age and tenure. The answer ranked first (selected by 137 persons out of 368 respondents) was "resolving economic inequality and political/social polarization", followed by "addressing aged society and low birth rate" selected by 46 staffs.

As the reason why it is difficult to deal with long-term issues, 147 of the total respondents answered that "it is hard to pay attention to mid- to long-term issues requiring a bipartisan agreement but compromised by political polarization"; 115 staffs answered that "both nomination evaluation and assessment by media and civic organizations are mainly based on quantitative metrics centering on short-term legislative performance, thus it is difficult to approach the issues from a long-term perspective".

According to this report, the political polarization in the National Assembly led to lack of conversation between ruling and opposition parties and accordingly, they have lost the capacity to handle mid- to long-term agendas requiring bipartisan cooperation. Calls for "Working National Assembly" contributed to getting rid of so-called "plutocracy" and making a productive, practice-oriented National Assembly; on the other hand, the political environment has been built up in which it is difficult to deal with mid- to long-term agendas from a long-term perspective because most of them focus on short-term accomplishments only.

Cryptocurrency and Changes in Financial System

Writer Park, Sung Jun

Park, Sung Jun (Associate Research Fellow) has argued that cryptocurrency is a form of asset, not a “currency”, thus it needs customized control and supervision accordingly, as well as interest in international implications of central bank digital currency (CBDC).

With the rapid digital transformation of the economy, the proportion of e-payments has dramatically increased and innovation has taken place with the advent of distributed ledger, blockchain, and of course, cryptocurrencies. Among cryptos, stablecoins attempt to offer price stability and are (allegedly) backed by a reserve asset, which thus might be used in regular payment system. Recently, lots of studies on the CBDC have been conducted.

Based on these current trends and potential changes in a financial system, Park analyzed digital currencies and discussed policy implications. According to Park, first, cryptocurrencies are a form of asset, not “currencies”, thus they need customized control and supervision accordingly, because strong anonymity that most cryptocurrencies offer can serve as a simpler tool for crimes, while international cooperation is widely believed to be essential for anti-money laundering and combating the financing of terrorism. Second, although it does not draw much attention in Korea yet, the stablecoins have no guarantees that they will work as designed and bear relatively higher risks of “runs”, whereby it is necessary to monitor stablecoins and relevant policies made by central banks in major counties and international organizations. Last but not least, he calls for attention to the international implications of the CBDC, because the CBDC has potential of leading to an innovative cross-border payment service, which requires attention from policy makers as there are many discussions about the impact of China’s digital yuan on the current dollar-centered international financial system.

No. 30

Mid- to Long-Term Development in Energy Demand Management

Writer Cho Haein

Cho Haein (Associate Research Fellow) has made a statement that it is necessary to build up a monitoring/verification system and to prepare a financial compensation plan for ensuring demand management with mid- or long-term energy efficiency improvements, in relation to the “Energy Efficiency Resource Standard (EERS)”. The conventional energy transition policies are mainly focusing on how to increase energy to meet the demand, however, a paradigm is shifted to initiate a new energy consumption structure: low consumption and high efficiency. Korea has been implemented the EERS as a pilot project since 2018.

Conducting a survey and interviews with energy providers with EERS compliance and supervisor agencies responsible for overall management, Cho analyzed the performance and practical problems of the pilot project. It was found that efficient EERS operation is difficult for both energy providers and supervisor agencies due to the absence of monitoring/verification systems and financial compensation. Consequently, she proposed a framework for monitoring and verification and a financial compensation plan including incentives or investment return facilities.

Strategies for Reorganizing Welfare System Shared by Central and Local Governments for the Efficient Welfare Funding

Writer Lee Sunhwa

Research Fellow Lee Sunhwa has proposed an institutional reform plan for government subsidies in the welfare sector as a strategy to respond to the national challenges i.e. expanding welfare and strengthening autonomy.

In this report, her proposal includes that ① cash-benefit basic welfare projects requiring national standards, such as livelihood benefits and basic pension, should be promoted mainly by the central government at its own discretion and financial responsibility; ② a decentralized framework should be introduced to expand the discretion of local governments for regional, diversified, on-site projects; ③ different welfare projects covering the same beneficiaries should be integrated or linked; and ④ projects with vague and indefinite purposes should be clarified for orientation with social consensus – they might be integrated if needed.

Three alternative strategies were suggested to improve the government welfare funding system from the perspective of fiscal neutrality, in addition to the adjustment proposals for individual welfare subsidies: first, central grant programs for other sectors may be downscaled by the burden of welfare expenditure in the central government budget; second, the funding balance between welfare and education may be adjusted so that local governments can expand joint projects with local offices of education with savings from the cash-benefit welfares; and third, financial resources may be tuned within the subsidy budget of Ministry of Health and Welfare under the principle of that “cash benefits are centralized and social services are localized”.

No. 32

College Education to Improve Entrepreneurial Mindset of Youth

Writer Sung Moon-ju

Sung Moon-ju (Associate Research Fellow) has pointed out lack of entrepreneurial mindset in Korea, and suggested that changes and innovations are needed in college education to foster such mindset for young people who are preparing to enter the labor market or in the early stages of their careers.

Entrepreneurial mindset is drawing considerable attention for successful response to changes caused by the recent growth slowdown and 4.0 Industry, which is a specific set of capabilities to proactively seize opportunities, take risks, and turn new ideas into economically and socially valuable products, services, and processes.

According to the study, the entrepreneurial mindset positively influences start-up, employment, career, psychosocial status, attitude and college life of students. In addition, college education will contribute to cultivating mindset in young people with continuous efforts to foster entrepreneurship, improve awareness of entrepreneurs creating socioeconomic values, and revitalize start-ups and job creation. Especially, in order to cultivate the entrepreneurial mindset of the youth and our society, changes are necessary in terms of the role of colleges, educational paradigms, curriculum and methodology. Others required simultaneously include changes in social and cultural factors, such as social sharing of risk of failure following challenges through new education practice and social safety nets, and institutional factors such as innovation in government regulations and startup support process.

Exploring Improvements in Framework for Social Services due to Low Birth Rate and Aging Society

Writer Lee Chae-jeong

Lee Chae-jeong drew a distribution map of early childhood care and education (ECCE) services, school age services, elderly long-term care (ELTC) services, and nursing hospitals within the living environment.

For the ECCE and school age services, differences in competition and exclusion levels were observed between regions with a high density of children and regions otherwise. The ELTC services and nursing hospitals showed various distribution patterns by region in terms of competition and exclusion levels. The term “competition level” herein is defined as the number of available service providers versus the service target population; “exclusion level” is defined as the size of target population for which no services are available within their living environment. In particular, relatively higher completion/exclusion levels were recorded in Sejong and Jeju, while Seoul showed higher completion level and lower exclusion level in childhood care services. Both competition and exclusion levels were lower in Gangwon-do and Chungcheongbuk-do. A relatively higher exclusion level for childhood care services was observed in In Gyeongsangbuk-do and Gyeongsangnam-do. Lee, based on outcomes of her research, concluded that different approaches are needed in reorganizing a social service framework by region. She also suggested that it is necessary to expand the ELTC service framework to the extent that satisfies the demand in consideration of a super-aged society we are about to face and regional characteristics; to efficiently reduce ECCE facilities in regions where the service providers are crowded considering the declined birth rate; and to build a national network of the ECCE services to ensure the “National Minimum”.

No. 34

Region-oriented future Strategies to Response to Population Shock: Mitigation and Adaptation

Writer Min Bo-gyeong

The Head of Quality of Life Group, Min Bo-gyeong has classified regions based on variables reflecting population, regional economy, and spatial characteristics, and suggested, in consideration of regional characteristics, the need to properly mix the adaptation strategy premised on population decline and the mitigation strategy for population growth.

Min also proposed that, as a variety of proper responses sought, it is necessary to ① establish a region-led future strategy that reflects regional characteristics and emphasizes the autonomy of local governments; ② promote customized future strategies and define the role of the central government;

③ review the existing regional development methods centered on strategies to overcome population decline and demographic change, and ④ convert into a regional policy system and seek active measures to respond to demographic changes, thereby balancing population and living conditions.

According to the report, a dead cross occurred with fewer births than deaths, and birth rate decline has been spreading from underdeveloped areas to small and medium-sized cities and large cities for more than 20 years, observing significant difference between regions. Min emphasized that it is inevitable to shift from the past regional development strategy on the assumption of population growth, with awareness that the crisis of population decline is a reality and it is necessary to build up effective strategies.

Policies to Support Industries Affected by Carbon Border Adjustment Mechanism (CBAM) and Policy Effect Analysis

Writer Jeong Hoon, Yeo Yeong-jun

Performing a survey for 25 experts by Jeong Hoon (Research Fellow) and Yeo Yeong-jun (Associate Research Fellow), respondents answered that “pro forma opinion gathering” and “hasty and exclusive legislative process” are the biggest obstacles of domestic climate policy and legislation. They confirmed that by enhancing policies and legislation, the regulatory restructuring, promotion of domestic industry conversion and export industry support should be integrated. Further, the CBAM-oriented supports should encompass support, protection, promotion and conversion as strategic directions, including tax benefits, funding support, R&D support, distribution/commercialization, infrastructure, customized support for each industry, reasonable transaction framework, innovative system, policy governance, education and publicity. The priority of the proposed industrial support policy tasks was analyzed based on urgency and effectiveness with analytic hierarchy process (AHP), which was given to R&D support, tax benefits, funding support, customized support for each industry, innovative system, distribution/commercialization, infrastructure, policy governance, reasonable transaction framework, and education and publicity in this order.

Additionally, the researchers proved the importance and effectiveness of the industrial support policy by analyzing the socioeconomic ripple effect using the computable general equilibrium (CGE) model for “R&D support” with the highest priority, and also confirmed that major macroeconomic indicators such as GDP, social utility, and investment, which had fallen due to the CBAM, recovered somewhat with R&D support, thereby resolving the growth slowdown, as well as indirect effect of promoting carbon neutrality of the power generation sector.

| Strategic directions | Policies to Support Industries |
|--------------------------|---|
| Support | ① Tax benefits ② Funding support ③ R&D support ④ Distribution/Commercialization |
| Protection | ⑤ Infrastructure ⑥ Customized Support for Each industry ⑦ Reasonable transaction framework |
| Promotion and Conversion | ⑧ Innovative System ⑨ Policy governance ⑩ Education and Publicity |

(2) International Strategic Foresight

No. 3

U.S.-China Technological Hegemony & China's National Strategies

Writer Cha Jung-mi

Cha Jung-mi (Associate Research Fellow) has categorized China's strategies to survive and overpower the rival in the era of the U.S.-China tech war into two aspects, "technological innovation" and "technological solidarity". She emphasized that Korea needs to seek independent strategies for innovation and solidarity since nowadays the U.S.-China conflict is not limited to technological innovation but expanded to technological alliance to build their own technology network.

According to Cha's opinion, China defines this era as the era of "Great Revolution of the Century (世界百年未有之大变局)" in which scientific and technological transformations take place at the same time; they see a prominent strategic opportunity to rise and are actively engaging in "technological innovation" and "technological solidarity". In fact, the rise and fall of great powers in the history of mankind have always been linked with emerging and decline of new technology; it is why China is focusing on innovation and solidarity, believing that the rise of novel technologies gives it an opportunity to take the global leadership. China has been fostering especially artificial intelligence, space science, and quantum information as strategic nation-critical science and technology projects, while expanding its global network with initiatives such as "Digital Silk Road (数字丝绸之路)" and "Alliance of International Science Organizations (国际科学组织联盟)".

"The significant characteristic of this era is that the rise of new high-tech technologies and fierce competition to take the lead – this is an important transitional period for Korea to determine the economic and strategic status of Korea in the future of technological revolution," said Cha. "Beyond merely forecasting and analyzing the future of the U.S.-China tech hegemony, we should address the very important task of the mid- to long-term strategy to seek the governance of integrated communication and cooperation among the governance, industry, academia and laboratory for establishing Korea's strategies in the innovation and solidarity that will help us take a lead in the era of Industry 4.0."

Meanwhile, NAFI's Center for International Strategy is conducting two projects under the 2021 agenda "the future of U.S.-China technological hegemony": the "Global Collaboration Research" project together with scholars from 13 countries, which is a comparative study on perceptions and

forecast strategies of major countries for U.S.-China tech war; and a project in cooperation with about 10 domestic scholars to determine Korea's best diplomatic strategies and tasks under this hegemony.

No. 4

Cooperation for Disaster Risk Reduction for Post-Pandemic Peace on the Korean Peninsula

Writer Kim Tae-Kyung

Kim Tae-Kyung (Associate Research Fellow) had made a statement that South Korea can contribute to establishing multilateral cooperation for peace process on the Korean Peninsula with disaster risk reduction (DDR) arrangement in Northeast Asia in the current global situation where non-conventional security risks has been rising after the COVID-19 pandemic.

This report is intended to identify changes in DDR-related perception and governance of North Korea under Kim Jong-Un, and to draw policy alternatives by envisioning the DDR collaboration for peace process on the Korean Peninsula. According to Kim's study, two notable points were identified – first, North Korea is showing relatively high affinity for interaction with international organizations and multilateral mechanisms, as well as for adaptation of universal norms in the process of DDR governance, thanks to constant activities of international organizations and humanitarian networks in the late 1990s. Second, North Korea is showing activeness in establishing domestic and overseas DDR governance as preventive response to non-conventional security risks such as pandemic, climate change and natural disasters by reorganizing its own legal system.

Consequently, it is Kim's allegation that establishing a joint response within a multilateral framework via the UN agencies resident in North Korea will be worth considering in future DDR cooperation on the Korean Peninsula; for example, a multilateral DDR council owing to United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), or alternatively, discovery and support of an inter-regional emergency response across the Korean Peninsula and other regions with the aid of International Federation of Red Cross (IFRC), playing a critical role in DDR activities in North Korea. In his opinion, if DDR cooperation arrangement for the Korean Peninsula is made within the "Sendai Framework for Disaster Risk Reduction" which was adopted in 2015 Third UN World Conference on Disaster Risk Reduction, it may serve as a new driving force to overcome obstacles in the peace process and inter-Korean relations under the "emerging security" agenda.

No. 5

Future Warfare and Military-Technology Solidarity: Military Application of Artificial Intelligence and Military-Civil Fusion

Writer Cha Jung-mi

Cha Jung-mi, the Director of Center for International Strategy, has alleged that 4.0 Industry innovation is changing the future warfare and the focus of global arms race between great powers, especially centering on military application of artificial intelligence

Amid the U.S.-China hegemony and 4.0 Industry, the technology-security fusion and the industry-national defense fusion are being rapidly intensified, as emerging technologies such as A.I. and space technology are dual-purpose technologies with both commercial and military uses.

This study focused on a technological factor, i.e. emerging technologies in the era of 4.0 Industry, the prospect of future wars driven by changes in the international order due to the rise of China, and the military responses of the U.S. and China, with detailed analysis of global arms race between U.S. and China from the technological deterministic perspective that A.I. will be a game changer for the future hegemony, especially regarding military application of A.I., military innovation and warfare innovation ecosystem.

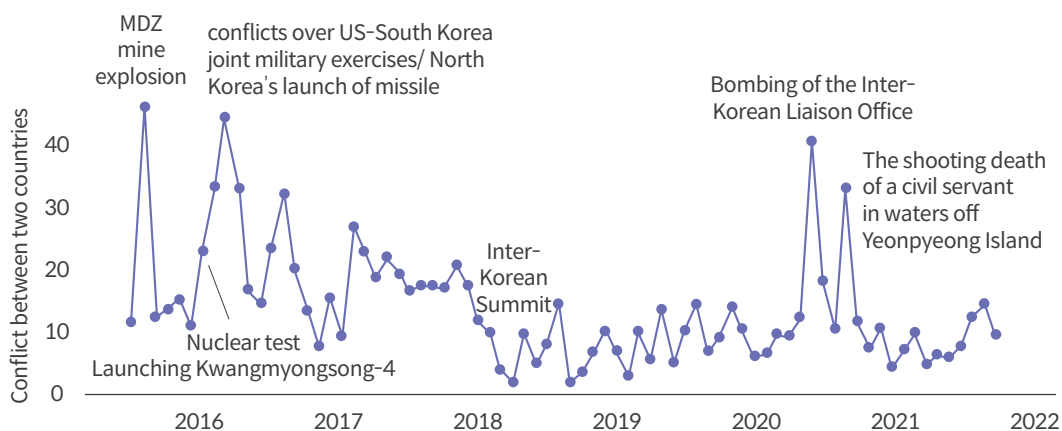
4.0 Industry global arms race is not limited to competitive acquisition of military capability anymore – it is supported in terms of technological hegemony. Emerging technologies designed by the private sector are reshaping the warfare innovation ecosystem with military-civil fusion, which is a system that simultaneously fulfills the economic and military purposes of accelerating technological innovation and increasing military personnel and material. Cha paid attention to the possibility of further intensification of the A.I. arms race between the U.S. and China.

Changes in International Conflicts Viewed from Big Data (GDELT)

Writer Park, Sung Jun

Park, Sung Jun (Associate Research Fellow) has found that transition in the conflict index, identified by GDELT, corresponds to the changes in international relations as understood by us to the certain extent, and captures more accurately the changes in conflict between two countries as compared with the tone information provided by the GDELT Event Database.

In this report, he constructed a conflict index based on the average tone information and the number of events provided by GDELT Event Database, and observed changes in relations between countries using the index. It was confirmed that: Korea-Japan disputes were drastically intensified due to Japan's restriction on the export of high-tech materials used in semiconductors and displays in July 2019; Korea-China relations deteriorated considerably after Korea announced its intention to deploy THAAD and China imposed an unofficial boycott in the first half of 2017; South Korea-North Korea relations significantly deteriorated due to DMZ mine incident in 2015, nuclear test and launch of satellites in 2016; U.S.-North Korea relations were most hostile in 2016 when America citizens were arrested in North Korea, UN Security Council resolution was adopted to impose additional sanctions on North Korea, and North Korea has carried out the test launch of the long range ballistic missiles; U.S.-China relations deteriorated sharply by the military activities in the contested South China Sea, the closure of the Chinese consulate in Houston, and the closure of the U.S. consulate in Chengdu in 2020; and Australia-China conflict fully began in 2020 when Australia stood on the side of the United States and called for an investigation of COVID-19.



(3) Futures Brief

No. 1

Emerging Issues and Global Trends

Writer Park Seong-won

Park Seong-won, the Head of Innovative Growth Group, has introduced global emerging issues that might become great problems/opportunities: ① anthropause, a global reduction in modern human activity ② social bubble, which refers to a having a small, clearly defined group; ③ zoom town, offline extension of the social bubble; ④ spatial computing, defined as human interaction with a machine in a 3D space around you; ⑤ splinternet; ⑥ bio-surveillance regime; ⑦ whole-genome synthesis; and ⑧ return of circular economy.

Emerging issues mean issues (discoveries, events, or phenomenon) that have not been influential or important in the past but might be influential in the future. As pointed out by Park, the emerging issues analysis is intended to find potential social problems in advance and to make various efforts to address such problems without leading to major accidents.

He also alleged that it is necessary to identify who and for what emerging issues are raised, and continuously monitor whether unintended negative consequences are caused by policy response and new conflicts arise, preventing a solution from becoming another challenge. In other words, conventional studies on emerging issues have focused on discovering potentially influential issues, however nowadays it is required to specify intentions of those who make and spread with continuous monitoring.

Discussion on Progressing National SDGs Implementation: Transition from Segmentation to Integration

Writer Cho Haein

Associate Research Fellow Cho Haein has alleged based on comparison of SDGs (sustainable development goals) implementation between advanced countries and South Korea. She has also asserted, in order for Korea to achieve inclusive growth and implement its global agenda, our society shall ① identify a number of specific target for each goal, and ② develop policies and institutions to ensure comprehensive control of economic, social and environmental values.

According to this report, “development” in South Korea was equal to “economic growth” accompanying with income increase from the 1980s to the early 2000s. Even today, attention is still focused on economic growth-oriented development, which is exacerbating inequality, polarization, competition, and environmental problems. It is time to find the direction of “development” that we should pursue in order to improve the quality of life of the present and also future generations.

She has conducted comparative study on trends and strategies for SDGs implementation and benchmarking cases referring to Voluntary National Review (VNR) reports of the G8 countries and South Korea. Consequently, Cho found that Korea was focused on “economy”, “society” and “environment” and a very weak link connecting those three sectors, while the advanced countries showed SDGs implementation across the various specific and detailed targets well-balanced and interconnected, rather than focusing on a few specific subjects. For example, “environment” has a high value in Korea, while “energy”, “climate”, “water resource” and “biodiversity” were found as high-value keywords in other countries, with which lower-ranked words such as “environment” and “economy” were associated; they were also related to “protection” and scaled up to “society”.

No. 3

Economic Growth as Secular Religion and GDP as Magical Number

Writer Lee, Sang-Jic

Lee, Sang-Jic (Associate Research Fellow) questions why many people feel uncomfortable about "economic growth", which yet remains as the priority in the Korean Society.

In this report, Lee ① reviews the meaning of "economic growth" measured as gross domestic product (GDP); ② examines various attempts to find alternative indicators to GDP; ③ identifies social conditions forcing society into obsessing about economic growth.

He pointed out that although it is hard to explain a relationship between quality of life and economic growth measured as GDP increase, many people still believe the GDP increase is the top priority in our society, while alternative indicators suggested at home and abroad since 1970s did not exclude economic growth itself. This limitation is fundamentally due to modern monetary system where most of the money supply is created by private banks in the form of debts – in Lee's opinion.

The report proposed three things: ① the meaning of GDP and economic growth need to be reviewed more critically ② alternative indicators should clearly reveal the tension between various values; and ③ we need to think how to get out of the dilemma of growth derived from the modern monetary system.

"In order for the Korean society to escape from the 'growth dilemma' a fundamental shift in system are required," according to Lee

15 Emerging Issues in 2022

Writer Park Seong-won

Park Seong-won, the Head of Innovative Growth Group, has selected highly likable and influential issues out of 10 emerging issues that will draw considerable attention in 2022: ① a new phase of the U.S.-China conflicts; ② frequent environmental disasters and increased international disputes; ③ rapid progress energy transition; ④ response to the climate crisis; ⑤ advancement of virtual reality; ⑥ A.I. misuse and algorithm bias; ⑦ asocialization; ⑧ increase in social care works; ⑨ negotiation for a new wage system agreement; and ⑩ “mosaic family”. Less likable but influential emerging issues in his forecast include: ① publicness of land; ② combination of energy independence and decentralization; ③ autonomy of robots and social consensus; ④ habitable zone in space; and ⑤ eco-fascism.

Highly likable and influential issues are issues currently occurring and expected to become more severe in the future. It is forecasted that international disputes will be further intensified focusing on environmental preservation and technology competition; climate crisis responses and A.I. technology will lead to social confusion and concerns; a degree of independence will be driven by individualist society; and socially vulnerable groups will be more isolated.

For less likable but influential issues, eco-facism may be emerged as a political reaction to environmental conservation while public domain, the influence of technology and human interactions may tend to expand. It is also forecasted that crisis response may require publicity, social consensus and decentralization; calls for safe zones may increase with the radical development of technology; and a new trend of recognizing the space as a zone people can live in may be also emerged.

Brief Reports in 2021

| Classification | No | Brief Reports | Writer | Date |
|-----------------------------------|-----|---|--------------------------------------|------------|
| National Future Strategic Insight | 10 | A Survey on the Future Values of Koreans | Min Bo-gyeong | 2021.01.07 |
| | 11. | An Investigation into and Future Challenges regarding Education Policies to Expand Psychological and Social Capital | Sung Moon-ju | 2021.01.21 |
| | 12 | One Year with COVID-19: How Did People's Lives Change? | Heo, Jongho | 2021.02.18 |
| | 13 | International Conflicts and Trade Dispute in Northeast Asia | Park, Sung Jun | 2021.03.04 |
| | 14 | Current Status and Takeaway of Domestic and Foreign Energy Transition Policies | Jeong Hoon | 2021.03.18 |
| | 15 | Challenges and Innovative Measures of Mid- to Long-Term Plans for Strengthening Future Capabilities: Focusing on Science and Technology Sectors | Yeo Yeong-jun | 2021.04.01 |
| | 16 | Proposal of Reform Agendas to Explore National Long-Term Development Strategy | Lee Sunhwa | 2021.04.15 |
| | 17 | Need for Happiness Report and National Happiness | Heo, Jongho | 2021.04.29 |
| | 18 | Intuitional Approach to New Phase: Functioning National Assembly | Cho Inyoung | 2021.05.13 |
| | 19 | Exploring Improvements in Framework for Early Childhood Care and Education Service | Lee Chae-jeong | 2021.05.27 |
| | 20 | Proposal of New National Development Model | Kim Hyeon Kon | 2021.06.10 |
| | 21 | Detour to the Desirable Future | Park Seong-won | 2021.06.24 |
| | 22 | Addressing the Rapidly Growing Suicide Rate | Park Sang-hoon | 2021.07.08 |
| | 23 | Literature Review to Derive Emerging Issues | Kim You-bean | 2021.07.22 |
| | 24 | Overcoming Disaster toward Innovation | Jeon Jun | 2021.08.05 |
| | 25 | Happiness Depending on Where You Live | Min Bo-gyeong | 2021.08.19 |
| | 26 | Major Issues and Suggestions of Job Change Support Service for Aging Society | Sung Moon-ju | 2021.09.02 |
| | 27 | Domestic Industry and Countermeasures upon Introduction of the Carbon Border Adjustment Mechanism | Yeo Yeong-jun, Cho Haein, Jeong Hoon | 2021.09.16 |
| | 28 | Future Policies and the National Assembly in the Viewpoint of Chief Advisors | Park Hyeon-Seok | 2021.10.07 |
| | 29 | Cryptocurrency and Changes in Financial System | Park, Sung Jun | 2021.10.21 |
| | 30 | Mid- to Long-Term Development in Energy Demand Management | Cho Haein | 2021.11.04 |

| Classification | No | Brief Reports | Writer | Date |
|-----------------------------------|----|--|---------------------------|------------|
| National Future Strategic Insight | 31 | Strategies for Reorganizing Welfare System Shared by Central and Local Governments for the Efficient Welfare Funding | Lee Sunhwa | 2021.11.18 |
| | 32 | College Education to Improve Entrepreneurial Mindset of Youth | Sung Moon-ju | 2021.12.09 |
| | 33 | Exploring Improvements in Framework for Social Services due to Low Birth Rate and Aging Society | Lee Chae-jeong | 2021.12.15 |
| | 34 | Region-oriented future Strategies to Response to Population Shock: Mitigation and Adaptation | Min Bo-gyeong | 2021.12.23 |
| | 35 | Policies to Support Industries Affected by Carbon Border Adjustment Mechanism (CBAM) and Policy Effect Analysis | Jeong Hoon, Yeo Yeong-jun | 2021.12.30 |
| International Strategic Foresight | 3 | U.S-China Technological Hegemony & China's National Strategies | Cha Jung-mi | 2021.08.12 |
| | 4 | Cooperation for Disaster Risk Reduction for Post-Pandemic Peace on the Korean Peninsula | Kim Tae-Kyung | 2021.10.14 |
| | 5 | Future Warfare and Military-Technology Solidarity: Military Application of Artificial Intelligence and Military-Civil Fusion | Cha Jung-mi | 2021.11.11 |
| | 6 | Changes in International Conflicts Viewed from Big Data (GDELT) | Park, Sung Jun | 2021.11.25 |
| Futures Brief | 1 | Emerging Issues and Global Trends | Park Seong-won | 2021.07.29 |
| | 2 | Discussion on Progressing National SDGs Implementation: Transition from Segmentation to Integration | Cho Haein | 2021.08.26 |
| | 3 | Economic Growth as Secular Religion and GDP as Magical Number | Lee, Sang-Jic | 2021.09.30 |
| | 4 | 15 Emerging Issues in 2022 | Park Seong-won | 2021.12.02 |

Major Activities in 2021



NATIONAL ASSEMBLY FUTURES INSTITUTE



1. Major Events
2. Future Contributions

1. Major Events

National Assembly Futures Institute's 2nd Board Appointment Ceremony

Date 2021.02.24

Hosted by Park Byeong-seok, Speaker of the National Assembly, 2nd NAFI Board of Directors newly formed participated in the appointment ceremony and meeting. A list of board members is as follows: Chairperson Park Myuon-gwang (Chairperson of Global Civic Sharing); eight executive directors including Kang Byung-soo (Professor, Department of Public Administration, Chungnam National University), Kwon Nam-hoon (Professor, Department of Economics, Konkuk University), Park Jin-hee (Professor, Dharma College, Dongguk University), Yang Jung-ho (Professor, Department of Education, Sungkyunkwan University), Cha Young-hwan (Professor, Department of Computer Engineering, Sangji University), Choi Kyong-wook (Professor, School of Economics, University of Seoul), and Han Sang-ik (Professor, Department of Public Administration, Gachon University); and an auditor, Kang Gyeong-woon (partner of Jipyong LLC).



The 1st National Assembly Futures Forum

Date 2021.04.21

NAFI hosted the National Assembly Futures Forum at the Marina Convention Center, Yeouido, Seoul on April 22 to explore solutions under the theme of "Crisis of Local Extinction and Alternatives: Future of Local Universities", together with the Standing Committees (Education Committee, Public Administration and Security Committee & Land, Infrastructure and Transport Committee) and member research groups (National Assembly Forum for Response to Low Birth, Citizen Future Forum & National Reconstruction Forum).



Discussion Forum to Commemorate 3rd Anniversary

Date 2021.05.06

NAFI held Discussion Forum to Commemorate 3rd Anniversary under the theme of “National Future Strategy: Reflection and New Direction”

Park Byeong-seok, Speaker of the National Assembly, delivered a video message sent for the opening ceremony. Kim Hyeon Kon, president of NAFI, gave a presentation on the topic of “National Future Strategy: Reflection and New Direction”. It was followed by a discussion with Park Myeong-Gwang, Chairperson of the NAFI Board of Directors, as a moderator. Panelists of the discussion included Seong Gyeong-ryung, Co-chairperson of the National Mid-to-Long-Term Agenda Committee; Jeong Hae-gu, Chairperson of the National Research Council for Economics, Humanities and Social Science (NRC); Gwon Oh-gyeong, President of the National Academy of Engineering of Korea (NAEK); Yi Tae-su, Director of the Korea Institute for Health and Social Affairs (KIHASA); and Kim Hyeon-cheol, a professor at Seoul National University’s Graduate School of International Studies.



The 2nd National Assembly Futures Forum

Date 2021.08.31

NAFI held the 2nd National Assembly Futures Forum under the theme of “Future School Education and Lifelong Learning: Prospects and Remedies” with YouTube Live Broadcast.

This academic event was designed to discuss ways to create a framework for school education and lifelong learning, which fosters future capability, in the paradigm shifts of society caused by aging population and various technical innovations including artificial intelligence (AI).



The 3rd National Assembly Futures Forum

Date 2021.11.25

National Assembly Futures Forum was held on November 25 under the theme of “Role of National Assembly to Resolve Inequality and Polarization”

Kim Ju-yeong of the Democratic Party of Korea; Yu Gyeong-jun of the People Power Party; Jang Hye-yeong of the Justice Party; Gwon Eun-hee of the People’s Party; Yong Hye-in of the Basic Income Party; and Cho Jeong-hun of the Transition Korea attended the forum as panelists.



Comprehensive Report on the National Mid- to Long-term Agenda Committee’s Future Vision 2037: Transition from Growth-Oriented to Matured Society

Date 2021.12.08

The National Mid- to Long-term Agenda Committee, directly reporting to the Chairman of the National Assembly, confirmed the final version of the report Future Vision 2037: Transition from Growth-Oriented to Matured Society and hosted a comprehensive report session to discuss the plans to disseminate the results. NAFI conducted the research with a joint research team of approximately 60 experts from major universities, along with government-funded research institutions including the National Research Council for Economics, Humanities, and Social Science, and the National Research Council of Science & Technology. The research suggested 12 solutions for 4 core goals.



The 3rd Future Strategy Conference – A Period of Upheaval, Looking at the Future of Korea: Recovery and Great Transformation

Date 2021.12.10

The 3rd Future Strategy Conference : A Period of Upheaval, Looking at the Future of Korea: Recovery and Great Transformation, hosted by NAFI and the Ministry Economy and Finance, and organized by the KDI, was streamed live on YouTube. The event was a chance to discuss prospects and challenges for major industries, how to promote and realize these prospects, and outline directions for a new form of governance.



2. Future Contributions

In terms of predicting the future and building strategies to respond to the future, “Future Thoughts” was shared weekly by the research staff from the National Assembly Futures Institute and News1 to communicate with the public. Also, “Future Column” was planned to introduce the thoughts of opinion leaders from various fields, such as political, academic, and industrial circles, in the form of featured columns from outside experts.

In 2021, there was a total of 52 sessions of “Future Thoughts” and 26 sessions of “Future Column.”

“Future Thoughts” in 2021

| No. | Title | Author | Date |
|-----|--|----------------|------------|
| 1 | From the Starting Point of A Net Zero Society | Jeong Hoon | 2021.01.07 |
| 2 | Future Teachers Should Become Leaders to Foster Talented Individuals | Sung Moon-ju | 2021.01.14 |
| 3 | Climate Change and Carbon Border Tax | Park, Sung Jun | 2021.01.21 |
| 4 | How Can the Government’s Mid- to Long-term Plans Develop from An Optimistic Blueprint? | Yeo Yeong-jun | 2021.01.28 |
| 5 | Expectations regarding Discussions on Expanding the Paradigm for Childbirth and Childcare Policies | Cho Inyoung | 2021.02.02 |
| 6 | Smart Work Life in the COVID-19 Era | Park Seong-won | 2021.02.09 |
| 7 | Emerging Issues and Treasure Hunts | Kim You-bean | 2021.02.16 |
| 8 | Hyperconnectivity, A World Beyond What We See | Min Bo-gyeong | 2021.02.23 |
| 9 | Thoughts on the Demand for Vaccines | Heo, Jongho | 2021.03.08 |
| 10 | Policy Innovation Starts from Data Innovation | Lee Chae-jeong | 2021.03.09 |
| 11 | How was the Democratic Republic Formed: Constitution Designed by James Madison | Park Sang-hoon | 2021.03.17 |
| 12 | Waiting for A Maverick Economist to Save the Era of Crisis | Lee Sunhwa | 2021.03.23 |
| 13 | Thoughts on the Need to Reform the Energy R&D System to Respond to the Climate Crisis | Jeong Hoon | 2021.03.30 |
| 14 | What Parent Education Should Include as Lifelong Education | Sung Moon-ju | 2021.04.06 |
| 15 | Internal Information and Misconduct | Park, Sung Jun | 2021.04.13 |
| 16 | Challenges for the Carbon Neutrality Policies to Transition to An Inclusive Structure | Yeo Yeong-jun | 2021.04.21 |
| 17 | Directions and Consistency of Welfare Policies | Cho Inyoung | 2021.04.26 |
| 18 | Global Trend 2040 and the Future of Korea | Park Seong-won | 2021.05.04 |
| 19 | Preparations for an AI Era | Kim You-bean | 2021.05.11 |

| No. | Title | Author | Date |
|-----|---|-----------------|------------|
| 20 | Walking, A Guide for the Future City | Min Bo-gyeong | 2021.05.18 |
| 21 | If You Are Sick, Take a Break | Heo, Jongho | 2021.05.25 |
| 22 | Set Future, A Future to be Set | Lee Chae-jeong | 2021.06.01 |
| 23 | Can the Global Minimum Corporate Tax Rates be a Starting Point to Transition the Economic System in the Post-COVID Era? | Lee Sunhwa | 2021.06.09 |
| 24 | How Can The Seoul Declaration Be More Than Just a Declaration | Jeong Hoon | 2021.06.16 |
| 25 | Why There Should Be Changes to the Presidential System | Park Sang-hoon | 2021.06.23 |
| 26 | Directions for Human Resource Development for Innovative Growth: What Should Change? | Sung Moon-ju | 2021.06.30 |
| 27 | An Aspect of Our Society As Seen From Cryptocurrency | Park, Sung Jun | 2021.07.07 |
| 28 | Transition of Thoughts and Political Tasks for Future Regional Innovation | Yeo Yeong-jun | 2021.07.14 |
| 29 | Balance Between Stability and Flexibility and the Future Forms of Employment | Cho Inyoung | 2021.07.21 |
| 30 | Politics of Compromise and Generational Conflict | Park Hyeon-Seok | 2021.07.28 |
| 31 | Koeran's Life Course: Structure of Life and Meaning of Life | Lee, Sang-Jic | 2021.08.03 |
| 32 | Important Signals of the Future Are "Too Weak" To Be Heard | Jeon Jun | 2021.08.10 |
| 33 | International Politics of AI | Cha Jung-mi | 2021.08.18 |
| 34 | Climate Change That Threatens the Earth... A Time to Think About My Own Way to Ethically Consume | Cho Haein | 2021.08.24 |
| 35 | New Economics that Should be Studied by Economists | Park Seong-won | 2021.09.01 |
| 36 | An Era of Crisis: Opportunity to Foster Consilient Experts | Kim You-bean | 2021.09.08 |
| 37 | Adverse Selection, a Term Borrowed From Economics: The Roles of the Voters | Min Bo-gyeong | 2021.09.14 |
| 38 | Time to Re-think Self-Quarantine | Heo, Jongho | 2021.09.16 |
| 39 | Principle-free Disaster Relief Fund and the Principles of the Pub Owner | Lee Chae-jeong | 2021.09.29 |
| 40 | The Pandemic and the Rise of "New Capitalism" | Lee Sunhwa | 2021.10.06 |
| 41 | Thoughts on the Basic Act for Carbon Neutrality | Jeong Hoon | 2021.10.13 |
| 42 | Is Populism Democratic? | Park Sang-hoon | 2021.10.20 |
| 43 | How to Encourage Vulnerable Groups to Participate in Lifelong Education | Sung Moon-ju | 2021.10.26 |
| 44 | Digital Yuan and the US-China Conflict | Park, Sung Jun | 2021.11.02 |
| 45 | How to Prepare for an Unprecedented Disaster | Kim Eun-ah | 2021.11.10 |
| 46 | Investigation of Development Ways for the Future Innovative System in the Race Between Technology and Learning | Yeo Yeong-jun | 2021.11.16 |
| 47 | Prepare for the Future with Young Talented Individuals | Park Hyeon-Seok | 2021.11.24 |
| 48 | Who are We?: The Structure of Modern Life Course | Lee, Sang-Jic | 2021.11.30 |
| 49 | The Future of North Korea Under Kim Jong-un, or "Futurology" Science Fiction for the General Public | Kim Tae-Kyung | 2021.12.07 |

| No. | Title | Author | Date |
|-----|--|----------------|------------|
| 50 | "Smart Power" Diplomatic Strategies in Response to the US-China Technology Hegemony Conflict | Cha Jung-mi | 2021.12.14 |
| 51 | A Time to Have Surrealistic Inspiration | Cho Haein | 2021.12.22 |
| 52 | Music, the Elderly, and Humor | Park Seong-won | 2021.12.29 |

"Future Column" in 2021

| No. | Title | Author | Date |
|-----|--|--|------------|
| 1 | Territorial Land in the Era of the Fourth Industrial Revolution | Jeong Chang-mu (Professor, Seoul National University) | 2021.01.14 |
| 2 | Carbon Border Adjustment and Thoughts on Its Potential Effects | Kim Seong-jin (Associate Research Fellow, Korea Environment Institute) | 2021.01.28 |
| 3 | National Strategies in 2021 as an Inflection Point for an Era of Great Transformation | Kwak Jae-won (Professor, Gachon University) | 2021.02.09 |
| 4 | The Future of Global System Platforms | Hwang Seok-won (Senior Research Fellow, Science and Technology Policy Institute) | 2021.02.23 |
| 5 | Revolution of Agriculture and Use of Land, Enhancing Possibilities to Achieve Carbon Neutrality | Park Hun (Research Professor, Korea University) | 2021.03.09 |
| 6 | Suggestions for Industrial Policies in the Post-COVID Era | Kim In-cheol (Senior Research Fellow, Korea Institute for Industrial Economics & Trade) | 2021.03.23 |
| 7 | Individuals Are the Future! | Jeon Sang-in (Professor, Seoul National University) | 2021.04.06 |
| 8 | Teacher Evaluation System and Incentives: Intentions and Areas of Improvement | Lee Seong-ho (Professor, Chung-Ang University) | 2021.04.21 |
| 9 | Korea's Capabilities that will be Improved by Science and Technology Talents | Song Ha-jung (Professor Emeritus, Kyunghee University) | 2021.05.04 |
| 10 | The Answer Was Always at the Market, Not Regulations. It Will Always Be. | Lee Geun-ju (Professor, Ewha Womens University) | 2021.05.18 |
| 11 | China's Increasing Aggressive Diplomatic Policies and the Future of the Korea-China Relationship | Ham Myeong-sik (Professor, Jilin University) | 2021.06.01 |
| 12 | Future Scenario for January 2022 | Choi Hang-seop (Professor, Kookmin University) | 2021.06.16 |
| 13 | Trust is Not Received, But Given | Kwak No-pil (Senior Reporter, The Hankyoreh) | 2021.06.30 |
| 14 | COVID Slide and the Capabilities of the Education Authorities | Lee Yong-sang (Professor, Yeungnam University) | 2021.07.14 |
| 15 | Public Plans in an Era of Transition | Mun Jeong-ho (Senior Research Fellow, Korea Research Institute for Human Settlements) | 2021.07.28 |

| No. | Title | Author | Date |
|-----|---|---|------------|
| 16 | The Future Depends on Risk Governance. Future Role of the National Assembly Futures Institute. | Kim Tae-yun (Professor, Hanyang University) | 2021.08.11 |
| 17 | The Youth are Korea's Key to Survival | Choi Jin-ho (Professor Emeritus, Ajou University) | 2021.08.25 |
| 18 | The Rise of White-collar Robots and Working in the Metaverse | Lee Seung-min (Director Researcher, Electronics and Telecommunications Research Institute) | 2021.09.08 |
| 19 | Number 0 on the List of Missing Future Tasks, Reforming Financial Stabilization for Public Pensions | Yang Jae-jin (Professor, Yonsei University) | 2021.09.16 |
| 20 | Rise of the Era of the Metaverse | Bang Jun-seong (Head Researcher, Electronics and Telecommunications Research Institute) | 2021.10.06 |
| 21 | Basic Income-Type Land Tax and the Issue of Housing | Jeong Chang-mu (Professor, Seoul National University) | 2021.10.26 |
| 22 | Overcoming the 3C Crisis: COVID-19, China, and Climate Change | Kwak Jae-won (Professor, Gachon University) | 2021.11.03 |
| 23 | Creating Skills and Dignity with Scientific Technology | Song Ha-jung (Professor Emeritus, Kyunghee University) | 2021.11.16 |
| 24 | Suggestions for the Future of the Educational Sector | Lee Seong-ho (Professor, Chung-Ang University) | 2021.11.30 |
| 25 | Carbon Neutrality Declaration and Preparation for the Future Generation | Heo Eun-nyeong (Professor, Seoul National University) | 2021.12.14 |
| 26 | Metaverse and Inclusive City... What Should Be Our Future Society? | Byun Mi-ri (Senior Researcher Fellow, The Seoul Institute) | 2021.12.29 |



Directions for Research Projects in 2022



NATIONAL ASSEMBLY FUTURES INSTITUTE



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1. Directions for Research Projects
 2. List of Research Projects

1. Directions for Research Projects

▣ Expanding the research results of the National Mid- to Long-term Agenda Committee

- Strengthen research on mid- to long-term agenda where the focus should be placed on the national level
- Strengthen the relationship between the National Mid- to Long-term Agenda Committee's "Future Vision 2037" and the core research on the national mid-to long-term development plans for 2022

▣ Strengthen research on predicting the future as the major research topic of the institution

- Define the system for research on predicting the mid- to long-term future and organize regular research plans, to meet the purpose of the institute
- Analyze macro trends by cross analyzing the long-term and mid- to short-term time frame, and strengthen capabilities to respond to the future with regard to different major issues
- Enhance accuracy by improving prediction methodologies based on quantitative and qualitative data, and analyze various future issues including emerging issues

▣ Strengthen research activities to become more credible and relevant

- Build a foundation to accumulate and use data by opening the "Quality of Life Data Center"
- Continuously implement "Study on the Happiness of the Korean People" as a major research project of the institute
- Plan participatory polls related to the institute's current tasks

▣ Build a system as a distinguished institution for comprehensive research on global strategies

- Expand research on mid- to long-term global strategies and strengthening the diplomatic efforts of the National Assembly with the Global Strategy Research Center
- Strengthen joint research and academic exchanges with global networks
- Suggest diplomacy strategies for Korea, the roles of the National Assembly and future tasks based on the findings of research on global strategies

▣ **Systemize all parts of research activities from research planning to disseminating results**

- Organize a research advising committee based on the recommendation of the 18 members of the standing committee
- Expand the “National Assembly Future Forum,” an opportunity to discuss future issues within the National Assembly
- Organize the “Youth Future Committee” consisting of the younger generation to disseminate research results
- Build networks with organizations including the UN, enhance exchanges and cooperation

2. List of Research Projects

| Field | Projects | Research Tasks | P.I. |
|----------------------|---|--|-----------------|
| Core Research | Foresight and Analysis | A Study on Future Prospects in Korea | Park Seong-won |
| | | Management of the National Mid- to Long-term Agenda Committee and Strategies to Institutionalize Future Agenda | Kim You-bean |
| | National Mid- to Long-term Development Strategies | Strategies to Transition to a Learning Circulation Society for Innovative Growth | Sung Moon-ju |
| | | The Future of Youth in Korea | Lee, Sang-Jic |
| | | A Study on the Reform of Welfare Systems in an Era of Lack of Employment Low-Growth and Super-Aged Society | Lee Chae-jeong |
| | | Mid- to Long-term Real Estate Strategies to Secure Resident Stability and Improving Asset Inequalities | Lee Sunhwa |
| | | A Study on the Mid- to Long-term Strategies to Transition to a Carbon Neutral Society | Jeong Hoon |
| | | Future Effects of Circular Economy and National Strategies | Kim Eun-ah |
| | | A Study on National Assembly Politics for National Integration | Park Hyeon-Seok |
| | | | |
| | Global Strategies | Mid- to Long-term Global Strategies | Cha Jung-mi |
| Fundamental Research | Accumulating Data on Future Research | A Study on the Happiness and Values of the Korean People | Heo, Jongho |
| | | A Study on Future Policies and Preferences of the Korean People | Park Seong-won |
| | | A Study on the Indices to Respond to the Future Society and Their Monitoring | Min Bo-gyeong |
| | Exploratory Research | Investigation on Green Transition Environmental Conflict | Kim Eun-ah |
| | | The Future of Peace Building in the Korean Peninsula and Women | Kim Tae-Kyung |
| | | Local Development Policy Issues in an Era of Great Transition | Min Bo-gyeong |
| | | Geopolitical Significance of Economic Sanctions Against Russia | Park, Sung Jun |

| Field | Projects | Research Tasks | P.I. |
|----------------------|----------------------|---|-----------------|
| Fundamental Research | Exploratory Research | A Study on the Second Half of the 21 st National Assembly Member Aides' Awareness of Future Agenda | Park Hyeon-Seok |
| | | The Future of Care: Focusing on Deinstitutionalization Movement in Korea | Lee, Sang-Jic |
| | | Investigation on the Legislation Methodology for Elderly Employment and Labor Policies | Jung Hae-yoon |
| | | A Study on the Revival of Conflicts Among World Powers and the Future of Developing Countries: The Future of the International Order and China's Diplomacy Towards Developing Countries | Cha Jung-mi |
| Outcome Diffusion | Outcome Diffusion | Plan and support research | Yoo Hee-Soo |
| | | Disseminate research outcomes | Kim Byoung-soo |

Appendix



NATIONAL ASSEMBLY FUTURES INSTITUTE



1. Establishment Basis
2. Brief History
3. People
4. Vision and Mission

1. Establishment Basis

▣ National Assembly Futures Institute Act, Article 1

To predict and analyze the changes in the future environment and derive mid- to long-term national development strategies to strengthen the policy competency of the National Assembly and contribute to national development.

2. Brief History

12.12 Enactment of the National Assembly Futures Institute Act



2017



2018



2020



2021

05.27. Appointment of Kim Hyeon Kon as the 2nd President of the National Assembly Futures Institute

11.27. Appointment of the National Mid- to Long-term Agenda Committee (Under direct control of the Chairman of the National Assembly)

12.24. Launch of the 2nd National Assembly Futures Institute Board of Directors (Chairman of the board: Park Myungkwang)

01.10. Launch of the Preparatory Committee for the National Assembly Futures Institute (Committee Leader: Cho Dong-sung)

03.21. Launch of the National Assembly Futures Institute Board of Directors (Chairman of the board: Kim Sun-wook)

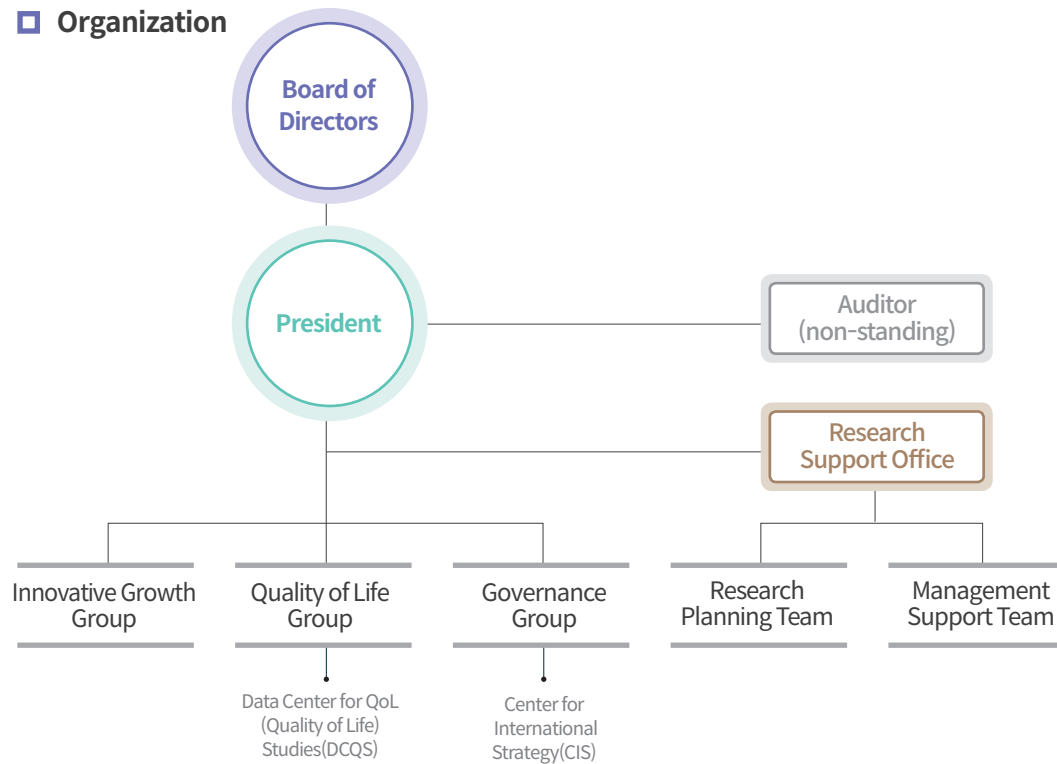
05.21. Passage of the motion regarding the appointment of the 1st President of the National Assembly Futures Institute (First President: Park Jin)

05.28. Opening ceremony of the National Assembly Futures Institute

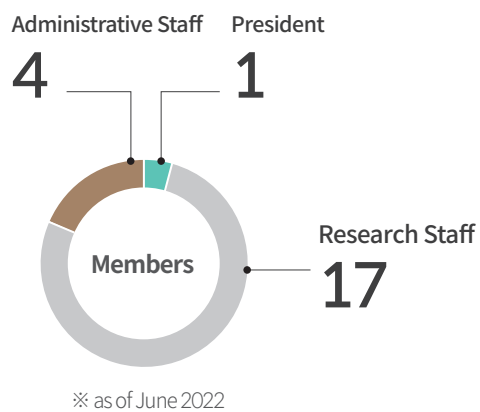
12.08. Publish the National Mid- to Long-term Agenda Committee's Report 「Future Vision 2037: Transition from Growth-Oriented to Matured Society」

3. People

Organization



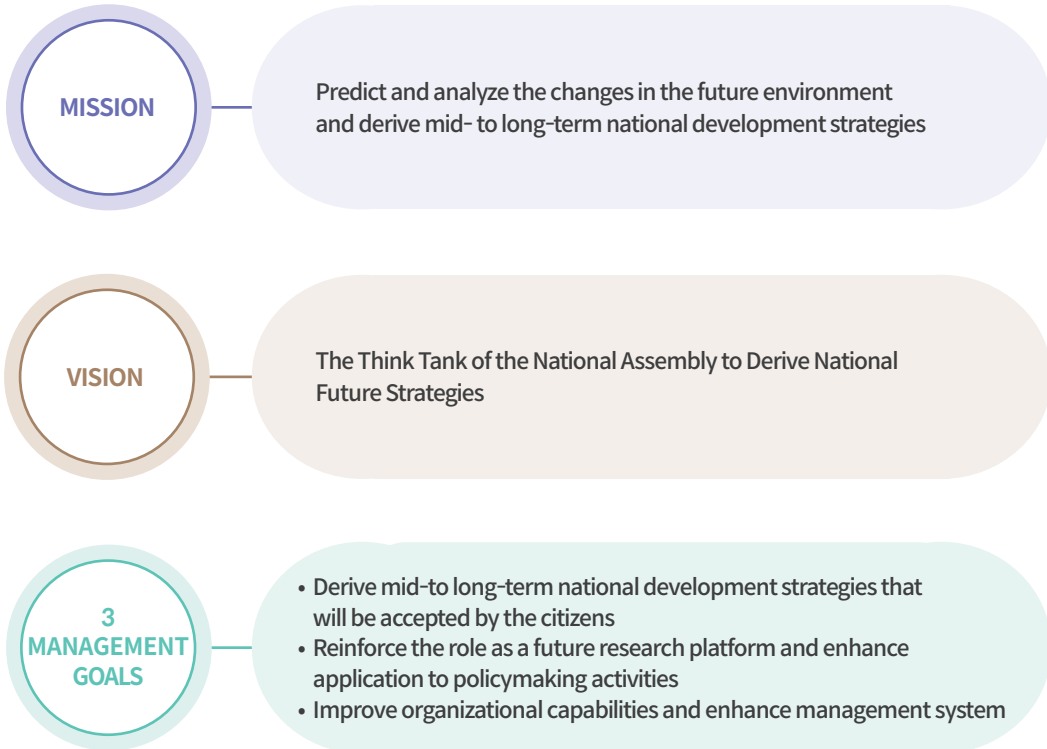
Members



| President |
|----------------------|
| 1 |
| Research Staff |
| 17 |
| Administrative Staff |
| 4 |
| Total |
| 22 |

4. Vision and Mission

□ Mission · Vision · Goals



□ Management Goals · Performance Strategies · Performance Tasks

| Management Goals | Performance Strategies | Performance Tasks |
|---|--|--|
| 1. Suggest national mid-to long-term strategies that all citizens will agree with | Scientifically predict and analyze future changes and suggest ideas regarding the future of the country with citizen participation | ① Discover more future agenda based on scientific predictions |
| | | ② Suggest an ideal future national vision |
| | Derive mid- to long-term goals to realize ideas and initiatives regarding the future of the country | ③ Develop core mid- to long-term development strategies focusing on the core national agenda |
| | | ④ Reinforce mid- to long-term national response to the changes in the global environment |

| Management Goals | Performance Strategies | Performance Tasks |
|---|---|--|
| 2. Stronger roles as a future research platform and enhance application to policy making activities | Collaborate and cooperate in terms of future research and reinforce the role as a platform | ⑤ Enhance synergy with national research networks |
| | Enhance application to policymaking activities by providing multiple communication channels | ⑥ Strengthen cooperation with global professional institutions and experts |
| 3. Enhance capabilities of the institute and make advancements to the management system | Strengthen human competency and improve organizational capabilities | ⑦ Strengthen communication with the National Assembly, the government, the citizens, and the consumers of policy making activities |
| | | ⑧ Share and disseminate research results via various media outlets |
| | Create innovation in the research activities system and make advancements in the organization management system | ⑨ Define the characteristics for the right people for the institution by empowering staff members |
| | | ⑩ Increase the number of staff members and create an active human exchange platform |
| | | ⑪ Innovate research activity systems focused on the institute's missions |
| | | ⑫ Make advancements to the organization management system by creating synergistic effects |

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(www.nafi.re.kr) and **Open API**(open.assembly.go.kr)

