



Policy translation and dynamics: The role of Dutch ideas in developing South Korea's coastal management policies[☆]

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ABSTRACT

In the literature on coastal land reclamation and ecological restoration policies, the role of policy translation has received limited attention vis-à-vis domestic political factors. This paper addresses this knowledge gap by clarifying the role of Dutch actors in developing South Korea's coastal management policies. To do so, we first develop an analytical framework that operationalizes the 'policy translation' concept into distinguishable components. This framework is used in the analysis of Korean land reclamation and wetland restoration policies. Our analysis reveals that in both cases no full-fledged policy transfer has occurred but that powerful domestic actors used other countries' policy elements to shape national discourses. Based on our analysis, we discuss the role of policy translation in understanding domestic policy change. We conclude that developing large water management projects is inherently political and the input of external ideas are no exclusion to this. Therefore, our paper makes a case for a more combined and integrated assessment of the role of both foreign and domestic factors in future studies on the development of coastal management policies.

1. Introduction

Ambitions to control deltas could and can be found everywhere, but the ways to manage deltas have changed over time. Over the years, coastal management policy has gone through substantial changes due to technological advancement, economic development, and the influence of environmental movements (Nursey-Bray et al., 2014; Olsen, 2003). Globalization has increased interactions between nation-states, and new ideas on coastal management have spread worldwide (Sorensen, 1997). This has provided opportunities to learn from each other and transfer policy from one country to another.

The role of different actors in coastal management cases has been extensively researched after *integrated coastal zone management* emerged as a critical concept (e.g., Birch and Reyes, 2018; Christie and Olsen, 2000; Kearney et al., 2007; Olsen, 2003). In these studies, the role of actors operating within the actual domestic policy process is often highlighted. Policy decisions are based on the choices of the involved actors and their ideas. Stone (2002; 11) argues that policymaking is "the struggle over ideas." Ideas and knowledge derived from external actors can significantly alter the direction of policies when transferred ideas

affect data interpretation. Acknowledging this dynamic, an increasing number of studies are dealing with policy transfer in the water management sector (e.g., Allouche, 2016; Hasan et al., 2019; Mukhtarov and Daniell, 2016).

Wescoat (2006) claims that diffusion of innovation is one of the theories that stood out in the water sector. Notably, the spread of *Integrated Water Resources Management* (IWRM), *river basin management* (RBM), or *public-private partnerships* concepts have been examined through policy transfer approaches (Allouche, 2016; Grafton et al., 2015; Mukhtarov and Daniell, 2016; Squires et al., 2014). Recent studies, however, point increasingly at the shortcomings of the policy transfer concept, since it tends to obscure the context-specificity of policy transfer and wrongly assumes a linear process in which policies are more-or-less directly and technocratically transferred from a sender to a receiver country. Mukhtarov (2014) has therefore proposed policy translation as an analytical approach that better captures the political nature of policy transfer. Studies that take the notion of policy translation as their analytical point of departure are still emerging (e.g., Song et al., 2019; Minkman and Van Buuren, 2019; Hasan et al., 2019). However, there is a dearth of in-depth analysis of how policy translation

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has occurred in coastal management.

Coastal management policies in South Korea are a case in point. Scholarly studies on South Korea's (hereafter Korea) coastal management policies have had a predominant focus on *endogenous* factors explaining policy development and the influence of foreign ideas including how they are modified in the process is understudied. Angles of analysis have been *developmental state theory* (Cho, 2003), *Korean developmentalism* (Cho, 2007), *advocacy coalitions* (Kim, 2003, 2012), or *political regionalism* between southeast and southwest in Korea (Song et al., 2014). In 2014, the journal *Ocean & Coastal Management* devoted a special issue to ecosystem characteristics, land reclamation history, and the protection of the Korean tidal flat system. This special issue resulted from the cooperation activities between the Common Wadden Sea Secretariat and the Korean Ministry of Oceans and Fisheries (Koh, 2014). However, apart from Choi (2014) who addressed Japanese colonial influence in the first half of the 20th century, the authors have not paid attention to the role of policy or knowledge transfer in Korean coastal management. We, therefore, argue that the role of foreign actors in Korea's coastal management is understudied.

This paper attempts to address this gap in the coastal management literature. It aims to contribute to insights about how foreign and domestic factors interact in coastal projects by analyzing the history of coastal management policy in Korea, the translation of foreign ideas, and the role of domestic political factors therein. Since the 1960s, the Korean government has been very active in reclaiming its tideland on a mega-scale. The Saemangeum project with the longest seawall in the world is the highlight of Korea's reclamation policy. However, since the late-2000s, a growing number of wetland restoration projects have been implemented in previously reclaimed areas. In both – seemingly opposite – policies on coastal management, policy actors in Korea have been active in importing knowledge and technology from other countries. Notably, the Dutch coastal management case is frequently referred to as a successful model by both pro-land reclamation and pro-wetland restoration actors (Park, 2019; Saemangeum Development and Investment Agency, 2020). While various factors can be pointed out as the reason behind the policy change from land reclamation to wetland restoration, this paper zooms in on the role of foreign ideas and foreign actors and how they might interact with domestic factors. It is based on the assumption that external ideas and knowledge could influence domestic policymaking. By doing this, the paper sets out to provide more integrated insights into the politicized decision-making processes in coastal development and conservation projects, considering both 'endogenous' and 'exogenous' factors.

To meet our aim, we first review the literature relevant to policy translation and suggest a framework for analyzing the role of policy translation in policy dynamics (section 2). Next, we clarify the methods used for collecting and analyzing data on the role of policy translation in Korean coastal management history. We make an analytical distinction between the cases of land reclamation and wetland restoration (section 3). In section 4, we apply our framework and focus on policy translation activities between Korea and the Netherlands. Section 5 compares our case study results and discusses the implications of our findings for the policy translation and policy change literature.

2. Policy translation: towards a framework for analyzing the interplay between foreign influence and domestic policy processes

Policy transfer is an essential element to consider when a policy change is examined (Dolowitz and Marsh, 2000). This section therefore briefly reviews the literature on the emergence of the policy transfer concept and its further elaboration into the policy translation concept. We also examine how it has been applied for analyzing water policy. Based on this literature review, we develop an analytical framework for systematic description and analysis of policy translation in the Korean context. This is to be seen as a first step towards the eventual

development of a theoretical framework that will serve a more explanatory purpose.

2.1. Policy translation: conceptual clarification

Public policy has been defined as the "political agreement on a course of action (or inaction) designed to resolve or mitigate problems in the political agenda" (Fischer, 2003: 69). Public policies can take many forms, including statutes, laws, edicts, regulations, orders, and government projects and programs (Fischer, 2003; Weible, 2018). In addition, commonly understood rules-in-use which influence people's behaviours in public affairs can also be regarded as public policy (Ostrom, 2009; Schneider and Ingram, 1993).

Public policies can be influenced by the travel of ideas from other contexts. Studies on the travel of policy ideas have diverged into several concepts and theories over the last three decades, such as *policy transfer* (Dolowitz and Marsh, 2000), *policy translation* (Mukhtarov and Daniell, 2016), *social learning* (Hall, 1993), *policy emulation* (Howlett, 2000), *policy convergence* (Bennett, 1991; Drezner, 2001), *policy learning* (May, 1992), and *policy mobility* (Peck and Theodore, 2010). Among those, *policy transfer* is probably the most popular concept, and, therefore, it is often used as an umbrella concept (Mukhtarov and Daniell, 2016). Dolowitz and Marsh (1996: 344) define policy transfer as "a process in which knowledge about policies, administrative arrangements, institutions etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place." Originating from policy diffusion theory (Evans, 2009), the study of policy transfer has developed into an established research area in policy studies.

However, Mukhtarov and Daniell (2016) point out that the policy transfer approach fails to consider "the modification of meaning" during the transfer process and that it also does not take "the politics of policy movement" seriously. They argue that policy transfer approaches tend to emphasize the technocratic and managerial aspects of the transfer process. Actors are assumed to be rational agents who aim for utility maximization. Mukhtarov and Daniell (2016) argue that this assumption is a false one and emphasize that the meaning of policy models, ideas, and interests is contextualized during the transfer process, which makes this process highly political. By contrast, the idea of *policy translation* particularly highlights the dynamic aspect of the decision-making process during policy transfer, which is not a simple emulation or replication (Peck and Theodore, 2010). The basic assumption of policy translation is that when policy moves, it changes (Freeman, 2009; Mukhtarov and Daniell, 2016; Yanow, 2004).

The advantage of "seeing policy transfer as acts of translation" is that the role of actors who negotiate and create interest is acknowledged (Hasan et al., 2019: 1596). The actors are not a mere channel of the transfer process. Instead, they play an active role in creating an alteration of the original policy (Yanow, 2004). Another assumption of the policy translation approach is that language is influential in the translation process. How meanings are created (the complexity within the meaning creation process) directs the policy transfer process and the outcome. Both assumptions are highly relevant for the current study's purpose because they suggest that domestic actors on the 'receiving' end of policy transfer engage in the translation process strategically and bring domestic political factors into the equation.

2.2. Analytical framework

For analyzing policy translation in our Korean case studies, we have developed an analytical framework based on the policy transfer components from Dolowitz and Marsh (2000). It is supplemented by Mukhtarov's (2014) policy translation approach that emphasizes meaning modification and the politics of policy transfer. Dolowitz and Marsh (2000) provide a useful framework for a systematic description of policy transfer processes, but the concept of policy transfer is limited to

positivists' perspectives about the policymaking process. This was the main point of criticism raised by the 'policy translation' approach which is underpinned by a constructivists' worldview (Mukhtarov 2014; Johnson and Hagstrom 2005). Nevertheless, we believe that the variables Dolowitz and Marsh (2000) discern in their framework help to examine how policy ideas travel and to get an understanding of the translation process. Therefore, we apply the key components of the policy transfer framework suggested by Dolowitz and Marsh (2000) in this paper (i.e., policy transfer objects, agents, and motivation), while acknowledging the epistemological differences between policy transfer and policy translation. For the sake of consistency, we will use the term 'policy translation' throughout the paper.

The policy translation concept emphasizes the social construction of problems and solutions. For a further specification of the concept and a better elucidation of the roles of actors involved (Mukhtarov, 2014), elements of discourse analysis from Hajer's (2006) work (i.e., frames, storylines, rhetoric, and metaphors) were incorporated into the framework. Also, components from institutional analyses were adopted to link policy translation to the dynamics of endogenous politics (Birkland, 1998; Hall, 2016; Kingdon, 1995; March and Olsen, 1983). This addition allows a broad-brushed overview of factors potentially relevant to understanding how policy translation has influenced domestic policy change and stability and vice versa. Table 1 shows the main components and sub-components of the analytical framework used in this study.

In theory, almost any object can be translated between political systems. The object of policy translation can vary from knowledge to attitudes (Bennett, 1991; Dolowitz and Marsh, 1996; Evans, 2004;

Table 1
Key components for analyzing policy translation (modified from Dolowitz and Marsh 2000).

Main and Sub-components	References
Objects of translation	
Policy goals	Bennett (1991), Dolowitz and Marsh (1996), 2000, Stone (2012), Mukhtarov and Daniell (2016)
Policy instruments	Bennett (1991), Dolowitz and Marsh (1996), 2000, Mukhtarov and Daniell (2016)
Policy programs	Dolowitz and Marsh (2000), Stone (2012)
Administrative arrangements	Bennett (1991), Stone (2012), Mukhtarov and Daniell (2016)
Ideologies and justifications	Dolowitz and Marsh (1996), 2000, Stone (2012), Mukhtarov and Daniell (2016)
Ideas and attitudes	Dolowitz and Marsh (1996), 2000, Stone (2012), Mukhtarov and Daniell (2016)
Outcomes (incl. negative lessons)	Bennett (1991), Dolowitz and Marsh (1996), 2000, Mukhtarov and Daniell (2016)
Agents Involved	
Elected officials	Dolowitz and Marsh (1996), 2000, Evans (2009)
Civil servants	Dolowitz and Marsh (1996), 2000, Evans (2009), Stone (2012), Hasan et al. (2019)
Pressure groups	Dolowitz and Marsh (1996), 2000, Evans (2009)
Policy entrepreneurs and experts	Dolowitz and Marsh (1996), 2000, Evans (2009), Hasan et al. (2019), Huitema and Meijerink (2010)
Transnational corporations	Dolowitz and Marsh (2000)
Think tanks	Dolowitz and Marsh (2000), Evans (2009), Stone (2012)
Supra-national governmental institutions	Dolowitz and Marsh (1996), 2000, Evans (2009), Hasan et al. (2019)
NGOs	Stone (2012)
Consultants	Dolowitz and Marsh (2000), Hasan et al. (2019)
Motivation for policy translation	
Voluntary	Dolowitz and Marsh (1996), Evans (2009)
Mixtures	
Coercive	
Meaning modification	
Frames	Hajer (2006), Mukhtarov (2014)
Storylines	
Rhetoric and metaphors	
Endogenous factors	
Political institutions	March and Olsen (1983), Hall (2016)
Critical (focusing) events	Birkland (1998); Kingdon (1995)

Mukhtarov and Daniell, 2016; Stone, 2012). Knowledge may relate to goals, instruments, programs, or an administrative arrangement of a specific policy. In addition, lessons learned from policy outcomes including negative lessons can be the object of policy translation.

Actors are at the center of policy translation analysis because actors have to make decisions for policy translation to occur (Mukhtarov, 2014). As can be read in Table 1, agents involved could be elected officials, civil servants, pressure groups, policy entrepreneurs and experts, transnational corporations, think tanks, supra-national governmental institutions, non-governmental organizations (NGOs), or consultants (Dolowitz and Marsh, 2000; Hasan et al., 2019; Huitema and Meijerink, 2010; Mukhtarov, 2014).

The motivations for policy translation may differ. Dolowitz and Marsh (2000) argue that translation may occur voluntarily, but may also be coercive, or a combination of both. These possibilities show that policy translation is influenced by the interests of the actors engaged. This stresses again that policy translation is profoundly political and not a simple technocratic transmission of best practices from one country to another (Peck and Theodore, 2010).

How policy translation appears in actual policy is another crucial component for policy translation analysis. While Dolowitz and Marsh (2000) suggest the degree of translation as copying, emulation, mixtures, and inspiration, Evans (2004, 2009) argues that copying is the rarest form of the learning process. We tend to concur with this and will approach our empirical analyses from the starting assumption that the translation of policy ideas should be understood as a continuous process of "meaning modification" (Mukhtarov, 2014). To examine meaning modification, this paper compares the frames, storylines, rhetoric, and metaphors used in the policy discourses of sender and receiver countries (Hajer, 2006).

Lastly, we argue that endogenous factors relevant to the policy area are critical for understanding policy translation. The policy translation approach focuses on the modification and re-creation of policy ideas by policy actors (Mukhtarov, 2014), and such a process cannot occur outside of socio-political contexts within which policy translation agents live. Two context factors are considered relevant – political institutions and focusing events. Taking a new institutionalist approach, this paper looks into informal political institutions which include norms and belief systems (Hall, 2016). The dynamics of these informal institutions influence power relations and, consequently, political actions. In addition, a sudden, relatively uncommon event that is clearly or potentially harmful to society can provide momentum to policy change (Birkland, 1998). Such events are called focusing events that simultaneously garner attention from policymakers and the public (Kingdon, 1995).

3. Methods

The framework presented in Table 1 is used as a heuristic tool for an exploration of the interplay between foreign and domestic factors in Korean coastal policies. The study is exploratory since a comprehensive explanation-oriented theoretical framework fit for the topic has not been developed yet. We first started our analysis by creating a timeline of significant events over the last 60 years and selected two contrasting types of projects (land reclamation and wetland restoration) as subunits due to their significance in Korean coastal management. The categories contained in the framework were used as sensitizing concepts for data collection and case comparison. Fig. 1 shows the location of the land reclamation and wetland restoration projects on which we focused.

Korea has been one of the most active countries worldwide in terms of land reclamation. Most reclamation projects were done on tidal flats along the west coast. After the first-mega scale reclamation project was completed on Gyehwa Island, 157,485 ha was reclaimed between 1960 and 2015 (Jeon, 2018). This is nearly the same amount as the reclaimed area gained from the Zuidersee tidal estuary in the Netherlands (165,000 ha) but ten times more than Singapore reclaimed over the last 50 years (13,727 ha) (Schultz et al., 2013; Subramanian, 2017). The



Fig. 1. Major land reclamation and wetland restoration project sites in Korea.

construction of the Saemangeum seawall is the most eye-catching reclamation project. It was announced in 1987 and completed in 2010. The Saemangeum Seawall is now the longest in the world, with a length of 33.9 km. The seawall construction was temporarily stopped when severe pollution in the reclaimed Lake Sihwa became a social issue. Wetland restoration projects have been initiated in Gochang, Suncheon, and Bunam Lake area on locations that were previously reclaimed. The Suncheon and Gochang projects aimed to restore old fish and salt farm sites and were undertaken in 2009 and 2016, respectively. The Bunam Lake restoration project is still in the planning phase, but it is currently one of the most frequently discussed restoration initiatives because of the strong drive by the local government.

Table 2 summarizes the data sources on which our findings are based.

First, eight policy documents and government publications published by Korean governmental agencies were collected through web searching. Second, 15 news reports and articles were collected and analyzed. Relevant policy documents and news articles were searched

Table 2
Data types and sources.

Data types	Data sources
Policy documents and government publications	The history of land reclamation (Korea Rural Community Corporation, 2018) A Study on the Building of Historical Documents for Korea Rural Community Corporation (Korea Rural Community Corporation, 2013) Saemangeum Tideland Reclamation Project (Ministry of Agriculture, 2002) Tideland Reclamation in Korea (Korea Rural Community Corporation, 1995) Wetland restoration for creating future resources (Ministry of Oceans and Fisheries, 2015) Three Decades of Environmental Policies in Korea (Ministry of Environment, 2010) Saemangeum project Office website (saemangeum.co.kr) Chungnam Province website (chungnam.go.kr)
Media reports	Keyword search using Naver (a major Korean search engine)
Semi-structured interviews	Prof. em. B. Schultz at IHE Delft Institute for Water Education* T. van Praag, former director of NEDECO (2003–2007)* J. W. Tellegen, former director of NEDECO (2007–2020)* H. Marencic, deputy executive secretary of Common Wadden Sea Secretariat* H. Myung, Deputy director of Eco Horizon Institute* Government officer at the Korea Rural Community Corporation (Anonymous) Government officer at the Korea Marine Environment Management Corporation (KOEM) (Anonymous) Officer at the Dutch embassy in Korea (Anonymous) *Note: Interviewees who agreed to be non-anonymous

through a Korean search engine called Naver. Several keywords, including ‘land reclamation’, ‘Saemangeum’, ‘wetland restoration’, ‘policy transfer’, ‘international cooperation’, and ‘the Netherlands’ were combined for the search. Third, eight semi-structured interviews were conducted with those engaged in policy translation with Korean partners or international cooperation activities. As the period of this analysis spans over 60 years, many actors involved in the 1960–1980s were no longer reachable. However, some key actors relevant to policy translation activities related to coastal management could be contacted. The interviews were recorded and transcribed. On request of three anonymous interviewees their interviews were not recorded. Instead, notes were taken during the conversations. Collected data were coded with codes derived from the key components of the analytical framework. In this way, we tried to find patterns (Caporaso, 2009). The analysis was conducted with the support of MAXQDA, a package of computer-assisted qualitative data analysis software. The key findings contained in the analyzed documents and those retrieved through the interviews largely concurred, to such an extent that data saturation has been reached (Faulkner and Trotter, 2017). We are therefore confident that the study’s internal validity is high.

4. The role of policy translation in Korea’s coastal management policy

An overview of the findings is presented in Table 3. As the table shows and will be explained below, not all elements contained in the framework were observable or relevant in the Korean cases.

In section 4.1, we address the role of policy translation in the Korean land reclamation policy. We continue in section 4.2 with an analysis of the role of policy translation in wetland restoration.

Table 3
Components considered in the analysis of the Korean coastal management policies.

Main components	Sub-components	Land reclamation	Wetland restoration	
Objects of translation	Policy goals		x	
	Policy instruments	x	x	
	Policy programs	x	x	
	Administrative arrangement			
	Ideologies and justifications		x	
	Ideas and attitudes		x	
	Outcomes (incl. negative lessons)			
	Agents involved	Elected officials	x	x
		Civil servants	x	x
		Pressure groups		x
Policy entrepreneurs and experts		x	x	
Transnational corporations				
Think tanks		x	x	
Supra-national gov. institutions		x	x	
NGOs			x	
Consultants		x		
Motivation for policy translation		Voluntary	x	x
	Mixtures			
	Coercive			
Meaning modification	Frames	x	x	
	Storylines	x	x	
	Rhetoric and metaphors	x		
Endogenous factors	Political institutions	x	x	
	Critical (focusing) events		x	

4.1. The role of policy translation in Korea’s land reclamation

The idea of land reclamation has existed in Korea for a long time, and there was no critical event that motivated the initiation of reclamation projects. Tidelands on the Korean West coast have natural conditions which are beneficial for land reclamation, such as shallow depth of water, thin waves, and a ria-type coastline (Korea Rural Community Corporation, 1995; Korean Ministry of Agriculture, 2002). Historical documents show that land reclamation projects were undertaken in Korea as early as the 13th century (Korea Rural Community Corporation, 2018).

Some authors, however, consider Byeokgolje built in the 4th century as the first Korean seawall (Kang, 2018; Kim, 2018b). The scale of these early reclamation projects was, although not always clear, relatively small compared to modern times. During the Japanese colonial period (1910–1945), a more systematic reclamation was pushed to solve food shortages and inflation in Japan (Choi, 2014).

Large-scale reclamation projects started in the 1960s (Table 4) after the United Nations (UN) Special Fund for Land Reclamation was created through an agreement with the Food and Agriculture Organization of the United Nations (FAO). Since then, the Korean government has realized mega projects which have converted large coastal areas. The primary reasons for reclaiming since the 1960s were population growth, growing food demands, and the necessity of addressing these. Reclamation projects mainly aimed at expanding agricultural lands as a solution to food security while urbanization was accelerated. The Ministry of Agriculture (MoA) and the Ministry of Land, Infrastructure, and Transport (MOLIT) have been the two key actors leading the reclamation projects. Land reclamation policy, particularly the Saemangeum project, found political backing at the ruling political party that announced it before the 1987 presidential election and stressed its importance for creating agricultural land for rice production. The

Table 4
Timeline of major events related to land reclamation in Korea since 1961.

Year	Major events
1961	Agreement with FAO on UN Special Fund for Land Reclamation
1962	Public Water Reclamation Act established NEDECO assessment of possible reclamation resource space in Korea started
1963	NEDECO concluded 225,000 ha can be reclaimable
1967	The first large scale land reclamation project on Gyeonghwa Island completed
1970s-80s	Multiple reclamation projects along the west coast
1991	Saemangeum project construction started
1994	Sihwa Project completed
1996	Water pollution in Lake Sihwa was publicized, and protest against the Saemangeum project started
1997	Saemangeum project temporarily stopped
2010	Saemangeum Seawall construction completed

construction of the Saemangeum Seawall started in 1991 and was completed in 2010. The Korean government will use the reclaimed land not only for agriculture but also for a “global and green” city that includes industries and research centres (Saemangeum Project Office, 2012).

Objects of translation: In this case, Dutch land reclamation policy instruments and programs were translated. Technological advancements made the realization of mega-scale reclamation in foreign countries such as the Netherlands possible. The Dutch successes motivated the Korean government for pursuing a similar policy (“Large-scale reclamation that changes the map of Korea,” 1978; Korea Rural Community Corporation, 2013) and initiating a process of policy translation.

In pursuance of large scale reclamation policy, Korean engineers collaborated with Dutch engineers on feasibility studies and seawall model developments. In 1962, the FAO initiated the first research on the possibilities for land reclamation by contracting NEDECO (Netherlands Engineering Consultants Group), a consortium of major consulting companies in the Netherlands, specialized in water management and coastal development (Dietvorst, 2001). The consortium was particularly active in conducting overseas projects (J. W. Tellegen, personal communication).

NEDECO conducted a first reconnaissance survey together with Korean engineers and published a report in 1963. They assessed that 225,000 ha could be developed, and 189,000 ha could be reclaimed along the coast (Ministry of Agriculture, 2002). According to the Korea Rural Community Corporation (2013), the governmental organization that led Korean reclamation policy, this survey was the milestone for the mega-scale reclamation policy in Korea, because the Korean government realized that it is possible to undertake massive scale reclamation projects through this study. In the report of the Korea Rural Community Corporation, it is stated that the potential size of land for reclamation along the West coast as well as the possible economic impacts of reclamation were figured out for the first time. Also, it was an opportunity for Korean engineers to learn advanced technology from the Netherlands through the introduction of survey ships and depth finders (Korea Rural Community Corporation, 2013: 33).

Since then, the Dutch NEDECO engineers had been invited to contribute to the planning of land reclamation projects. In 1985, a pre-feasibility study on the long-range master plan for seashore reclamation was undertaken by the Korea Research Institute for Human Settlements (KRIHS) and NEDECO (KRIHS; NEDECO, 1985). Prof. Bart Schultz, one of the experts involved in the study, said that both the Sihwa Project and the Saemangeum project were part of their sketch plans provided to the Korean government.

Cooperation with foreign engineers continued during the planning and implementation processes of the Saemangeum project. NEDECO also conducted the feasibility assessment of the project master plan and cooperated for seawall design development (Kim, 2011). The hydraulic

model used for assessing the impact of dredging on the seawall was co-developed by the Delft Hydraulics (current Deltares) and the Korea Rural Community Corporation (Eo, 2011). The collaborative research made it possible to project the impacts of long-term geomorphic changes on the seashore. Such long-term geomorphic modelling for land reclamation was tried for the first time in Korea (Eo, 2011).

Agents involved: Korean government officers representing MoA and MOLIT led the translation of the Dutch reclamation policy. These officers as well as Korean engineers collaborated with Dutch engineers from NEDECO in feasibility studies and project designs (Korea Rural Community Corporation, 2018; KRIHS; NEDECO, 1985; Moon, 2007).

Particularly, when the Saemangeum project became controversial due to its impact on the environment, the government officers that pushed the project primarily referred to the Dutch land reclamation model to legitimize the construction of the dam. The Saemangeum project faced massive protests from the Korean Federation of Environmental Movements and other environmental NGOs, particularly after pollution resulting from the Sihwa Reclamation Project raised environmental awareness. As a result, the construction of the dam was halted for a reassessment of its feasibility and environmental impact. Four years later, it was resumed when the Prime Minister's Office decided to continue the project, arguing that the project could positively affect the economy and that negative environmental impacts can be reduced over the development process (Lee, 2011).

The Minister of Agriculture emphasized that he became more committed to the Saemangeum project after visiting the Netherlands and Japan (Koh, 2001). In 2003, Prof. Schultz from the Delft University of Technology was present at the court hearings following the lawsuit filed by environmental NGOs against the Saemangeum project's completion to support the project's continuation (Schultz, 2020). He supported the Saemangeum Project by saying that there were no pollution issues due to reclamation in the Netherlands and the best way to conserve water quality in the Saemangeum area was to reduce pollution in the upper stream (Lee, 2003). At the end, the NGOs lost their case, and in 2006 about one month after the court's decision the final embankment was completed (Song et al., 2014).

Prof. Schultz also recalled that he guided Korean delegations to the Netherlands, explaining Dutch reclamation projects which were misunderstood in Korea. He, for example, corrected a translation error and made clear that the enclosure dike (in Dutch, Afsluitdijk) did not mean that the dike was breached but that it closed down the former Zuiderzee and turned into an artificial lake (Schultz, 2020).

In addition to NEDECO, high-level politicians from the Netherlands supported the Saemangeum project too. Their speeches were publicized in Korea to justify it. Former Korean President Lee Myung-bak and former Prime Minister of the Netherlands Jan Peter Balkenende agreed on a continuation of the cooperation on the Saemangeum project (Lee, 2010). Wim Kok, former Prime Minister of the Netherlands was entrusted as an honorary advisor to the Saemangeum Project (Embassy of the Republic of Korea to the Kingdom of the Netherlands, 2014). Later on, in 2020, Joanne Doornewaard, ambassador of the Netherlands to Korea, visited the Investment Center for Saemangeum and agreed to continue the cooperation for building a green city (Kim, 2020). These high-level talks endorsed land reclamation projects and consequently strengthened Korea's pro-reclamation policy.

Motivation for policy translation: Policies were translated voluntarily. The Ministry of Agriculture saw the potential of land reclamation in the West and South coasts and asked the FAO for assessing the feasibility. The NEDECO was then invited to conduct technical studies for land reclamation (Ministry of Agriculture, 2002). Since then, the Korean government, as well as mass media, have recognized the Netherlands as the successful case of land reclamation and actively promoted knowledge transfer from Dutch engineers (Ministry of Agriculture, 2002; Oh, 1995). Korean bureaucrats and civil servants were strongly motivated for implementing land reclamation projects and learning. Advanced technology and novel methods were considered

helpful to do this successfully. Over time, the Korean government and engineers had gained more experience in land reclamation. As a result, the policy translation process became more selective and continued to focus more on specific techniques that were relevant for the elaboration of the Saemangeum project (Eo, 2011).

Meaning modification: During the translation process, a certain degree of meaning modification occurred. For a long time, flood protection was the main reason for land reclamation in the Netherlands (Butler, 1972). The Lake Haarlem project was pushed after major floods occurred in Amsterdam and Leiden in 1836 (Hoeksema, 2007). However, the 20th-century Zuiderzee reclamation works not only aimed at better flood protection but also created more agricultural land needed for feeding the fast-growing population (Schultz et al., 2013). The latter argument was no longer dominant during the discussions over the Markerwaard project, the last Dutch area to be reclaimed. Supporters still argued that this reclaimed polder could create new agricultural lands and urban areas, but their discourse could not win over the opponents who argued for environmental protection (Hoeksema, 2007). The Dutch government decided to stop further reclamation at the end of the 1980s and to establish a new policy for the sustainable preservation of coastal ecosystems (Koningsveld and Mulder, 2004). In Korea, arguments in favor of land reclamation policy have mainly been framed in terms of national economic development and modernization (Choi, 2014; Kim et al., 2015; Moon, 2007; Song et al., 2014), but the storylines also included arguments framed in terms of food security and addressing population growth. Using the Netherlands as the metaphor of success, proponents of land reclamation have encouraged more aggressive reclamation projects to become 'the Netherlands in Asia' ("Large-scale reclamation that changes the map of Korea," 1978).

Endogenous factors: The modification of the meaning of the reclamation policy is closely linked to the characteristics of the Korean political institutions. Korea has been long considered a developmental state. This refers to the state-led industrialization pursued by East Asian governments after the Second World War (Johnson, 1987). In Korea, the developmental state institutions created under the military regime in the 1960s have grown together with the construction industry. Infrastructure building works provided major corporations with the opportunity for accumulating their capital and expanding their business to other industry sectors (Cho, 2006). Mega development projects such as land reclamation provided excellent opportunities to the corporations. The reclamation agencies that were part of the developmental state institutions could strengthen their political legitimacy by referring to the role of reclaimed lands in rice production (Choi, 2014).

However, unlike authoritarian regimes bureaucrats in the developmental state were not isolated from society. While elites in the central government had led national land reclamation (and other) initiatives, they established communication channels with external actors for negotiating policies. For instance, Yi (2019) points out the Korean government's effort to earn trust from farmers when they tried to modernize the rural economy in the 1970s. In addition, industrialization and land reclamation policies during the military regime (1961–1987) were not mere decisions of state bureaucrats but also influenced by a legacy from the Japanese colonial period, international relations with the United States, and major corporations' strategies (Gimm and Kim, 2014). Policy translation activities conducted for land reclamation can be also understood by referring to the institutionalized openness of the Korean developmental state.

4.2. The role of policy translation in Korea's wetland restoration

Table 5 shows the timeline of the major wetland restoration events and projects in Korea. Since the early 1990s, the Korean environmental movement has grown successfully. Growing environmental awareness resulted in a cancellation of the Fourth Youngsan River Reclamation Plan and the Janghang Wetland Reclamation Plan in 2007. Wetland conservation and restoration of previously reclaimed lands got more

Table 5
Timeline of major events related to wetland restoration in Korea.

Year	Major events
1996	Ministry of Oceans and Fisheries established
1999	Wetland Conservation Act established
2008	MoU between the Trilateral Wadden Sea Cooperation and the Ministry of Oceans and Fisheries
2009	Gochang wetland restoration project started (first wetland restoration project)
2015	Announcement of a wetland restoration plan by the Ministry of Oceans and Fisheries
2016	Suncheon wetland restoration project started
2018	Announcement of mid-term wetland restoration plan by Ministry of Oceans and Fisheries
2019	Announcement of wetland restoration in the Bunam Lake by Governor of Chungnam Province
2021	The tidal flats in Seocheon, Gochang, Shinan and Boseong-Suncheon were officially listed as UNESCO World Heritage sites

political and societal attention.

The primary reason for the policy change to wetland restoration was the reduction in income from fisheries. Fisheries suffered from the degradation of wetland and water quality in the artificial lakes. The potential that the wetlands have for ecological tourism was another motivation for the policy change. In 2015, the Ministry of Oceans and Fisheries (MOF) estimated that the economic value of the Korean wetlands is as high as 16 trillion KRW (14.4 billion USD) (Ministry of Oceans and Fisheries, 2015). Following this MOF announced a wetland restoration plan and labelled it as a new engine for economic growth.

As of February 2022, two restoration projects have been implemented on previously reclaimed lands. In 2009 the Gochang municipal government constructed a sluice gate in a seawall to restore seawater circulation. The seawall was constructed for fish farming but had to be closed following the construction of a nuclear power plant. The neglected farm sites became a source of pollution, which was addressed in a pilot project initiated by the Ministry of Land, Transport, and Maritime Affairs. Several ecological friendly flood protection facilities were constructed, too (Shin, 2019). Since 2016 another restoration project has been undertaken in Suncheon, Jeonnam. Old salt farm areas have been restored by demolishing the seawall and opening a sluice for seawater circulation (Park and Lee, 2018).

In July 2021, the tidal flats in Seocheon, Gochang, Shinan, Boseong-Suncheon were officially inscribed as UNESCO World Heritage. UNESCO describes that the sites demonstrate the link between geodiversity and biodiversity, and “the dependence of cultural diversity and human activity on the natural environment” (UNESCO World Heritage Centre, 2021).”

The Korean wetland restoration policy and projects have benefitted from the lessons learned in similar projects in the Netherlands and elsewhere. The Wadden Sea secretariat established by the Netherlands, Germany, and Denmark to protect the wetlands of the tidal flat area of the Wadden Sea played a key role in translating the Dutch experiences.

Objects of translation: In the case of wetland restoration not only policy programs and instruments were translated, but also policy goals, justifications, and ideas. Following a Memorandum of Understanding signed by the Common Wadden Sea Secretariat and the Korean Ministry of Oceans and Fisheries in 2008, activities were organized around integrated ecosystem policy and management, education, and the monitoring and research of migratory birds and benthos (Common Wadden Sea Secretariat, KOEM, Ministry of Oceans and Fisheries, 2016). The visitor centres established in the Korean marine protected areas adopted their initial services and programs from the International Wadden Sea School (H. Myung, personal communication). The Korean environmental educationalists and visitor centre managers visited the Wadden Sea visitor centres to learn more about operational programs, environmental education programs, and citizen monitoring systems (H. Myung, personal communication).

A senior researcher of the Korean Marine Environment Management Corporation (KOEM) argued during the 14th International Scientific Wadden Sea Symposium that “in the planning of our national monitoring program that we showcased at this symposium we took into account many aspects of the Trilateral Monitoring and Assessment Programme (TMAP) of the Wadden Sea states” (Common Wadden Sea Secretariat, 2017). Furthermore, the nomination of the Wadden Sea as a World Heritage Site inspired the Korean government and policy actors to do the same for the Korean tidal flats.

Policy goals and justification were also translated through NGOs. Korean environmental NGOs actively cooperated with Friends of the Earth International, Sierra Club, and Japan Wetlands Action Network to strengthen their policy discourse against land reclamation in general and the Saemangeum project in particular (Sim, 2003). In 2001 Dr. Adolf Kellermann, a scientist at the National Park Office of Schleswig-Holstein Wadden Sea, was present at the court hearings during the lawsuit on the Saemangeum project. As a witness in court in favor of the environmental NGOs’ side, he supported wetland conservation in the Saemangeum estuary by arguing that “the profit from reclamation doesn’t last long, while that from wetland conservation is sustainable” (Kangkim, 2003).

Agents involved: The leading proponents of wetland restoration in Korea are the Ministry of Oceans and Fisheries and its subsidiary organizations, environmental NGOs, and some sub-national governments. They have also acted as policy translation agents.

Unlike land reclamation projects which have been driven by the officers of the national government, wetland restoration projects have been actively promoted by several sub-national governments, too. The governor of Chungnam Province, Yang Seungjo, announced the restoration plan for Bunam Lake, which was created by a reclamation project. After the announcement, he visited the Netherlands to learn more about the restoration of the Veerse Meer, a lake located in the estuary behind the Easter-Scheldt storm surge barrier (Jeon, 2019; Park, 2019; Song, 2019). The former governor of the same province, Ahn Heejung, visited the Netherlands in 2012 for the same purpose (Chungnam Province, 2012). Chungnam Province also hosted the International Conference on Restoration of Coastal and Estuary Ecosystem, where Governor Yang proposed to create an ecological restoration alliance of provincial governments (East Asian-Australasian Flyway Partnership, 2020; Yang, 2020). Apart from Chungnam Province, several municipal governments in coastal areas expressed their interest in restoring wetlands, too (Korea Institute of Marine Science and Technology Promotion, 2008).

Besides filing lawsuits against dam construction, environmental NGOs also invested in societal learning. For more than 10 years the Eco Horizon Institute organized visits for NGO activists, officers from all levels of governments and scholars to the Wadden Sea (H. Myung, personal communication).

The exchange activities have gradually evolved into more cooperation between Korea and the Wadden Sea states as Korea progressed in formulating and implementing its wetland conservation policy. In personal communication, Dr. Harald Marencic from the Common Wadden Sea Secretariat emphasized that the international exchange activities helped scientists, managers, and local authorities to get ideas about the possibilities and opportunities regarding wetland conservation.

Motivation for policy translation: Like in the case of land reclamation, the translation activities related to wetland restoration were voluntary. Environmental NGOs that focused on stopping the Saemangeum project looked for evidence to support their protest. The ecological turn in coastal management policy in Europe served as a valuable reference for the Korean environmental movement and for government officers who needed practical information for policy design because wetland restoration was a novel approach in Korea.

Meaning modification: Like in the case of land reclamation, meaning modification occurred in the wetland policy translation processes. In the Netherlands, wetland conservation discourses emerged when the Dutch government announced the construction of the Eastern

Scheldt storm surge barrier (part of the Delta Works) to close off the estuary and to strengthen flood protection. The environmental movement argued that this would result in irreparable damages to the tidal ecosystem. This argument was supported in Dutch policymaking and as a result, the projected closed dam was changed into a more open one with sluices that can be closed in cases of high tide. The Korean environmental NGOs and ecologists shared the frames of their Dutch colleagues and defended the storyline that the Korean tidal flat systems are a unique landscape and should be protected as natural heritage (Kim, 2018a). In addition to this, governmental actors used the frame of the potential financial benefits of wetland conservation and restoration such as an increased fish catch and development potentials for ecotourism. They elaborated in this by promoting the storyline that income reduction from fisheries was due to water pollution in reclaimed areas (Chungnam Province, 2019; Ministry of Oceans and Fisheries, 2015).

Endogenous factors: Institutional changes, as well as a series of accidents, provided momentum for policy transition towards wetland conservation and restoration in Korea. During the military regime, provincial and local governments did not have the authority to pursue large-scale infrastructure or development projects. Moreover, the heads of sub-national governments were appointed by the central government. This super-centralized political system changed after the democratization in 1987. Direct elections, the first since 1960, took place for local assemblies in 1991 and governors and mayors in 1995 (Jung et al., 2014). These institutional changes allowed local governments to exercise more authority, and as a result, coastal management policy could be diversified, which also provided for better opportunities for developing wetland management policies. For example, while the province of Jeonbuk, where the Saemangeum reclaimed land is located, has maintained its pro-reclamation policy, the governors of Chungnam Province have promoted wetland restoration. The emergence of conflict between Chungnam Province and the Korea Rural Community Corporation which is the national governmental agency for land reclamation over the restoration of Boryeong Lake also shows that the top-down hierarchy from national to local government has been loosened to some degree (Shin, 2016). The growing power of sub-national governments contributed to a more active cooperation with foreign actors at different government levels.

In addition, critical events opened a window of opportunity for the development of wetland restoration policies. A series of pollution accidents in the 1990s triggered concerns about the environment in Korea (Ministry of Environment, 2010). Phenol leakage in 1991 and organic solvent leakage in 1994 in Nakdong River gained wide public attention and served as a momentum to establish the Ministry of Environment in 1994 (Ministry of Environment, 2010). Heavy water pollution in Lake Sihwa resulting from the second biggest reclamation project in Korea also attracted the public eye. Two years later, in 1996, the Ministry of Oceans and Fisheries was founded, and the Wetland Conservation Act was enacted in 1999.

5. Discussion

Our study shows that policy translation has constantly played a role in Korea's coastal management policy. However, when the two cases of land reclamation and wetland restoration are compared, it can be observed that the components of policy translation have changed over time. This comparison will be done in section 5.1. In section 5.2, we discuss the implications of our research for further theory building.

5.1. Changes of policy translation in coastal management over time

First, the **objects of policy translation** differ between the two cases. In the case of land reclamation, Korean government officers and engineers tried to get knowledge about seawall engineering, land reclamation project design, and the use of advanced technology from foreign countries (policy content and instruments). Engineers from Dutch

consultancies were involved in the research and planning process of land reclamation plans. For wetland restoration, however, policy translation objects have been broadened, including activities to learn about policy goals, policy instruments, ideas, and ideologies.

Second, the **agents of policy translation** have become more decentralized and diversified. Until the 1980s, actors in the policy process other than powerful actors such as the central government's bureaucrats had limited resources to conduct international activities. With economic development, civil society growth, and decentralization of political structure, actors involved in policy translation have diversified. The advancement of global communications has also contributed to this (Evans and Davies, 1999; Hawkins et al., 2020). In the case of wetland restoration which became popular in the late-2000s, environmental NGOs and local governments have initiated their own translation activities with international NGOs or foreign governments. This is a significant difference from those who initiated policy translation for land reclamation projects consisting of national government officers from the Ministry of Agriculture, Ministry of Land, Infrastructure, and Transport, and their subsidiary organizations.

Third, **the way policy is translated** in coastal management has changed. Initially, foreign expertise was mostly instrumental (helping the national government reach its goals), but in the case of wetland restoration, foreign expertise also contributed to expanding the scope of potential policy options which was dominated by reclamation beforehand. While the idea of turning tidal flats into arable lands has existed in Korea for a long time and the need for policy translation was limited to technological knowledge, wetland restoration required a strong case for realizing a paradigm shift. Consequently, soft knowledge transfer activities such as conferences, workshops, and study visits have been more emphasized in the case of wetland restoration. The policy change examples from the Netherlands and other countries have been utilized for strengthening policy discourse in domestic politics.

In both cases, **policy meanings** have been modified, but more diversification can be observed in the case of wetland restoration as compared to the land reclamation case. Land reclamation in the Netherlands primarily aimed to protect its land from floods, but modern land reclamation projects in Korea have had a much stronger emphasis on economic prosperity and growth since the first project in the 1960s. Domestic actors involved in the reclamation policy translation process have used similar frames and storylines in line with economic development. Meanwhile, wetland restoration actors have used different frames for supporting the same policy. While the government officers have highlighted economic benefits from tourism and fisheries, environmental NGOs used policy translation for facilitating ecosystem conservation activities. This finding is in close connection to actor diversification within the policy process, as previously stated.

Our case comparison reveals that domestic political changes have had a significant influence on the policy translation processes. Democratization and decentralization broadened the 'pool' of actors involved in the decision-making process. The newly created multi-level governance environment enabled the diversification of stakeholders as well as channels of policy translation (Hawkins et al., 2020). However, changes in Korean coastal management policy are not only a consequence of domestic politics and conflicts. Policy changes in the Netherlands have had a substantial impact on Korea's turn to wetland restoration as they were used by nature conservation advocates to strengthen their arguments. The paradigm shift towards wetland restoration asked for more objects to be translated, including new ideas and ideology and a more frequent organization of soft knowledge transfer activities among researchers, NGO practitioners, and government officers.

Coastal management policy in Korea has not experienced a linear and univocal process of policy translation as governmental and non-governmental actors can translate different policies in the same period. The diversification of policy actors in Korea after decentralization facilitated creating various channels through which coastal management policies can be translated. Consequently, knowledge related to

land reclamation and wetland restoration has been simultaneously transferred to Korea at different government levels since the 2000s. Furthermore, the direction of transfer is not always one-way. With accumulating knowledge on reclamation technology, Korean actors who used to import policy started to export their technology to other countries. In this process, Korean and Dutch engineers compete (e.g., Kalpasar Reclamation Project in India) or collaborate (e.g., the Giant Sea Wall Jakarta Project in Indonesia) (Kang, 2019; Lee, 2007). Such dynamics of policy translation show that Korea's coastal management policy is in constant flux within the international context.

6. The integration of policy translation and public policy change: towards theory building

This paper aimed to contribute to insights about how foreign and domestic factors interact in coastal projects by analyzing the history of coastal management policy in Korea, the translation of foreign ideas and the role of domestic political factors therein. The case studies show that the policy translation process, the motivation behind the translation, and the effects of translated policies are interlinked, implying the need for a more comprehensive analytical framework. Our endeavour is to be seen as the first step towards theory building. Inspired by prominent scholars of policy translation and its predecessor notion of policy transfer, an analytical framework was developed to help identify factors potentially relevant for the eventual development of such a more explanation-oriented theoretical framework. We found that, while the seminal work of Dolowitz and Marsh (2000) provided for a good start, it also has its shortcomings in that their framework paid little attention to the significance of domestic politics and the politics of actors within the transfer process, as pointed out by Mukhtarov and Daniell (2016) and confirmed in the current study. Constraints on transfer such as policy complexity and institutional feasibility were mentioned in Dolowitz and Marsh's framework, but the terms were not elaborated in the same article. By adopting Mukhtarov's (2014) policy translation concept that emphasizes actors' interpretation of policies during policy transfer, we added a political aspect to the framework. The elements of discourse and institutional analyses were incorporated into our analysis to link policy translation to endogenous policy processes (Birkland, 1998; Hajer, 2006; Hall, 2016; Kingdon, 1995; March and Olsen, 1983).

Our findings demonstrate that internal and external dynamics are closely intertwined in the policy process. However, this empirical reality is far removed from the assumptions behind both policy transfer and policy change theories (Baumgartner and Jones, 1993; Dolowitz and Marsh, 2000; Kingdon, 1995). For example, both the Multiple-Streams Approach (Kingdon, 1995) and the Punctuated Equilibrium Theory (Baumgartner and Jones, 1993) do not explicitly refer to international policy transfer in their frameworks. At the same time, policy transfer literature has not embraced the significance of endogenous factors which influence the direction and the extent of policy transfer (Dolowitz and Marsh, 2000). Recent policy change studies have tried to connect policy transfer to policy change literature (Bache and Reardon, 2013; Boushey, 2012; Cairney, 2009; Stone, 2004), but this has not yet been developed into an integrated and explanation-oriented theoretical framework.

Based on our study, we derive the following suggestions to move further on the path towards theory building. First of all, explanatory studies require that an analyst makes an analytical distinction between a dependent variable and potential independent variables (Hegger et al., 2020). Section 4 and the comparison in section 5.1 strongly suggest that meaning modification would be a good candidate for the former. Explaining this, in one way or the other, seems to be the analytical puzzle that all bodies of literature considered in the current paper are concerned with. A second requirement is to suggest potentially relevant independent variables. It is too early to arrive at a final set of fixed and well-operationalized independent variables, but the current study did provide a relevant initial overview of the breadth and nature of the types

of variables to include. Based on the current study, we propose to at least consider the role and motivations of foreign policy actors, domestic groups with key interests in the policy at stake, the way the latter redefines the foreign policy into storylines, rhetoric, and metaphors, changes in political institutions and the occurrence of critical events in the 'receiver countries'.

7. Concluding remarks

This paper started by acknowledging a knowledge gap that policy translation has not been considered a substantial factor in coastal management policies. We have therefore analyzed the role of policy translation in understanding the dynamics of coastal management policies in Korea. Our comparison of the role of policy translation in land reclamation and wetland restoration policies in Korea has shown several differences over time. Policy translation is not a stand-alone phenomenon but is highly embedded in domestic policy processes.

Translation of foreign policies can offer key actors resources not only for reinforcing domestic discourses but also for changing them. In the case of Korea, actors used policy translation for various purposes including technical advancement, policy goal justification, and new program adoption. Thus, this study advocates the importance of investigating political interactions among actors in advancing sustainable ocean and coastal management policies. Our paper has made a case for a more combined and integrated assessment of the role of foreign and domestic factors in the study of coastal policy changes and has suggested an analytical framework for doing this. Furthermore, it pointed at ways to develop the framework further into an explanation-oriented theoretical framework through future systematic empirical assessments. Future studies can advance this integrated framework by studying other cases which may help complement and refine the framework. We invite scholars from relevant fields such as public administration and environmental governance to join us in this endeavour.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- Allouche, J., 2016. The birth and spread of IWRM – a case study of global policy diffusion and translation. *Water Altern. (WaA)* 9, 412–433.
- Bache, I., Reardon, L., 2013. An idea whose time has come? Explaining the rise of well-being in British politics. *Polit. Stud.* 61, 898–914. <https://doi.org/10.1111/1467-9248.12001>.
- Baumgartner, F.R., Jones, B.D., 1993. *Agendas and Instability in American Politics*. University of Chicago Press, Chicago.
- Bennett, C.J., 1991. What is policy convergence and what causes it? *Br. J. Polit. Sci.* 21, 215–233. <https://doi.org/10.1017/S0007123400006116>.
- Birch, T., Reyes, E., 2018. Forty years of coastal zone management (1975–2014): evolving theory, policy and practice as reflected in scientific research publications. *Ocean Coast Manag.* 153, 1–11. <https://doi.org/10.1016/j.ocecoaman.2017.12.003>.
- Birkland, T.A., 1998. Focusing events, mobilization, and agenda setting. *J. Publ. Pol.* 18, 53–74.
- Boushey, G., 2012. Punctuated Equilibrium theory and the diffusion of innovations. *Pol. Stud. J.* 40, 127–146. <https://doi.org/10.1111/j.1541-0072.2011.00437.x>.
- Butler, M., 1972. Netherlands: Dutch continue to reclaim land from the sea. *Science* 80, 1002–1004.
- Cairney, P., 2009. The role of ideas in policy transfer: the case of UK smoking bans since devolution. *J. Eur. Publ. Pol.* 16, 471–488. <https://doi.org/10.1080/13501760802684718>.

- Caporaso, J.A., 2009. Is there a quantitative-qualitative divide in comparative politics? The case of process tracing. In: Landman, T., Robinson, N. (Eds.), *Handbook of Comparative Politics*. SAGE Publications Ltd.
- Cho, D., 2007. The evolution and resolution of conflicts on Saemangeum Reclamation Project. *Ocean Coast Manag.* 50, 930–944.
- Cho, M.R., 2006. Developmental Politics and Green Progress. *Environment and Life*, Seoul.
- Cho, M.R., 2003. Causes and structure of environmental conflicts concerning national development projects. *ECONEWS* 110–146.
- Choi, Y.R., 2014. Modernization, development and underdevelopment: reclamation of Korean tidal flats, 1950s–2000s. *Ocean Coast Manag.* 102, 426–436. <https://doi.org/10.1016/j.ocecoaman.2014.09.023>.
- Christie, S., Olsen, P., 2000. What are we learning from tropical coastal management experiences? *Coast. Manag.* 28, 5–18. <https://doi.org/10.1080/089207500263602>.
- Chungnam Province, 2019. New ocean industry can boost the environment and economy, 8.8.21. <http://bit.ly/3qjYtG>.
- Chungnam Province, 2012. Learning of seawater circulation in reclaimed land, 1.8.21. <http://bit.ly/2PGdoNv>.
- Common Wadden Sea Secretariat, 2017. MoU with Korea: milestones, 9.20.21. <http://www.waddensea-worldheritage.org/de/mou-korea-milestones>.
- Common Wadden Sea Secretariat, KOEM, Ministry of Oceans and Fisheries, 2016. Memorandum of Understanding Wadden Sea - Korea Work Programme 2016–2018.
- Dietvorst, C., 2001. Water Related Institutions in the Netherlands.
- Dolowitz, D., Marsh, D., 1996. Who learns what from whom: a review of the policy transfer literature. *Polit. Stud.* 44, 343–357. <https://doi.org/10.1111/j.1467-9248.1996.tb00334.x>.
- Dolowitz, D.P., Marsh, D., 2000. Learning from abroad: the role of policy transfer in contemporary policy-making. *Governance* 13, 5–23. <https://doi.org/10.1111/0952-1895.00121>.
- Drezner, D.W., 2001. Globalization and policy convergence. *Int. Stud. Rev.* 3, 53–78. <https://doi.org/10.1111/1521-9488.00225>.
- East Asian-Australasian Flyway Partnership, 2020, 4.4.21. In: 2020 International Conference on the Restoration of Coastal and Estuary Ecosystems, RO Korea. <https://www.eaaflyway.net/rok-coastal-estuary-ecosystems-restoration/>.
- Embassy of the Republic of Korea to the Kingdom of the Netherlands, 2014. The relationship of The Netherlands and the Republic of Korea, 1.2.22. https://overseas.mofa.go.kr/nl-ko/brd/m_7071/view.do?seq=1072338&srchPr=&seq%3BsrchTo=&seq%3BsrchWord=&seq%3BsrchTp=&seq%3Bmulti_itm_seq=0&seq%3Bitm_seq_1=0&seq%3Bitm_seq_2=0&seq%3Bcompany_cd=&seq%3Bcompany_nm=
- EO, D., 2011. Hydraulic test for the Saemangeum project. *Rural Environ. Eng. J.* 36–45.
- Evans, M., 2009. Policy transfer in critical perspective. *Pol. Stud.* 30, 243–268. <https://doi.org/10.1080/01442870902863828>.
- Evans, M., 2004. *Policy Transfer in Global Perspective*. Routledge, London.
- Evans, M., Davies, J., 1999. Understanding policy transfer: a multi-level, multi-disciplinary perspective. *Publ. Adm.* 77, 361–385. <https://doi.org/10.1111/1467-9299.00158>.
- Faulkner, S., Trotter, S., 2017. Data saturation. In: Matthes, J., Davis, C.S., Potter, R.F. (Eds.), *The International Encyclopedia of Communication Research Methods*. <https://doi.org/10.1002/9781118901731.iecrm0060>.
- Fischer, F., 2003. *Reframing Public Policy: Discursive Politics and Deliberative Practices*. Oxford University Press, Oxford, UK.
- Freeman, R., 2009. What is “translation”? *Evid. Policy A J. Res. Debate Pract.* 5, 429–447. <https://doi.org/10.1332/174426409X478770>.
- Gimm, D.-W., Kim, M.-H., 2014. Political geography of ulsan oil refinery. *J. Korean Geography. Soc.* 49, 139–159.
- Grafton, Q., Daniell, K.A., Nauges, C., Rinaudo, J.D., Chan, N.W.W., 2015. *Understanding and Managing Urban Water in Transition, Global Issues in Water Policy*. Springer, Netherlands.
- Hajer, M.A., 2006. Doing discourse analysis: coalitions, practices, meaning. In: van den Brink, M., Metzke, T. (Eds.), *Words Matter in Policy and Planning. Discourse Theory and Method in the Social Sciences*. Koninklijk Nederlands Aardrijkskundig Genootschap, pp. 65–74.
- Hall, P.A., 2016. Politics as a process structured in space and time. In: Fioletos, O., Falletti, T.G., Sheingate, A. (Eds.), *The Oxford Handbook of Historical Institutionalism*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199662814.013.2>.
- Hall, P.A., 1993. Policy paradigms, social learning, and the state: the case of economic policymaking in Britain. *Comp. Polit.* 25, 275–296.
- Hasan, S., Evers, J., Zegwaard, A., Zwarteveen, M., 2019. Making waves in the Mekong Delta: recognizing the work and the actors behind the transfer of Dutch delta planning expertise. *J. Environ. Plann. Manag.* 62, 1583–1602. <https://doi.org/10.1080/09640568.2019.1592745>.
- Hawkins, B., Holden, C., Mackinder, S., 2020. Policy transfer in the context of multi-level governance. In: *The Battle for Standardised Cigarette Packaging in Europe*. Springer International Publishing, Cham, pp. 17–44. https://doi.org/10.1007/978-3-030-31034-9_2.
- Hegger, D., Runhaar, H., Van Laerhoven, F., Driessen, P., 2020. Towards explanations for stability and change in modes of environmental governance: A systematic approach with illustrations from the Netherlands. *Earth Syst. Govern.* 3 <https://doi.org/10.1016/j.esg.2020.100048>.
- Hoeksema, R.J., 2007. Three stages in the history of land reclamation in The Netherlands. *Irrigat. Drain.* 56, S113–S126. <https://doi.org/10.1002/ird.340>.
- Howlett, M., 2000. Beyond legalism? Policy ideas, implementation styles and emulation-based convergence in Canadian and U.S. Environmental policy. *J. Publ. Pol.* 20, 305–329.
- Huitema, D., Meijerink, S., 2010. Realizing water transitions: the role of policy entrepreneurs in water policy change. *Ecol. Soc.* 15 (2), 26.
- Jeon, C., 2018. *Comprehensive Manual of Reclamation*. Korea Rural Community Corporation.
- Jeon, H., 2019. Let’s Revive Bunam Lake ...Chungnam Province Learns from Dutch Restoration Experiences. *Kukminilbo*.
- Johnson, B., Hagstrom, B., 2005. The translation perspective as an alternative to the policy diffusion paradigm: the case of the Swedish methadone maintenance treatment. *J. Soc. Pol.* 34, 365–388. <https://doi.org/10.1017/S0047279405008822>.
- Johnson, C., 1987. Political institutions and economic performance: the government-business relationship in Japan, South Korea, and Taiwan. In: Deyo, F.C. (Ed.), *The Political Economy of East Asian Industrialism*. Cornell University Press, Ithaca N.Y., pp. 136–164.
- Jung, Hoesung, Lee, K., Jung, Hoesuk, Kim, T., Chu, J., Jeon, D., 2014. *Korean Environmental Policy. Environment and Civilization*, Seoul.
- Kang, B., 2018. The sea of Saemangeum, ancient Maritime hub of East Asian - focusing on the East Asian naval battle in the 7th century and Byeokgolje. A collection of treatises on Korean studies 50, 39–75.
- Kang, S., 2019. KOICA-Indonesia, MoU for Coastal Development in Jakarta for Flood Risk Reduction. *Yonhapnews*.
- Kangkim, A., 2003. Two Witnesses that Affected the Court Decision. *Hangyereh*. http://www.hani.co.kr/arti/legacy/legacy_general/L50312.html.
- Kearney, J., Berkes, F., Charles, A., Pinkerton, E., Wiber, M., 2007. The role of participatory governance and community-based management in integrated coastal and ocean management in Canada. *Coast. Manag.* 35, 79–104. <https://doi.org/10.1080/10.1080/08920750600970511>.
- Kim, C.-K., Shin, H., Kim, H.-J., 2015. Changing environmental attitudes and Neo-developmentalism in South Korea. *Korean Soc* 16, 37–63.
- Kim, H., 2011. Bed protection and gabion mattress for deep sea seawall construction. *Rural Environ. Eng. J.* 46–59.
- Kim, J., 2018a. Diverse visitor centers of the world natural heritage, Wadden Sea, 7.7.20. <https://ecoin.or.kr/xe/column/16525>.
- Kim, J.S., 2018b. The function of the byeoggolje. *Paekche-Moonhwa*. 58, 113–129.
- Kim, P.S., 2012. Advocacy coalitions and policy change: the case of South Korea’s Saemangeum project. *Adm. Soc.* 44, 85S–103S. <https://doi.org/10.1177/0095399712460078>.
- Kim, S., 2003. Irresolvable cultural conflicts and conservation/development arguments: analysis of Korea’s Saemangeum project. *Pol. Sci.* 36, 125–149.
- Kim, Y., 2020. More Concrete Plan of Cooperation with the Netherlands for the Saemangeum Coastal City Construction. Jeonbuk Ilbo.
- Kingdon, J.W., 1995. *Agendas, Alternatives, and Public Policies*. Longman Classics in Political Science. HarperCollins College Publishers.
- Koh, C.-H., 2014. The Korean tidal flat systems: toward transformation from land reclamation to wetland protection. *Ocean Coast Manag.* 102, 393–397. <https://doi.org/10.1016/j.ocecoaman.2014.10.019>.
- Koh, K., 2001. Another Lake Sihwa? The Final Decision on Saemangeum Is Postponed. *Korea Econ. Dly*.
- Koningsveld, M.van, Mulder, J.P.M., 2004. Sustainable coastal policy developments in The Netherlands. A systematic approach revealed. *J. Coast Res.* 20, 375–385.
- Korea Institute of Marine Science & Technology Promotion, 2008. *A Study on Current Situation and Mid- and Long-Term Plan for Wetland Restoration*. Ministry of Land, Transport, and Maritime Affairs.
- Korea Rural Community Corporation, 1995. *Tideland Reclamation in Korea*. Korea Rural Community Corporation.
- Korea Rural Community Corporation, 2013. *A Study on the Building of Historical Documents for Korea Rural Community Corporation*.
- Korea Rural Community Corporation, 2018. *The history of land reclamation*, 4.4.21. <http://www.alimi.or.kr/dataview/a/reclaim/selectReclaimHis.do>.
- KRIHS, NEDECO, 1985. *Pre Feasibility Study Long Range Masterplan for Seashore Reclamation*. Ministry of Construction, Kwachon.
- Large scale reclamation that changes the map of Korea, 1978. *Farmers Newsp.*
- Lee, B., 2011. Saemangeum becomes the legend and opens the future. *Rural Environ. Eng. J.* 14–25.
- Lee, J., 2010. *A Summit between Korea-Netherlands Agrees Cooperation on the Four Rivers Project and Saemangeum Project*. KBS.
- Lee, W., 2003. Dr. Schultz “No Water Quality Degradation Due to Reclamation in the Netherlands” ... *Env. NGOs “10-times Difference in Water Quantity”*, 1.31.22. <https://www.hankookilbo.com/News/Read/200311010093019208>.
- Lee, Y., 2007. *Saemangeum Technology Enters the World Market*. Seoul Shinmun.
- March, J.G., Olsen, J.P., 1983. The new institutionalism: organizational factors in political life. *Am. Polit. Sci. Rev.* 78, 734–749. <https://doi.org/10.2307/1961840>.
- May, P.J., 1992. *Policy learning and failure*. *J. Publ. Pol.* 12, 331–354.
- Ministry of Agriculture, 2002. *Saemangeum Tideland Reclamation Project*. Ministry of Agriculture.
- Ministry of Environment, 2010. *Three Decades of Environmental Policies in Korea*. Ministry of Environment.
- Ministry of Oceans and Fisheries, 2015. *Wetland restoration for creating future resources*, 2.10.21. <https://www.mof.go.kr/article/view.do?articleKey=9153&searchSelect=title&boardKey=10&menuKey=376¤tPageNo=2>.
- Minkman, E., Van Buuren, A., 2019. Branding in policy translation: how the Dutch Delta approach became an international brand. *Environ. Sci. Pol.* 96, 114–122. <https://doi.org/10.1016/j.envsci.2019.03.005>.
- Moon, S., 2007. A critical analysis on Korea’s tidelands policy. *Environ. Resour. Econ. Rev.* 16, 575–605.
- Mukhtarov, F., 2014. Rethinking the travel of ideas: policy translation in the water sector. *Pol. Polit.* 42, 71–88. <https://doi.org/10.1332/030557312X655459>.

- Mukhtarov, F., Daniell, K.A., 2016. Transfer, diffusion, adaptation, and translation of water policy models. In: Conca, K., Weinthal, E. (Eds.), *The Oxford Handbook of Water Politics and Policy*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199335084.013.30>.
- Nurse-Bray, M.J., Vince, J., Scott, M., Haward, M., O'Toole, K., Smith, T., Harvey, N., Clarke, B., 2014. Science into policy? Discourse, coastal management and knowledge. *Environ. Sci. Pol.* 38, 107–119. <https://doi.org/10.1016/j.envsci.2013.10.010>.
- Oh, S., 1995. *Four from Rural Community Corporation Visit the Netherlands to Learn Reclamation Technology*. Seoul Shinmun.
- Olsen, S.B., 2003. Frameworks and indicators for assessing progress in integrated coastal management initiatives. *Ocean Coast Manag.* 46, 347–361. [https://doi.org/10.1016/S0964-5691\(03\)00012-7](https://doi.org/10.1016/S0964-5691(03)00012-7).
- Ostrom, E., 2009. *Understanding Institutional Diversity*, Book Collections on Project MUSE. Princeton University Press.
- Park, J., 2019. The Governor of Chungnam Province Visits Restoration Sites in the Netherlands and Says "This Will Be Applied for Bunam Lake. Yonhapnews.
- Park, N., Lee, S.M., 2018. The eco-economical evaluation of tidal flat restoration in Suncheon bay. *J. Korean Soc. Mar. Environ. Energy* 21, 47–56.
- Peck, J., Theodore, N., 2010. Mobilizing policy: models, methods, and mutations. *Geoforum* 41, 169–174. <https://doi.org/10.1016/j.geoforum.2010.01.002>.
- Saemangeum Development and Investment Agency, 2020. Land reclamation overseas: the solution for land and water shortages, 9.7.20. <https://blog.naver.com/smgstory/222024129375>.
- Saemangeum Project Office, 2012. Vision and goals, 1.19.21. https://www.isaemangeum.co.kr/eng/scontent01/01_02.php?ckattempt=1.
- Schneider, A., Ingram, H., 1993. Social construction of target populations: implications for politics and policy. *Am. Polit. Sci. Rev.* 87, 334–347. <https://doi.org/10.2307/2939044>.
- Schultz, B., 2020. De Saemangeum kust inpoldering, 7.7.20. <https://www.flevolandsgeheugen.nl/page/8061/de-saemangeum-kust-inpoldering>.
- Schultz, B., Hayde, L., Sang-Hyun, P., Tanaka, K., 2013. Global inventory of closed-off tidal basins and developments after the closure. *Irrigat. Drain.* 62, 107–123. <https://doi.org/10.1002/ird.1760>.
- Shin, J., 2016. EKR opposes to ecological restoration in Chungchungnam-do. Hwangyeong Ilbo.
- Shin, M., 2019. Death, Neglection, and pollution...a Surprising Change of the Abandoned Wetland. Ohmynews.
- Sim, G., 2003. *Email Bombing by International Environmental NGOs to Stop the Saemangeum Project*. Yonhapnews.
- Song, I., 2019. *Looking for the Future of Bunam Lake in the Netherlands*. Hangyoreh.
- Song, A., Cohen, P., Hanich, Q., Morrison, T., Andrew, N., 2019. Multi-scale policy diffusion and translation in Pacific Island coastal fisheries. *Ocean Coast Manag.* 168, 139–149. <https://doi.org/10.1016/j.ocecoaman.2018.11.005>.
- Song, T.-S., Yang, M.-S., Kim, C.S., 2014. The Saemangeum reclamation project and politics of regionalism in South Korea. *Ocean Coast Manag.* 102, 594–603. <https://doi.org/10.1016/j.ocecoaman.2014.08.017>.
- Sorensen, J., 1997. National and international efforts at integrated coastal management: definitions, achievements, and lessons. *Coast. Manag.* 25, 3–41. <https://doi.org/10.1080/08920759709362308>.
- Squires, V.R., Milner, H.M., Daniell, K.A., 2014. *River Basin Management in the Twenty-First Century: Understanding People and Place*. Taylor & Francis.
- Stone, D., 2012. Transfer and translation of policy. *Pol. Stud.* 33, 483–499. <https://doi.org/10.1080/01442872.2012.695933>.
- Stone, D., 2004. Transfer agents and global networks in the 'transnationalization' of policy. *J. Eur. Publ. Pol.* 11, 545–566. <https://doi.org/10.1080/13501760410001694291>.
- Stone, D., 2002. *Policy Paradox. The Art of Political Decision Making*. W. W. Norton, New York.
- Subramanian, S., 2017. How Singapore is creating more land for itself. *N. Y. Times Mag.*
- UNESCO World Heritage Centre, 2021. Getbol, Korean tidal flats, 9.20.21. <https://whc.unesco.org/en/list/1591/>.
- Weible, C.M., 2018. Introducing the scope and focus of policy process research and theory. In: Weible, C.M., Sabatier, P.A. (Eds.), *Theories of the Policy Process*. Routledge, New York.
- Wescoat, J.L., 2006. Water policy and cultural exchange: transferring lessons from around the world to the western United States. In: Kenney, D. (Ed.), *In Search of Sustainable Water Management*. Edward Elgar Publishing. <https://doi.org/10.4337/9781845424640.00007>.
- Yang, D., 2020. Restoration of reclaimed lake is now being discussed. Haenam Shinmun.
- Yanow, D., 2004. Translating local knowledge at organizational peripheries. *Br. J. Manag.* 15, 9–25. <https://doi.org/10.1111/j.1467-8551.2004.t01-1-00403.x>.
- Yi, Y.-S., 2019. Government role in developmental state at industrialization period: focused on the rural development policy of South Korea in 1970. *Korean J. Politic. Sci.* 27, 43–66.