



Applying foresight to policy agenda-setting: A successful case in South Korea

Kyungmoo Heo, Yongseok Seo *

Moon Soul Graduate School of Future Strategy, Korea Advanced Institute of Science and Technology (KAIST), N5 #2237, Daehakro 291, Yousung, Daejeon, Republic of Korea

ARTICLE INFO

Keywords:

Agenda-setting
Anticipation
Conflict
Foresight
Governance
Policymaking

ABSTRACT

There is still a persistent gap between 'knowing' the future and implementing it in policymaking. South Korea implemented a project in 2019 to proactively manage future conflicts. The project was initiated to provide foresight-policymaking integration by elevating future conflict issues to ongoing government institutional agendas. Utilizing an exploratory, single-project case based on a field-study method, this article presents observations of the project's applied approaches in foresight-policy integration along with corresponding implications. The project integrated agenda-setting strategies such as actor-based strategies (inside-access, mobilization, and outside-initiation models), an issue-attention strategy, and packaging strategies (analogous to previous agendas and the utilization of symbols), as well as two-way translation methods of foresight (forecasting and backcasting). There are two underlying reasons for this integration being successful, namely the nature of agenda-setting being conducive to foresight processes and the project's key design variables (forward-looking leadership and the designated group's active representation of future generations). A future conflict agenda-setting project can serve as a great entry point through which to increase the anticipatory knowledge and capacity of the actors involved. To internalize these, however, new anticipatory knowledge- and capacity-based governance should be introduced through the continued training and education of both government officials and the public.

1. Introduction

Conflict can be understood as a possible disagreement or quarrel between two or more people (Ha, 2008; Office for Government Policy Coordination, 2009). So, the notion of conflict is always relevant to the stakeholders whether they are directly or indirectly involved. Relevant stakeholders compete with each other to elevate their conflict-causing issues to agenda level and then policy level for implementation. Interested groups fight to ensure that their depictions of an issue, or of an agenda, and their preferred solutions are highly visible. There is fierce competition between groups due to the limited space available in a formal agenda (Baumgartner & Jones, 2010; Hilgartner & Bosk, 1988; Kingdon & Stano, 1984; McCombs & Estrada, 1997). If something needs to be resolved, a third-party or mediating organization such as a government intervenes and decides upon the issue(s) for consideration (Ha, 2008; Office for Government Policy Coordination, 2009). When a conflict arises and causes a negative impact on a society, a government then treats it as an agenda in itself (Birkland, 2015; Cobb & Elder, 1971; Cobb, Ross, & Ross, 1976; Howlett & Ramesh, 2003; Peters, 2015).

* Corresponding author.

E-mail addresses: kyungmoo.heo@kaist.ac.kr (K. Heo), manoa@kaist.ac.kr (Y. Seo).

As of 2016, South Korea (hereinafter Korea) was ranked third in terms of conflict in society among the 34 member states of the Organization for Economic Cooperation and Development (OECD) (Office for Government Policy Coordination, 2019). Indeed, various conflicts have arisen and have severely damaged the unity of Korean society. The Korean government has subsequently decided to manage conflicts in a proactive manner instead of relying on reactive and passive measures. In May 2019, the Korean government initiated the *Foresight and Analysis of Mid- to Long-Term Future Conflicts for Policy Agenda Setting Project* (hereinafter the project). It was implemented through the collaboration of the Office for Government Policy Coordination (hereinafter the OPC) from the Korean Prime Minister's Secretariat and foresight researchers (hereinafter the researchers) from the Korea Advanced Institute of Science and Technology (hereinafter KAIST) Graduate School of Future Strategy. To the best of our knowledge, this project was the world's first future conflict agenda-setting project.

This article presents the project's unique approaches and provides implications of the integration of 'in-field' foresight into a policymaking process, especially that of agenda-setting. In short, the article sets out to address the following research questions identified from the literature review: (1) how and why was foresight successfully integrated into this future agenda-setting project? (2) what types of benefit can foresight provide to agenda-setting (further to future-oriented governance)? and (3) are there any recommendations for the effective and sustainable implantation of foresight into a government's policymaking process?

This article is structured as follows. First, to identify the knowledge gap, the policymaking dilemmas in dealing with future issues are explained using relevant theoretical backgrounds along with research methodology. Thereafter, the project's outline is described and observations are presented of the project's approaches to the integration of foresight into agenda-setting, specifically the integration of different agenda-setting strategies and the application of two-way translation methods of foresight. As for findings and implications, the discussion section answers the research questions by presenting two underlying reasons behind this successful integration, as well as detailing the main benefits of the project and issuing recommendations to ensure such benefit can be sustained within the policymaking process.

2. Dilemmas of future agendas and issues in policymaking

This section presents the dilemmas of integrating foresight into contemporary agenda-setting by exploring the two theoretical backgrounds applied in this project, namely (1) policymaking and governance and (2) the integration of foresight into policymaking, which provide the logic and criteria that underpin the methodology, as explained later in this section.

2.1. Policymaking and governance

Generally, policies are the mechanisms used by actors to steer their organization(s) and environment(s) to which they belong (Peters, 2014, 2019). Or, as is more common in contemporary politics, policies are the means of a government to govern a society and a nation (Peters, 2019). For example, an economic policy, such as monetary and fiscal policies, is applied to govern the economy of a nation. Therefore, the type of governing forms and approaches (governance) that a country has adopted will eventually influence the strategies and approaches used and applied in policymaking (Howlett, 1998, 2009; Kern, Rogge, & Howlett, 2019; Peters & Savoie, 1995).

In a policymaking process, the meaning of an agenda comes as "a result from procedural or substantive conflicts between identifiable groups for either scarce resources or scarce positions" (Birkland, 2015, p.81; Cobb & Elder, 1971; Hilgartner & Bosk, 1988; Mrogers & Wdearing, 1988). In particular, agenda-setting is the first part of the policy process, which is defined as that "by which problems and alternative solutions gain or lose public and elite attention" (Birkland, 2015, p.200; Howlett & Ramesh, 2003, p.120; Peters, 2015, p.66). Agenda-setting, as a pre-political or pre-decision process, plays the most critical role in framing the overall policy (Howlett, 1997). Generally, agenda-setting requires three different steps (Birkland, 2015; Cobb & Elder, 1971; Peters, 2015). Firstly, stakeholders raise a conflict issue, which then develops into a systemic agenda. This entails the collection of all possible policy ideas commonly perceived by all relevant policymaking actors including government officials and the public. A system agenda then reaches the status of an institutional agenda where a possible policy list is elevated for the active and serious consideration of decision-makers. These three steps are not sequential; rather they are selected, prioritized, or removed based on the nature of an issue or the agenda itself (Baumgartner & Jones, 2010; Downs, 1972; Howlett, 1997).

Governance refers to an actor's capacity to steer and coordinate the economy and society (Howlett, 2009; Peters & Savoie, 1995; Peters, 2019, p.3). It forms an actor's framing of their interactions with societies and organizations and further constructs their knowledge, including histories, attitudes, attentions, and beliefs that work as ideational prisms through which they conceive of societal issues (Edelman, 1988; Howlett & Ramesh, 2003; Peters, 2015). In a policymaking process, the actors involved are influenced by governance in their decision-making process including the identification of an effective means of deciding upon collective goals and reaching those goals (Howlett, 2011, p. 8; Kooiman, 1999; Rhodes, 1996). As such, forms of governance (e.g. hierarchy, market, network, interactive, etc.) influence actors' framing and understanding of issues and agendas (Peters, 1996; Pierre, 1999; Powell, 1990; Rhodes, 1996).

Governance forms and their agenda-setting processes have long depended on contemporary political ideology, namely democracy. They tend to focus on presenting an issue and a present-focused agenda-setting process for the generations of today, rather than those of the future. As a result, it may be obvious that the most urgent and widely popular issues tend to dominate the policymaking process. Without governance that supports the futures domain, future issues cannot be elevated to the institutional agenda level, and a strategy or an approach applied for future agenda-setting (or future-oriented policymaking) can merely be considered an instant or 'one-time' patchwork technique. Therefore, a foresight project (or a review of one) should not only explain how to integrate foresight into agenda-

setting but should also delve into the underlying reasons behind its success and ultimate benefits with respect to boosting capacity and knowledge that supports governance with a future-oriented and forward-looking attitude.

2.2. Foresight in governance and policymaking

History and academic research has shown that policymaking and foresight are closely related. In the public policy domain, Lasswell and Lerner (Lasswell, 1951) introduced three policy orientations: ‘problem orientation’; ‘contextuality’; and ‘inter-disciplinary’. They emphasized the inseparable relationship between policy and foresight, and explained ‘contextuality’ as a linkage between place and time since the target time of a given policy is some point in the future (Dror, 1996; Glenn, Gordon, & Dator, 2001; Popper, 2008). Subsequently, Osborne and Gaebler introduced the term ‘anticipatory government’ as a reinventing measure for administrative reform to transform an existing policy into one that is more proactive and foresight-oriented (Osborne, 1993). Since then, integrating foresight into policymaking has become a long-discussed topic for researchers in the fields of foresight and future-based policymaking (Calof & Smith Jack, 2012; Da Costa, Warnke, Cagnin, & Scapolo, 2008; Mermet, Fuller, & van der Helm, 2009; Riedy, 2009; van der Steen & van Twist, 2013; van Dorsser, Taneja, Walker, & Marchau, 2020; van Dorsser, Walker, Taneja, & Marchau, 2018; Walker, Marchau, & Swanson, 2010; Walker, Rahman, & Cave, 2001). In particular, there are two actively researched, future-oriented national policy-making processes, namely anticipatory governance and adaptive policymaking. These focus on the capacity of the foresight system and the anticipatory knowledge of the actors involved rather than on its administrative processes and organization.

The theoretical and practical development of anticipatory governance has been observed within anticipation studies (Poli, 2017; Quay, 2010; Ramos, 2014). Anticipation studies developed as the third layer of futures studies, subsequent to forecast (the first layer) and foresight (the second layer) (Poli, 2017). Tuomi (2013) also mentioned it in the context of next-generation or design-based foresight, and referred to this as ‘foresight 2.0’ (Miller, Poli, & Rossel, 2018; Poli, 2017). Anticipation is defined as the capacity “to deal with new situations and realize accepted values, changing the focus from forecasting to being ready for future challenges” (De Jouvenel, 2017; Poli, 2017, p.61). This capacity is not only limited to the individual level, but it also refers to needs, resources, and systems at organization or government level (Poli, 2017). Specifically, in policymaking, Fuerth and Faber applied anticipation in governance, better known as anticipatory governance (Fuerth & Faber, 2012; Fuerth, 2009, 2013). Anticipatory governance not only possesses the feature of foresight, which challenges the attitudes of decision-makers by exploring possible futures, but it also boasts a future-oriented decision-making structure and enhances the forward-looking capacity of a government by integrating foresight into governmental affairs (Miller et al., 2018; Poli, 2017).

Second, adaptive policymaking is about “creating robust policies that respond to changes over time and that make explicit provision for learning.” Accordingly, it leads to the enhanced uptake of futures in the policy field (Hamarat, Kwakkel, & Pruyt, 2012; van Dorsser et al., 2020; Walker et al., 2010, 2001, p.283). Contemporary policies built on best-estimate models and static analysis are fragile against uncertainty. Indeed, uncertainty should be approached in a way that protects against and prepares for unforeseeable developments. Unlike present-day policymaking, adaptive policymaking embraces changes overtime and keeps these plans attached to an evolving new knowledge base (McCray, Oye, & Petersen, 2010; Walker, Marchau, & Kwakkel, 2013). In addition, it encourages actors to continuously learn new ideas and overcome barriers to foresight (or future-thinking), namely finding satisfaction with existing knowledge (van der Steen & van Twist, 2013; Walker, Haasnoot, & Kwakkel, 2013; Walker, Marchau et al., 2013; Walker et al., 2010). It attempts to change the subjectivity of underlying values and perspectives of actors embedded in existing knowledge and to then overcome their limited perceptions of the existing policymaking (van der Steen & van Twist, 2013; Walker et al., 2010). The continued intakes of anticipatory knowledge and the capacity of the policy’s time horizon, professional background, instrument usage, procedure, and leadership (Moench, 2010; Riedy, 2009; Swanson et al., 2010; van der Steen & van Twist, 2013) allow actors to expand their boundaries to adjust to the long-term trends and dynamics of a society (Da Costa et al., 2008; van der Steen & van Twist, 2013).

Despite the two distinguished theoretical concepts mentioned above, there is still “a persistent gap between ‘knowing’ the future and acting toward it in policymaking” (Riedy, 2009; van der Steen & van Twist, 2013, p.33; van Dorsser et al., 2020). Strategies, approaches, and methods of this integration are required for a formal future policymaking process empirically. A lack of ‘hard evidence,’ a susceptibility to being falsified and its problematic nature as a legitimate source of policy, as well as its speculative nature, all contribute to disconnecting foresight from policymaking (Riedy, 2009; van der Steen & van Twist, 2013). Understanding how and why actors conceptualize issues or agendas in policymaking can make the bureaucracies of governments open, sensitive, and receptive to new insights and concepts of foresight (Riedy, 2009; van der Steen & van Twist, 2013). Therefore, this article intends to strengthen the link between policy and the futures field by narrowing its focus on the agenda-setting of the policymaking process at the outset of policy formulation.

2.3. Research design and methodology

In the previous sections, we constructed a theoretical and conceptual lens through which to the linkage of agenda setting with governance can be explained from a capacity and knowledge perspective, while a persistent gap between foresight and policymaking was also identified. Based on the theoretical background and identified knowledge gaps, this article utilizes findings from a single-project exploratory case study to examine the relationship between foresight and agenda-setting, specifically in the Korean future conflict project which started in June 2019 and ended in December 2019. Considering the nature of the research questions in this article (i.e., ‘why’ and ‘how’), an exploratory case study would be more practical to provide detailed underlying information and meaningful implications to the questions (Eisenhardt, 1989; Herriott & Firestone, 1983; Yin, 2017). In particular, a case study of a single project can answer detailed inquiries so that the researcher either “examines a relevant issue or reveals phenomena through the

process of examining the entity within its social and cultural context" (Salkind, 2010, p.115). This approach focuses more on gaining an in-depth understanding of a subject instead of presenting a comprehensive model and analytical generalizations (Rhodes, 1996).

Based on an exploratory case study, this article uses field study research as its main research methodology. Within the category of non-experimental design, a field study intends to capture the essence of human behavior, namely the temporal or dynamic nature of behavior in the given environment (Babbie, 2012, pp.312–314; Salkind, 2010, p.949). It includes a case study, natural/general observation, the observer's study of participants, and phenomenology (Babbie, 2012; Salkind, 2010). In particular, observations of participants or non-participants are effectively used to explore the complexity of the project itself and its effects on the participants (Salkind, 2010). We paid particular attention to the project's processes of discussion, debate, and persuasion between actors who participated in policy-foresight integration. Along with observations of discourse rooted in our field experiences, the article also uses other methods to gather credible and reliable data, including interviews with participants and non-participants, and source documents such as meeting notes and government documents in the course of the research analysis. This triangulated methodical approach supports the article in acquiring reliable as well as valid data (Hussein, 2009; Jick, 1979; Olsen, 2004). Most importantly, this approach allows us to achieve multiple constructions of truth, which derive from each actor's arguments representing a particular position.

3. Results

This section describes the authors' observations as to how the team organized this project and integrated foresight into policy-making while delving into how the above-listed theoretical concepts were applied practically. Notably, this section first provides an overview of the project such as the background to its initiation, its mandate, its operating bodies, and its implementation framework along with the reporting output format. Then, it presents the project's approaches and efforts made toward better foresight-policy-making integration such as the utilization of different agenda-setting strategies and the application of foresight methods.

3.1. Project overview

This government-funded project was initiated to reflect on the administration's reactive and passive actions in a series of conflicts in the past few years including conflicts between car-sharing companies and the taxi industry (2018), on the reduction of official working hours (2018), and on the increase of the minimum wage (2019), each of which severely damaged the unity of Korean society. As well as serving the different interests of society, it was also necessary for a government to manage potential and anticipated conflicts in a proactive manner. Moreover, the outcome of KAIST's decade-long effort towards foresight-policy integration shaped the foundation and initiation of this project.

The project's mandate was to identify mid- to long-term future conflict agendas and to provide proactive conflict management plans to be reported back to the National Cabinet Meeting. Implicitly, the project was also designed to build a foresight-centered governing capacity within the administrative and decision-making processes. Even if these agendas are not directly attached to a formal policy, the mandate itself allowed the Korean government to map a society in which the structure and intensity of conflicts are apparent in order to prepare or adapt for sudden and unexpected changes (Calof & Smith Jack, 2012; Vervoort & Gupta, 2018).

The OPC implemented the project together with KAIST. For the past five years, the OPC had announced the conflict agenda pool on a yearly basis. However, to deal with the aspects of futures such as identifying and analyzing future conflict issues and agendas, the OPC decided to collaborate with a dedicated foresight research institute. The OPC, as the highest coordinating and governing body in the administration, brokered KAIST with other ministries' strategy and planning offices. The OPC and KAIST provided detailed evidence to ministries and their decision-makers to rationalize the agenda selection and to further increase its acceptability and

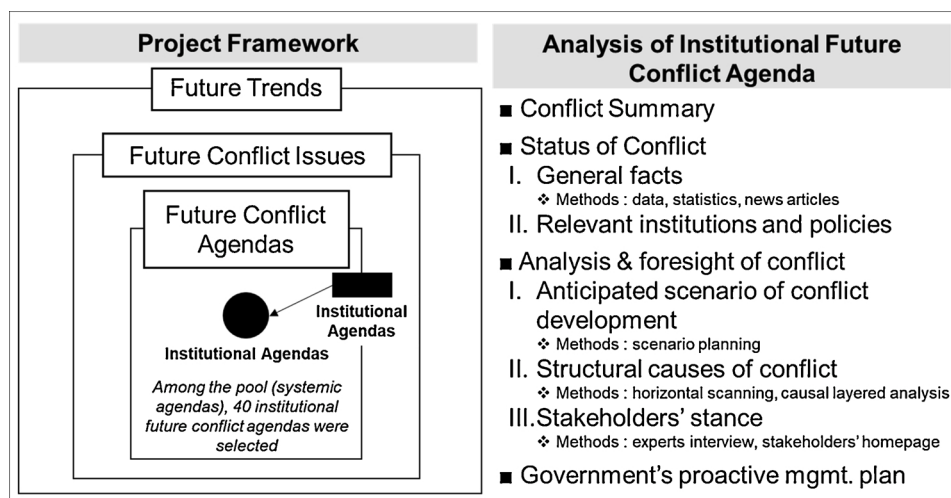


Fig. 1. Project's Framework (Left) and Reporting Format (Right).

Table 1

Future Trend, Conflict Issues, and Conflict Agenda (Institutional).

A. [FT] Demographic Changes

- 1) [FCI] Education Reform due to Decreasing School-Age Population
- 1 [FCA] Adjustment of Size of Newly-Trained Teachers
- 2 [FCA] Consolidation of Small Schools in Farming and Fishing Villages.
- 3 [FCA] Local Discontent when Local Public Universities are Merged
- 2) [FCI] Participation of Senior Citizen in Economic Activities
- 4 [FCA] Discussion on Reform of Public Sector Wage System
- 5 [FCA] Improving Work Environment for Physical Conditions of Senior Employee
- 6 [FCA] Introduction of National Basic Income
- 3) [FCI] Social Burden Caused by Decreasing Working Age Population
- 7 [FCA] Discussion of Raising Legal Age of Senior Citizens
- 8 [FCA] Reform of all Social Protection System
- 4) [FCI] Expansion of Facilities Related to Senior Citizens
- 9 [FCA] Location Conflict by Expanding Nursing and Dementia Facilities for Senior Citizens
- 10 [FCA] Location Conflict by Expanding Facilities due to Shortage of Crematoriums
- 5) [FCI] Response on Local Population Decrease
- 11 [FCA] Discussion of Local Administrative Reform (Widening of Jurisdiction)
- 12 [FCA] Increase of Local Complaints due to Slumming of Small Local Cities
- 6) [FCI] Reform on Military System due to Reduction of Military Manpower
- 13 [FCA] Discussion on Reorganization of Military Recruitment System
- 14 [FCA] Reduction and Merge of Military Units
- 15 [FCA] Discussions on Installation of Military Bases in Uninhabited Islands and Idle Lands
- 7) [FCI] Response to Increase of Single-Person Households
- 16 [FCA] Discussions on Expanding Institutional Support for Single-Person Households
- 8) [FCI] Response to Increase in Foreigners and Multicultural Population
- 17 [FCA] Discussion in Accepting Refugee Camp and Continued Increasing
- 9) [FCI] Introduction of New Institution to Meet Low Birth Rate
- 18 [FCA] Discussion in Expanding Institutional Support to Common Law Marriage
- 19 [FCA] Discussion in Legalization of Surrogate Mother and Egg Donation

B. [FT] 4th Industrial Revolution along with Economic and Social Structural Changes

- 1) [FCI] Industry Restructuring Due to Automation and Robotization
- 1 [FCA] Employment Conflict due to the Introduction of Self-Driving Cars
- 2 [FCA] Employment Conflict due to Unmanned Port Operation
- 2) [FCI] Advancement of Medical and Bio Technology
- 3 [FCA] Bioethics Conflict due to Emergence of the CRISPR Technology
- 4 [FCA] Conflict between Doctors and Healthcare Industry about Telemedicine
- 3) [FCI] Expansion of Sharing and Platform Economies
- 5 [FCA] Conflict on Change of Employment Legislation due to Employment Diversification
- 6 [FCA] Conflicts between Industries due to Proliferation of Platform firms (Delivery Apps)
- 7 [FCA] Conflicts between Old and New Industry due to Spread of Share Economy
- 4) [FCI] Development of Blockchain Technology
- 8 [FCA] Controversy over the Regulation on Crypto(virtual) Assets
- 9 [FCA] Controversy over Reorganization of Voting and Election System using Blockchain
- 5) [FCI] Emergence of New Industries that Change Lifestyles
- 10 [FCA] Conflicts due to Commercialization of Drone
- 11 [FCA] Conflict over Practical Use of Synthetic Meat
- 12 [FCA] Adult Content Industry Appearance Using Robot and Virtual Reality Technology
- 6) [FCI] Development of AI
- 13 [FCA] Copyright Issues on Works Produced by AI

C. [FT] Climate Change & Energy Conversion

- 1) [FCI] Promoting of Energy Conversion Policy
- 1 [FCA] Location Conflict of Offshore Wind Power Plant
- 2 [FCA] Discontent of Abolition and Reduction Energy Subsidies (e.g. cargo diesel subsidies)
- 3 [FCA] Discussion on Reform of Electricity Rate
- 4 [FCA] Conflict in Dealing with Solar Panel Waste
- 2) [FCI] Development of New Technology to Manage Climate Change
- 5 [FCA] Conflict between Government and Fishers due to Expansion of Carbon Capture, Utilization and Storage Facility
- 6 [FCA] Location Conflict between Government and the Local in Selection of Solid CO₂ Reclamation Facility
- 7 [FCA] Conflicts Arising in the Process of Expanding Smart Grids
- 8 [FCA] Employment Shock due to Proliferation of Electric Vehicles (Engine vs. Electric Motor)

*Abbreviation : FT, Future Trend; FCI, Future Conflict Issue; FCA, Future Conflict Agenda.

actionability. They modified a preliminary future conflict agenda list based on the ministries' feedback and requests. For instance, the OPC held several high-level meetings with presidential secretariats, the prime minister, and ministers in order to push forward the preliminary agenda by adapting it to suit the views of the administration. The OPC successfully imported its foresight capability to the central government with support from KAIST and effectively coordinated with ministries to reinforce the OPC's implementation function.

In Fig. 1 above, the project's conceptual framework (the left side) and the reporting format (the right side) are clearly depicted. The project's framework takes a hierarchical form of agenda development similar to that of Cobb and Elder's agenda-setting process (Birkland, 2015; Cobb & Elder, 1971; Peters, 2015). First, the project identified each mega trend that has a rather certain future direction and then analyzed their anticipated primary effect on society. Second, the project explored future conflict issues by comprehensively reviewing various areas where conflicts may arise depending on certain fluctuating factors. Third, the project came with a potential pool of future conflict agendas (systemic) and then selected from these the final future conflict agenda (institutional). The selection criteria for the final institutional agenda were based on the OPC's guidelines according to which an agenda has (1) a clear structural cause of conflict with an identifiable stakeholder's stance, (2) a high probability of conflict occurrence, and (3) a feasible resolution implementable by relevant ministries. The project lists three future trends, 17 future conflict issues, and 40 future conflict agendas (institutional) as seen in Table 1 below. Moreover, the reporting format for each future conflict agenda is designed in order to fluently explain the conflict story. Its structural format was arranged as follows: (1) conflict summary; (2) status of conflict; (3) analysis and foresight of conflict; and, lastly, (4) the Korean government's proactive management plan.

3.2. Approaches to integration

For foresight-policy integration, the project used the following two different approaches: (1) the utilization of different agenda-setting strategies such as actor-based strategies (e.g. inside access, mobilization, and outside initiation models), an issue-attention strategy, and social and political packaging strategies (analogous to existing public programs and policies and the utilization of symbols); and (2) the application of two-way translation methods of foresight (forecasting and backcasting). Fig. 2 below explains the two different approaches in foresight-policymaking integration in the form of a graph. The main differences are that the utilization of agenda-setting strategies focuses more on reshaping a current conflict to bridge future conflicts and conflict agendas while the application of foresight reshapes both future conflicts and conflict agendas to fit each other.

3.2.1. Utilization of different agenda-setting strategies

The project utilized different agenda-setting strategies, unlike the ordinary or present agenda-setting process that mainly matches a certain type of issue (or agenda) with an appropriate strategy (Baumgartner & Jones, 2010; Cobb & Elder, 1971; Cobb et al., 1976; Dahl, 1958; McClain, 1989). However, it was observed that the historical and present agenda-setting patterns or models are not applicable when trying to explain a future issue or agenda. Given that a new issue or agenda has inherent vagueness, lacks stakeholders or interest groups, and lacks actionability, it was inevitable that the project would not be stuck with a rigid agenda-setting approach.

3.2.1.1. Actor-based agenda-setting strategies. Cobb, Ross and Ross focused on policymaking actors (e.g. policymakers, interest groups, and the public) and their roles in putting 'pressure' on a government to expand issues into agendas (Cobb et al., 1976). Three different basic patterns of actor-based agenda-setting were observed in the project's implementation, including the inside access model, the mobilization model, and the outside initiation model. Interestingly, whether intended or not, the project followed these models' underlying intentions. Certain features of each model were observed in crafting current policy issues or agendas to make them more future-oriented.

First, the project initially followed the inside access model. This model is based on elite theory and abides by the notion that a few elites including officials and researchers work to elevate a lower systemic agenda to a higher institutional agenda (Cobb et al., 1976;

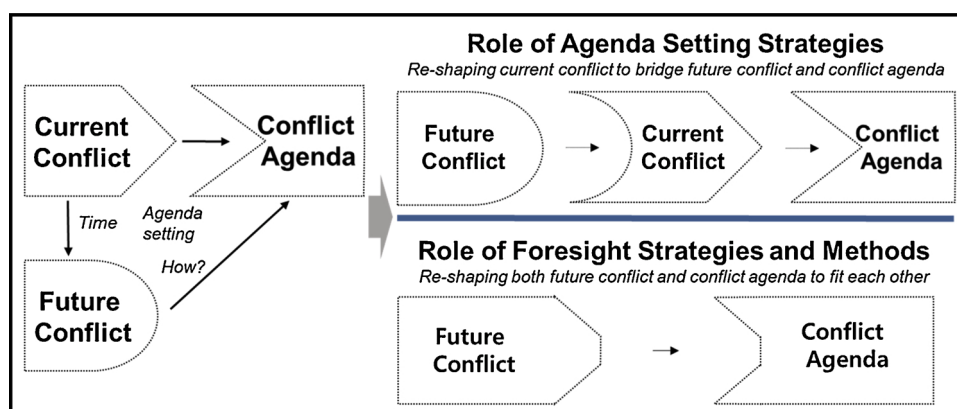


Fig. 2. Project's Two Different Approaches.

Mair, 1997; Mills & Wolfe, 2000). The OPC initiated the project and selected the institutional future conflict agendas from the agenda pool proposed by the foresight researchers and ministries. The OPC is an influential group with special access to decision-makers. Second, the project also appeared to resemble the mobilization model. This model involves “decision-makers trying to expand an issue from a formal (institutional) to a public (systemic) agenda” (Howlett & Ramesh, 2003, p.134). Similarly, the project received support from the public on selected agendas that were raised by ministries after the final report was published. This essentially sought and gained the public’s understanding of selected agendas, thus giving them more legitimacy (Currie-Alder, 2003; Saritas, Pace, & Stalpers, 2013; Tonn, 2003; Tonn, Scheb, Fitzgerald, & Stiefel, 2012). Third, applying the outside initiation model, the project utilized the participating future researchers as a group that represents a future generation for a future issue’s expansion onto the current agenda level. In this model, a representative outsider defines a problem and sells an agenda to a government by a process in which contending interests compete with one another. This model attempts to involve the public in the agenda-setting process because it considers that an elevation of an issue to agenda level can occur only if sufficient pressure is exerted from outside (Birkland, 2015; Cobb et al., 1976; Howlett & Ramesh, 2003; Peters, 2015). Fig. 3 describes how the three models were applied to the project and its actors.

3.2.1.2. Issue-attention strategy through media. The project effectively used media coverage to attract government attention to certain issues. Downs (1972) claimed that an agenda “revolves around issues that momentarily captures public attention, resulting in demands for government action” (Howlett & Ramesh, 2003, p.129). In particular, the media frames public debate and discussion and influences public opinion in democratic politics (McCombs & Estrada, 1997). Moreover, this role of the media induces a government to act on a certain issue (Bosso, 1990, pp.153–174; Nelson & Oxley, 1999).

In the project, the public response and information on mass media were utilized but in different ways. First, as a basic inlet of public opinion, the media allowed the project issues to gain immediate attention from the OPC and relevant ministries. Among the proposed future conflict agendas, those considered as a priority were emphasized using insinuating photos taken from the media to make them appear as an imminent threat to Korean society. Second, the media was a useful source through which to explore public opinion on certain issues. In drafting the reporting outputs, the positions of conflict stakeholders and the opinions of the public were presented based on comments made on news items. Fig. 4 explains the structure and illustrates samples of how the media was utilized by the project.

3.2.1.3. Social and political packaging strategies. When something becomes part of a systemic agenda, it does not automatically open the door for an issue to be elevated to a formal institutional agenda (Cobb et al., 1976). Agenda-setting usually requires active interest groups doing the political packaging that can elevate an issue to appear in a proposed agenda pool (Kingdon & Stano, 1984; Peters, 2015; Roberts, 1992). The project used (1) an analogy of existing public programs and policies, and (2) the utilization of symbols as its social and political packaging strategies.

Using a strategy analogous to other existing public programs and policies, the project crafted a new issue to look much like an old issue to increase the chances of it being placed on institutional agendas. The project re-refined the old 2019 OPC Conflict Agenda and anticipated its future developmental trajectory. In other words, the project expanded this 2019 agenda to reach a more future-oriented level, which was already set for the Korean government’s conflict management efforts. For example, *Boosting Share Economy* (in the 2019 Agenda) was projected to B-3-5 (changes of employment legislation), B-3-6 (platform companies), and B-3-7 (old economy’s dissentient) as shown in Table 1, by considering the new economy’s side-effects and the necessary regulations to ensure healthy development. The *Reform of the National Pension System* (in the 2019 Agenda) expanded to *Reform of all Social Protection System* (A-3-8) based on the expectation that a financial deficit would soon afflict all other social protection systems, including the national health insurance service. The location conflict agendas in the 2019 list, such as *Airport and Waste Disposal Sites*, were re-drafted as the dementia facility (A-4-9), crematorium (A-4-10), military base (A-6-15), and CO2 capture facilities (C-2-5, C-2-6) taking into account expected future mega trends. The agenda of *Solar Generation* (in the 2019 Agenda) further touched on issues of wind power (C-1-1) and solar panel waste (C-1-4). Utilizing the existing agendas increased the familiarity of the OPC and government officials with suggested future conflict issues and agendas before selecting the final institutional conflict agendas (Seethaler, 2017). Please see Table 2 below for the summarized results of changes and future agenda development using social and political packaging strategies.

The project proposed issues and agendas attached to important national symbols such as filial duties, bioethics, equality, liberty, and security. According to Peters (2015, p.75): “the more closely a problem can be linked to important national symbols, the greater is



Fig. 3. Actors roles in Three Actor-Based Models.



Fig. 4. Structure and Samples of Media Application in the Report.

Table 2

Changes and Future Agenda Development - social & political packaging strategies.

Analogy of Existing Public Programs and Policies	
Boosting Share Economy (pre-existing agenda in 2019 OPC Conflict Agenda list)	→ [B-3-5] Conflict on Change of Employment Legislation due to Employment Diversification [B-3-6] Conflicts between Industries due to Proliferation of Platform firms (Delivery Apps) [B-3-7] Conflicts between Old and New Industry due to Spread of Share Economy
Reform of National Pension System (pre-existing agenda in the 2019 list)	→ [A-3-8] Reform of all Social Protection System
Location Conflict about Airport and Waste Disposal Sites (pre-existing agenda in the 2019 list)	→ [A-4-9] Location Conflict by Expanding Nursing and Dementia Facilities for Senior Citizens [A-4-10] Location Conflict by Expanding Facilities due to Shortage of Crematoriums [A-6-15] Discussions on Installation of Military Bases in Uninhabited Islands and Idle Lands [C-2-5] Conflict between Government and Fishers due to Expansion of Carbon Capture, Utilization and Storage Facility [C-2-6] Location Conflict between Government and the Local in Selection of Solid CO2 Reclamation Facility
Solar Generation (pre-existing agenda in the 2019 list)	→ [C-1-1] Location Conflict of Offshore Wind PP [C-1-4] Conflict in Dealing w/ Solar Panel Waste
Utilization of Symbols	
(1) human ethics, (2) Korean taboos, (3) traditional filial duty stemmed from Korean Confucianism, (4) universal values such as liberty and equity	
(1)	[A-9-19] Discussion in Legalization of Surrogate Mother and Egg Donation [B-2-3] Bioethics Conflict due to Emergence of the CRISPR Technology
(2)	[A-9-18] Discussion in Expanding Institutional Support to Common Law Marriage [B-5-12] Adult Content Industry Appearance - Robot & Virtual Reality Technology [A-2-4] Discussion on Reform of Public Sector Wage System [A-2-5] Improving Work Environment for Physical Conditions of Senior Employee
(3)	[A-3-7] Discussion of Raising Legal Age of Senior Citizens [A-4-9] Location Conflict by Expanding Nursing & Dementia Facilities for the Senior [A-4-10] Location Conflict by Expanding Facilities due to Shortage of Crematoriums
(4)	[A-8-17] Discussion in Accepting Refugee Camp and Continued Increasing [B-5-11] Conflict over Practical Use of Synthetic Meat (animal protection)

its probability of being placed on the agenda." He added, that a symbol is defined as "anything that stands for something else. Its meaning depends on how people interpret it, use it, or respond to it" (Peters, 2015; Stone, 2013, p.157). According to this view, an agenda is created out of certain aspects of symbols such as the histories, traditions, attitudes, and beliefs of a society encapsulated and codified in its political discourse (Howlett & Ramesh, 2003, p.122). A symbol allows both policymakers and the public to accept their preferred understanding of causes more easily. The symbols used in the project had to be new enough to be refreshing, but traditional

enough to yield a consensus among government officials (Birkland, 2015; Cobb et al., 1976). In the project, the OPC accepted issues attached to symbols more easily and convinced other ministries effectively. Examples of this (as seen in Table 2 above) were the symbol of human ethics applied in the agendas of CRISPR technology (B-2-3), and surrogate mothers and egg donation (A-9-19). Traditional but old-fashioned Korean taboos were used to explore agendas such as common law marriage (A-9-18) and sex dolls (B-5-12), while changing public sentiment on traditional filial duty long stemmed from Korean Confucianism and was applied to senior citizen agendas such as A-2-4, A-2-5, A-3-7, A-4-9, and A-4-10. Moreover, universal values such as liberty and equity that have been recently emphasized in Korea were reflected in the refugee camp (A-8-17) and animal protection (B-5-11 of synthetic meat) agendas.

3.2.2. Application of foresight to agenda-setting

Foresight strategies and methods were observed during the project's implementation. Both present-to-future (forecasting) and future-to-present (backcasting) were applied concurrently (Riedy, 2009). Historically, these methods have been used separately for different purposes in foresight processes (Fuerth & Faber, 2012). For example, the present-to-future method has been used when drawing diverse futures, and this represents the first stage of the foresight process (Bell & Olick, 1989; De Jouvenel, 2017; Miles, 2005, 2008). On the other hand, the future-to-present method has been used to foresee the impact of or provide feedback on the current policy process, and this represents the last phase of the foresight process (Dreborg, 1996; Riedy, 2009). However, the project, rather than implementing the methods independently, used them at the same time and back-and-forth. The methods re-shaped future conflict issues and agendas to make them more realistic and actionable, and re-prioritized present-focused conflict agendas to make them more future-oriented. In short, they effectively enabled foresight to 'communicate' with an ongoing conflict agenda and allowed the present and future issues to influence one another. By moving the hierarchical structure of the agenda-setting, trends, issues, and agendas that are described in Fig. 1 were able to co-evolve and co-develop together.

3.2.2.1. Present-to-future (forecasting) approach. With a present-to-future (forecasting) method, the project identified immediate policy challenges first and then visualized possible futures of issues. During the project, an extensive and in-depth analysis of the intentions, institutions, and relevant policies of the current government were conducted in order to forecast evidence-based but diverse and unexpected futures.

First, the project team used big data to understand the nature of the current conflict and to predict future policymaking patterns. A total of 15,321 pending legislative bills from 2016 to 2019 were crawled and then analyzed in terms of the frequency of specific words in the bills. The intention was to extract the broadest thematic concepts in the project, specifically those related to the economy, environment, population, and technology. This categorization into four different themes was later linked to the process of setting up future mega trends and became an effective tool in structuring the conflict analysis framework.

Second, linking with the previous mobilization model, the project considered the ministries' needs and their implementing capabilities, and then selected the future conflict agendas. After reviewing all existing policies, planned national directions, and ongoing

Table 3
Changes and Future Agenda Development - future-to-present (backcasting) approach.

Re-Shaping Conceptual Lens of the Current by Future Trends	
(1) expected aging society (population), (2) rapid technology advancement	
(1)	[A-3-7] Discussion of Raising Legal Age of Senior Citizens
	[B-1-1] Employment Conflict due to the Introduction of Self-Driving Cars
	[B-1-2] Employment Conflict due to Unmanned Port Operation
(2)	[B-2-4] Conflict between Doctors and Healthcare Industry about Telemedicine
	[B-3-7] Conflicts between Old and New Industry due to Spread of Share Economy
	[C-2-8] Employment Shock by Proliferation of Electric Vehicles (Engine vs. Motor)
Re-Prioritization of Early Rejected Issues/Agenda by Backcasting	
(1) elevating systemic agendas, (2) specifying unclassified and broad issues	
(both (1) and (2) rejected first, but later included in the final future agenda list)	
	Increasing Demand for Volunteer Military System → [A-6-13] Discussion on Reorganization of Military Recruitment System
	→ [A-6-14] Reduction and Merge of Military Units
(1)	- Collapse of Local Cities and Regional Government → [A-5-11] Discussion of Local Administrative Reform (merged into this one)
	- Vanish of Old Industrial City → [B-6-13] Copyright Issues on Works Produced by AI
	- Increase of Unidentifiable and Wasted Real Estate → [B-2-3] Bioethics Conflict due to Emergence of the CRISPR Technology
	Collection and Utilization of Personal Data → [B-2-4] Conflict between Doctors and Healthcare Industry about Telemedicine
	Expansion of Medical Practice and Insurance Fee → [C-2-8] Employment Shock due to Proliferation of Electric Vehicles (Engine vs. Electric
	Increase as Health Insurance Coverage Expands → Motor)
	Reduction of Employment due to Emergence of 4th Industrial Revolution → [B-1-1] Employment Conflict due to the Introduction of Self-Driving Cars
(2)	→ [B-1-2] Employment Conflict due to Unmanned Port Operation
	→ [C-1-1] Location Conflict of Offshore Wind PP
	→ [C-1-4] Conflict in Dealing w/ Solar Panel Waste
	Site Issue and Civil Appeals for Expansion of Renewable Energy → [C-2-5] Conflict between Government and Fishers due to Expansion of Carbon Capture, Utilization and Storage Facility
	→ [C-2-6] Location Conflict between Government and the Local in Selection of Solid CO2 Reclamation Facility

conflict management measures, the project team presented preliminary conflict agendas to the ministries for feedback. It was then necessary for the team to identify the agendas' plausibility and credibility within Korean society. Limits and blind-spots of the current system (e.g. law, policy, measures, etc.) were clearly identified through ministry-tailored hearings. In addition, the project offered the ministries an incentive in order to induce their active participation in the process. For example, the project team convinced ministries that the project's output would soon be developed into a high-level policy report and that the implementation of these agendas would be the responsibility of the relevant ministries. The report titled *Plan for Management of Long-term Future Conflicts* was submitted to a president- and prime minister-level National Cabinet Meeting on 24 May 2020.

Third, based on the above results, the project explored evidence-based but unexpected events, namely emerging issues that can change the whole paradigm of the futures of Korea. Specifically, by putting forward 'unasked questions,' the project team could diverge from the 'predictable' trajectory of known events and expand its limited horizon of thinking. For example, the project anticipated the following: *Introduction of the 5th Industrial Revolution*, *Conflict due to New Appearance of Online Political Party*, and *Conflict due to Forming of an Elderly Political Party*. Even though these were not actually included on the final future conflict agendas or trends and issues, this still helped the team to think about futures in a more diverse way. Moreover, this 'thinking-outside-of-the-box' approach enabled taboo issues in Korea to become solutions for other agendas when they were met with future trends. For example, issues such as *Mandatory Gender Education and Protest of Religious Groups against Expansion of Homosexual Rights* were expanded to A-9-18 (common law marriage) as a solution to the low birth rate.

3.2.2.2. Future-to-present (backcasting) approach. The project also implemented the future-to-present approach, known as backcasting (Dreborg, 1996; Riedy, 2009). Backcasting is about understanding a specific and underlying political context based on forecasted futures works (Dreborg, 1996; Riedy, 2009, pg.13). Unlike forecasting, backcasting allows a project to identify the underlying structure of a current issue (e.g. culture, values, myths, and worldview) through different angles (Inayatullah, 1990; Ogilvy, 2002; Polak, 1973; Voros, 2003). Please see Table 3 below how future-to-present (backcasting) approach made such changes.

First, by designating a place for future issues and agendas within a politically-accepted framework, the project drew up the structural causes of ongoing conflicts. The team identified the implications of long-term issues and then worked backward to re-shape the conceptual lens through which current issues could be understood. This is because present decisions affect a future society, and thus a present selection should take into account a long-term view. For example, an expected aging society (population) is a significant issue in the struggle of public values between the Korean filial duty and the economic burden of the young (such as pensions, taxes, insurance, etc.) (A-3-7). Furthermore, future technologies, which had long supported economic growth and modernization, were no longer an effective and efficient tool to win over public opinion. Instead, such technologies are now considered negatively by many because they will replace human jobs (B-1-1, B-1-2) and may even weaken the standing of licensed professionals such as doctors (B-2-4) and mechanical engineers (B-3-7, C-2-8). By delving into not only the horizontal but the in-depth dimensions of a present issue based on future implications, the project came to understand the underlying aspects of an agenda's present nature.

Second, by using backcasting, the project also minimized the chances of futures being undervalued in the present. Specifically, the project utilized broader concepts such as trends and future conflict issues to re-prioritize conflict agendas, namely re-organizing the hierarchical priority of systemic conflict agendas. The project reinstated broader but unspecified conflict agendas (systemic) proposed at the early stage of the project. Matching with identified and evident trends, systemic agendas were elevated to the level of institutional future conflict agendas. For example, the expected shortage of human resources due to the demographic changes reinstated the previously rejected agenda of *Increasing Demand for Volunteer Military System* to A-6-13 (reorganization of the military recruitment system) and A-6-14 (merging of military units). Furthermore, anticipated decreases in the local population elevated radical systemic agendas such as *Collapse of Local Cities and Regional Government*, *Vanish of Old Industrial City* and *Increase of Unidentifiable and Wasted Real Estate* to the institutional agenda level, albeit these were rather toned down and merged into A-5-11 (local administrative reform). Elsewhere, some unclassified and broad agendas were changed to more specified versions of institutional agendas when they converged with future trends and issues such as (1) *Collection and Utilization of Personal Data* to B-6-13 (AI copyright issues), (2) *Expansion of Medical Practice and Insurance Fee* and *Increase as Health Insurance Coverage Expands* to B-2-3 (CRISPR technology) and B-2-4 (telemedicine) respectively, (3) *Reduction of Employment due to Emergence of 4th Industrial Revolution* to C-2-8 (electric vehicles), B-1-1 (self-driving cars), and B-1-2 (unmanned port operation), and (4) *Site Issue and Civil Appeals for Expansion of Renewable Energy* to C-1-1 (wind power plant), C-1-4 (solar panel waste), and C-2-5 (CO₂ storage), and C-2-6 (solid CO₂ reclamation).

4. Discussion

The project successfully utilized various agenda-setting strategies along with foresight methods. Without these strategies and methods, the present and pre-existing issues could not change to new future issues and agendas successfully. The rest of this section will delineate the implications of the empirical evidence above and then make recommendations to further improve policymaking and foresight integration.

4.1. Reasons for successful integration and limitations

The success of this foresight-policy integration is attributable to: (1) the nature of agenda-setting itself which is rather analogous to the foresight process; and (2) the key variables within the project's design, which rendered the foresight output acceptable to current policymaking. To say a conclusion first, the way to cover up present and pre-existing issues and agendas to newly changed future

agendas is not by a 'specific tactic'. It is rather by a project's frame and design itself along with its governance structure, namely a project initiator's capability such as the OPC's inherited steering and coordinating power stemmed from its higher hierarchical position within the administration.

Agenda-setting itself is a relatively conducive to foresight approaches compared to other policymaking steps. First, from the perspective of government officials, the known barriers of foresight outputs (e.g. ambiguity, subjectivity, being less actionable, etc.) conceived by actual policymakers are relatively small in agenda-setting. This is because an agenda itself is within a pool of potential policies, and not at the stage of being an actual policy so the burden of officially selecting agendas borne by government officials is relatively light. Therefore, various pre-existing issues elicited before, including 2019 OPC Conflict Agendas can turn into new future conflict agendas without difficulty. Second, agenda-setting naturally values active and open participation, which is also a well-known principle and a familiar method for foresight researchers. In the project, the actors including policymakers and interest groups participated in both stages (issue gathering and agenda elevation). Then, the foresight researchers effectively gathered and analyzed diverse opinions through methods such as brainstorming, futures wheel, interviews and forums, panel discussions, horizon scanning, causal layered analysis, and a survey of graduate students.

The leadership as well as steering power of the leading body and the designated group's active representation of a future generation made such a success of the project. These attributes supported the project to deal with changes of some issues to cover up pre-existing issues and its tackling of obstacles such as future issues or agendas not having a formal agenda-setting pathway or an organized stakeholder to support them. First, the Korean government initiated this project by delegating ownership and authority of the project to one of the country's highest administrative bodies, the OPC. The OPC coordinated with the responsible ministries through continued communication and persuasion so the team was able to steer changes of pre-existing issues of a very delicate nature with difficulty. Based on the ministries' feedback and requests, the team can modify pre-existing issues and preliminary future conflict agendas. Particularly, the project's frame designed by the OPC that its outcome will report back to the National Cabinet Meeting provided an incentive to ministries to have ownership of this changing and modification process. Furthermore, the OPC's leadership allowed the project to deviate from the inertial practices of *ex post* conflict management and to then encourage foresight activities. The OPC planned to expand the benefits of foresight in the policymaking process, which have previously been exclusively enjoyed by the technology and science domain in forms such as technology forecasting and technology impact assessment. By identifying future issues and agendas in advance, the OPC attempted to reduce policymaking costs and to manage conflicts in a proactive manner. Second, the KAIST researchers actively represented a future generation. Future issues are generally neglected and less focused on because they are not urgent to the current generations (Brundtland, 1987; Rawls, 1999). People of futures are a minority or an outside grievance group (Dahl, 1958; Hamilton, 1981; McClain, 1989). It is inevitable that politicians and government officials prefer to deal with present-day issues because politicians focus on (re-)election which is largely determined by short-term performance (Heo and Seo, 2019). Due to this power deficit embedded in future issues, the foresight researchers represented the minority position of future issues and agendas and convinced all relevant actors including the OPC and ministry officials of sufficient importance. The researchers understood that a conflict can occur between present and future generations or even between separate future generations. Therefore, they supported the inclusion of issues likely to arise for a future generation in the final institutional agenda.

This foresight-policy integration, however, also reveals some limitations. The public was not able to directly participate in the early stage of the project's development such as brainstorming and creating the potential pool of trend, issue, and agenda. There was no direct participation of the public and interest groups, but only indirect participation represented by the researchers' group. It was due to the OPC's early intention not to disclose this work to the public. The OPC did not want to create any disturbance triggered from interest groups by informing conflict issues agendas in advance. The public and interest groups could see the future conflict agendas only after the final report was published. The project team engaged with the public just for achieving legitimacy of the output instead of seeking their input of creative and diverse ideas. Therefore, the OPC, as a government agency, inevitably selected rather "safe" and understandable agendas than that of a creative or debatable ones.

Due to the short timeframe of the project (7 months) and the above OPC's selection bias, the project team did not fully utilize direct participation of the public and relevant stakeholders and limited an inclusion of creative and "far-future" conflict issues to the final agenda list. Based on the identified attributes of success and the limitations, the article proposes cautiously that these designing and structural obstacles may be overcome by shifting ownership of the project to a different government body close with the public and superior to an administration, such as a legislature and its subordinate units. For Korea, the National Assembly can be the most appropriate implementing body of this foresight-policy integration because it is capable of institutionalizing communication, participation, and networking with the public, eliciting cooperation with various interest groups, and pushing administrations to select a new initiative such as a future agenda. However, this proposal needs to be developed in each country according to its national and local context.

4.2. Increase in anticipatory capacity and knowledge

The major benefit of this future conflict agenda project was to increase the anticipatory knowledge and capacity of both the OPC and foresight researchers. The OPC overcame its limitations of present-focused policymaking while the researchers acknowledged conflict itself arising from a present generation's discontent about their future expectations not being met. Not only did the project successfully integrate foresight into policymaking, it also became a useful entry point through which to expand actors' horizons and to steer them towards ways of thinking that are more anticipatory.

Government officials in the OPC had inherited barriers to understanding future issues and agendas. They had different perceptions as well when it came to intervention, time horizon, and necessary stakeholders. First of all, the OPC's stance on selecting an agenda,

namely the approach of intervention, is considered. The OPC wanted to look for a sequential trajectory whereby a specific type of conflict is paired with a single conflict agenda in order for the government to deal with it efficiently. The OPC chose an agenda that could be resolved directly and solely by government intervention. Second, the OPC had a rather short-term horizon when it came to understanding future conflict issues and agendas. Its view on future conflicts that are likely to happen within 3–5 years contrasted with that of the KAIST researchers who considered that “future” refers to the year 2030 or later. Third, the OPC interpreted a conflict as one which occurs between a present generation and continues to prevail in futures unlike the researchers who acknowledged the existence of conflicts across generations. The OPC focused on whether the stakeholders could hold a rally at a public square on a specific conflict agenda on any given day. However, as the project wore on, the OPC gradually increased its anticipatory capacity and knowledge. The OPC accepted rather vague and complex future agendas that did not implicate the Korean government in a specific action of conflict resolution (e.g. A-5-11, B-6-13), with a rather longer time horizon (e.g. A-9-19), and relevant to a future generation (e.g. C-2-5, C-2-8).

The foresight researchers understood a conflict as a capacity-related tension such as the distress, anxiety, or deprivation of both an individual and society. This tension is normally triggered by the negative disposition of an individual or a society against the prospects of certain futures (Fuerth, 2009, 2013; Gáspár & Laurén, 2013). Thus, a conflict then occurs when an expected constraint limits both the capacity of an individual or a society to imagine a desired future and their perceived space of liberty to draw diverse futures (Poli, 2017; Sen, 1993). In the project, the team identified and selected institutional agendas that deal with rather imaginable risks and dangers, which may negatively affect an individual or society and may further develop into a conflict in the form of distress, anxiety, or deprivation. For example, the young generation’s discontent with the increasing number of senior citizens and their active social engagement has moved onto the institutional agenda in A-2-5 (a conflict related to working conditions tailored for senior employees), and their consciousness of a job crisis has developed into A-8-17 (refugee inflow), B-1-1 (self-driving cars), B-1-2 (unmanned port operations) and B-3-7 (share economy). In particular, the selected agendas in the *Climate Change and Energy Conversion* trend mostly arose from the deprivation of energy and environment anticipated by the young generation.

4.3. Education and training for new governing capacity and knowledge

A future conflict agenda-setting project could increase anticipatory capacity and knowledge; however, the actors’ full internalization of capacity and knowledge is still required, namely the adaptation of new anticipatory capacity and knowledge-based governance. As mentioned in the theoretical framework section, governance, or specifically the governing capacity and knowledge, of actors is an underlying determinant of policymaking. This means that without changing fundamental governing aspects within actors and without new governance being aligned with the futures field, it will be hard to sustain foresight in the policymaking process. Therefore, continued training and education to internalize anticipatory capacity and knowledge for both government officials and the public should be conducted to ensure forward-looking governance that complements existing forms of governance. This new anticipatory-knowledge- and capacity-based governance can change actors’ histories, attitudes, attentions, and beliefs in more future-oriented ways, which will strongly influence policymaking (Poli, 2017; Sen, 1993).

Continued training and education of policymakers is necessary because they are the main actors in a country’s decision-making process and in the governing bodies of national policy. Establishing anticipatory-knowledge- and capacity-based governance depends on the mind-set of such actors. Therefore, a mandatory training program for ministry officials at all levels needs to be established. Knowledge of anticipatory governance and adaptive policymaking could overcome policymakers’ limitations such as a lack of future awareness, short-sightedness, as well as a conservative knowledge-set. This learning process should not be a ‘one-time’ event but rather a continuous and repetitive activity. Moreover, education should not be limited to policymakers or interested experts, but should be expanded to the public. This is because the public are the final customers of policies so their forward-looking demands and creative input could reform or reshape governance itself (van der Steen & van Twist, 2013). Government projects or initiatives have to embrace public participation in order to enhance their forward-looking attitudes and values. Through direct or indirect involvement, the public can better understand the views of policymakers while monitoring their government’s continued follow-up on its outputs within policy processes. Through such training and education, the most important actors in agenda-setting, such as the public and government officials, can possess future literacy (how to read and respond to futures) and future proficiency (how to interpret futures in policymaking) respectively (Seo et al., 2015; Seo, 2015; Heo and Seo, 2019; Miller et al., 2018; Seo and Yoon, 2021). The public’s future literacy will enhance demands for future policies and officials’ future proficiency then becomes key to the adequate supply of future policies. In simple economics terms, demand encourages supply and sometimes supply creates demand.

5. Conclusion

A change of governance is highly necessary to fully integrate foresight into policymaking. Under the current policymaking processes and their steering and coordinating capability and knowledge, foresight cannot be supported. Indeed, present policymaking has inadequately employed foresight. Sometimes, foresight becomes a mere cliché or an excuse to support power politics and thus turns into a means of deferring urgent and politically arguable decisions and actions. In short, foresight is gradually becoming a sort of methodological cover-up used to justify a government’s policy.

On 28 May 2020, the project’s future conflict agendas were presented to the National Cabinet Meeting, and all issues and agendas were assigned to relevant ministries and responsible institutions for their proactive conflict management. The forward-looking leadership of the Korean government and the designated group’s active representation of a future generation have enabled this tremendous achievement of integrating foresight into the policymaking realm. These two underlying factors allowed the project to successfully apply various agenda-setting strategies and foresight methods. Furthermore, foresight-policymaking integration has

enabled the project team and associated decision-makers to gain an in-depth understanding of actors' histories, attitudes, attentions, and beliefs, which further serves to solidify the basis of national governance. Increased anticipatory capacity and knowledge of actors will act as the foundation of new future-oriented governance in Korea. There is no doubt that such successful integration will continue to be enhanced and sustained through education and training. The proposed new anticipatory-knowledge- and capacity-based governance could be another complementary approach to contemporary politics.

In the futures field, it is necessary to establish a solid theoretical background based on credible and acceptable evidence (Mermet et al., 2009). By analyzing how foresight can be applied to ongoing policy processes, this article can provide meaningful value to an international audience outside Korea. First, for foresight practitioners, the project's integrated approaches could be replicated for better foresight-policy integration. Second, for countries that plan to introduce foresight into their policymaking processes, agenda-setting is a good entry point through which to conduct foresight practice and build anticipatory capacity and knowledge. Third, for scholars, this article can serve as empirical evidence of foresight versatility and further contribute to developing theories and concepts in anticipatory governance and adaptive policymaking.

Declaration of Competing Interest

The authors report no declarations of interest.

References

- Babbie, E. R. (2012). *The practice of social research* (13th ed.). Wadsworth Cengage Learning.
- Baumgartner, F. R., & Jones, B. D. (2010). *Agendas and instability in American politics* (2nd ed.). University of Chicago Press.
- Bell, W., & Olick, J. K. (1989). An epistemology for the futures field: Problems and possibilities of prediction. *Futures*, 21(2), 115–135. [https://doi.org/10.1016/0016-3287\(89\)90001-3](https://doi.org/10.1016/0016-3287(89)90001-3).
- Birkland, T. A. (2015). *An introduction to the policy process: Theories, concepts, and models of public policy making* (4th ed.). Routledge.
- Bosso, C. J. (1990). Setting the agenda: Mass media and the discovery of famine in Ethiopia. In M. Margolis, & G. A. Mauser (Eds.), *Manipulating public opinion: Essays on public opinion as a dependent variable* (pp. 153–174). Harcourt.
- Brundtland, G. H. (1987). Our common future—Call for action. *Environmental Conservation*, 14(4), 291–294. <http://www.jstor.org/stable/44518052>.
- Calof, J., & Smith Jack, E. (2012). Foresight impacts from around the world: A special issue. *Foresight*, 14(1), 5–14. <https://doi.org/10.1108/14636681211214879>.
- Cobb, R., & Elder, C. (1971). The politics of agenda-building: An alternative perspective for modern democratic theory. *The Journal of Politics*, 33(4), 892–915. <https://doi.org/10.2307/1218415>.
- Cobb, R., Ross, J.-K., & Ross, M. H. (1976). Agenda building as a comparative political process. *The American Political Science Review*, 70(1), 126–138. <https://doi.org/10.2307/1960328>.
- Currie-Alder, B. (2003). *Why participation?: Enhancing our understanding of participatory approaches to natural resource management; a living document for the MINGA Program Initiative [Report]* (Living document for the MINGA Program Initiative, Issue. I. D. R. Centre. https://www.researchgate.net/profile/Bruce_Currie-Alder/publication/277053306_Why_participation_enhancing_our_understanding_of_participatory_approaches_to_natural_resource_management_a_living_document_for_the_MINGA_Program_Initiative/links/55b67f4908ae9289a08bbba0/Why-participation-enhancing-our-understanding-of-participatory-approaches-to-natural-resource-management-a-living-document-for-the-MINGA-Program-Initiative.pdf?origin=publication_detail.
- Da Costa, O., Warnke, P., Cagnin, C., & Scapolo, F. (2008). The impact of foresight on policy-making: Insights from the FORLEARN mutual learning process. *Technology Analysis and Strategic Management*, 20(3), 369–387. <https://doi.org/10.1080/09537320802000146>.
- Dahl, R. A. (1958). A critique of the ruling elite model. *The American Political Science Review*, 52(2), 463–469. <https://doi.org/10.2307/1952327>.
- De Jouvenel, B. (2017). *The art of conjecture* (2nd ed.). Routledge.
- Downs, A. (1972). Up and down with ecology. *The 'Issue-Attention cycle'* (pp. 38–50). *The Public Interest*.
- Dreborg, K. H. (1996). Essence of backcasting. *Futures*, 28(9), 813–828. [https://doi.org/10.1016/S0016-3287\(96\)00044-4](https://doi.org/10.1016/S0016-3287(96)00044-4).
- Dror, Y. (1996). Improving critical choices. *Futures*, 28(6), 559–562. [https://doi.org/10.1016/0016-3287\(96\)84443-0](https://doi.org/10.1016/0016-3287(96)84443-0).
- Edelman, M. (1988). *Constructing the political spectacle*. University of Chicago Press.
- Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532–550. <https://doi.org/10.5465/amr.1989.4308385>.
- Fuerth, L. S. (2009). Foresight and anticipatory governance. *Foresight-The Journal of Future Studies, Strategic Thinking and Policy*, 11(4), 14–32.
- Fuerth, L. S. (2013). Anticipatory governance: Winning the future. *The Futurist*, 47(4), 42.
- Fuerth, L. S., & Faber, E. M. (2012). *Anticipatory Governance Practical Upgrades: Equipping the Executive Branch to cope with increasing speed and complexity of major challenges*. N. D. U. a. G. W. University.
- Gáspár, T., & Laurén, L.-M. (2013). Future generations: Widespread changes in our living-together. *Futures*, 45, S1–S5. <https://doi.org/10.1016/j.futures.2012.11.004>.
- Glenn, J. C., Gordon, T. J., & Dator, J. (2001). closing the deal: how to make organizations act on futures research. *Foresight - The Journal of Future Studies, Strategic Thinking and Policy*, 3(3), 177–189. <https://www.ingentaconnect.com/content/mcb/273/2001/00000003/00000003/art00005>.
- Ha, H. Y. (2008). An analysis of influence factors on the resolution of public conflict. In J. H. Hong (Ed.), *Management of public conflict, challenges and solutions* (pp. 233–243). BeupMoonSa.
- Hamarat, C., Kwakkel, J., & Pruyt, E. (2012). Adaptive policymaking under deep uncertainty: Optimal preparedness for the next pandemic, 22-26 July 2012. In *The 30th International Conference of the System Dynamics Society*.
- Hamilton, C. V. (1981). New elites and pluralism. *Proceedings of the Academy of Political Science*, 34(2), 167–173. <https://doi.org/10.2307/1173798>.
- Heo, K., & Seo, Y. (2019). National Foresight in Korea: History of Futures Studies and Foresight in Korea. *World Futures Review*, 11(3), 232–244. <https://doi.org/10.1177/1946756718805219>.
- Herriott, R. E., & Firestone, W. A. (1983). Multisite qualitative policy research: Optimizing description and generalizability. *Educational Researcher*, 12(2), 14–19. <https://doi.org/10.3102/0013189x012002014>.
- Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. *The American Journal of Sociology*, 94(1), 53–78. <https://doi.org/10.1086/228951>.
- Howlett, M. (1997). Issue-attention and punctuated equilibria models reconsidered: An empirical examination of the dynamics of agenda-setting in Canada. *Canadian Journal of Political Science / Revue canadienne de science politique*, 30(1), 3–29. <http://www.jstor.org/stable/3232165>.
- Howlett, M. (1998). Predictable and unpredictable policy windows: Institutional and exogenous correlates of Canadian federal agenda-setting. *Canadian Journal of Political Science / Revue canadienne de science politique*, 31(3), 495–524. <http://www.jstor.org/stable/3233042>.
- Howlett, M. (2009). Governance modes, policy regimes and operational plans: A multi-level nested model of policy instrument choice and policy design. *Policy Sciences*, 42(1), 73–89. <https://doi.org/10.1007/s11077-009-9079-1>.
- Howlett, M. (2011). *Designing public policies: Principles and instruments* (1st ed.). Routledge.
- Howlett, M., & Ramesh, M. (2003). *Studying public policy: Policy cycles and policy subsystems* (2nd ed.). Oxford University Press.

- Hussein, A. (2009). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined. *Journal of Comparative Social Work*, 1(8), 1–12.
- Inayatullah, S. (1990). Deconstructing and reconstructing the future: Predictive, cultural and critical epistemologies. *Futures*, 22(2), 115–141. [https://doi.org/10.1016/0016-3287\(90\)90077-U](https://doi.org/10.1016/0016-3287(90)90077-U).
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602–611. <https://doi.org/10.2307/2392366>.
- Kern, F., Rogge, K. S., & Howlett, M. (2019). Policy mixes for sustainability transitions: New approaches and insights through bridging innovation and policy studies. *Research Policy*, 48(10), Article 103832. <https://doi.org/10.1016/j.respol.2019.103832>.
- Kingdon, J. W., & Stano, E. (1984). *Agendas, alternatives, and public policies*. Longman Higher Education.
- Kooiman, J. (1999). Social-political governance. *Public Management*, 1(1), 67–92. <https://doi.org/10.1080/14719037800000005>.
- Lasswell, H. D. (1951). The policy orientation. In S. Braman (Ed.), *Communication researchers and policy-making* (pp. 85–104). MIT Press.
- Mair, P. (1997). E. E. Schattschneider's the Semisovereign people. *Political Studies*, 45(5), 947–954. <https://doi.org/10.1111/1467-9248.00122>.
- McClain, P. D. (1989). Agenda setting, public policy, and minority group influence: An introduction. *The Review of Policy Research*, 9(2), 263–272. <https://doi.org/10.1111/j.1541-1338.1989.tb01124.x>.
- McCombs, M., & Estrada, G. (1997). The news media and the pictures in our heads. In S. Iyengar, & R. Reeves (Eds.), *Do the media govern: Politicians, voters, and reporters in America* (pp. 237–247). SAGE Publications.
- McCray, L. E., Oye, K. A., & Petersen, A. C. (2010). Planned adaptation in risk regulation: An initial survey of US environmental, health, and safety regulation. *Technological Forecasting and Social Change*, 77(6), 951–959. <https://doi.org/10.1016/j.techfore.2009.12.001>.
- Mermet, L., Fuller, T., & van der Helm, R. (2009). Re-examining and renewing theoretical underpinnings of the Futures field: A pressing and long-term challenge, 2009/03/01/ *Futures*, 41(2), 67–70. <https://doi.org/10.1016/j.futures.2008.07.040>.
- Miles, I. (2005). UK Foresight: Three cycles on a highway. *International Journal of Foresight and Innovation Policy*, 2(1), 1–34. <https://doi.org/10.1504/ijfip.2005.007593>.
- Miles, I. (2008). From futures to foresight. In L. Georgiou, J. C. Harper, M. Keenan, I. Miles, & R. Popper (Eds.), *The handbook of technology foresight: Concepts and practice* (pp. 24–43). Edward Elgar.
- Miller, R., Poli, R., & Rossel, P. (2018). The discipline of anticipation: Exploring key issues. In R. Miller (Ed.), *Transforming the future: Anticipation in the 21st century* (pp. 51–65). UNESCO Publishing & Routledge.
- Mills, C. W., & Wolfe, A. (2000). *The power elite* (new ed., Vol. 20). Oxford University Press.
- Moench, M. (2010). Responding to climate and other change processes in complex contexts: Challenges facing development of adaptive policy frameworks in the Ganga Basin. *Technological Forecasting and Social Change*, 77(6), 975–986. <https://doi.org/10.1016/j.techfore.2009.11.006>.
- Mrogers, E., & Wdearing, J. (1988). Agenda-setting research: Where has it been, where is it going? *Annals of the International Communication Association*, 11(1), 555–594. <https://doi.org/10.1080/23808985.1988.11678708>.
- Nelson, T. E., & Oxley, Z. M. (1999). Issue framing effects on belief importance and opinion. *The Journal of Politics*, 61(4), 1040–1067. <https://doi.org/10.2307/2647553>.
- Office for Government Policy Coordination. (2009). *Conflict management manual of public institutions*. <https://dl.nanet.go.kr/SearchDetailView.do?cn=NONB1201100583>.
- Office for Government Policy Coordination. (2019). *Result report of participating 38th session of the network of senior officials from the centres of government*.
- Ogilvy, J. A. (2002). *Creating better futures: Scenario planning as a tool for a better tomorrow*. Oxford University Press.
- Olsen, W. (2004). Triangulation in social research: Qualitative and quantitative methods can really be mixed. *Developments in sociology*, 20, 103–118.
- Osborne, D. (1993). Reinventing government. *Public Productivity & Management Review*, 16(4), 349–356. <https://doi.org/10.2307/3381012>.
- Peters, B. G. (1996). *The future of governing: Four emerging models*. University Press of Kansas.
- Peters, B. G. (2014). Is governance for everybody? *Policy and Society*, 33(4), 301–306. <https://doi.org/10.1016/j.polsoc.2014.10.005>.
- Peters, B. G. (2015). *American public policy: Promise and performance*. Sage & Cq Press.
- Peters, B. G. (2019). Governance: Ten thoughts about five propositions. *International Social Science Journal*, 68(227–228), 5–14. <https://doi.org/10.1111/issj.12181>.
- Peters, B. G., & Savoie, D. J. (1995). *Governance in a changing environment*. McGill-Queen's Press.
- Pierre, J. (1999). Models of urban governance: The institutional dimension of urban politics. *Urban Affairs Review*, 34(3), 372–396. <https://doi.org/10.1177/10780879922183988>.
- Polak, F. (1973). *The image of the future*. Elsevier Scientific Publishing Company.
- Poli, R. (2017). *Introduction to anticipation studies* (1st 2017 ed., Vol. 1). Springer.
- Popper, R. (2008). How are foresight methods selected? *Foresight-The Journal of Future Studies, Strategic Thinking and Policy*, 10(6), 62–89.
- Powell, W. W. (1990). Neither market nor hierarchy. In M. Godwyn, & J. H. Gittel (Eds.), *Sociology of organizations - structures and relationships*. SAGE Publications, Inc.
- Quay, R. (2010). Anticipatory governance. *Journal of the American Planning Association*, 76(4), 496–511. <https://doi.org/10.1080/01944363.2010.508428>.
- Ramos, J. M. (2014). Anticipatory governance: Traditions and trajectories for strategic design. *Journal of Futures Studies*, 19(1), 35–52.
- Rawls, J. (1999). *A theory of justice* (Revised ed.). Oxford University Press.
- Rhodes, R. A. W. (1996). The new governance: Governing without government. *Political Studies*, 44(4), 652–667. <https://doi.org/10.1111/j.1467-9248.1996.tb01747.x>.
- Riedy, C. (2009). The influence of futures work on public policy and sustainability. *Foresight*, 11, 40–56. <https://doi.org/10.1108/14636680910994950>.
- Roberts, N. C. (1992). Roberts: Public entrepreneurship and innovation. *The Review of Policy Research*, 11(1), 55–74. <https://doi.org/10.1111/j.1541-1338.1992.tb00332.x>.
- Salkind, N. J. (2010). *Encyclopedia of research design* (Vol. 1). Sage Publication Inc.
- Saritas, O., Pace, L. A., & Stalpers, S. I. (2013). Stakeholder participation and dialogue in foresight. In K. Borch, S. Dingli, & M. S. Jørgensen (Eds.), *Participation and interaction in foresight* (pp. 35–69). Edward Elgar Publishing. <https://doi.org/10.4337/9781781956137.00009>.
- Seethaler, J. (2017). Political agenda-building. In P. Rössler, C. A. Hoffner, & L. Zoonen (Eds.), *The international encyclopedia of media effects* (pp. 1–12). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118783764.wbieme0034>.
- Sen, A. (1993). Capability and well-being. In M. Nussbaum, & A. Sen (Eds.), *The quality of life* (Vol. 30, pp. 30–53). Oxford University Press.
- Seo, Y. and Yoon, G., Improvement Scheme for Policy Usability of Future Research. Basic Research Report, Issue 5, 2016, Korea Institute of Public Administration. <http://www.ndsl.kr/ndsl/search/detail/report/reportSearchResultDetail.do?cn=TRKO201800022511>.
- Seo, Y., Park, S., and Lee, H., Government-Led Futures Research and Future Guideline of Alternative National Futures Institute. Basic Research Report, Issue 21, 2015, Korea Institute of Public Administration. <http://www.ndsl.kr/ndsl/search/detail/report/reportSearchResult-Detail.do?cn=TRKO201300015167>.
- Seo, Y., Research on Designing a National Foresight Community for Mid-to Long-term Governance. Basic Research Report, Issue 13, 2015, Korea Institute of Public Administration. https://www.kipa.re.kr/site/kipa/research/selectBaseView.do?gubun=BA&seqNo=BASE_0000000000000253.
- Stone, D. A. (2013). *Policy paradox*. Norton & Company.
- Swanson, D., Barg, S., Tyler, S., Venema, H., Tomar, S., Bhadwal, S., et al. (2010). Seven tools for creating adaptive policies. *Technological Forecasting and Social Change*, 77(6), 924–939. <https://doi.org/10.1016/j.techfore.2010.04.005>.
- Tonn, B. (2003). The future of futures decision making. *Futures*, 35(6), 673–688. [https://doi.org/10.1016/S0016-3287\(02\)00106-4](https://doi.org/10.1016/S0016-3287(02)00106-4).
- Tonn, B., Scheb, J., Fitzgerald, M., & Stiefel, D. (2012). Future of governance workshop summary. *Futures*, 44(9), 773–777. <https://doi.org/10.1016/j.futures.2012.07.009>.
- Tuomi, I. (2013). *Next-generation foresight in anticipatory organizations (Report for the European Forum on Forward-Looking Activities (EFFLA))*. Issue. E. Commission.

- van der Steen, M. A., & van Twist, M. J. W. (2013). Foresight and long-term policy-making: An analysis of anticipatory boundary work in policy organizations in the Netherlands. *Futures*, 54, 33–42. <https://doi.org/10.1016/j.futures.2013.09.009>.
- van Dorsser, C., Taneja, P., Walker, W., & Marchau, V. (2020). An integrated framework for anticipating the future and dealing with uncertainty in policymaking. *Futures*. <https://doi.org/10.1016/j.futures.2020.102594>.
- van Dorsser, C., Walker, W., Taneja, P., & Marchau, V. (2018). Improving the link between the futures field and policymaking. *Futures*, 104, 75–84. <https://doi.org/10.1016/j.futures.2018.05.004>.
- Vervoort, J., & Gupta, A. (2018). Anticipating climate futures in a 1.5°C era: The link between foresight and governance. *Current Opinion in Environmental Sustainability*, 31, 104–111. <https://doi.org/10.1016/j.cosust.2018.01.004>.
- Voros, J. (2003). A generic foresight process framework. *Foresight*, 5(3), 10–21. <https://doi.org/10.1108/14636680310698379>.
- Walker, W., Marchau, V., & Swanson, D. (2010). Addressing deep uncertainty using adaptive policies: Introduction to section 2. *Technological Forecasting and Social Change*, 77(6), 917–923. <https://doi.org/10.1016/j.techfore.2010.04.004>.
- Walker, W., Rahman, S., & Cave, J. (2001). Adaptive policies, policy analysis, and policy-making, 2001/01/16/ *European Journal of Operational Research*, 128(2), 282–289. [https://doi.org/10.1016/S0377-2217\(00\)00071-0](https://doi.org/10.1016/S0377-2217(00)00071-0).
- Walker, W., Haasnoot, M., & Kwakkel, J. (2013). Adapt or perish: A review of planning approaches for adaptation under deep uncertainty. *Sustainability*, 5(3), 955–979. <https://www.mdpi.com/2071-1050/5/3/955>.
- Walker, W., Marchau, V., & Kwakkel, J. (2013). Uncertainty in the framework of policy analysis. In W. A. H. Thissen, & W. E. Walker (Eds.), *Public policy analysis: New developments* (pp. 215–261). Springer US. https://doi.org/10.1007/978-1-4614-4602-6_9.
- Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). Sage publications.