**Preprint**

# 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.

**Keywords:** coastal management; policy translation; land reclamation, wetland restoration; the Netherlands; Korea

## 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 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, 2012; Kim, 2003), 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 20$^{th}$ 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. 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). 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 limited to specific contexts. 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 March (2000) discern in their framework help examine how policy ideas travel. Therefore, we apply the key components of the policy transfer framework suggested by Dolowitz and March (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.

To further specify the policy translation concept, 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 combined approach will allow for 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.

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

| Main components | Sub-components | References |
|---|---|---|
| **Objects of translation** | Policy goals<br>Policy instruments<br>Policy programs<br>Administrative arrangements<br>Ideologies and justifications<br>Ideas and attitudes<br>Outcomes (incl. negative lessons) | Bennett 1991; Dolowitz and Marsh 1996; Dolowitz and Marsh 2000; Evans 2004; Stone 2012; Mukhtarov and Daniell 2016 |
| **Agents involved** | Elected officials<br>Civil servants<br>Pressure groups<br>Policy entrepreneurs and experts<br>Transnational corporations | Dolowitz and Marsh (2000), Mukhtarov (2014), Hasan et al. (2019), Huitema and Meijerink (2009) |

| | | |
|---|---|---|
| | Think tanks<br>Supra-national governmental institutions<br>NGOs<br>Consultants | |
| **Motivation for policy translation** | Voluntary<br>Mixtures<br>Coercive | Dolowitz and Marsh (2000) |
| **Meaning modification** | Frames<br>Storylines<br>Rhetoric and metaphors | Hajer (2006), Mukhtarov (2014) |
| E**ndogenous factors** | Political institutions | March and Olsen (1983), Hall (2016) |
| | Critical (focusing) events | Birkland (1998); Kingdon (1995) |

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; 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.

For policy translation to occur, actors have to make decisions, and different actors may do this. 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, 2009; 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 the context of policy translation. 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; March and Olsen, 1983). 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. Figure 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 1960-2015 (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

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.


**Figure 1 Major land reclamation and wetland restoration project sites in Korea**

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

**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)<br>Saemangeum Tideland Reclamation Project (Ministry of Agriculture, 2002)<br>Tideland Reclamation in Korea (Korea Rural Community Corporation, 1995)<br>Wetland restoration for creating future resources (Ministry of Oceans and |

| | |
|---|---|
| | Fisheries, 2015)<br>Three Decades of Environmental Policies in Korea (Ministry of Environment, 2010)<br>Saemangeum project Office website (isaemangeum.co.kr)<br>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*<br>T. van Praag, former director of NEDECO (2003-2007)*<br>J. W. Tellegen, former director of NEDECO (2007-2020)*<br>H. Marencic, deputy executive secretary of Common Wadden Sea Secretariat*<br>H. Myung, Deputy director of Eco Horizon Institute*<br>Government officer at the Korea Rural Community Corporation (Anonymous)<br>Government officer at the Korea Marine Environment Management Corporation (KOEM) (Anonymous)<br>Officer at the Dutch embassy in Korea (Anonymous)<br>*Note: Interviewees who agreed to be non-anonymous |

First, seven policy documents and government publications published by Korean governmental agencies were collected through web searching. Second, 13 news reports and articles were collected and analyzed. Relevant policy documents and news articles were searched 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 when the interviewees agreed. Anonymous interviews were not recorded, but notes were taken during the talks. 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, not all elements contained in the framework were observable or relevant in the Korean cases.

**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 | |
| | 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 |

In section 4.1, we address the role of policy translation in the Korean land reclamation policy. In section 4.2, we discuss the role of policy translation in wetland restoration.

### *4.1 The role of policy translation in Korea's land reclamation*

While some authors consider Byeokgolje built in the 4th century as a seawall (Kang, 2018; Kim, 2018b), historical documents show that land reclamation projects were undertaken in Korea as early as the 13th century (Korea Rural Community Corporation, 2018). The scale of reclamation projects before the 20th century was, however, relatively small compared to modern times and the exact scale of those projects is unclear. 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 modern reclamation projects started in the 1960s (Table 4) after the United Nations (UN) Special Fund for Land Reclamation was created and an agreement with the Food and Agriculture Organization of the United Nations (FAO) was concluded. Since then, the Korean government has realized mega projects which have converted large coastal areas. According to the Korean Ministry of Agriculture (2002), Korea's west coast has ideal geographical conditions for tideland 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. The primary reason 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 and the Ministry of Land, Infrastructure, and Transport (MOLIT) have been the two key actors leading the reclamation projects. The realization of mega-scale reclamation in foreign countries such as the Netherlands due to technological advancements provided a strong motivation to the Korean government for pursuing such a project ("Large-scale reclamation that changes the map of Korea," 1978).

**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<br>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 Gyehwa Island completed |
| **1970-80s** | 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 |

**Objects of translation:** In this case, land reclamation policy instruments and programs were translated. Particularly, feasibility studies have been conducted by Dutch engineers or through collaboration between Dutch and Korean engineers. In 1962, the FAO initiated the first research on the possibilities for land reclamation by contracting NEDECO (Netherlands Engineering Consultants Group) (Ministry of Agriculture, 2002). NEDECO was 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 189,000ha could be reclaimed along the coast (Ministry of Agriculture, 2002). 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 and 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.

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 construction of the seawall started in 1991 and was completed in 2010. The Korean government will use the reclaimed land to build a “global and green” city that includes industries and research centres (Saemangeum Project Office, 2012).

The Saemangeum project faced massive protests from the Korean Federation of Environmental Movements and other environmental NGOs, particularly after the pollution from the Sihwa Reclamation Project raised environmental awareness. As a result, the construction 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 environmental impacts can be reduced over the development process (Lee, 2011). NGOs that brought the issue to court to stop the project lost their case. In 2006 the final embankment was completed about one month after the court's decision (Song et al., 2014).

Cooperation with foreign engineers continued during the planning and implementation processes of the Saemangeum project. NEDECO has conducted the feasibility assessment of the project master plan and cooperated for seawall design development (Kim, 2011). The project's hydraulic model was co-developed by the Korea Rural Community Corporation and the WL Delft Hydraulics (current Deltares) (Eo, 2011). This model aimed to assess the impact of dredging on the seawall. Eo (2011) states that the collaborative research made it possible to project 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:** In general, bureaucrats on the Korean side represented by the Ministry of Agriculture and the MOLIT and consulting firms from the Netherlands represented by NEDECO led the translation of the reclamation policy. Korean government officers and engineers have tried to apply Netherlands' methods and advanced technologies through collaboration with Dutch engineers for feasibility studies and project designs (Korea Rural Community Corporation, 2018; KRIHS and 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 land reclamation. 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 was present for the court hearings during the lawsuit filed by environmental NGOs against the Saemangeum project's completion to support the project's continuation (Schultz, 2020). He also recalled that he guided Korean delegations to the Netherlands, explaining Dutch reclamation projects which were misunderstood in Korea. For example, he 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, high-level politicians from the Netherlands supported the Saemangeum project, and their speeches were publicized in Korea to justify it. Former Korean P resident Lee Myung-bak and former Prime Minister of the Netherlands Jan Peter Balkenende agreed on cooperation for the Saemangeum project (Lee, 2010). In 2020, Joanne Doornewaard, ambassador of the Netherlands to Korea, visited the Investment Center for Saemangeum and agreed on cooperation for building a green city (Kim, 2020). While high-level talks or visits of high-level officers do not always involve concrete action plans for policy translation activities, they have been regarded as an endorsement on land reclamation projects and consequently strengthened Korea's pro-reclamation policy.

**Motivation for policy translation:** 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). As the Korean government and engineers have gained more experience in land reclamation over time since the 1960s, the policy translation process has become more selective for specific techniques as shown in the case of the Saemangeum project (Eo, 2011). Such active translation activities demonstrate that the policy translation for land reclamation took place voluntarily. 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. The strong motivation of the Korean actors cannot be explained without examining some endogenous factors.

**Endogenous factors:** During the translation process, a certain degree of meaning modification occurred. The main reason for land reclamation in the Netherlands had been better flood protection for its lowlands (Butler, 1972). The Lake Haarlem project was pushed after major floods occurred in Amsterdam and Leiden in 1836 (Hoeksema, 2007). However, the 20$^{th}$-century Zuiderzee reclamation works not only aimed at better flood protection but also created more land for agriculture 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 argued that this reclaimed polder could create new agricultural lands and urban areas, but this 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, land reclamation policy has been mainly framed using arguments aligned with national economic development and modernization (Choi, 2014; Kim et al., 2015; Moon, 2007; Song et al., 2014), but they were also framed in terms of food security and addressing population growth. Tidelands on the west coast have natural conditions for reclamation, such as shallow depth of water, thin waves, and a ria-type coastline (Korea Rural Community Corporation, 1995). 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).

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, what differentiates the developmental state from authoritarian regimes is that bureaucrats in developmental states are not isolated from society. While elites in the central government had led national initiatives such as land reclamation, 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 policies during the military regime 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 in the context of openness of the Korean developmental state institutions.

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

Since the early 1990s, the environmental movement has grown substantially in Korea. As a result, the Fourth Youngsan River Reclamation Plan was cancelled in 1998 to be followed by the Janghang Wetland Reclamation Plan in 2007. While the Saemangeum project was resumed and completed, wetland conservation and restoration of previously reclaimed lands started to draw attention. Table 5 shows the timeline of major events related to wetland restoration projects in Korea.

**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** | Getbol, Korea tidal flats in Seocheon, Gochang, Shinan, Boseong-Suncheon areas were officially inscribed as UNESCO World Heritage |

The primary reason for the policy change to wetland restoration is 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 is another motivation for the policy change. In 2015, the Ministry of Oceans and Fisheries announced a wetland restoration plan for making wetlands a new engine for economic growth, stating that the economic value of wetlands in Korea is estimated as high as 16 trillion KRW (14.4 billion USD) (Ministry of Oceans and Fisheries, 2015).

As of February 2021, there have been two main restoration projects implemented on previously reclaimed lands. In Gochang, Jeonbuk, a seawall was constructed for fish farming, which had to be closed following a nuclear power plant construction. The neglected farm sites became a source of pollution. This pollution was addressed in a pilot project initiated by the Ministry of

Land, Transport, and Maritime Affairs. In 2009 the Gochang municipal government constructed a sluice gate to restore seawater circulation. Several ecological friendly flood protection facilities were constructed, too (Shin, 2019). Another restoration project has been undertaken in Suncheon, Jeonnam since 2016. 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, Korean tidal flats (Getbol) in Seocheon, Gochang, Shinan, Boseong-Suncheon areas were officially inscribed as UNESCO World Heritage. UNESCO describes that "the site demonstrates the link between geodiversity and biodiversity, and demonstrates the dependence of cultural diversity and human activity on the natural environment" (UNESCO World Heritage Centre, 2021).

**Objects of translation:** the Korean wetland restoration projects have benefitted from the lessons learned in similar projects in the Netherlands and elsewhere. One of the significant policy translation activities regarding restoration is the cooperation between the Common Wadden Sea Secretariat and the Korean Ministry of Oceans and Fisheries. The Wadden Sea secretariat was established by the Netherlands, Germany, and Denmark to protect the wetlands of the tidal flat area of the Wadden Sea. Since a Memorandum of Understanding was signed by the secretariat and the ministry in 2008, activities have been organized around 1) policy and management for the integrated ecosystem approach, 2) information and education, and 3) monitoring and research of migratory birds and benthos (Common Wadden Sea Secretariat et al., 2016). For example, a senior researcher at the Korea Marine Environment Management Corporation (KOEM) appreciated the international cooperation during the 14th International Scientific Wadden Sea Symposium by saying that "in planning of our national monitoring program that we showcased at the symposium we took into account many aspects of the TMAP, the Trilateral Monitoring and Assessment Programme (of the Wadden Sea states)" (Common Wadden Sea Secretariat, 2017). Furthermore, the experience of the Wadden Sea on the nomination process as a World Heritage Site inspired the Korean government and policy actors to nominate the Korean tidal flats as a World Heritage Site.

In addition, the visitor centres established in Korean marine protected areas adopted services and programs from the International Wadden Sea School (H. Myung, personal communication). Korean environmental educationalists and visitor centre managers visited visitor centres in the Wadden Sea area to learn operating programs, environmental education programs, and citizen

monitoring systems.

Eco Horizon Institute, a Korean environmental NGO, has organized study visits to the Wadden Sea for more than ten years (H. Myung, personal communication). Main participants of the visits are NGO activists, government officers from national to local governments, and scholars. Myung from the Eco Horizon Institute said during an interview that they were first interested in learning advanced policy and programs for wetland conservation in the Wadden Sea area. The exchange activities have gradually evolved into more cooperation between Korea and the Wadden Sea states as the Korean wetland conservation policy has been formulated and implemented. In personal communication, Dr. Harald Marencic from the Common Wadden Sea Secretariat also emphasized that the international exchange activities helped scientists, managers, and local authorities get ideas about the possibilities and opportunities.

Korean environmental NGOs have actively cooperated with international organizations to strengthen their policy discourse against land reclamation. Friends of the Earth International, Sierra Club, and Japan Wetlands Action Network supported these Korean NGOs' campaign against the Saemangeum project (Sim, 2003). In 2001 when Prof. Bart Schultz was present for the court hearings during the lawsuit on the Saemangeum project, Dr. Adolf Kellermann, a scientist at the National Park Office of Schleswig-Holstein Wadden Sea, was also present at the court hearings as a witness from environmental NGOs' side (H. Myung, personal communication).

**Agents involved:** Unlike land reclamation projects which have mainly been driven by the national government, wetland restoration projects have been actively promoted by several sub-national governments. The leading proponents of wetland restoration in Korea are the Ministry of Oceans and Fisheries, environmental NGOs, and some local governments such as Chungnam Province. They have also acted as the agent of policy translation.

For example, 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 about the restoration of the lake "Veerse Meer" (Jeon, 2019; Park, 2019; Song, 2019). The former governor of the same province, Ahn Heejung, also visited the Netherlands in 2012 for the same purpose (Chungnam Province, 2012). The Chungnam Province also hosted the International Conference on Restoration of Coastal and Estuary

Ecosystem, where Governor Yang proposed an alliance among provincial governments for ecological restoration (East Asian-Australasian Flyway Partnership, 2020; Yang, 2020). Apart from the Chungnam Province, several municipal governments in coastal areas expressed their interest in restoring wetlands (Korea Institute of Marine Science & Technology Promotion, 2008).

**Motivation for policy translation:** Like in the case of land reclamation, the translation activities related to wetland restoration have been voluntary. Environmental NGOs that focused on stopping the Saemangeum project looked for evidence to support their protest. The policy change of coastal management in Europe served as a valuable reference for the environmental movement, which was at its early stage. Government officers from the national and sub-national governments also 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 wetland policy translation processes. Notably, meaning modification became more dynamic with the diversification of actors. Governmental actors have used the frame of financial benefits such as increased fish catch and tourism more often, with the support of the storyline that reduced income from fisheries is due to water pollution in reclaimed areas (Chungnam Province, 2019; Ministry of Oceans and Fisheries, 2015). Meanwhile, environmental NGOs and ecologists have promoted wetland restoration with the frame of environmentalism, defending the storyline that Korean tidal flat systems are a unique landscape and should be protected as natural heritage (Kim, 2018a).

**Endogenous factors:** Provincial and local governments did not have the authority to pursue large-scale infrastructure or development projects during the military regime. 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). The change in political institutions allowed local governments to exercise more authority, and coastal management policy could be diversified, which provided better opportunities for developing wetland management policies For example, while the governors of Chungnam Province have promoted wetland restoration, the province of Jeonbuk, where the Saemangeum reclaimed land is located, has maintained its pro-reclamation policy. A conflict

between Chungnam Province and the Korea Rural Community Corporation over restoring Boryeong Lake also shows that top-down hierarchy from national to local government has been loosened to some degree (Shin, 2016). The growing capacity of sub-national governments led to more active cooperation with foreign actors at different government levels.

In addition, critical events opened a window of opportunity to wetland restoration. A series of pollution accidents in the 1990s has 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). Water pollution in Lake Sihwa created through 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. The series of accidents and the institutional changes provided momentum for policy transition towards wetland conservation and restoration.

## 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.

### 5.2 *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 the analyst makes an analytical distinction between the 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'.

## 6. 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.

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