An analysis of policy transfer

A Cross-Case Comparison of the 'Water As Leverage' Programme in Semarang, Indonesia and the Wadden Sea Region

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Preface

Before you lies the Master’s thesis ‘An analysis of policy transfer: A Cross-Case Comparison of the ‘Water As Leverage' Programme in Semarang, Indonesia and the Wadden Sea Region’. The Master of Spatial Planning: Cities, Water, and Climate Change programme at Radboud University in Nijmegen concluded with the writing of this thesis. I worked on this Master's thesis from mid-October 2024 to mid-November 2025. I would like to thank my supervisor, Dr. Corinne Vitale, for her invaluable guidance and support throughout this challenging process, particularly in the difficulties of finding interviewees. Your insights have significantly contributed to the development of my thesis, and I greatly appreciate your supervision. I also want to thank all the interviewees for their contributions to this study, as your perspectives have been essential to my research.

I hope that when you read this thesis, you find the topic as engaging as I did throughout my research journey.

Astrid Zwanikken MSc Spatial Planning

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Abstract

This master’s thesis, titled "An Analysis of Policy Transfer: A Cross-Case Comparison of the 'Water As Leverage' Programme in Indonesia and the Wadden Sea Region," aims to uncover how knowledge transfer and policy adaptation occur in water governance. The thesis highlights the urgency of effective water management amidst climate change, urbanisation, and other challenges, which requires international collaboration for sharing best practices and innovative solutions, with a focus on policy transfer as a mechanism for enhancing decision-making and addressing water-related issues. The theoretical framework encompasses concepts such as water challenges, policy learning, and power dynamics, while the methodology outlines a case study approach to analyse the practical applications of policy transfer. The research seeks to address both the opportunities and limitations of policy transfer in enhancing water governance, ultimately resulting in more effective and inclusive water management strategies. Interview insights show the critical role of funding, networking, and effective communication in overcoming these challenges, showing the necessity of collaboration and community engagement for successful programme development.

Keywords: Policy Transfer, Water Governance, Power Dynamics, Cross-Case Comparison, ‘Water as Leverage’ Programme

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1. Introduction of this research

Due to the impacts of climate change, the urgency for effective water management has intensified (Netherlands Enterprise Agency (RVO), 2018). Cities are particularly vulnerable to water-related challenges, including flooding, droughts, water scarcity, pollution, and infrastructure deficits (Romano & Akhmouch, 2019). Rapid urbanisation and population growth exacerbate these issues, as existing water systems struggle to meet growing demand while adapting to climate change impacts (Romano & Akhmouch, 2019).

Addressing climate change is a global issue that requires international collaboration with various stakeholders, creating global networks to share climate mitigation strategies and adaptation initiatives (Yulia & Arlianda, 2020). Collaborating internationally is important for exchanging best practices and innovative solutions in climate mitigation and adaptation (Yulia & Arlianda, 2020). Pooling resources and expertise from various stakeholders can result in more efficient and effective strategies for climate resilience (Yulia & Arlianda, 2020).

This sharing process is referred to as policy transfer, where learning from successes and failures of other regions can help adapt and implement effective policies locally (Yulia & Arlianda, 2020). Policy transfer can play a big role in creating effect water governance, as it should focus on achieving policy goals while minimising costs to society, ensuring efficiency, and to engage stakeholders throughout the process to create inclusiveness, trust, and engagement (Yulia & Arlianda, 2020). Romano and Akhmouch (2019) further elaborate on the importance of balancing effectiveness, efficiency, and stakeholder involvement in water management.

Policy transfer is defined as the process by which knowledge regarding policies, administrative structures, institutions, and ideas in one political context, whether historical or contemporary, is utilised to formulate policies and institutional frameworks in another context (Dolowitz & Marsh, 1996). This exchange of information can enhance the decision-making process, leading to more informed and effective outcomes (Dolowitz & Marsh, 2000). By learning through stories of the successes and failures of policies implemented in different regions, policymakers have the opportunity to innovate and refine their strategies, thus creating dynamic iterative learning (Dolowitz & Marsh, 2000). This might promote better outcomes and creates more efficient solutions to complex issues, particularly as the rise of globalisation and advancements in communication technology enable the rapid and widespread sharing of innovative ideas among policymakers (Dolowitz & Marsh, 2000). Consequently, as countries deal with similar global economic challenges, policy transfer becomes an important mechanism for adopting successful strategies proven effective elsewhere which leads to more coordinated and effective responses to shared challenges, reinforcing the interconnectedness of global economies (Dolowitz & Marsh, 2000).

Nevertheless, while the practice of policy transfer concerning water governance offers opportunities, it also presents limitations that must be addressed. In practice, policy transfer often falls short in providing concrete guidance due to unspecific, actionable steps for policymakers regarding the effective implementation of transferred policies (Evans, 2009). Furthermore, it often fails to adequately explain the complexities inherent in policy processes and the contextual factors that shape them. This can lead to overly simplistic explanations that do not fully capture the complex nature of policy development and implementation, as policy transfer does not sufficiently clarifies the reasons behind the adoption of certain policies or how they are modified in varying contexts (Evans, 2009). Effective policy transfer necessitates not merely the replication of policies but requires a process of learning and adaptation. The reason for this is that some policy transfer initiatives are not tailored and lack a contextual approach to policymaking; therefore, policy transfer needs to be specifically targeted to local contexts (Evans, 2009). In this regard, according to Stone (2004) does a successful transfers entail the understanding and integration of new knowledge rather than the unmodified adoption of existing policies.

In addition, critics argue that there is a persisting notion that policy transfers predominantly occur from developed to developing countries, with the assumption that the actors involved possess roughly equivalent capacities and resources (de Oliveira, Pal, & Stone, 2020). However, in practice, many policies are imposed from the Global North to the Global South without sufficient consideration of local contexts, resulting in an imbalance of power (de Oliveira, Pal, & Stone, 2020). According to de Oliveira, Pal, & Stone (2020) policy transfer often happens between certain countries and their former colonies and within groups that share a common language, with some overlap between these two to a certain extent. This phenomenon underscores how unequal power dynamics can undermine the effectiveness and suitability of transferred policies, as the assumption that non-governmental actors are always well-resourced and capable is problematic, as this is not universally applicable in developing contexts (de Oliveira, Pal, & Stone, 2020).

Considering the varying opportunities and limitations inherent of transferring policies from one country to another, it is necessary to undertake an in-depth analysis of policy transfer concerning water governance. Therefore, a case study of a policy transfer has been selected for analysis. The 'Water as Leverage' programme known as WaL is an innovative initiative aimed at addressing urban climate resilience through integrated water management and spatial planning (Netherlands Enterprise Agency (RVO), 2018). Using a collaborative and design-driven approach to create collaboration among local stakeholders, international experts, and financial institutions to develop actionable and sustainable solutions for challenges such as flooding and water scarcity by combining technical expertise with local knowledge (Kempenaar et al., 2022). The initiative operates globally in countries that are vulnerable to climate change and water-related risks.

To explore the opportunities and limitations of the Wal programme policy transfers, two case studies were selected for cross-case comparison, as this method helps to understand how different contexts shape spatial planning practices, allowing policymakers to derive valuable insights and adaptable strategies that can enhance effectiveness in diverse settings (Van Assche, Beunen, & Verweij, 2020). This comparison of the case studies aims to identify best practices and draw implications for planning outcomes for diverse approaches to addressing water-related challenges within various institutional, geographical, and climatic contexts.

1.1 Problem Statement

Climate change intensifies water-related challenges in cities, including flooding, droughts, and infrastructure strain. While international collaboration and policy transfer offer opportunities to enhance water governance, however limitations remain. Policy transfers often lack contextual adaptation, fail to capture complex local dynamics, and can reinforce power imbalances between developed and developing nations. Additionally, transferred policies frequently provide insufficient practical guidance for local implementation. These shortcomings hinder the effectiveness of water governance initiatives. There is an urgent need to understand how policy transfer can be made more context-sensitive to support sustainable water management in diverse urban settings.

1.2 Research Aim and Research Question

This research aims to gain a deeper understanding of the opportunities and limitations associated with policy transfer, in the context of the 'Water as Leverage' (WaL) programme.

This will be analysed through the conceptual model of policy transfer developed by Minkman, van Buuren, & Bekkers (2018) with the edition of power dynamics through the Powercube framework developed by Gaventa (2006). The conceptual framework explains policy transfer's complexities by identifying factors that can either facilitate or hinder these processes (Minkman, van Buuren, & Bekkers, 2018). It enhances the understanding of the dynamics involved, enabling practitioners to anticipate potential challenges and leverage supportive elements (Minkman, van Buuren, & Bekkers, 2018). As a practical tool, it could be used to design of policy transfer strategies for both policymakers and researchers.

The first building block focuses on *environmental factors*, which influence all phases of the policy transfer process (Minkman, van Buuren, & Bekkers, 2018). The second building block of the framework focuses on the *transferability* of the policy, which is in the exploration phase of the transfer process where the feasibility and desirability of adopting a policy are assessed (Minkman, van Buuren, & Bekkers, 2018). The third building block focuses on the interactions among transfer actors, shaped by *process design* (Minkman, van Buuren, & Bekkers, 2018). The fourth building block focuses on the *adoptability* of the transferred policy (Minkman, van Buuren, & Bekkers, 2018). The fifth building block focuses on the outcome regarding *adoption or non-adoption* of policies (Minkman, van Buuren, & Bekkers, 2018). (Minkman, van Buuren, & Bekkers, 2018).

This study will investigate how *Environmental factors*, *Transferability*, *Process Design*, *Adoptability* and the *adoption (or non-adoption)* shape policy transfer in different contexts.

Followed by a cross-case comparing the policy transfer processes from the Netherlands to Semarang, Indonesia, and the Wadden Sea Region of Europe, as these have different power dynamics and different contexts, which will be further explained in section 3.6.1.

Out of this research aim came the following main question:

What are the opportunities and limitations of transferring the Dutch 'Water As Leverage' programme to Indonesia and to the Wadden Sea Region?

The main research question can be broken down into several sub-questions, as shown below.

1. What is policy transfer?
2. What is the WaL programme and to what extent can the WaL programme help to address water-related challenges?
3. To what extent and how did *Environmental factors* create an opportunity and limitation in the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?
4. To what extent and how did *Transferability* impact the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?
5. What role did *Process Design* play in facilitating or hindering the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?
6. To what extent and how did *Adoptability* differ in the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?
7. To what extent was the WaL programme *adopted (or non-adopted)* in Indonesia and the Wadden Sea Region?

1.3 Societal Relevance

Addressing water-related challenges is critical, as they significantly affect communities worldwide. Current climate-induced challenges, such as floods, droughts, pollution, starvation, diseases, and conflicts, are fundamentally related to water (World Water Atlas, 2024). Roughly half of the world's population faces severe water scarcity for at least part of the year (IPCC, 2023). Changes in precipitation patterns and increased droughts, driven by climate change, are impacting water availability and thereby affecting agriculture, drinking water supplies, and sanitation infrastructure (IPCC, 2023). As climate change is projected to intensify these challenges, it is expected an increase in the frequency and severity of extreme weather events, while population growth will further exacerbate water stress for an even greater number of people (IPCC, 2023).

The Wadden Sea Region, encompassing Denmark, Germany, and the Netherlands, is increasingly confronting climate-induced hydrological challenges. The phenomena of rising sea levels, alterations in sediment dynamics, and temperature fluctuations are impacting both the ecosystem and the local communities (Common Wadden Sea Secretariat, 2024). For instance, the accelerated rise in sea levels poses a threat to intertidal flats, diminishing their exposure durations and endangering habitats crucial for migratory avifauna and marine organisms (Common Wadden Sea Secretariat, 2024). The warming climate has instigated shifts in species distributions, evidenced by the migration of benthic organisms to deeper waters, subsequently destabilising the ecological equilibrium (Common Wadden Sea Secretariat, 2024). These ecological alterations inevitably have cascading effects on coastal communities, as economic activities, such as tourism and fishing, are intrinsically linked to the health of the Wadden Sea Region ecosystem (Common Wadden Sea Secretariat, 2024).

Indonesia is facing rising climate-induced hydrological challenges that threaten its sustainability and residents' well-being (World Water Atlas, 2024). Semarang is facing severe flooding, largely attributed to rising sea levels and increased rainfall intensity, with coastal areas being particularly vulnerable (World Water Atlas, 2024). Additionally, land subsidence is a pressing concern, as Semarang sinks by up to 8 centimetres annually, primarily due to excessive groundwater extraction, which exacerbates the risks associated with flooding (World Water Atlas, 2024). These interconnected challenges show the urgent need for water management in Semarang.

Both the Wadden Sea Region and Semarang exemplify the need for addressing climate-induced hydrological challenges. In the Wadden Sea Region, cooperation among Denmark, Germany, and the Netherlands plays an important role in addressing biodiversity loss and supporting the communities reliant on this ecosystem (Common Wadden Sea Secretariat, 2024). In Semarang, aligning urban planning with sustainable water management practices is important for managing land subsidence and improving flood resilience (World Water Atlas, 2024).

1.4 Scientific Relevance

The literature on policy transfer primarily examines the mechanisms through which knowledge and policies are shared across different political contexts, with a focus on water-related challenges. Dolowitz & Marsh (1996) laid the groundwork. Policy transfer, as defined in the introduction, is the process of utilising knowledge from one political context (whether historical or contemporary) to inform policies and institutional frameworks in another context (Dolowitz & Marsh, 1996). Recent studies have expanded on these foundational insights, contrasting earlier approaches with more nuanced explorations of the complexities involved, particularly in addressing the limitations of traditional approaches (Evans, 2009; Stone, 2004).

As globalisation and technology advance, the rapid sharing of innovative ideas among policymakers becomes feasible, enabling countries to adopt successful strategies from elsewhere. This collaborative learning can lead to coordinated responses to shared global challenges and reinforce interconnected economies (Dolowitz & Marsh, 2000). However, while the Dutch Delta Approach has been internationally promoted as a model for water management, studies by Hasan, Evers, and Zwarteveen (2022) reveal that the transfer process often overlooks local institutional and environmental contexts, leading to ineffective implementation.

The perspective by Dolowitz & Marsh (1996) has been challenged by scholars like de Oliveira, Pal, and Stone (2020), who argue that such a portrayal overlooks power imbalances that often characterise these exchanges, with policies sometimes imposed without consideration of local contexts, undermining their effectiveness (de Oliveira, Pal, & Stone, 2020). Similarly this viewpoint is shared in (Hasan, Evers, & Zwarteveen, 2022), as this study challenges the conventional portrayal of policy transfer as a unidirectional process, arguing that such narratives misrepresent the dynamics by suggesting that the success of transferring policies, like the Dutch Delta Approach, is solely due to the intrinsic qualities of the policy itself. Instead, they show the importance of various actors, including the so-called 'receiving' countries, in adapting and implementing these policies.

According to Hasan, Evers, and Zwarteveen (2022) involves effective policy transfer active collaboration, negotiation, and mutual learning among all parties, rather than a simple top-down dissemination from developed to developing nations. This perspective calls for a re-evaluation of policy transfer and the inherent power dynamics involved in these processes. This research seeks to explore the transfer of policy between developed nations, in contrast to prior studies that primarily focus on the transfer of policy from developed nations to developing ones. Existing literature rarely clarifies why certain policies are adopted or how they are adapted to fit diverse contexts, showing the need for a nuanced understanding of policy transfer as a learning and adaptation process (Stone, 2004).

The foundational framework established by Dolowitz and Marsh (2000), which raises essential questions about the actors, processes, and outcomes of policy transfer, this study seeks to refine and enhance their model by addressing some of its limitations. While Dolowitz and Marsh's framework has advanced the understanding of policy transfer, it has faced critiques, notably from James and Lodge (2003); Dunlop (2009). They contend that the framework may oversimplify the complexities inherent in policy transfer processes, potentially neglecting the nuanced and multi-directional interactions that characterise these dynamics (Dunlop, 2009).

By acknowledging these critiques, this study aims to present a more comprehensive perspective on policy transfer that captures its inherent complexities, which is why this research uses Minkman, van Buuren, & Bekkers (2018), as it explains the complexities of policy transfer by identifying factors that can either facilitate or hinder these processes, thereby enhancing the understanding of the dynamics involved.

Previous studies of the Wal, such as the one from Kempenaar, Laeni, van den Brink, et. al (2022) used a qualitative single case study of the WaL programme in Semarang, combining document analysis and semi-structured interviews to examine how a design-led planning approach was implemented and its effects on urban climate resilience. In contrast to this earlier work, this study adopts a cross-case analysis in conjunction with semi-structured interviews. This method builds on previous studies on the WaL Asia pilot cities while also providing a new comparative perspective that has been underexplored, such as for the Wadden Sea Region. By integrating these methodologies, this study seeks to reveal deeper insights into the complexities of policy transfer, while aligning with and enhancing the methods used in previous research, such as those by Minkman, van Buuren, and Bekkers (2018).

Finally does this study contribute to existing literature by conducting a cross-case comparison that includes one of the three Asian cities but also the Wadden Sea Region. Currently, there are no academic articles about Water As Leverage Wadden Sea Region, making this research particularly significant in filling that gap.

1.5 Outline of this Master's Thesis

Over the course of this research thesis will the research question be answered. Chapter 1 is an introduction to this research topic. Chapters 2 and 3 show how this research is built up. Chapter 4 is the results of this research. Chapter 5 is the discussion of the results. Chapter 6 is about the conclusions. Chapter 7 is about reflections and recommendations on this research.

2. Theoretical Framework

This chapter discusses the complexities of policy transfer, as understanding these complexities is important as they reveal underlying power dynamics that influence the opportunities and limitations of policy transfers. The chapter begins with an overview of relevant literature and the conceptualisation of various concepts. Concluding this chapter, the conceptual framework based on the earlier presented frameworks, is presented and operationalised.

2.1 Climate change-induced water challenges

2.1.1 Climate change, adaptation, mitigation

Climate change refers to the long-term alterations in the Earth's climate system, including shifts in temperature, precipitation, and wind patterns (Abbass, Qasim, & Song, 2022). It is largely driven by human activities such as burning fossil fuels, deforestation, and industrial processes, which increase the levels of greenhouse gases in the atmosphere (Abbass, Qasim, & Song, 2022).

Climate change exacerbates water challenges; therefore, adaptation is required to reduce vulnerability and increase resilience to the adverse effects of climate change (Abbass, Qasim, & Song, 2022). Mitigation focuses on reducing greenhouse gas emissions to slow climate change, while adaptation involves adjusting to the impacts of climate change (Abbass, Qasim, & Song, 2022).

Water governance encompasses the systems and processes, such as political, social, economic, and administrative, that impact how water resources are used and managed (European Water Regulators, 2023). It involves collaboration among various stakeholders, including governments, private sectors, and communities, to promote sustainable and equitable management of water resources (European Water Regulators, 2023).

2.1.2 Consequences of climate change

One of the significant consequences of human activities is an expected rise in the frequency and intensity of natural hazards, particularly floods (Abbass, Qasim, & Song, 2022). Floods occur when water overflows onto land that is typically dry, often resulting from heavy rainfall, storm surges, or failures of dams (Abbass, Qasim, & Song, 2022). The effects of climate change on flooding will vary geographically; some regions are likely to experience more severe flooding incidents than others (Abbass, Qasim, & Song, 2022).

Floods, categorised as natural disasters, occur when water inundates land that is typically dry, that can result from several factors such as surges, melting snow, or failures of dams, but an increase in rainfall intensity in Semarang, coupled with extended dry spells heightens the risk of flooding in inland regions while also causing salinisation of agricultural land which in long term, could lead to the submersion of the intertidal nature area (European Water Regulators, 2023; World Water Atlas, 2023). Additionally, rising temperatures will have a significant impact on ecosystems, as the complex balance of food chains will be disrupted (World Water Atlas, 2023).

The types of floods include (European Water Regulators, 2023): Fluvial floods, which occur when rivers, lakes, or streams overflow their banks and inundate the surrounding areas; Pluvial floods, which are caused by intense rainfall, these floods arise independently of overflowing water bodies and are particularly common in urban settings where drainage systems may be inadequate; Coastal floods, which are driven by storm surges and high tides, and their severity can be increased by the impacts of rising sea levels. The impact of flooding can be big, leading to substantial economic losses, social disruption and can damage infrastructure, disrupt agriculture, and affect human settlements, highlighting the urgent need to address the underlying causes of climate change and prepare for its consequences (Abbass, Qasim, & Song, 2022).

Projections indicate that by 2050, the global urban population facing water scarcity could double, affecting up to 2.373 billion people, which presses the urgent need for effective water management strategies to mitigate future shortages, but also increase the risk of devastating landslides such as in Semarang, Indonesia (He, et al., 2021; World Water Atlas, 2024).

The competition over scarce water resources has been linked to social tensions and conflicts (Unfried, Kis-Katos, & Poser, 2022). Global analyses suggest that water scarcity can exacerbate existing issues, potentially leading to conflicts, particularly in regions heavily reliant on agriculture (Unfried, Kis-Katos, & Poser, 2022). Addressing water scarcity and its implications is not just an environmental concern but a critical social stability issue as well (Unfried, Kis-Katos, & Poser, 2022).

Water scarcity and water pollution heighten the risk of waterborne diseases. Increased temperatures and altered rainfall patterns can enhance pathogen survival and proliferation, leading to outbreaks of diarrheal diseases (Levy, Smith, & Carlton, 2018). A systematic review has documented the relationships between climatic factors and the incidence of such diseases, demonstrating the vulnerability of public health to climate variability (Levy, Smith, & Carlton, 2018).

Another global phenomenon is land subsidence, which affects both urban and rural areas across continents, particularly in parts of Asia, North America, and Europe due to substantial groundwater extraction (Bagheri-Gavkosh, et al., 2021). Land subsidence refers to the gentle settling or rapid sinking of specific segments of the ground surface, which occurs due to the consolidation of (Bagheri-Gavkosh, et al., 2021). Subsidence poses serious risks to infrastructure, leading to damage in buildings, roads, bridges, and pipelines, because differential settling can cause cracks that compromise structural integrity, in low-lying areas, such as coastal regions, flooding risk increases due to climate change and rising sea levels (Bagheri-Gavkosh, et al., 2021). These issues have economic impacts, including repair costs, decreased agricultural productivity, and possible community displacement (Bagheri-Gavkosh, et al., 2021). Addressing subsidence challenges is necessary to ensure sustainable groundwater management, and mitigate long-term socio-economic and environmental impacts, but without proactive measures, land subsidence will increasingly threaten urban stability, food security, and resilience to climate change-induced hazards. (Bagheri-Gavkosh, et al., 2021).

2.2 Policy Learning

In politics and policy-making, the concept of 'policy learning', according Moyson, Scholten, & Weible (2017), refers to the cognitive and social processes through which policy actors gather, interpret, and share data regarding problems and potential solutions within the context of social interactions. This dynamic involves the accumulation of information that enables these actors to achieve their political objectives and adjust or reinforce their policy-related beliefs over time (Moyson, Scholten, & Weible, 2017). Through policy learning, the translation and dissemination of new knowledge become essential tools for effective decision-making and the evolution of policy strategies (Moyson, Scholten, & Weible, 2017).

This process involves adjusting understandings and beliefs related to public policy through the accumulation of data about problems and solutions (Moyson, Scholten, & Weible, 2017).

Policy learning occurs within institutional systems and policy processes, involving various policy actors such as politicians, public officials, academics, and active citizens (Moyson, Scholten, & Weible, 2017). It is characterised by efforts to reduce uncertainty, adapt strategies, and influence government decisions, ultimately aiming to revise or strengthen policy-related beliefs and facilitate either incremental or fundamental policy changes over time (Moyson, Scholten, & Weible, 2017). However, several challenges accompany this process.

One issue is the disconnect between individual and collective learning (Moyson, Scholten, & Weible, 2017). While individuals may gain insights, translating this knowledge into collective action or policy change requires effective aggregation and the right structural supports for information exchange and decision-making, but cognitive biases, such as motivated reasoning, can hinder policy actors from integrating new information that contradicts existing beliefs, impeding genuine learning (Moyson, Scholten, & Weible, 2017).

Institutional and social constraints also pose obstacles to implementing policy learning (Moyson, Scholten, & Weible, 2017). Factors like entrenched bureaucratic procedures, established power dynamics, and resistant organisational cultures can obstruct change, even in the presence of new evidence, but not all learning processes yield positive results as some may merely reinforce existing paradigms and, in cases where flawed or biased information is involved, could even lead to policy failure (Moyson, Scholten, & Weible, 2017).

These challenges underscore the complexity of policy learning processes, which various factors, that facilitate or hinder the translation of learning into effective policy change, need reconsidering (Moyson, Scholten, & Weible, 2017).

Bennett and Howlett categorise policy learning into five distinct conceptualisations: political learning, policy-oriented learning, lesson-drawing, social learning, and government learning (Bennett & Howlett, 1992). Each type shows different actors (e.g., politicians, bureaucrats, epistemic communities), learning objects (e.g., instruments, strategies, paradigms), and implications for policy change (Bennett & Howlett, 1992). Political Learning focuses on how political actors adapt strategies to maintain power (Bennett & Howlett, 1992). Policy-Oriented Learning shows learning within policy subsystems, where actors adjust beliefs based on new information (Bennett & Howlett, 1992). Lesson-Drawing involves learning from other jurisdictions' policies to inform domestic decision-making (Bennett & Howlett, 1992). Social Learning pertains to shifts in policy paradigms due to changes in ideas and knowledge (Bennett & Howlett, 1992). Government Learning centres on how government institutions learn from past experiences (Bennett & Howlett, 1992).

2.2.1 Knowledge Transfer

Knowledge transfer refers to the process through which experiences, practices, and ideas from one context are shared and adapted to another, as articulated by Dolowitz and Marsh (1996, 2000). This process encompasses not only the transfer of technical information but also the co-creation of understanding among stakeholders.

Dolowitz and Marsh's definition of policy learning connects to five frameworks identified by Bennett and Howlett, each showing different aspects of knowledge transfer. Political learning involves sharing successful or unsuccessful political strategies to help politicians manoeuvre power dynamics. Policy-Oriented Learning focuses on knowledge exchange within policy subsystems, where actors share information and best practices that inform decision-making. Lesson-Drawing directly pertains to knowledge transfer by allowing policymakers to learn from external experiences and adapt effective practices to their own contexts. Social Learning involves paradigm shifts driven by new ideas, influencing collective understanding and policy approaches. Lastly, Government Learning refers to institutional learning, where past lessons are applied to enhance future governance and outcomes.

Within the broader framework of policy transfer, Dolowitz and Marsh define knowledge transfer as a means of utilising knowledge about policies, institutions, or administrative arrangements from one time or place in developing policies in another.

Minkman, van Buuren, and Bekkers (2018) enhance this understanding by proposing a conceptual model that identifies the routes of policy transfer. Their model shows critical factors such as institutional receptiveness, actor motivations, and the iterative nature of adoption processes. Similarly, Stead (2012) critically examines the concept of "best practices" in spatial planning, warning that what is perceived as "transferable" is often influenced by selective framing and contextual compatibility.

An empirical illustration of this can be found in the Dutch Delta Approach, where Hasan, Evers, and Zwarteveen (2022) demonstrate that transferring policies necessitates local adaptation and "translation" rather than straightforward application. Reimer, Getimis, & Blotevogel (2014) agree that planning systems are embedded in socio-political and cultural contexts, complicating the full transfer of policies.

Further insights by Booth, 2011; De Vries, 2015; Nadin, 2013 reveal that cultural norms and institutional path dependencies complicate transfer efforts. They argue that knowledge transfer involves not just learning but also negotiation and reinterpretation.

According to Laeni, Ovink, Busscher, Handayani, & van den Brink (2021), knowledge transfer is important in initiatives like WaL, where international expertise is adapted to local contexts, such as in Semarang, which shows the necessity for mechanisms that effectively balance global best practices with local needs to ensure sustainability and relevance.

2.2.2 Policy Transfer

Policy transfer, as defined by (Dolowitz & Marsh, 1996), involves the process by which knowledge of policies, administrative arrangements, or institutions in one political system is used in another. This can be voluntary or coercive and may involve varying degrees of modification to suit the receiving context. Voluntary policy transfer occurs when policymakers actively seek to learn from other jurisdictions due to perceived benefits (Dolowitz & Marsh, 2000). This is often motivated by factors such as the desire to adopt best practices, efficiency improvements, and political ambition to modernise or reform a system (Dolowitz & Marsh, 2000). Coercive policy transfer occurs when external actors impose policies on a government, either directly or indirectly, often through economic or political pressure (Dolowitz & Marsh, 2000). Dolowitz and Marsh (2000) highlight that policy transfer is rarely purely voluntary or coercive but often exists on a spectrum, with varying degrees of influence. Some policies may start as voluntary but become coercive due to external pressures (e.g., climate policies influenced by international agreements). Conversely, initially coercive policies may be later embraced voluntarily if they prove effective. Stead (2012) highlights that effective policy transfer requires acknowledging contextual differences and avoiding simplistic "copy-paste" approaches. Kempenaar, Laeni, van den Brink, et. al (2022) say that in the WaL design-led urban resilience strategies are tailored to meet the unique socio-political and environmental conditions of Asian cities.

Minkman, van Buuren, & Bekkers (2018) define four policy transfer routes that policy transfer can take from initial conditions to final outcomes. When examining these routes through the lens of Dolowitz and Marsh's (2000) concepts of voluntary and coercive policy transfer, clear relationships emerge:

Learning Transfer involves mutual exploration, policy evaluation, and adaptation, initiated by any actor but ultimately decided by the recipient (Minkman, van Buuren, & Bekkers, 2018). This process requires significant resources, leading to more informed and sustainable transfers (Minkman, van Buuren, & Bekkers, 2018). While its strength lies in process design, it may sometimes internalise unsuitable knowledge, which results in occasional inappropriate transfers (Minkman, van Buuren, & Bekkers, 2018). Based on the concepts by Dolowitz and Marsh's (2000), this shows voluntary policy transfer, which is motivated by a genuine desire to learn and enhance domestic policies through the informed adaptation of external practices. It involves a comprehensive evaluation of various external policies, focusing on mutual learning and adaptation (Dolowitz & Marsh, 2000).

Opportunistic Transfer is initiated by the adopting actor to address urgent crises, such as financial emergencies, through quick solutions and this approach relies on imitation with minimal adaptation due to time constraints (Minkman, van Buuren, & Bekkers, 2018). It often faces challenges in process design, with limited evaluation and knowledge, which can lead to inappropriate or uninformed transfers (Minkman, van Buuren, & Bekkers, 2018). Based on the concepts by Dolowitz and Marsh's (2000), this shows voluntary policy transfer, wherein policymakers begin the search and adoption process based on perceived domestic needs, without external compulsion.

Branded Transfer is driven by policy marketing or pre-existing relationships between the source and recipient actors and it is primarily dominated by the source actor, who aims to enhance their reputation through rankings or promotion (Minkman, van Buuren, & Bekkers, 2018). However, there are risks of inappropriate transfers due to limited adaptation and evaluation, despite a perceived normative fit (Minkman, van Buuren, & Bekkers, 2018). It involves adopting well-known policies or models that carry a certain prestige or 'brand' (Dolowitz & Marsh, 2000). While the adoption is voluntary, there may be subtle pressures from international norms or the desire to align with globally recognised standards (Dolowitz & Marsh, 2000). Based on the concepts by Dolowitz and Marsh's (2000), this shows an intermediate position that incorporates both voluntary and coercive elements. Voluntary adoption can be influenced by the appeal of prestigious models, which may sometimes come with subtle external pressures (Dolowitz & Marsh, 2000). The desire to align with these esteemed models can create indirect influences, making it difficult to distinguish between purely voluntary adoption and those decisions made under subtle pressure (Dolowitz & Marsh, 2000).

Pressured Transfer occurs under direct or indirect external influences, such as peer pressure, dependency, or conditions imposed by powerful actors such as powerful nations or third-party organisations, such as Intergovernmental Organizations (IGOs) (Minkman, van Buuren, & Bekkers, 2018). While it promotes harmonisation, it can be perceived as neo-colonialist (Minkman, van Buuren, & Bekkers, 2018). The challenges associated with this type of transfer include adoptability, as financial constraints and limited sovereignty can affect outcomes (Minkman, van Buuren, & Bekkers, 2018).

Based on the concepts by Dolowitz and Marsh's (2000), this shows coercive policy transfer, as the adopting country experiences external pressures that restrict its autonomy in the policy adoption process.

2.2.3 Theoretical Frameworks of Policy Transfer

Several conceptual frameworks have been developed to understand and analyse the policy transfer process.

2.2.3.1 A Policy Transfer Framework by Dolowitz & Marsh (2000)

The framework by Dolowitz and Marsh is a conceptual model designed to analyse how and why policies, ideas, and institutions are transferred between political systems (Dolowitz & Marsh, 2000).

Why Transfer? Continuum Want To.............. Have To			Who Is Involved in Transfer?	What Is Transferred?	From Where			Degrees of Transfer	Constraints on Transfer	How To Demonstrate Policy Transfer	How Transfer leads to Policy Failure
Voluntary	Mixtures	Coercive			Past	Within-a Nation	Cross-National				
Lesson Drawing (Perfect Rationality)	Lesson Drawing (Bounded Rationality)	Direct Imposition	Elected Officials	Policies (Goals) (content) (instruments)	Internal	State Governments	International Organizations	Copying	Policy Complexity (Newspaper) (Magazine) (TV) (Radio)	Media	Uniformed Transfer
	International Pressures		Bureaucrats Civil Servants	Programs	Global	City Governments	Regional State Local Governments	Emulation	Past Policies	Reports	Incomplete Transfer
	(Image) (Consensus) (Perceptions)									(Commissioned) (uncommissioned)	
	Externalities	Pressure Groups	Institutions			Local Authorities		Mixtures	Structural Institutional	Conferences	Inappropriate Transfer
	Conditionality	Political Parties	Ideologies					Inspiration	Feasibility	Meetings/ Visits	
	(Loans) (Conditions Attached to Business Activity)								(Ideology) (cultural proximity) (technology) (economic) (bureaucratic)		
	Obligations	Policy Entrepreneurs/ Experts	Attitudes/ Cultural Values						Language	Statements (written) (verbal)	
			Consultants Think Tanks Transnational Corporations Supranational Institutions	Negative Lessons			Past Relations				

Table 1 A Policy Transfer Framework (Dolowitz & Marsh, 2000)

The framework for policy transfer involves several key components that clarify the dynamics of the process (Dolowitz & Marsh, 2000).

The first component, "Why Transfer?" was partially explained in section 2.2.2, but here will be further explained. The motivations behind policy transfer can be categorised into two types: voluntary and coercive (Dolowitz & Marsh, 2000). Voluntary transfer, also known as lesson-drawing, is motivated by the goal of addressing specific policy challenges (Dolowitz & Marsh, 2000). In contrast, coercive transfer often results from external pressures or obligations (Dolowitz & Marsh, 2000). This is showcased as a continuum in Figure 1.

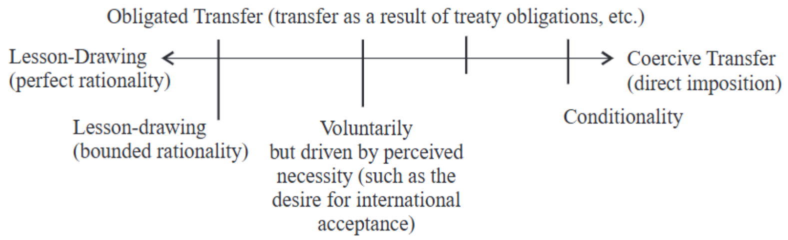

Figure 1 From Lesson-Drawing to Coercive Transfer (Dolowitz & Marsh, 2000)

The second component, "Who is Involved in Policy Transfer?" identifies the key actors or agents driving the transfer, such as elected officials, political parties, bureaucrats, interest groups, international organisations, and think tanks (Dolowitz & Marsh, 2000). These stakeholders influence both the nature of the policies being transferred and the methods used in the transfer process (Dolowitz & Marsh, 2000).

The third component, "What Is Transferred?" addresses the range of categories that can be transferred. They identify eight categories of policy transfer: policy goals, policy content, policy instruments, policy programs, institutions, ideologies, ideas and attitudes, and negative lessons (Dolowitz & Marsh, 2000).

The fourth component, "From Where are Lessons Drawn?" focuses on three levels of governance: the international, the national and the local that actors look to for lessons. Actors involved in policy transfer can learn from different political systems, both domestically and internationally (Dolowitz & Marsh, 2000). Sub-national units can draw lessons from each other and the national government, while the national government can also learn from lower levels, as policies are often transferred across nations (Dolowitz & Marsh, 2000). Finally, the international level can influence or impose lessons on political systems (Dolowitz & Marsh, 2000).

The fifth component, "Degrees of Transfer" argues that policy transfer is not binary and involves four gradations: copying (complete transfer), emulation (transfer of underlying ideas), combinations (mixing different policies), and inspiration (influence without direct borrowing) (Dolowitz & Marsh, 2000). The type of transfer varies by case, influenced by the participants and the stage of the policy-making process (Dolowitz & Marsh, 2000). Politicians may prefer quick solutions like copying or emulation, while bureaucrats might lean towards more complex combinations (Dolowitz & Marsh, 2000). Emulation is often important during agenda-setting, while copying or combining policies may be more relevant during policy formulation and implementation (Dolowitz & Marsh, 2000).

The sixth component, "Are there Constraints on Transfer? addresses potential obstacles that might impede the successful transfer of policies, such as differences in institutional contexts, political cultures, economic capacities, or levels of public support (Dolowitz & Marsh, 2000).

The seventh component, "How To Demonstrate Policy Transfer" examines how policy transfer can be demonstrated, such as by media, reports, conferences, meetings/visits and statements (Dolowitz & Marsh, 2000).

The final component, "How Transfer leads to Policy Failure" evaluates the outcomes of policy transfer as it can face challenges, often arising from uninformed transfer (a lack of understanding about the policy's origin), incomplete transfer (not all essential elements are adopted), or inappropriate transfer, which fails to consider contextual differences between the original and adopting environments (Dolowitz & Marsh, 2000). Several constraints can affect the potential for successful policy transfer, including political, cultural, and institutional contexts, the complexity of the policy itself, and the availability of information (Dolowitz & Marsh, 2000).

2.2.3.2 The Conceptual Model of Policy Transfer by Minkman, van Buuren & Bekkers (2018)

In transitioning from the Dolowitz and Marsh (2000) framework to the conceptual model by Minkman, van Buuren, and Bekkers (2018), the reasons for this shift must be clarified and the insights retained. The Dolowitz and Marsh framework offers a solid foundation to understand the motivations, actors, and constraints in the policy transfer process. Figure 1 will be used to clarify the motivations of policy transfer as well as the identification of key actors influencing policy adaptation.

Minkman, van Buuren, & Bekkers (2018) aimed to address limitations in existing transfer models, such as the one by Dolowitz & Marsh (2000), particularly their underemphasis on the institutional and systemic factors that shape transfer outcomes. They sought a more context-sensitive and dynamic approach to policy adoption in complex systems, which the classical transfer frameworks did not sufficiently capture (Minkman, van Buuren, & Bekkers, 2018).

The conceptual model of policy transfer, as detailed by Minkman, van Buuren, & Bekkers (2018), provides a structured framework to understand how policies are adopted across different contexts, as shown in Figure 2. In Figure 2 is the framework shown: "*Environmental factors* create the context that delimits the playing field for factors of the other building blocks, namely *Transferability* of the policy itself and the sending actor*, Process Design* of the interaction between sending and receiving actors and *Adoptability* of the policy in the adopting context and eventually *the adoption (or non-adoption)* of the transferred policy. The arrows indicate that outcomes of factors in these building blocks influence factors in other building blocks." (Minkman, van Buuren, & Bekkers, 2018)

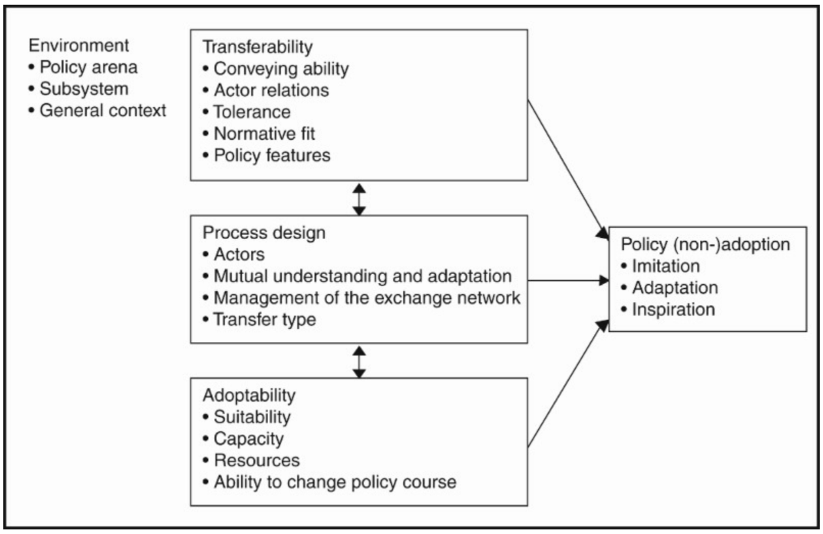

Figure 2 Conceptual model of policy transfer (Minkman, van Buuren, & Bekkers, 2018)

In the following section, the building blocks of this conceptual model will be explained.

Environmental factors

The first building block focuses on environmental factors, which influence all phases of the policy transfer process (Minkman, van Buuren, & Bekkers, 2018). This block distinguishes between the policy arena, the subsystem and the general context (Minkman, van Buuren, & Bekkers, 2018).

Policy Arena is the most prominent level where environmental factors influence policy transfer (Minkman, van Buuren, & Bekkers, 2018). The policy arena shapes the freedom of movement for key actors and is impacted by elements such as the Zeitgeist, peer competition, and the political climate (Minkman, van Buuren, & Bekkers, 2018). Timing is essential, as policies may succeed or fail based on political opportunities (Minkman, van Buuren, & Bekkers, 2018). A favourable political shift can catalyse transfer, while an unfavourable one may abruptly end it (Minkman, van Buuren, & Bekkers, 2018). The policy arena is the most important environmental factor in policy transfer, because it underscores the importance of timing, political climate, and peer dynamics in shaping the success or failure of transfer processes (Minkman, van Buuren, & Bekkers, 2018).

The *Subsystem* refers to the availability of alternative policies and the institutional and political context (Minkman, van Buuren, & Bekkers, 2018). Policy transfer can thrive when it provides viable alternatives (Minkman, van Buuren, & Bekkers, 2018). However, competition between policies can hinder the process, whereas the absence of alternatives can facilitate it (Minkman, van Buuren, & Bekkers, 2018).

The *General Context* sets the boundary conditions for actors, influenced by biophysical (such as geographic, climate or environmental conditions), cultural (such institutional legacies, ideologies orientations, value systems, societal norms and values), and socio-economic factors (such as social structures such as income levels, administrative capacities, and political arrangements) (Minkman, van Buuren, & Bekkers, 2018).

Transferability

The second building block of the framework focuses on the transferability of the policy, which is in the exploration phase of the transfer process where the feasibility and desirability of adopting a policy are assessed (Minkman, van Buuren, & Bekkers, 2018). Transferability addresses the conditions that enable or constrain the adoption of policies by different actors (Minkman, van Buuren, & Bekkers, 2018).

Transferability is first determined by the *ability of the source actor to convey policies* (Minkman, van Buuren, & Bekkers, 2018). The role of the source actor is important in transferability (Minkman, van Buuren, & Bekkers, 2018). The reputation and legitimacy of the source actor play a critical role; a positive image can encourage adoption, while concerns about legitimacy, such as those faced by the EU in transfers to non-member states, can create barriers (Minkman, van Buuren, & Bekkers, 2018).

Transfer processes are more easily established when there are *existing relations* between source, adopting and third-party actors (Minkman, van Buuren, & Bekkers, 2018). These relationships enhance the understanding of policies in different contexts, such as through membership in international organisations, such as the European Union (Minkman, van Buuren, & Bekkers, 2018). Furthermore, colonial history plays a role in this process, along with trade and cooperation relations, help create familiarity with external policies and smooth their adoption (Minkman, van Buuren, & Bekkers, 2018). (Minkman, van Buuren, & Bekkers, 2018).

The *tolerance* of the adopting actor further determines transferability. This ability is influenced by the receptivity and decision-making power of the actor (Minkman, van Buuren, & Bekkers, 2018). *Receptivity* denotes the openness of the receiving actor to consider policies from elsewhere (Minkman, van Buuren, & Bekkers, 2018). A lack of openness limits the potential for transfer from the start (Minkman, van Buuren, & Bekkers, 2018). Openness is necessary but not sufficient, as actors may lack *decision-making power* (Minkman, van Buuren, & Bekkers, 2018). Adopting actors can be dependent on other states or donors, which reduces their sovereignty and can influence policy transfer (Minkman, van Buuren, & Bekkers, 2018).

Policy features and *normative fit* also determine transferability (Minkman, van Buuren, & Bekkers, 2018). Policies that are flexible, context-independent, and adaptable to diverse environments are more easily transferred (Minkman, van Buuren, & Bekkers, 2018). Conversely, transferability increases when the policy matches the values and political objectives of the receiving actor (Minkman, van Buuren, & Bekkers, 2018). Policies with a reputation for proven effectiveness and success are particularly appealing to policymakers because such policies are justified by their perceived success (Minkman, van Buuren, & Bekkers, 2018).

Process design

The third building block focuses on the interactions among transfer actors, shaped by process design (Minkman, van Buuren, & Bekkers, 2018). This design involves creating opportunities for knowledge exchange and the adoption and implementation of policies (Minkman, van Buuren, & Bekkers, 2018).

Process design is needed for understanding how *actors* engage within the framework of policy transfer (Minkman, van Buuren, & Bekkers, 2018). It entails structuring interactions to facilitate knowledge sharing, adaptation, and policy implementation. Successful process design relies on forming coalitions and ensuring the involvement of key stakeholders, as broad consensus among actors often determines the success of the transfer (Minkman, van Buuren, & Bekkers, 2018). However, even after policies are adopted, failures in later implementation phases can occur if essential executive support was not secured in earlier stages (Minkman, van Buuren, & Bekkers, 2018). Leadership is critical in this context, driven either by inherent traits, such as charisma, or through strategic actions (Minkman, van Buuren, & Bekkers, 2018).

A key aspect of process design is cultivating *mutual understanding among actors* (Minkman, van Buuren, & Bekkers, 2018). This requires openness to differing cultural values, practices, and beliefs, showing a two-way communication to bridge gaps (Minkman, van Buuren, & Bekkers, 2018). Miscommunication, often stemming from language barriers, can undermine policy transfer unless addressed through deliberate strategies that prioritise cultural comprehension over mere linguistic similarity (Minkman, van Buuren, & Bekkers, 2018).

The *structure of transfer networks* also influences outcomes (Minkman, van Buuren, & Bekkers, 2018). Dense networks characterised by informal relationships and face-to-face interactions enhance resource mobilization and innovation (Minkman, van Buuren, & Bekkers, 2018). Conversely, a lack of hierarchy or excessive autonomy can lead to inefficiencies, while hurried processes risk producing superficial results (Minkman, van Buuren, & Bekkers, 2018).

Policies can be adopted through certain *transfer types*, such as imitation, adaptation, and inspiration (Minkman, van Buuren, & Bekkers, 2018). While imitation offers quick solutions, it often leads to unsuccessful transfers. Adaptation involves incorporating basic models with context-specific modifications, whereas inspiration draws from various sources to develop novel policies (Minkman, van Buuren, & Bekkers, 2018). Learning, including learning from failures, is linked to successful transfer outcomes (Minkman, van Buuren, & Bekkers, 2018).

Finally, external pressures and levels of coercion affect policy adoption (Minkman, van Buuren, & Bekkers, 2018). Conditional transfers, often associated with trade agreements or international loans, may compel adoption but can result in incomplete or unsuitable transfers (Minkman, van Buuren, & Bekkers, 2018). Thus, the dynamics of process design, shaped by actor relations and transfer mechanisms, are essential for effective policy exchange and implementation (Minkman, van Buuren, & Bekkers, 2018).

Adoptability

The fourth building block focuses on the adoptability of the transferred policy (Minkman, van Buuren, & Bekkers, 2018). These factors emerge during the later phases of the policy-making process (Minkman, van Buuren, & Bekkers, 2018).

Adoptability is a element in the conceptual model of policy transfer, referring to the ability of a recipient to successfully integrate and implement a transferred policy (Minkman, van Buuren, & Bekkers, 2018). This process primarily occurs in the later stages of policymaking and depends on the compatibility and readiness of the adopting context (Minkman, van Buuren, & Bekkers, 2018).

Key to adoptability is the *suitability* of the policy, which includes both its normative and institutional fit (Minkman, van Buuren, & Bekkers, 2018). Normative fit relates to how well the policy aligns with the values and principles of the receiving context, while institutional fit indicates the policy's compatibility with existing systems and structures (Minkman, van Buuren, & Bekkers, 2018). When these alignments are present, integration is typically smooth (Minkman, van Buuren, & Bekkers, 2018). However, if essential prerequisites are missing, the process may encounter obstacles (Minkman, van Buuren, & Bekkers, 2018). Flexibility in a policy’s design can help mitigate some mismatches, facilitating easier adaptation to diverse contexts, especially when the policy combines a fixed core with adaptable implementation strategies (Minkman, van Buuren, & Bekkers, 2018). Simpler policies also reduce the risk of failure by demanding less organisational capacity (Minkman, van Buuren, & Bekkers, 2018).

The success of adoptability also relies on the *capacity* of the adopting actor, which includes having the expertise to identify suitable policies and the organisational resources to evaluate and implement them effectively (Minkman, van Buuren, & Bekkers, 2018). Rigorous evaluations ensure compatibility and promote learning, including recognising negative outcomes when a policy proves unsuitable (Minkman, van Buuren, & Bekkers, 2018). This demands strong commitment from both political leaders and public servants to engage actively in the process (Minkman, van Buuren, & Bekkers, 2018).

Resource availability, such as time, finances, and human capital, is another critical factor (Minkman, van Buuren, & Bekkers, 2018). A lack of these resources often leads to adoption failure, particularly during the implementation phase (Minkman, van Buuren, & Bekkers, 2018). Even when resources are sufficient, the legacy of past policy decisions can create path dependency, either supporting or hindering the adoption of new policies (Minkman, van Buuren, & Bekkers, 2018).

Finally, involving decision-makers early in the transfer process is essential to secure their support and avoid disruptions during the final stages (Minkman, van Buuren, & Bekkers, 2018). Therefore, successful adoptability depends on the *ability to change policy course*. The interconnection of compatibility, organizational capacity, resources, and early engagement with key stakeholders to overcome institutional and normative barriers (Minkman, van Buuren, & Bekkers, 2018).

Policy (non-)adoption

The final element of the conceptual model addresses the outcome regarding adoption or non-adoption of policies. They categorise the outcomes of the policy transfer process, distinguishing between successful adoption, formal adoption and non-adoption of the transferred policy (Minkman, van Buuren, & Bekkers, 2018).

Successful adoption refers to a completed transfer process where the receiving policy-maker adopted the policy (Minkman, van Buuren, & Bekkers, 2018). Ultimately, successful transfers achieve political goals as well, but that element is left outside the scope of this study (Minkman, van Buuren, & Bekkers, 2018). Non-adoption includes all transfers that were considered but never initiated or that were initiated but aborted along the way (Minkman, van Buuren, & Bekkers, 2018). Formal adoption finally describes policy transfers where the policy was formally adopted but was not implemented or enforced (Minkman, van Buuren, & Bekkers, 2018).

These are categorised in adoption mechanisms into imitation, adaptation, inspiration, and other models. *Imitation* involves quick copying of solutions but often leads to failed transfers (Minkman, van Buuren, & Bekkers, 2018). *Adaptation* incorporates changes to the original model and may include emulation, translation, and assemblage, where synthesis from multiple policies occurs (Minkman, van Buuren, & Bekkers, 2018). *Inspiration* entails creating new policies based on elements from other jurisdictions (Minkman, van Buuren, & Bekkers, 2018). Learning is linked to successful transfers, while negative lessons refer to seeking alternatives due to the failure of the initially considered policy (Minkman, van Buuren, & Bekkers, 2018). These outcomes are influenced by factors such as the degree of coercion involved in the transfer, the mechanisms of exchange, and the compatibility between the policy and the adopter's context (Minkman, van Buuren, & Bekkers, 2018).

2.3 The Conceptualisation of Power

Integrating power dynamics into the analysis allows for a comprehensive understanding of the underlying power dynamics that influence the opportunities and limitations of policy transfers. But first, power in spatial planning and governance is conceptualised as the ability of actors to influence decisions, processes, and outcomes. This can manifest in formal authority, resource control, or discursive influence. Lukes (2005) conceptualises power as having three dimensions, which shows different ways power is exercised and maintained within society.

The first dimension is Decision-Making Power, aligning with traditional pluralist perspectives (Lukes, 2005). Here, power is defined as the ability to make and enforce decisions in observable conflicts. In this context, one individual or group (A) exercises power over another (B) by compelling B to act in a way they otherwise would not (Lukes, 2005). This dimension focuses on open and visible conflicts, such as those arising in political debates, votes, or legislative processes (Lukes, 2005). Prominent thinkers like Robert Dahl and other pluralists highlight this viewpoint, particularly in democratic settings (Lukes, 2005).

The second dimension, known as Non-Decision-Making Power, was initially introduced by scholars like Bachrach and Baratz and later expanded by Lukes (Lukes, 2005). This form of power is characterised by the control of the agenda, meaning that power can also manifest in the ability to prevent certain issues from being discussed in decision-making contexts (Lukes, 2005). In this case, A exercises power over B by controlling the political agenda, effectively suppressing grievances and sidelining potential conflicts (Lukes, 2005). This dimension highlights the maintenance of the status quo through institutional or ideological means (Lukes, 2005).

The third dimension, known as Discursive or Ideological Power describes how power shapes individuals' perceptions, preferences, and desires, leading them to accept their roles within the existing social order, even when such acceptance goes against their own interests (Lukes, 2005). In this instance, A influences B's wants and beliefs (Lukes, 2005). The focus here is on latent conflict and socialization processes, including those embedded in media, culture, and education (Lukes, 2005). Often, individuals may remain unaware that they are being subjected to power (Lukes, 2005). Lukes argues that this third dimension is the most insidious and intense because it affects consciousness in a largely invisible manner, critiquing earlier models of power for being too narrow by only accounting for overt conflict and observable behaviour (Lukes, 2005).

Stead (2012) discusses how power is embedded in policy transfer processes, where dominant actors may shape the adaptation of policies to align with their priorities. Van Assche, Beunen, & Verweij (2020) highlight that power dynamics also emerge in comparative learning, as certain stakeholders wield influence over what knowledge is considered relevant or transferable, which shows the importance of critically analysing whose interests are represented in spatial planning processes.

2.3.1 Power Dynamics

Power dynamics in spatial planning refer to the ways in which authority, influence, and resources are distributed and exercised among stakeholders. The literature highlights that power shapes not only the design and implementation of plans but also the process of comparative learning. (Van Assche, Beunen, & Verweij, 2020) argue that dominant actors often control what knowledge is deemed valuable for transfer and how it is applied in new contexts. Power dynamics can also lead to imbalances, where certain perspectives, often from global or dominant regions, overshadow local voices. Addressing these dynamics requires ensuring that planning processes are inclusive, equitable, and sensitive to the needs of all stakeholders.

2.3.1.1 The Powercube framework

In the context of policy transfer, the Powercube could reveal who controls the process, which voices are included or excluded, and how ideologies shape policy preferences.

The Powercube framework by Gaventa (2006) conceptualises power along three interrelated dimensions called forms of power, spaces of engagement, and levels of power. This builds upon Steven Lukes' three dimensions of power by using them as the conceptual foundation for the "forms of power" axis in his Powercube framework (Gaventa, 2006). This framework is visualised in Figure 3. The arrows in the diagram shows how power can move and manifest dynamically across the interrelated dimensions (Gaventa, 2006).

The 'forms' dimension of the cube refers to the ways in which power manifests itself, including its visible, hidden and invisible forms (Gaventa, 2006). Visible Power refers to Lukes' first dimension, which is observable decision-making processes, including formal rules, structures, and institutions (Gaventa, 2006). Hidden Power refers to Lukes' second dimension, which is the ability to set agendas and exclude certain issues or voices from the decision-making arena (Gaventa, 2006). Invisible Power refers to Lukes' third dimension, which is the internalisation of dominant norms and ideologies that shape people's perceptions and acceptance of the status quo (Gaventa, 2006).

The 'spaces' dimension refers to the potential arenas for participation and action, including what is called closed, invited and claimed spaces (Gaventa, 2006). Closed Spaces refer to decision-making arenas where only select actors are allowed to participate, often behind closed doors (Gaventa, 2006). Invited Spaces refer to opportunities for participation that are extended by authorities to certain stakeholders (Gaventa, 2006). Claimed spaces refer to spaces established by less powerful actors to assert their voices and influence (Gaventa, 2006).

Finally, the 'levels' dimension of the cube refers to the differing layers of decision-making and authority organised from to local, to national to global level of power (Gaventa, 2006). The 'expressions of power' (power to, with and within) refer to different forms of individual and collective agency and power (Gaventa, 2006). The Powercube will be used to analyse the underlying power structures that shape why certain policies are adopted, resisted, or transformed in the process.

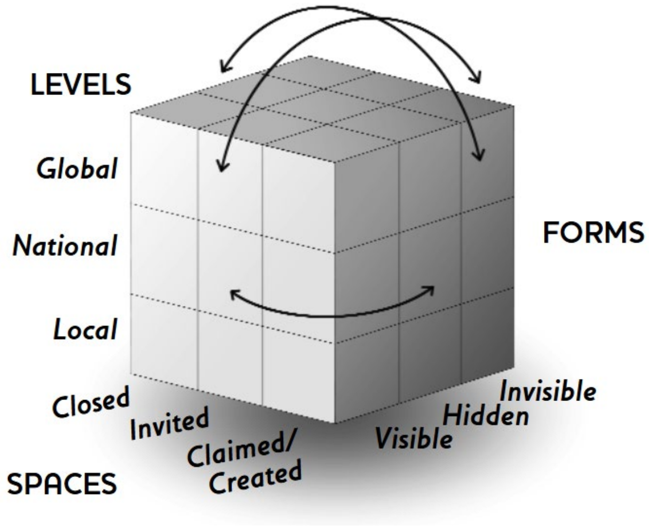

Figure 3 The 'power cube': the levels, spaces and forms of power (Gaventa, 2006).

2.4. Conceptual Framework and Operationalisation

The conceptual framework and its operationalisation here presented are grounded in the findings from the literature review in the earlier sections. The conceptual framework guiding this research is based on the conceptual model developed by Minkman, van Buuren, and Bekkers (2018), which has building blocks called *Environmental factors, Transferability*, *Process Design*, *Adoptability* and *the adoption (or non-adoption).* This framework is appropriate for this research because it offers a structured approach to understanding how policies are adopted across different contexts, especially since this study examines two distinct case studies.

Given the comparison of these differing case studies, it is essential to analyse the role of power in policy transfer. Therefore, this framework will be combined with the Powercube framework developed by Gaventa (2006), which conceptualises power through three interrelated dimensions: forms of power, spaces of engagement, and levels of power, based on Steven Lukes' three dimensions of power. Together, this offers a clear framework to analyse how policy transfer occurs, but also reveals the underlying power structures that shape why certain policies are adopted, resisted, or transformed in the process. The Powercube and Minkman frameworks together offer valuable insights into the power dynamics involved in policy transfer. They identify not only who holds power and how that power is exercised, but also the mechanisms of interaction and the influence of context in shaping these dynamics. This conceptual model make use of the integration of voluntary and coercive policy transfer by (Dolowitz & Marsh (2000) with the four policy transfer routes by Minkman, van Buuren, & Bekkers (2018), outlined in section 2.2.2.

Figure 4 presents the adapted framework that will guide this research. The arrows indicate that outcomes of factors in these building blocks influence factors in other building blocks.

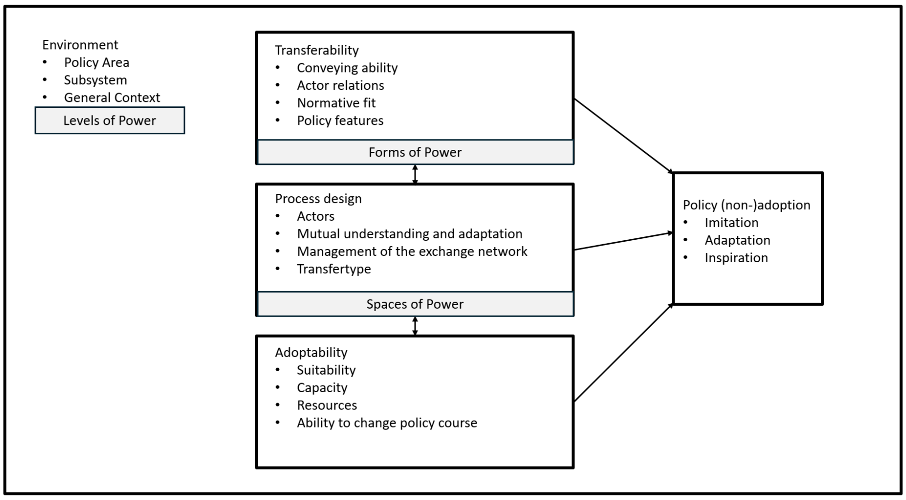

Figure 4 Conceptual Framework (Author's design, 2025), based upon (Minkman, van Buuren, & Bekkers, 2018; Gaventa, 2006)

2.4.1 Operationalisation of the building blocks

Table 2 in Appendix 1 showcases the operationalisation of Figure 4 by integrating the Minkman, van Buuren, and Bekkers (2018) model with Gaventa's (2006) Powercube.

3. Methodology

This chapter focuses on the methodology that has been used in this study. To outline the methodology of this research, the research onion of (Saunders, Lewis, & Thornhill, 2016) is used (see figure 2). The first thing discussed is the research philosophy & paradigm, followed by an approach to theory development. After that will discuss the research strategy, time horizon, techniques and procedures. The chapter concludes with an explanation of the validity and reliability of the research.

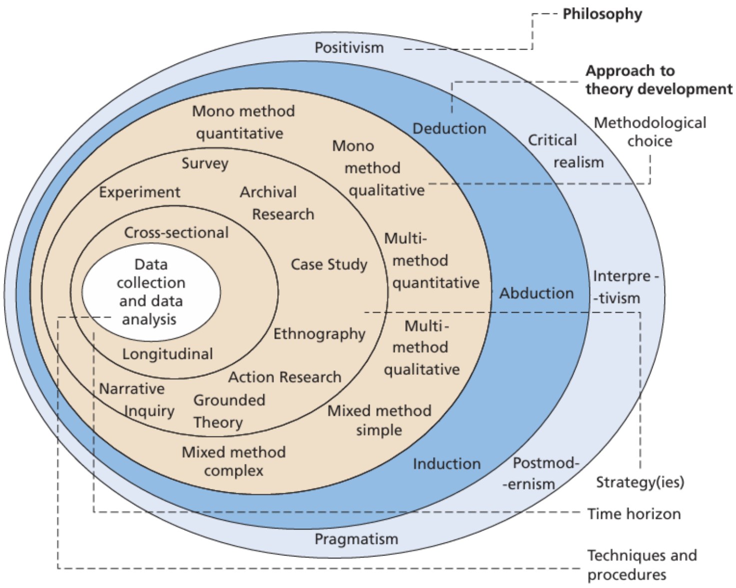

Figure 5 the 'research onion' (Saunders, Lewis, & Thornhill, 2016)

3.1 Research Philosophy & Paradigm

The first layer of the research onion is research philosophy, which refers to a system of beliefs and assumptions about the development of knowledge (Saunders, Lewis, & Thornhill, 2016).

The research philosophy defines the framework of the study. According to (Guba & Lincoln, 1994) a paradigm is a belief system rooted in the researcher's ontological beliefs, which pertain to assumptions about the nature of reality and what exists; epistemological beliefs, which relate to the relationship between the researcher and the knowledge being sought, as well as the nature of that knowledge; and methodological beliefs, which involve the approaches the researcher employs to obtain knowledge about the real world.

(Saunders, Lewis, & Thornhill, 2016) distinguish five major philosophies in business and management, which are:

Positivism asserts that an objective reality exists and can be measured through scientific methods (Saunders, Lewis, & Thornhill, 2016). Researchers in this perspective prioritise empirical evidence and often use structured methodologies like surveys and experiments, primarily in quantitative research (Saunders, Lewis, & Thornhill, 2016).

In contrast, critical realism recognises an objective reality but acknowledges that our understanding is shaped by perceptions and contexts (Saunders, Lewis, & Thornhill, 2016). It involves a two-step process of observing events and reasoning to uncover underlying causes, often in mixed-methods research, particularly in social sciences (Saunders, Lewis, & Thornhill, 2016).

Interpretivism is about the subjective nature of reality, focusing on human interaction and meaning-making (Saunders, Lewis, & Thornhill, 2016). Researchers immerse themselves in contexts to understand participants' experiences, typically using qualitative methods like interviews and ethnography (Saunders, Lewis, & Thornhill, 2016).

Postmodernism challenges established truths and dominant narratives, focusing on deconstruction and critical analysis (Saunders, Lewis, & Thornhill, 2016). Researchers question power dynamics and advocate for marginalised voices, often in critical studies and cultural research (Saunders, Lewis, & Thornhill, 2016) .

Pragmatism offers a flexible approach, blending quantitative and qualitative methods based on research questions (Saunders, Lewis, & Thornhill, 2016). It recognises both objective and subjective elements and is widely used in applied research, especially in business, to derive actionable insights (Saunders, Lewis, & Thornhill, 2016).

In this thesis the critical realism research paradigm is chosen. Critical theory or critical realism presumes historical, political, and social contexts, shaped by power dynamics, shape reality, thus suitable for a study where these contexts are addressed in the conceptual framework of section 2.5 (Saunders, Lewis, & Thornhill, 2016). Therefore, the philosophy of critical realism suits best for this research, as it focuses on “explaining what we see and experience, in terms of the underlying structures of reality that shape the observable events” (Saunders, Lewis, & Thornhill, 2016).

3.2 Methodological Choices

In the second layer of the research onion, choosing a approach is essential. This research will utilise a conceptual framework to address the research question. For this reason, a deductive approach is useful because, when the research objectives are clear and the theoretical framework is well-established, it allows for focused analysis that can confirm or refute existing theories. A deductive approach involves analysing data based on pre-existing theories or frameworks, which allows researchers to test and validate theoretical constructs within real-world contexts, ensuring that findings are aligned with established knowledge (Hecker & Kalpokas, 2025).

The third layer of the research onion involves important methodological choices. Researchers can choose to follow quantitative research, which examines relationships between variables that are measured numerically (Saunders, Lewis, & Thornhill, 2016). Alternatively, qualitative research focuses on understanding phenomena from a contextual and subjective perspective (Saunders, Lewis, & Thornhill, 2016). This method involves collecting non-numerical data, such as interviews, to gain insights into people's experiences, behaviours, and social contexts (Saunders, Lewis, & Thornhill, 2016). It is often employed to explore complex issues where numerical data may not provide a complete understanding (Saunders, Lewis, & Thornhill, 2016). Lastly, mixed-method research design combines both quantitative and qualitative approaches (Saunders, Lewis, & Thornhill, 2016). For this research, qualitative research is chosen, as this research requires knowledge about social contexts and people’s experiences regarding the WaL. This method starts with a general theory and then designs specific experiments or observations to test that theory (Saunders, Lewis, & Thornhill, 2016).

3.3 Research Strategy

The fourth layer of the research onion is the determination of a research strategy. Given the nature of this research, which discusses policy transfer between nations and how it varies across different countries, a cross-case comparison was chosen.

Cross-case comparison is a methodological approach used in comparative spatial planning to systematically analyse multiple cases for patterns and contrasts. Comparative spatial planning involves analysing and contrasting planning systems, policies, and practices across different contexts to gain insights into governance, institutional structures, and policy outcomes, which aim to identify transferable lessons while recognising that planning systems are embedded in their socio-political and cultural contexts (Van Assche, Beunen, & Verweij, 2020).

According to (Van Assche, Beunen, & Verweij, 2020), this process extends beyond identifying best practices to exploring the socio-political and institutional dynamics that shape planning outcomes. Cross-case comparisons can reveal how certain planning principles are implemented differently based on local governance frameworks, stakeholder engagement, and ecological conditions, such as addressing global challenges like climate resilience and urbanisation, where comparative analysis shows diverse pathways to achieving similar objectives (Van Assche, Beunen, & Verweij, 2020).

3.3.1 Case Study Selection

The Wadden Sea Region and Semarang, Indonesia, were chosen for the cross-case comparison method, because these locations have water-related challenges that need to be addressed. One case focuses on a rapidly urbanising region in Southeast Asia, while the other examines a European coastal ecosystem, showing the contextual diversity that enhances the understanding of water governance strategies. These cases also have different power dynamics, as one was a former colony and the other are neighbour with equal standing as mentioned earlier.

The WaL programme in Semarang shows a design-driven strategy for tackling urban water issues through collaboration and sustainable practices (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020). Semarang is a coastal city facing severe flooding, land subsidence, and water scarcity, was selected as a pilot city for WaL due to its vulnerability to climate change impacts and rapid urbanisation (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020). The WaL programme aims to address several key issues by enhancing drainage systems, increasing water retention, and promoting community-led adaptation strategies (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020). This includes implementing nature-based solutions, such as urban wetlands, to reduce flooding and boost biodiversity (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020). The WaL programme aspires to build local institutional capacities and establish effective governance frameworks to achieve long-term resilience (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020). It highlights the critical role of water in urban transformation, aligning economic, social, and environmental objectives (Laeni, van den Brink, Busscher, Ovink, & Arts, 2020).

In the Wadden Sea Region, the WaL programme envisions addressing the interlinked challenges of climate resilience, biodiversity preservation, and sustainable development across Denmark, Germany, and the Netherlands (World Water Atlas, 2023). This initiative aims to prioritise collaboration among governments, communities, and experts in formulating adaptive strategies for this UNESCO World Heritage site (World Water Atlas, 2023). The focus includes mitigating sea-level rise, preserving ecosystems, and balancing economic activities, such as tourism and fishing, with environmental conservation. Through a co-creative process, WaL seeks to create innovative, nature-based solutions that enhance resilience while safeguarding the unique ecological and cultural heritage of the Wadden Sea Region (World Water Atlas, 2023).

3.4 Time Horizon

The fifth layer of the research onion is the time horizon of the research. A research can be conducted at a particular time (cross-sectional) or a representation of events over a given period (longitudinal) (Saunders, Lewis, & Thornhill, 2016). This master thesis has been researched and written within a constrained timeframe, which renders it unsuitable for a longitudinal study design.

3.5 Techniques and Procedures

In the final layer of the research onion are the techniques and procedures of this research.

3.5.1 Data Collection

The last step to complete the research onion is to select techniques and procedures to collect the data.

3.5.1.1 Secondary Data Collection

For secondary data collection are different methods used, such as policy documents regarding the WaL programme and academic papers regarding policy transfer and the WaL programme.

One of these data collected was the Water as Laverage Guidance, drafted by Deltares in collaboration with One Architecture & Urbanism, the University of Groningen, and Radboud University. I located it via the official Deltares website under the "Water as Leverage Guidance" section. It presents eight guiding principles and a six-stage project development framework based on real-world cases, including Semarang and the Wadden Sea Region.

The analysis this data can offer a different understanding of policy transfer dynamics related to the WaL programme. This approach will allow for a thorough examination of critical elements such as implementation strategies, outcomes, and stakeholder perspectives within the WaL programme. By systematically assessing these sources, the researcher can identify patterns, opportunities and limitations of policy transfer.

3.5.1.2 Primary Data Collection: semi-structured interviews

To build upon the policy document analysis, qualitative data was collected in the form of semi-structured interviews. The questions in the interviews are based upon the operationalisation table of the conceptual framework and the interview guide is shown in Appendix 2. Each interview guide has been altered to cater to the interviewees. In the beginning of each interview the interviewer asked the interviewees for informed consent by explaining that the interviewees information will be processed and will remain anonymous except for job description and their organisation. The interviewees were also asked for permission to record the interview for future use to transcribe and code the interview for data.

These twelve interviews are based on relevant stakeholders involved in the policy transfer of the WaL programme in the Waddensea Region and Semarang, Indonesia. The twelve interviewees are all involved in a different parts of the programme, because they have varying perspectives and positions within the programme.

The interviewees represent several universities who have done research on the Wal programme, Netherlands Enterprise Agency (RVO) who jumpstarted the WaL programme, the people who operated in the programme such as Deltares, Resilience Officer, Kota Kita, One Architecture etc. This is shown in Table 2 Most interviewees were collected by contacting them via LinkedIn and e-mail. From here, snowball sampling was used to identify other people in their network who could be approached for further interviews (Kumar, 2019).

Number	**Date**	**Function**	**Length**
1	21-05-2025	Researcher from University of Groningen	60
2	22-05-2025	Deputy of Chief Resilience Officer (CRO), Semarang	40
3	29-05-2025	Coordinator urban climate adaptation & water international at the Netherlands Enterprise Agency (RVO)	45
4	02-06-2025	Expert researcher at Deltares	30
5	04/16-07-2025	Person from IKUPI, local NGO based in Semarang	Written response due to internet connection issues
6/7	24-07-2025	Programme Manager for Climate Adaptation & Water International + Commissioner of the Water as Leverage (WaL) programme), Ministry of Infrastructure and Water Management (I&W) + Senior Policy Advisor at I&W	50
8	02-09-2025	Project leader/ coordinator, for "*Programma Naar een Rijke Waddenzee(* PRW)" *or translated to Programme to Rich Wadden Sea & Initial stages of WaL Wadden Sea Region*	60
9	03-09-2025	Urban Planner & Researcher at One Architecture & Urbanism	60
10	19-09-2025	Special Envoy for International Water Affairs	60
11	02-10-2025	Junior Researcher from University of Groningen	60
12	07-10-2025	Researcher from University of Groningen	60

Table 2 Interview interviewees

3.5.2 Data Analysis

The last step to complete the research onion is to select techniques and procedures to analyse the data. The policy documents were analysed through the conceptual framework presented in section 2.5. The semi-structured interview will be transcribed and coded by using the computer program ATLAS.ti where relevant elements of the text will be deductively coded and then analysed to find answers to the sub-questions. The coding scheme is based on the operationalisation table of the conceptual framework and is shown in Appendix 3. The first step is to create a codebook in which different segments of data are relevant to each code (Kumar, 2019). The codebook is based on the conceptual framework to assist with the transcription analysis. This overview can be used for a thorough analysis of the gathered data from the interviews (Kumar, 2019).

The results of the data collection and analysis will provide answers to the research question and sub-questions in chapter 4.

3.6 Validity and Reliability

Qualitative research approaches are heavily influenced by the abilities and experiences of the researcher, which in turn affects the validity and reliability of the findings (Johannesson & Perjons, 2014). According to (Creswell & Poth, 2018), internal validity pertains to the accuracy of findings and how well the data presents reality, as understood by researchers, participants, and readers. To enhance internal validity, techniques such as "participant validation," where researchers send transcripts to interviewees for confirmation, and "triangulation," which combines various data sources, are employed (Saunders, Lewis, & Thornhill, 2016; Franklin, Cody, & Ballan, 2010). The use of triangulation not only increases validity and reliability but also provides different perspectives to better understand a problem or situation (Kumar, 2019).

On the other hand, external validity concerns how findings can be generalised to a broader context (Creswell & Poth, 2018). This aspect can only be addressed in a limited way in this research, as the findings will be specific to Semarang, Indonesia, and the Wadden Sea Region. However, other cases could learn from these two examples as well.

Reliability, which is essential for validity, refers to the consistency and replicability of research (Franklin, Cody, & Ballan, 2010). To enhance reliability, Franklin, Cody, & Ballan, (2010) advocate for transparency and thorough documentation throughout the research process as such an approach enables other researchers to replicate the study under similar conditions, thereby producing comparable outcomes and they recommend using interview guides to standardise data collection and coding schemes for consistency during data analysis. In this research, this has been implemented interview guides and a coding scheme during the data analysis process.

4. Results

This chapter presents the results of this research, which are organised around the five main dimensions, each with its relevant sub-dimensions, as shown in Table 2, based upon the framework by Minkman, van Buuren, Bekkers, 2018 and Gaventa, 2006. Details regarding the dimensions can be found in section 2.2.3.2.

4.1 Introduction to the Water as Leverage (WaL) programme

The WaL Guidance provides insights for various actor groups, who are important for the success of urban water resilience projects (Janssen, et al., 2024). One of them is that executive organisations are (mostly public) entities, tasked to organise initiatives by managing people, contracts, money and deadlines (Janssen, et al., 2024). They can be responsible for an entire WaL initiative, or specific stages, handing the initiative over to executive organisations best equipped for a particular stage (Janssen, et al., 2024). Another one is that the executive organisation commissions contractors to perform the work required at different stages of project development, from analysis to developing project proposals and construction (Janssen, et al., 2024). Finally, change agents form the enabling environment and include various actors, such as communities, governmental agencies, academics, and financial organisations at the local, national, and global levels (Janssen, et al., 2024).

The WaL guidance has identified eight guiding principles to create urban water resilience, which are applied throughout the initiatives to drive transformative, inclusive change (Janssen, et al., 2024). The first principle is moving beyond single projects to drive system change, which enables a holistic approach instead of addressing projects and problems in isolation, and allows for a system to become more resilient (Janssen, et al., 2024). The second principle in the guidance is early investment in project development, as it allows for better initiatives and outcomes (Janssen, et al., 2024). The third principle is an inclusive approach from start to finish, as these practices make projects more effective and sustainable by bringing together different organisations and individuals (Janssen, et al., 2024). The fourth principle is designing to connect people and inspire action, allowing different sectors to come together, which creates a comprehensive understanding of the water system and grants a clearer picture of the desirable results (Janssen, et al., 2024). The fifth principle is shifting from fragmentation to integration, by advocating a cross-sectoral approach, divides can be broken down and traditional siloed approaches left behind, which will connect sectors, levels, and disciplines (Janssen, et al., 2024). The sixth principle is embracing water as an opportunity, rather than a threat, by recognising its unique and universal role as a connector, which creates transformative change and harnesses solutions to ensure a more resilient future (Janssen, et al., 2024). The seventh principle is ensuring a bankable project, meaning they have financial backing, key to successfully launching urban water projects, which can generate substantial value by reducing damages, enhancing liveability, and creating economic activity

(Janssen, et al., 2024). The eighth principle is linking local actions to global goals by recognising multi-level dependencies and leveraging water's cross-cutting role in all SDG's, ensuring optimal coordination across levels and sectors (Janssen, et al., 2024). The WaL demonstrates the difficulty of translating integrative and design-led principles across cultural and institutional contexts; while attractive in theory, the communicability of such principles depends on local governance traditions and policy discourses (Kempenaar et al., 2022).

The guidance sets out a six-stage project development cycle to create transformative and inclusive urban water resilience projects, with each stage designed to create lasting impact by creating collaboration, securing financial backing, and ensuring projects holistically address water resilience (Janssen, et al., 2024). The first stage, Initiation, which results from an idea or an urgent need for new ways to tackle challenges, in which stakeholders collaborate to explore solutions and shape the initiative (Janssen, et al., 2024). The second stage, Ideation, which focuses on envisioning, designing, and formulating designs and project proposals (Janssen, et al., 2024). The third stage, Feasibility, which ensures continuity and viability, taking into account economic, financial, technical, institutional, social, and environmental perspectives (Janssen, et al., 2024). The fourth stage, Implementation, which brings the project to life through construction, policy integration, and governance frameworks (Janssen, et al., 2024). The fifth stage, Operations & Maintenance, which maintains the project and allows it to adapt to change; this is critical to ensuring the project remains functional and that it is further optimised over time (Janssen, et al., 2024). The sixth stage, Scaling, which replicates projects, informs policies, and drives change (Janssen, et al., 2024).

The WaL Guidance also specifies that continuous learning is essential for improving performance, and it includes case studies to inspire and draw lessons from (Janssen, et al., 2024).

In Semarang, Indonesia, there were six proposals for projects by two teams (Kempenaar et al., 2022). For One Resilient Semarang, which had the proposals Water-neutral Industry, Network of Resilient Kampungs, and Integrated Protective Coastal Zone (Kempenaar et al., 2022). For Cascading Semarang, which has Feeding the Industry, Spongy Mountain Terrace and Rechanneling the City (Kempenaar et al., 2022). These proposals aimed for an integrative approach, incorporating insights from various experts and a diverse range of stakeholders (Kempenaar et al., 2022). These two design teams are comprised of international and local experts, including urban planners, engineers, and scientists (Interviewee 5, personal communication, July 16th 2025). They addressed not only technical water and climate issues but also urbanisation, economic, ecological, community, and governance challenges, seeking co-benefits (Kempenaar et al., 2022). Both teams utilised system-thinking to highlight interconnectedness across different scales; however, while the design process considered governance aspects, the final proposals were primarily focused on spatial and technical solutions (Kempenaar et al., 2022). A key area that was not effectively integrated was the bankability of the proposals, despite it being a principle; the proposals were not ready for immediate financing due to issues such as late engagement with Indonesian government representatives, lack of connections to existing initiatives, and insufficient expertise in financing and project preparation (Kempenaar et al., 2022). As the initiative was a pilot, it remained in the third phase, developing proposals into bankable projects (Kempenaar et al., 2022);(Interviewee 2, personal communication, May 22nd, 2025).

The Wadden Sea Region did not go beyond the first initiation stage, and reached the second stage only in Harlingen, Netherlands, because, according to a interviewee, they decided to adopt the approach in their processes (Interviewee 4, personal communication, June 6th, 2025). Initially, the programme was set up with more proposed pilot areas to work on innovative, inclusive and scalable solutions, such as local partners in the Wadden Islands and coastal cities such as Texel, Terschelling in the Netherlands, Emden in Germany and Ribe, Esbjerg and Fanø in Denmark. Each of these cases copes with specific water-related problems and has its own methods and resources for tackling them, and by engaging in the WaL programme, they wanted to test how water could be used as a lever for sustainable and integrated transformation (Programma naar een Rijke Waddenzee, 2022).

4.2 Environmental factors

4.2.1 Policy Arena

The Policy Arena of the WaL programme draws inspiration from the Rebuild by Design initiative of the Obama administration, which facilitated the America Competes Act to create science-rooted innovations, which involved many Dutch contributors and global partners. This policy transfer is not solely the Netherlands, but is under the leadership of the Dutch Government (Interviewee 4, personal communication, June 6th, 2025; Interviewee 10, personal communication, September 19, 2025). Despite the potential for generating innovative solutions with Rebuild by Design, policy constraints hinder implementation, with funding allocation from the rebuilding task force becoming a standard exemption (Interviewee 10, personal communication, September 19th, 2025). True innovation requires challenging existing policies and faces resistance within complex political environments like the U.S., where changing funding rules lacks interest and obstructs systemic change (Interviewee 10, personal communication, September 19th, 2025). The need for funding mechanisms that support innovation in water management and nature-based solutions is critical, as innovations risk remaining isolated without a willingness to adapt rules (Interviewee 10, personal communication, September 19th, 2025).

WaL was intentionally designed to connect local water challenges with global policy frameworks, such as the Paris Agreement on climate change, the UN SDGs, and the Sendai Framework for Disaster Risk Reduction (Janssen, et al., 2024). It was confirmed that the project focuses on sustainable development while recognising the importance of climate adaptation and inclusivity (Interviewee 1, personal communication, May 21st, 2025). By linking urban water resilience to these global agreements, WaL positioned itself within a broader normative framework that legitimised its interventions in cities (RVO, 2018). Kempenaar et al. (2022) argue that WaL positions design not merely as an aesthetic tool but as a diplomatic instrument that bridges global agendas such as the SDGs with highly localised urban water challenges. Various interviewees agreed that the WaL embedded the SDGs (Interviewee 1, personal communication, May 21st, 2025; Interviewee 4, personal communication, June 6th, 2025). A interviewee also noted that in Indonesia, the SDGs are viewed culturally as assets that bring honour, making them part of society, while in contrast, the Netherlands approaches the SDGs more technically and with a sense of policy arrogance, where they are seen as optional challenges to tackle rather than cultural imperatives (Interviewee 10, personal communication, September 19th, 2025). Another respondent said that the WaL incorporates inputs from diverse global partners, including one of the Asian Development Banks (ADB) and UN-Habitat, as they (Interviewee 4, personal communication, June 6th, 2025).

The Dutch I&W played a role in promoting WaL as part of water diplomacy, reinforcing it with the Netherlands's longstanding expertise in water governance and its international reputation as a leader in climate-resilient design (van Lieshout, 2021). A interviewee said that the Netherlands' approach to water management involves focusing on local contexts and engaging stakeholders from the beginning, ensuring that solutions are co-developed with local communities rather than imposed by Dutch knowledge from afar (Interviewee 3, personal communication, May 29th 2025).

In Semarang, the ministry-level support not only provided financial resources but also established WaL as a mediator between local stakeholders and international financiers, particularly the ADB (van Lieshout, 2021). An interviewee noted that Semarang exhibits strong social capital, with a notable willingness among local government, city authorities, universities, and civil society to collaborate. This spirit of openness and kindness within the community greatly facilitates joint efforts (Interviewee 10, personal communication, September 19th, 2025). WaL Guidance document had design-led approaches that framed water as more than just an environmental issue and that these approaches address socio-economic inequalities, preserving cultural heritage, and promoting long-term urban resilience (Janssen, et al., 2024) as was confirmed by two interviewees discussing the WaL generally (Interviewee 11, personal communication, October 2nd, 2025; Interviewee 12, personal communication, October 7th, 2025), but also by interviewees from the Semarang initiative (Interviewee 2, personal communication, May 22nd, 2025);(Interviewee 5, personal communication, July 16th 2025). This approach intentionally broadened the policy arena, moving beyond conventional engineering solutions toward integrated, cross-sectoral interventions that align with global discourses on sustainability and inclusivity (RVO, 2018).

Due to insufficient information on Wadden Sea data collection, this section presents a few findings. One interviewee noted an interesting comparison between the cases, as this interviewee was involved with both cases (Interviewee 10, personal communication, September 19th, 2025). In Semarang, the mayor is the dominant political figure, while in the Wadden region, local mayors act as activists, engaging in broader political debates (Interviewee 10, personal communication, September 19th, 2025).

4.2.2 Subsystem

The Subsystem of the WaL programme operated within a complex network of actors that included local communities, municipal governments, international financial institutions, and transnational expert networks (Janssen et al., 2024). The guidance documents highlight that stakeholder mapping was an important first step. It enabled the identification of power relations, capacities, and shared priorities among actors in both Semarang and the Wadden Sea Region (Janssen et al., 2024). As confirmed by an interviewee, who said generally about the WaL, “You need constant engagement and local commitment because it is a Dutch idea, but we are trying to disseminate this information to different contexts, you do need a high local presence or a high number of enthusiastic local champions. (…) So you have the enabling environment, you have the contractors, and you have the executive agency. So where it fails, or where let's say you would not see more phases or more continuation, is if your enabling environment is not set up quite right. So you need a lot of local commitment, so you need to make sure even at the beginning you have the right people and you have the right interests” (Interviewee 9, personal communication, September 3rd, 2025).

In Semarang, the network comprised of municipal agencies, the ADB, local community organisations, and international design teams brought together under the WaL framework (World Water Atlas, 2024). According to a interviewee they said that when working in Samarang, they started to build a local coalition inviting international organizations with communities, local governments reaching out to regional partners and national partners and starting a step by step approach by building these coalitions, this was different in the Wadden Sea Region as mentioned below (Interviewee 10, personal communication, September 19, 2025). This arrangement highlights the WaL’s focus on combining top-down financial expertise with bottom-up community perspectives to create design interventions that are technically feasible and socially grounded (van Lieshout, 2021). The stakeholder maps included in WaL publications show the significance of boundary-spanning individuals, such as Dutch Special Envoy for International Water Affairs Henk Ovink, as their diplomatic efforts connected local projects to global platforms, supported by a interviewee who noted that the envoys aimed to help cities develop with local partners effectively (Janssen et al., 2024; Interviewee 12, personal communication, October 7th, 2025). However, the envoy was noted to be somewhat disorganised and did not fully consider the local context, but his charm and working style helped him succeed (Interviewee 12, personal communication, October 7th, 2025).

When compared to the Wadden Sea Region, was the enabling environment different, as this was between the Ministry of Infrastructure and Water Management (I&W), the Ministry of Agriculture, Fisheries, Food Security and Nature (LVVN) and provincial governments (Interviewee 8, personal communication, September 2nd, 2025). The enabling environment (as explained in section 4.1) in the Wadden Sea Region failed due to bureaucratic fragmentation within the Netherlands, as an interviewee said that while WaL could serve for collaboration, the opportunity in the Wadden region was viewed as competitive rather than collaborative (Interviewee 10, personal communication, September 19, 2025). The interviewee, the water envoy, frequently met up with a Delta Commissioner to discuss water management and policy transfer between the Netherlands and international partners, where they aimed to identify opportunities by visiting relevant projects, facilitating collaboration, and learning from each other's experiences. However, they encountered challenges due to bureaucratic fragmentation, which hindered effective communication and cooperation among officials, making it difficult for them to shift focus from their individual interests to collective goals (Interviewee 10, personal communication, September 19, 2025). This was also confirmed by another interviewee who said the communication with Denmark and Germany went well and was amazed by the similarities throughout the region (Interviewee 8, personal communication, September 2nd, 2025). As this interviewee said: "So those contacts are warm, and that makes the disappointment even greater that it cannot go ahead, because it was all good, and there was exchange and recognition." Due to insufficient information on Wadden Sea data collection, this can neither be confirmed nor disproven by other interviewees.

4.2.3 General Context

The General Context of the WaL programme was as follows.

In Semarang, the water crisis is intensifying due to several interrelated factors, primarily over-extraction of groundwater and unreliable infrastructure, which are particularly problematic during dry seasons, as droughts exacerbate the scarcity of water, impacting both urban and rural communities (World Water Atlas, 2024). The over-extraction of groundwater, from deep aquifers beneath the city, for drinking water this is a largely invisible issue that contributes to a lack of urgency among local inhabitants, despite it being the primary cause of land subsidence (World Water Atlas, 2024). Land subsidence causes Semarang to sink by up to 8 centimetres each year, which is also driven by natural soil consolidation and the weight of buildings (Abidin, Andreas, Gumilar, Sidiq, & Fukuda, 2012). An increasing population and ongoing urban development are accelerating land subsidence in Semarang, which has faced this issue for over a century, leading to increasingly severe consequences (Abidin et al., 2012). The impacts of land subsidence in Semarang are evident in various ways, including the expansion of coastal flooding areas, structural damage to buildings and infrastructure, and greater seawater intrusion inland, which significantly diminishes the quality of life and health of residents in affected areas (Abidin et al., 2012). Compounding these issues, rapid urban development has led to a surge in water demand, worsening the existing challenges (Romano & Akhmouch, 2019). Semarang is also facing flooding as rising sea levels and increased rainfall intensity combine to make coastal areas particularly vulnerable

(World Water Atlas, 2024). The effects of climate change are expected to further increase rainfall variability, placing additional strain on the water supply system (World Water Atlas, 2024). Furthermore, Semarang is grappling with severe infrastructure deficits, especially in sewage, drainage, and water treatment systems, which struggle to keep pace with rapid growth (World Water Atlas, 2024). Pollution in Semarang worsens these challenges by clogging essential drainage canals, promoting the spread of illnesses, and intensifying water scarcity (World Water Atlas, 2024). Much of this pollution stems from unregulated dumping of industrial and household waste into local waterways, resulting in clogged drainage systems, increased disease transmission, and aggravated water scarcity (World Water Atlas, 2024). According to an interviewee, Semarang was selected because the problems were comprehensive (Interviewee 1, personal communication, May 21st, 2025).

The "Setting the Scene Report for Water as Leverage" highlights the need for integrated and adaptive solutions in the Wadden Sea Region to address flooding, preserve biodiversity, and sustain local livelihoods (Bierens, et al., 2022). Recognised for its rich biodiversity, the Wadden Sea provides ecological value essential for marine life, cultural significance from traditional practices tied to local identity, and strategic importance for local economies through fishing and tourism (Bierens, et al., 2022). As a UNESCO World Heritage site, it faces challenges from climate change, including rising sea levels, storm surges, and coastal erosion, which undermine resilience and threaten biodiversity (European Water Regulators, 2023; Common Wadden Sea Secretariat, 2024). Human activities like land reclamation and dike construction exacerbate ecological stress, leading to unattractive living conditions, rising housing prices, and job losses in the local economy (Bierens, et al., 2022; Common Wadden Sea Secretariat, 2024). The report also groups five recurring problems together “to combine many thematic challenges into one integrated approach” and uses examples from the countries in the region, which are the Netherlands, Germany and Denmark. The first one is the Aqua Landscape, which shows how the surroundings of water bodies can transform, impacting water retention and ecosystem functionality (Bierens, et al., 2022). The second family is Portal to the Wad, where coastal villages serve as gateways to the heritage linked to the Wadden Sea, meeting unique environmental challenges (Bierens, et al., 2022). The third is Hospitable Harbour, reflecting the social transformations occurring in coastal cities alongside natural shifts (Bierens, et al., 2022). The fourth challenge is represented by Water-autonomous Islands, which focus on self-sufficient strategies for managing water resources to ensure sustainability (Bierens, et al., 2022). Finally, the fifth family, Living with Water, is about ongoing efforts to restore balance in environments affected by water dynamics and climate change (Bierens, et al., 2022).

4.2.4 Levels of Power

Exploring power dynamics in the case studies reveals that the interplay between local, national, and global influences is integral to effective management.

In Semarang power dynamics among local, national, and global stakeholders heavily influence water-related initiatives and urban development, which makes implementation a struggle, therefore, prioritising inclusivity through a collaborative process that actively involves stakeholders, listens to their input, and connects different levels can leverage strengths for more effective project implementation (Interviewee 2, personal communication, May 22nd, 2025; Interviewee 3, personal communication, May 29th, 2025; Interviewee 12, personal communication, October 7th, 2025). In Indonesia, the governance structure features a decentralised institutional hierarchy spanning national, provincial, district/city, and community levels, which complicates coordination in water management (Interviewee 2, personal communication, May 22nd, 2025; Interviewee 5, personal communication, July 16th, 2025). From a policy perspective, the city government has limited authority to manage certain aspects of Semarang, such as large river management, which falls under the authority of the national government (Ministry of Public Works), and watershed management, which is under the jurisdiction of the Ministry of Forestry and Environment (Interviewee 5, personal communication, July 16th, 2025). However, another respondent noted that the national government has greater financial and human resource capacity compared to local and provincial governments, making it a key player in international cooperation and funding (Interviewee 2, personal communication, May 22nd, 2025). While the provincial government serves as a liaison, but struggles with resource allocation and governance, resulting in fragmented water management approaches in Semarang (Interviewee 2, personal communication, May 22nd, 2025). During the WaL, the team communicated intensively with the Semarang City Government and stakeholders at the city level. Water-related initiatives have been underway in Semarang for over 15 years, supported by national and international entities like the Dutch and Japanese governments. This history of collaboration and readiness for new projects made Semarang a pilot city for the WaL programme. Semarang, Chennai and Khulna were part of the 100 Resilient Cities Network, and after researching over 30 locations, these three were selected for deeper engagement (Interviewee 1, personal communication, May 21st, 2025). Although processes differed across cities, overlaps existed, particularly in financial workshops discussing nature-based solutions and funding applications (Interviewee 3, personal communication, May 29th, 2025). While international involvement brings essential expertise and visibility, the success of these efforts hinges on effective governance and funding mechanisms that yield local benefits, as these existing initiatives lack coordination among various initiatives and government agencies in Indonesia, which the interviewee identified as a critical issue (Interviewee 2, personal communication, May 22nd, 2025; Interviewee 4, personal communication, June 6th, 2025). According to two interviewees, helped Dutch experts in Indonesia's national planning department to enhance project execution and create connections, as the presence of a resilience team and strong relationships between the university and city planning departments show the interconnectedness of stakeholders in resilience planning (Interviewee 1, personal communication, May 21st, 2025; Interviewee 10, personal communication, September 19th, 2025). The interviewee said that the main challenge lies with governance, specifically, how institutions coordinate and collaborate, and in securing funding to implement the WaL proposals (Interviewee 2, personal communication, May 22nd, 2025). Similarly, an interviewee mentioned that in cities with autonomy, local experts, urban designers, and architects can drive projects forward. However, in Indonesia, local cities lack this autonomy, necessitating national government involvement from the outset. This was a key lesson learned from the WaL Semarang project, which did not initially engage national stakeholders (Interviewee 9, personal communication, September 3rd, 2025).

Similarly, in the Wadden Sea Region, local engagement was deemed critical, as noted by a interviewee who said that communities such as fishermen and residents possess valuable insights and interests concerning the ecosystem's sustainability, and that supporting these communities is essential for the success of conservation projects; however, issues of power imbalances can arise when more resourceful stakeholders overshadow smaller voices (Interviewee 8, personal communication, September 2nd, 2025). As the national government of the Netherlands has a "hard time" with thinking integrally like the region does, which caused a ministry to oppose them and a "pure power position" (Interviewee 8, personal communication, September 2nd, 2025). This is further elaborated by an interview, the interviewee once did, they said this about why the WaL approach was so different from the Dutch approach: "We tackle issues sectoral. This falls under the municipality, that under the national government, and that under the water board. With this methodology, various stakeholders come together in the initial exploratory phase of a process. Besides the initiators, this also includes government bodies, potential financiers, residents, and contractors. It's an inclusive approach, where eone contributes their knowledge and insights. Parties leverage each other's creativity. As a result, you see opportunities that you wouldn't see with a sectoral approach" (Waddenfonds, 2022).

4.3 Transferability

4.3.1 Conveying Ability

The Conveying Ability of the WaL programme is to create equity and shared ownership among stakeholders, shaping context-sensitive visions while enhancing project legitimacy (Janssen et al., 2024).

In Semarang, the WaL team prioritised both city and national levels from the beginning, recognising their connection as important for progress, as aligning with national climate adaptation policies not only aids in convincing local stakeholders but also attracts national funding, which in Semarang they managed to gain support at both city and global levels (Interviewee 3, personal communication, May 29th, 2025). The socio-economic and technical aspects of the concept address local dynamics and problems identified in previous stages, yet a big gap in awareness during implementation stage which challenges the successful execution of the proposal, despite it being an ideal solution (Interviewee 2, personal communication, May 22nd, 2025). Several stakeholders were involved, such as IKUPI. A interviewee noted that WaL's design proposals closely align with IKUPI's work in Indonesia, where they focus on resilient villages, such as grassroots community empowerment, research, and policy advocacy on water and climate change (Interviewee 5, personal communication, July 16th 2025). However, they did say that transforming the WaL idea into action requires increasing public literacy and awareness of the importance of water-related issues. The challenge at implementation is financing initiatives at the community level, as communities themselves face financial constraints, but if initiatives undertaken at the local level that align with the national development vision have the potential to become regional development priorities (Interviewee 5, personal communication, July 16th 2025). Another viewpoint, from the WaL, says that challenges in governance and the complexity of existing regulations surrounding funding and financing hinder its effectiveness and is complicated, as the efforts to address local issues are in place, thus awareness at the implementation stage remains lacking (Interviewee 2, personal communication, May 22nd, 2025).

Due to insufficient information on Wadden Sea data collection, this section presents has a few findings. Henk Ovink played a important role in bridging local experimentation with international policymaking, enhancing the credibility and reach of local initiatives in global forums (Janssen et al., 2024). This was the case as mentioned in section 4.2.2. However, this reliance on networked governance also presents vulnerabilities; while networks facilitate legitimacy and knowledge transfer, they demand ongoing trust-building and effective brokerage among stakeholders (Janssen et al., 2024). In the Wadden Sea Region was "only a good idea alone" and an inspiring person like Henk alone are not enough, as the institutional structure has to match (Interviewee 4, personal communication, June 6th, 2025). A interviewee once said that the exploratory discussion began during Climate Adaptation Week 2021, the chair of the Wadden Sea Board, called for a joint response to climate change in the Wadden Sea region. Together with Water Envoy they then began exploring a Wadden Sea programme at Programme to Rich Wadden Sea (Waddenfonds, 2022).

4.3.2 Actor Relations

The Actor Relations of the WaL programme are mentioned to be important as they determine the effectiveness of WaL (Janssen et al., 2024). The WaL programme needs strong actor relations with trust, visibility, and networked legitimacy for scaling projects beyond local boundaries and effective communication, as it engages the national government to grasp local planning complexities (Interviewee 3, personal communication, May 29th, 2025; Janssen et al., 2024).

In Semarang, the Dutch government has a long colonial history with Indonesia, making cooperation smoother compared to other countries like Thailand, where context and systems may differ (Interviewee 1, personal communication, May 21st, 2025; van der Eng, 1998). This historical relationship, marked by over three centuries of colonial rule, has ingrained a complex interdependence, influencing trade, governance, and societal structures, which relates to a built understanding (van der Eng, 1998).

In Semarang, before the arrival of the multidisciplinary teams and the development of solutions, a interviewee focused on establishing relationships with local counterparts, particularly city representatives and city administrators, as this was deemed essential to create collaboration as these relationships laid a strong foundation for the success of the programme (Interviewee 3, personal communication, May 29th, 2025; Interviewee 12, personal communication, October 7th, 2025). An interviewee from Indonesia noted that during the process, there have been enough platforms for collaboration between international and local institutions and experienced that the WaL process was concerned with including the local people (Interviewee 2, personal communication, May 22nd, 2025). In an interviewee's experience with WaL research, they have noticed that successful projects create valuable connections within and between networks, as this is needed for finding solutions and lays a fertile ground for various initiatives (Interviewee 12, personal communication, October 7th, 2025). As many interviewees about the Semarang case mentioned, but particularly one interviewee gave a more general overview, by saying that communities are essential for the WaL programme, as their commitment and local knowledge surpass that of civil servants. Since WaL aims to enhance their environment, involving communities ensures the project is tailored to their needs, fostering support and ownership for implementation (Interviewee 7, personal communication, July 24th, 2025). The ministry can advocate for decision-making and manage expectations, as the WaL team advises on project development but does not approve or build projects; stakeholders must engage their own decision-makers, as the WaL team does not push projects forward or prioritise them to align with their policy goals (Interviewee 6, personal communication, July 24th, 2025). It was also important to incorporate local stakeholders' knowledge and ideas into projects, while familiarising them with upcoming initiatives (Interviewee 12, personal communication, October 7th, 2025). Engaging financial stakeholders and investors to share their insights and get acquainted with potential projects is also needed, as it creates a mutual learning environment. This is essential for bridging the gap between local community needs and project expectations (Interviewee 12, personal communication, October 7th, 2025). IKUPI get their work from their expert network, and through coordination and expert information sharing, several collaborative initiatives with consultants and other development partners emerged, and this interviewee mentioned that the Dutch partner consistently builds collaboration and communication with local actors, including regional heads, for establishing a common understanding of water-related initiatives in Semarang (Interviewee 5, personal communication, July 16th, 2025). However, the challenge remains in aligning these collaborative efforts with community priorities, as during the development planning process, the community still tended to prioritise physical interventions (Interviewee 5, personal communication, July 16th, 2025). One interviewee was more critical about participation, as the programme is specifically targeted towards local government and NGO experts, rather than being open to one (Interviewee 1, personal communication, May 21st, 2025). However, an interviewee at IKUPI said that they valued building collaboration with various stakeholders at the community level and connecting them with the government (Interviewee 5, personal communication, July 16th 2025).

Due to insufficient information on Wadden Sea data collection, this section presents a few findings. As mentioned in 4.2, were there in the Wadden Sea Region programme some tensions between the region and the ministries and were the relationships between the regional actors, so the Netherlands, Denmark and Germany, good (Interviewee 8, personal communication, September 2nd, 2025).

Various interviewees from different perspectives noted that the WaL programme gave them lasting contacts valuable connections within and between networks that these connections remain over time which is a sign of success, however one interviewee noted that the programme builds strong connections between people, although it not being be the ultimate goal (Interviewee 1, personal communication, May 21st, 2025; Interviewee 2, personal communication, May 22nd, 2025; Interviewee 8, personal communication, September 2nd, 2025; Interviewee 12, personal communication, October 7th, 2025).

4.3.3 Normative Fit

The Normative Fit of the WaL programme refers to how well WaL’s principles align with local norms and practices in Semarang and the Wadden Sea Region. The core value of the initiative is its catalytic capacity to bring unheard voices together, cut across institutional silos, and reinforce ambition for inclusive problem-solving (Interviewee 10, personal communication, September 19th, 2025).

In Semarang, however, inclusivity ideals clashed with the realities of local governance structures, where participation mechanisms were limited and decision-making power remained concentrated among elites (World Water Atlas, 2024). Interviewees praised WaL’s inclusive and visionary approach, describing it as a meaningful tool for knowledge exchange and planning. However, one expert noted that while it created strong interpersonal connections, this did not necessarily translate into embedded change. WaL documents reveal efforts to overcome these barriers through co-creation workshops and community engagement, but the extent of genuine influence for marginalised groups remained constrained (van Lieshout, 2021). An interview contradicted that, by saying that the co-creation process should incorporate diverse perspectives from design teams, local communities, and funding institutions, highlighting a two-way interaction where local processes influence the initiative and vice versa (Interviewee 4, personal communication, June 6th, 2025). Similarly, an interviewee in Semarang said the WaL give enough room for local expertise to be included during or in the process; however, cultural differences in work dynamics in Indonesia mean that while some methods may be effective, they might not work universally due to varied individual responses and hierarchical structures. Effective collaboration requires adapting approaches to local cultures, as feedback in Indonesia involves careful communication and respect for authority (Interviewee 2, personal communication, May 22nd, 2025).

When compared to the Wadden Sea Region fitted WaL's focus on inclusivity and ecological sustainability fits more within existing traditions of consensus-oriented governance and environmental stewardship, yet tensions still emerged, particularly around balancing ecological preservation with economic activities such as gas extraction and shipping (RVO, 2018).

4.3.4 Policy Features

The Policy Features of the WaL programme were distinguished by its integrated, design-led policy features, to break down silos between sectors and disciplines with its proposals combining engineering with social innovation, cultural heritage, and financing strategies, thereby offering holistic packages rather than isolated technical fixes (van Lieshout, 2021;Janssen, et al., 2024). This was confirmed by an interviewee, as RVO actively encourages diverse input, which is beneficial for breaking disciplinary silos, and thus supports interdisciplinary collaboration and innovation (Interviewee 11, personal communication, October 2nd, 2025). The WaL focused on collaboration in contexts where stakeholders typically operate in isolation (Interviewee 9, personal communication, September 3rd, 2025).

An interviewee from a general viewpoint sees the universal WaL principles as essential for project development, highlighting that their applicability varies by context and the importance of inclusive stakeholder engagement, particularly in water resource management, asserting that these principles are transferable across different contexts (Interviewee 9, personal communication, September 3rd, 2025). An interviewee from a general viewpoint said that: "You should analyse the whole system and then design the best package of solutions, and nature-based solutions should always be considered" (Interviewee 6, personal communication, July 24th, 2025). In Semarang, concepts like nature-based solutions were previously foreign, but five years of work have made these approaches more mainstream, as ongoing dialogue and effective communication of new ideas through visual mediums aided the transition from traditional civil engineering to innovative methods (Interviewee 9, personal communication, September 3rd, 2025). As mentioned in earlier sections, did "breaking down silos" not work in the Wadden Sea Region.

4.3.5 Forms of Power

Exploring power dynamics in the case studies reveals the interplay between visible, hidden and invisible influences.

By connecting WaL projects in Semarang with major financiers like the ADB and the World Bank, Dutch ministries and WaL leaders were able to influence which designs gained support and which were overlooked (van Lieshout, 2021). It is essential to investigate who truly empowers the programme, as it relies on a shifting network affected by various projects, as with each annual cycle, new approaches and ideas emerge, bringing in both familiar and new participants (Interviewee 1, personal communication, May 21st, 2025). Thus, Visible Power is evident in the described decision-making processes involving major financiers like the ADB and the World Bank. The formal structures established by Dutch ministries and WaL leaders influence which designs receive financial support. This observable power structure reflects the formal rules and institutional arrangements governing the funding of water management projects.

When compared to the Wadden Sea Region, was there a power dynamic. As explained in section 4.2 was the WaL Wadden Sea Region was viewed as competitive rather than collaborative in the bureaucratic system of the government, such that his complexity of institutional structures within the Netherlands created barriers. The WaL in the Wadden Sea Region was successful in places like Harlingen, but broader ambitions in Denmark and Germany faced funding challenges (Interviewee 4, personal communication, June 6th, 2025). The WaL Guidance defined it as challenges in maintaining cohesion and securing financial resources, resulting in uneven participation as some partners engaged actively while others were reluctant (Janssen, et al., 2024). The programme is supported by the Dutch government as part of its international water policy, specifically through the NIWA, including countries like Germany and Denmark, complicated collaboration (Interviewee 4, personal communication, June 6th, 2025). Attempts to engage these countries were met with scepticism regarding funding responsibilities, as the Netherlands had no obligation to finance their projects (Interviewee 4, personal communication, June 6th, 2025). However, one interviewee noted that, while challenging for the ministry, the region managed to connect. It was largely due to institutional differences and the working methods. Germany seriously engaged in the consultation process, coordinating internally and conducting scientific tests before formally confirming their participation after about a year. Denmark was closer to our own approach (Interviewee 8, personal communication, September 2nd, 2025). Additionally in according to an interviewee's account, the Esbjerg municipality from Denmark initially showed great interest; however, after internal in the municipality were some troubles causing attention was shifted, delaying administrative approvals, and the city council was dissolved, which further complicated matters (Interviewee 8, personal communication, September 2nd, 2025). In the end, efforts to create a European proposal to secure funding failed, showing the challenges of integrating different institutional frameworks. The interviewee highlights that bridging policy domains and creating collaboration requires significant effort and understanding of the existing governance structures, which are resistant to such innovative approaches (Interviewee 4, personal communication, June 6th, 2025). Visible Power is evident in the formal structures and decision-making processes within the bureaucratic system of the government, as described in the context of the Wadden Sea Region. The role of the Dutch government and its international water policy, highlighting the observable aspects of governance, such as the institutional frameworks and the actions taken (or not taken) in terms of funding and collaboration. Hidden Power is also present, particularly through the influence of funding responsibilities and the agenda-setting capabilities of the Netherlands. The reluctance of the Dutch government to finance projects in Europe indicates an exclusion of these countries from potential collaborative efforts. Invisible

Power can be inferred from the internalization of norms and perceptions regarding collaboration and competition among the involved countries.

4.4 Process design

4.4.1 Actors

The Actors of the WaL programme are of diverse array. In Semarang, national and international support is provided by bodies such as the RVO, which organises the programme and facilitates international collaboration, as well as the Dutch government, represented by Special Envoy Henk Ovink, who offers expertise in water management. The national actors are the Ministry of Public Works and Public Settlement and the Ministry of Environment and Forestry. The local government entities, notably the City of Semarang and its Development Planning Agency (BAPPEDA), play a big role by aligning the programme's initiatives with local development plans. Semarang City had several sources of support for water-related projects, including the World Bank, ADB, JICA, the Resilience Cities Network, and several foundations such as Mercy Corps and Z-Zurich Insurance. Non-governmental organisations are also integral to the programme, such as Kota Kita which played a lead role in the WaL programme. The Consortium includes international and local multidisciplinary organisations. One Resilient Semarang team includes One Architecture & Urbanism, Deltares, Wetlands International, Sherwood Design Engineers, Atelier Ten, The Nature Conservancy, University of Pennsylvania, Partners for Resilience, Universitas Diponegoro (UNDIP), P5, KotaKita, and Grobak Hysteria. Meanwhile, the Cascading Semarang Team is composed of MLA+, FABRICations, Witteveen+Bos, Deltares, and IDN Liveable Cities. Supporting these teams are several knowledge partners, including Palang Merah Indonesia (Indonesian Red Cross), Kampus Merdeka, and Partners for Resilience, who contribute expertise in humanitarian response, education, and community resilience. This ensured broad stakeholder participation (Interviewee 3, personal communication, May 29th, 2025; Interviewee 5, personal communication, July 16th 2025). Academic collaboration is reinforced by institutions such as Universitas Diponegoro, Universitas Islam Sultan Agung (UNISSULA) and universities in the Netherlands, which contribute research to evaluate the programme's impact on enhancing resilience. Another NGO that played a role in the WaL process was IKUPI, and they served as a resource person and facilitator in the AWAL process and provided information on its programs and their relevance to water-related issues (Interviewee 5, personal communication, July 16th 2025). Finally, local communities are active participants in both the planning and implementation processes, ensuring the solutions developed are relevant and inclusive, reflecting the needs and contexts of the residents, however, there were no Semarang based partners in the teams, which caused some trouble to get into the ground, except for the Deputy of Chief Resilience Officer (CRO) who was based in Semarang (Interviewee 12, personal communication, October 7th, 2025).

In the Wadden Sea Region was a diverse array of key actors working collaboratively to enhance resilience. According to an interviewee, offered Ministry I&W, a national government body responsible for water management policies, bureaucratic resistance complicated progression, but the Ministry LVVN was helpful (Interviewee 8, personal communication, September 2nd, 2025). Ministry RVO and certain representatives contribute expertise and resources to promote the programme, showing the importance of partnerships between governmental and independent bodies. The interviewee noted that the initiative for the Wadden Sea Region came from the region itself and not from the ministry I&W (Interviewee 8, personal communication, September 2nd, 2025). The Common Wadden Sea Region Secretariat (CWSS) promotes cooperation among the Netherlands, Germany, and Denmark for the preservation and sustainable management of the Wadden Sea Region, making their cooperation essential for the success of initiatives (Interviewee 8, personal communication, September 2nd, 2025). It facilitates cross-border collaboration on environmental issues, with Denmark and Germany as key partners in the initial WaL programme proposal. Additionally, Deltares and the design firms OAK consultants and Architecture Workroom Brussels involved (Programma naar een Rijke Waddenzee, 2022). The local Programme Towards a Rich Wadden Sea played key organizational roles, uniting various stakeholders, including local groups, financing bodies, and government entities to create a coalition (Janssen, et al., 2024).

4.4.2 Mutual Understanding & Adaptation

The Mutual Understanding & Adaptation of the WaL programme was cultivated through a series of iterative workshops and co-creation sessions. These interactions allowed participants to adjust their expectations and priorities as projects progressed (Janssen et al., 2024). The guidance explicitly defined co-creation as both a design principle and a governance mechanism, ensuring that solutions were developed collaboratively rather than imposed (RVO, 2018).

In Semarang, this approach helped bridge the divide between international financiers and local communities (World Water Atlas, 2024). The co-creation process in the WaL initiative involves various stakeholders, including local universities and communities, through Focus Group Discussions with the Dutch embassy as key intermediary, despite some inefficiencies, strong communication channels have been established, resulting in inclusive and participative designs (Interviewee 1, personal communication, May 21st, 2025; Interviewee 2, personal communication, May 22nd, 2025). There is a shared understanding of goals and methods between international and local actors (Interviewee 2, personal communication, May 22nd, 2025). However, the Dutch experts were on-site for a limited time as programmes are costly, which created challenges in scheduling and flexibility, making it challenging to build relationships quickly, because in developing countries, establishing trust and engaging in ongoing negotiations are critical, as solutions cannot be rushed (Interviewee 1, personal communication, May 21st, 2025). Therefore, there is a need for more local empowerment and resource allocation to improve these processes (Interviewee 1, personal communication, May 21st, 2025). Additionally, local stakeholders expect tangible solutions to issues like climate change and flooding, not just a dialogue process and meeting these expectations is important for building relationships (Interviewee 1, personal communication, May 21st, 2025). As part of ongoing projects, it is acknowledged that there are time limitations and the need for more detailed findings. In this context, a defined scope is present, yet effective communication among stakeholders, including local governments and RVO, is prioritised (Interviewee 2, personal communication, May 22nd, 2025).

Similarly, in the Wadden Sea Region, the approach facilitated dialogue among various sectors with conflicting interests, such as conservation and economic development (Programma naar een Rijke Waddenzee, 2022). When compared to the Wadden Sea Region, there were further sessions held with LAMA architects and Sweco to guide design-based research for harbour development, which led to the development of four scenarios, including some extreme solutions, which created valuable discussions (Interviewee 8, personal communication, September 2nd, 2025). Early involvement from various parties, such as Denmark and Germany, generated enthusiasm and facilitated agreements; however, time and energy were wasted due to uncertainties caused by I&W, which had a considerable negative impact despite a positive outlook on the collaboration (Interviewee 8, personal communication, September 2nd, 2025).

4.4.3 Management of Exchange Network

The Management of Exchange Network of the WaL programme was done by the following. The WaL office served as a central hub for coordinating various stakeholders, ensuring a cohesive process despite the diversity of participants involved (Janssen et al., 2024). An interviewee highlights the need for a collaborative approach that includes all stakeholders to break out of existing policy confines. By creating a parallel safe space for innovation, meaningful ideas can emerge that influence policy changes (Interviewee 10, personal communication, September 19th, 2025).

In Semarang, this included managing interactions between local government agencies, community organisations, international financiers, and design firms (World Water Atlas, 2024). The presence and influence of city representatives, especially technical secretaries, were notable due to their jurisdiction, facilitating interactions with other stakeholders (Interviewee 3, personal communication, May 29th, 2025). This created a network for exchanging ideas and concerns that linked grassroots issues to global agendas (World Water Atlas, 2024). The WaL team organised in Semarang local and regional workshops to include governmental networks in discussions, which were interactive, focusing on specific issues, knowledge exchange, and reflection where they used maps and sticky notes (Interviewee 12, personal communication, October 7th, 2025). These interactive discussions created productive dialogue due to involving various organisations (Interviewee 5, personal communication, July 16th 2025). Stakeholders, including governmental agencies and community representatives, were invited to co-design solutions during local design workshops (Interviewee 3, personal communication, May 29th, 2025; Interviewee 12, personal communication, October 7th, 2025). Communities were involved from the early stages and provided input into the development of WaL ideas (Interviewee 2, personal communication, May 22nd, 2025; Interviewee 5, personal communication, July 16th 2025). Additionally, having private developers and financial institutions on board is essential due to the integrative character of the projects a this requires a new way of thinking (Janssen, et al., 2024). The multidisciplinary teams visited various communities to ensure the co-development process occurs within those locations, as this approach allows them to engage a wider range of stakeholders who may not attend a hotel workshop but can provide valuable insights for the project ((Interviewee 2, personal communication, May 22nd, 2025; Interviewee 3, personal communication, May 29th, 2025); Interviewee 5, personal communication, July 16th 2025). However, coordination was not always seamless, as the WaL Evaluation Report highlights challenges in maintaining momentum beyond the initial workshops, largely due to responsibility for follow-up being shared among too many actors (van Lieshout, 2021). While progress has been made, there is always room for improvement in ensuring comprehensive participation (Interviewee 10, personal communication, September 19th, 2025).

Due to insufficient information on Wadden Sea data collection, this section presents a few findings. At the time of writing, there were six workshops and meetings between February 2022 and March 2024 (Janssen, et al., 2024). A respondent noted that in their experience, they learned a great deal from these meetings (Interviewee 8, personal communication, September 2nd, 2025).

4.4.4 Transfer Type

The Transfer Type of the WaL programme will be analysed. The WaL learned from its past experiences that including diverse institutions and engaging local stakeholders early in the process is essential. This approach improved the inclusivity of planning efforts in subsequent editions (Interviewee 12, personal communication, October 7th, 2025). As mentioned in section 2.2.3.2, learning from failures is linked to successful transfer outcomes (Minkman, van Buuren, & Bekkers, 2018). According to an interviewee is knowledge transfer between countries is beneficial, especially when there are strong diplomatic and social ties (Interviewee 1, personal communication, May 21st, 2025). However, to improve project outcomes, involving national government representatives in workshops is essential, which includes conducting feasibility tests and ensuring all planning aspects are analysed, creating collaboration across all levels of governance (Interviewee 6/7, personal communication, July 24th, 2025).

As shown in previous sections, both transfers are of a voluntary kind as policymakers actively seek to learn from other jurisdictions due to perceived benefits. As an interviewee emphasised that WaL in Semarang and other pilot cities, in their opinion, is part of a broader initiative by the Dutch government aimed at creating resilience in urban areas and supporting the development of other countries (Interviewee 12, personal communication, October 7th, 2025). However, they said that those involved in executing the programs reveal that their primary focus was on aiding other cities to develop collaboratively with local partners, which has proven effective in grounding these efforts (Interviewee 12, personal communication, October 7th, 2025).

When compared to the Wadden Sea Region, it showsd how the inspiration model fell short of achieving practical outcomes. While WaL workshops did spark new conversations about ecological resilience, few of the proposed projects were advanced, partly because existing institutional frameworks already had robust planning instruments in place (Janssen, et al., 2024).

Based on this it would suggest that Learning Transfer took place in both cases, because it focuses on knowledge sharing and building local capacities, which are key components of learning-oriented transfer processes (Minkman, van Buuren, & Bekkers, 2018). However, there is minor evidence for Branded Transfer or Pressured Transfer.

Branded transfer could be the case as the water envoy was once given the task of marketing the Dutch knowledge and expertise of water abroad, which is an example of Branded Transfer (Programma naar een Rijke Waddenzee, 2022). From the viewpoint of an interviewee, the programme is initiated by the Dutch government with a broader strategic goal in mind, leveraging Dutch expertise in water management, and to establish diplomatic ties (Interviewee 11, personal communication, October 2nd, 2025). This initiative not only aims to bolster the Dutch water sector but also seeks to enhance the urban design sector (Interviewee 12, personal communication, October 7th, 2025). The perception of water management by the global community positions the Dutch as leaders in the field, which is an entry point for further engagement and institutional commitment (Interviewee 6, personal communication, July 24th, 2025). However, it must be noted that not all agree, as an interviewee said that when they began their career in water management about ten years ago, the focus was on bringing Dutch expertise internationally, but says that the WaL programme is different as it highlights involving local stakeholders from the start, ensuring solutions are locally tailored rather than imported. They prioritise iterative processes, like local design workshops, that create interaction among different stakeholders and, instead of starting with predetermined technical solutions, “we” advocate for co-developing solutions by listening to local communities who understand their challenges best (Interviewee 3, personal communication, May 29th, 2025). Additionally, the normative fit was not an issue, and there is no convincing evidence of subtle pressures from international norms or a desire to align with globally recognised standards.

Pressured Transfer, could be the case due to the colonial ties between the Netherlands and Indonesia, but previous sections indicate otherwise. However, both cases faced financial constraints, which would be the only evidence.

4.4.5 Spaces of Power

Exploring power dynamics in the case studies reveals the interplay between invited, closed, claimed/created arenas, as defined in section 2.3.1.1, is integral to effective management.

In Semarang were informal design workshops (invited spaces), which emerged as important arenas where international experts and local stakeholders negotiated their priorities; however, there was pressure from stakeholders who focused on short-term results, which created tension (Interviewee 3, personal communication, May 29th, 2025; World Water Atlas, 2024). They did highlight the need to ensure that our outcomes are useful and valuable to all stakeholders involved (Interviewee 3, personal communication, May 29th, 2025). According to an interviewee, the tension in international collaboration arises from the need for tangible results addressing the daily challenges of a city like Semarang, while implementing such visible projects is appealing, integrated planning and a systems perspective can be complex and harder to advocate for (Interviewee 3, personal communication, May 29th, 2025). In addition to local efforts, international collaboration primarily connects local initiatives to global networks, facilitating knowledge exchange among policymakers (Interviewee 1, personal communication, May 21st, 2025). The WaL deemed creating designated spaces for these discussions as essential, as they can result in long-term cost savings (Interviewee 3, personal communication, May 29th, 2025). Additionally, were formal donor meetings (closed spaces), because in Semarang, the priorities of donors and the influence of external expertise dictated which proposals are deemed viable, as the involvement of the ADB influenced the impact of financial considerations on which proposals gained traction, reflecting broader trends of donor-driven agenda-setting in development contexts, which further reinforces power imbalances between local stakeholders and international entities (van Lieshout, 2021). Many institutions have operated in the same way for a long time; however, using WaL is introducing co-design elements with residents and stakeholders is new for financing institutions, which still need to learn how to implement these methods effectively (Interviewee 11, personal communication, October 2nd, 2025). Thus, the process encounters challenges due to its unconventional nature and aim for transformative change (Interviewee 12, personal communication, October 7th, 2025). While success can vary by project and the individuals involved in decision-making, there are indications that progress is being made on improving the WaL (Interviewee 11, personal communication, October 2nd, 2025).

Due to insufficient information on Wadden Sea data collection, this section presents a few findings. In the Wadden Sea Region, decision-making is largely centralised within formal governance bodies. As a result, there is a limited opportunity for innovative initiatives, like WaL, to impact outcomes.

4.5 Adoptability

4.5.1 Suitability

In this section, the Suitability of the WaL programme was assessed in terms of how well WaL proposals responded to local needs in Semarang and the Wadden Sea Region.

An interviewee in Semarang said that the WaL solutions are suitable for the local context, because they comprehensively address water sector resilience, engaging various stakeholders from industry to village communities. The ideas are comprehensive and relevant to Semarang's development goals and are aligned with existing programs in Semarang (Interviewee 5, personal communication, July 16th 2025). According to an interviewee, the programme in Semarang acts as a catalyst for collaboration in the design process, facilitating communication among various actors; however, many policymakers, especially from older generations, prioritise quick project implementation over understanding the design process (Interviewee 1, personal communication, May 21st, 2025). Success relies on the engagement of local actors, and while the programme can initiate change, it is the application and adaptation of ideas that ultimately determine outcomes (Interviewee 1, personal communication, May 21st, 2025).

Due to insufficient information on Wadden Sea data collection, this section presents a few findings. In the Wadden Sea Region was effective collaboration was hindered by unclear institutional and governance structures, as stakeholders felt frustrated due to insufficient clarity about their roles and expectations, highlighting the need for better communication and organisation (Interviewee 4, personal communication, June 6th, 2025).

4.5.2 Capacity

The Capacity of the WaL programme was embedded into WaL's guidance on developing skills and institutional arrangements that would endure beyond the life of the programme (Janssen, et al., 2024). By focusing on co-creation and knowledge exchange, WaL sought to strengthen governance systems in in their initiatives (van Lieshout, 2021).

According to an interviewee, the national government of Indonesia has greater financial and human resource capacity than local or provincial governments and plays an important role in international cooperation and support (Interviewee 2, personal communication, May 22nd, 2025). The pilot cities shared similarities in certain processes and ambitions, such as financial workshops that identified diverse challenges while addressing nature-based solutions. These efforts aimed to integrate funding processes for these projects, leading to a distinct decision-making framework involving city representatives, RVO, and their ministry to select promising projects (Interviewee 12, personal communication, October 7th, 2025). In Indonesia, another interviewee noted that the focus group discussions provided a space for all participants to express their views, creating productive dialogue while involving multiple organisations (Interviewee 5, personal communication, July 16th, 2025).

Due to insufficient information on Wadden Sea data collection, this section presents no new findings, only those mentioned in previous sections.

4.5.3 Resources

The Resources of the WaL programme will be analysed. A interviewee highlights the critical importance of funding, networking, and the ability to communicate effectively are important for the success of the programme, as recognising windows of opportunity, such as interest from specific cities, along with a compelling narrative, can help legitimise activities and initiatives (Interviewee 4, personal communication, June 6th, 2025). Funding is essential for running and advancing programs; without it, progress is inevitably stalled (Interviewee 4, personal communication, June 6th, 2025).

Initially, the approach in the three Asian cities focused on conceptual design, anticipating that international financiers would fund follow-up efforts. However, in Semarang, funding dried up due to overly optimistic assumptions from financiers. They addressed this challenge in Cartagena by funding the next steps through self-generated resources.

In Semarang, limited municipal budgets meant that many proposals remained aspirational unless backed by international financiers like the World Bank and ADB, which was exacerbated by the gap between design competitions and actual funding commitments, which created frustration among local actors, who felt that WaL raised expectations without securing follow-through (van Lieshout, 2021). An interviewee confirmed that the financial institutions showed interest; however, collaborative planning and engagement with the national government from the outset was necessary to secure funding, which did not occur, leading to missed opportunities in project pipeline development Interviewee 6, personal communication, July 24th, 2025). According to one interviewee, the political context can support WaL ideas if all stakeholders understand their roles and contributions (Interviewee 5, personal communication, July 16th, 2025). As government ministries work in silos, making integrated projects challenging, as one ministry must take the lead (Interviewee 6, personal communication, July 24th, 2025). Dutch funders have shifted focus from broad implementation to specific projects, which complicates maintaining project integrity (Interviewee 6, personal communication, July 24th, 2025).

According to an interviewee, the idea that good concepts will automatically attract funding is misguided, as complexity can hinder investment. Stakeholders are increasingly aware of nature-based solutions, but challenges remain, particularly among the private sector, which recognises how environmental issues like drainage can affect operations (Interviewee 6, personal communication, July 24th, 2025). Consequently, most international funding favours large infrastructure over nature-based solutions (Interviewee 1, personal communication, May 21st, 2025). The program is ambitious and aspires to create positive change in the world, a goal they consider highly commendable; however, they noted that it might be too innovative to achieve its goals in one step, as reflected in the Dutch saying "te ver voor de troepen vooruit lopen" (Interviewee 12, personal communication, October 7th, 2025).

Funding varies in scale and complexity, as smaller amounts are needed for understanding challenges and building capacity, while larger sums, in the billions, are required for implementation, whether for infrastructure or nature-based solutions; thus, it is important to invest millions in people and processes, as it can attract the billions necessary for innovative ideas. However, validation and evaluation of funding need to be redefined to ensure it supports new approaches instead of outdated policies. They said that they successfully secured funds for community engagement and partnerships, which are essential for accessing larger investments (Interviewee 10, personal communication, September 19th, 2025). The original idea was that there is a lot of money available for implementation of projects, but it's difficult to find the projects that match all the criteria and quality requirements for those implementation funds (Interviewee 3, personal communication, May 29th, 2025).

In the Wadden Sea Region, resource constraints manifested differently. The absence of a clear financing pathway hindered the translation of WaL's vision into practice. They submitted a funding proposal to the European Union (Interreg), but it was not approved in October 2023; however, Harlingen chose to adopt the WaL framework moving forward (Janssen, et al., 2024). Possibly stemming from a lack of understanding of this new approach to water management. Despite attempts to understand the reasons, they feel unclear due to their lack of familiarity with the project and assessment process, yet they had the right expertise guiding them, but acknowledged that none had direct experience (Interviewee 8, personal communication, September 2nd, 2025).

4.5.4 Ability to Change Policy Course

The Ability to Change Policy Course of the WaL programme will be analysed.

In Semarang, despite prior acknowledgement of water issues in Semarang's development planning, there has not been a notable change in the political or economic context since 2018, the start of the WaL programme in Semarang (Interviewee 2, personal communication, May 22nd, 2025).

In the Wadden Sea Region, by contrast, WaL faced institutional silos that limited its ability to shift entrenched governance routines (van Lieshout, 2021). The Netherlands (with the Wadden Sea Region) struggled due to the silo mentality, which obstructs progress towards truly inclusive and integrative approaches in various policies (Interviewee 10, personal communication, September 19th, 2025).

This contrast showss a broader point from policy transfer literature: contexts with more institutional fluidity are more receptive to external ideas, while highly institutionalised contexts resist change despite rhetorical alignment (Dolowitz & Marsh, 2000)

4.6 Policy (non-)adoption

4.6.1 Imitation, Adaptation or Inspiration

The interviews revealed whether the WaL programme led to Imitation, Adaptation or Inspiration. The WaL Academy, which is, according to an interviewee, about inspiration and bringing people together, and due to their budget cuts in personnel and budget, the Academy is "a good way forward" due to insufficient funds for other initiatives, such as Cartagena. Additionally, they found that having a more streamlined version of the academy in the city can also be effective, so it doesn't always have to be labour-intensive (Interviewee 6, personal communication, July 24th, 2025).

In Semarang, an interviewee views the WaL programme as an inspirational source for establishing new standards and understanding innovative approaches, but replicating both the methods and policies, and implementing them in practice, is essential for effective scaling (Interviewee 10, personal communication, September 19th, 2025). Another interviewee argued that it is an inspiration and a partially adaptation, because it also started discussions about how to approach, for example, regional development from a more integral perspective. According to them, imitation was not the case, as the WaL approach to translating ideas across Asian cities was not a simple "copy-paste process" due to unique characteristics. Instead, they focused on identifying overlapping processes and ambitions, particularly in organising financial workshops with diverse financiers. While city-specific challenges existed, commonalities emerged in nature-based solutions and integrated projects. The decision-making process was tailored to each city, involving multiple phases where city representatives participated in advisory boards alongside the contracting authority and ministry to select promising initiatives for further development (Interviewee 3, personal communication, May 29th, 2025). A WaL Researcher said as well that each city had unique characteristics, and thus a direct copy-paste approach would not work (Interviewee 12, personal communication, October 7th, 2025).

When compared to the Wadden Sea Region, it remains unclear as the WaL stopped in the first initiation stage, and for the rest, it did not continue; only Harlingen decided to adopt the principles in their processes, which could be evidence for adaptation (Interviewee 4, personal communication, June 6th, 2025). The available data provide some insights and evidence on all adoption mechanisms for the Netherlands; however, there is no data regarding Germany and Denmark, so the analysis for those countries is omitted. One interviewee provided evidence for inspiration, but remains uncertain whether this is a general trend or due to inherent qualities of the WaL (Interviewee 11, personal communication, October 2nd, 2025). The interviewee thinks, for example, about Water and Soil as Guiding Principle, which is also part of water management in the Netherlands and in their eyes similar to the WaL, as that approach also prioritises knowledge and community involvement, which approach believes creates additional opportunities (Interviewee 11, personal communication, October 2nd, 2025). Another interviewee views the WaL programme as an inspiration, noting that they were inspired by the other initiatives in other countries, prompting regional actors to reconsider and approach issues differently. However, they expressed uncertainty about how this inspiration was implemented in practice (Interviewee 8, personal communication, September 2nd, 2025). At the time of writing, is this interviewee supervising spatial planning in the Kop van Noord Holland, Harlingen, Laurensmeer, and Delfzijl, and they refer to Harlingen (where the WaL partially got implemented) and observe their methods, and apply relevant elements to Den Helder, so this might be a case adaptation (Interviewee 8, personal communication, September 2nd, 2025). There is limited evidence for imitation in the policy transfer process, as discussed in Section 4.2.2. The policy was replicated from the Netherlands, a common model for other countries, but the transfer from national to local levels failed to account for the Netherlands' complex governmental structure. The assumption that policies could be implemented without adaptation to the local context was not supported, and they were not suitably modified to fit the existing governance complexities.

4.6.2 What adoption occurred

As mentioned in 4.5.2, there is evidence for Imitation, Adaptation or Inspiration in both cases. Minkman, van Buuren, & Bekkers (2018) categorise the outcomes of the policy transfer process, distinguishing between successful adoption, formal adoption and non-adoption of the transferred policy on the basis of the aforementioned adoption mechanisms.

In Semarang is an example of formal adoption, as mentioned in section 4.3.1, is that at the moment of this research, it is in the implementation phase due to governance and financing challenges, meaning that the policy has not been implemented or enforced (Minkman, van Buuren, & Bekkers, 2018). However, it must be noted that the Semarang case was intended as a pilot initiative. From another perspective, it is an example of successful adoption as it completed the intended transfer process of the pilot, where the receiving policy-maker adopted the policy (Minkman, van Buuren, & Bekkers, 2018). However, successful transfers achieve political goals as well, but this was not the case, as mentioned in section 4.5.4, there has not been a significant change in the political or economic context since the start of WaL Semarang (Interviewee 2, personal communication, May 22nd, 2025; Minkman, van Buuren, & Bekkers, 2018).

When compared to the Wadden Sea Region, this exemplifies non-adoption. As mentioned in section 4.1 did the Wadden Sea Region did not go beyond the first initiation stage, and it did not get to the second stage except for Harlingen in the Netherlands (Interviewee 4, personal communication, June 6th, 2025). As non-adoption includes all transfers that were considered but never initiated or that were initiated but aborted along the way, this exemplifies the Wadden Sea Region case (Minkman, van Buuren, & Bekkers, 2018).

5. Discussion of the results

Divergent journeys of policy transfer: success in Asia and bureaucratic fragmentation in Europe

The WaL projects have demonstrated an ability to inspire local actors and generate momentum, yet their long-term success in being adopted, has been hindered by insufficient institutional support and follow-up funding. While the programme has catalysed change, it does not always drive systemic transformation. Consequently, WaL occupies a space between offering inspiration and achieving partial adaptation, with no assurance of formal integration, which shows the complex relationships among visibility, resource availability, and alignment with governance structures.

When comparing policy transfer between Europe and Asia, distinct power dynamics emerge. In the Wadden Sea Region context, the power dynamic goes horizontal, as this is between the Netherlands, Denmark and Germany, both neighbouring countries in Europe, but based on the available interview data, there appears to be no distinct tension. The power dynamic existed between the regional and national levels, with the WaL Wadden Sea Region initially seen as competitive rather than collaborative within the government's bureaucratic ministry system.

In Indonesia, despite a historical context marked by colonial attitudes, the transfer of policies can be seen as controversial, raising issues of power and agency. The outcomes of the WaL programme have been more favourable in creating resilience through a participatory approach. The power dynamics are subtle; initially, they appear to exist between global and national levels, primarily involving international financial institutions and the Netherlands. Upon closer examination, a systemic issue becomes apparent: a power struggle exists between current approaches to water management and innovative methods. Implementing nature-based solutions, particularly in the context of innovation and funding, encounters challenges within existing international policy frameworks. A lack of interest in changing funding rules hinders systemic innovation, however key financial institutions were transparent about their funding limitations, which created an open dialogue about the challenges of delivering on promises. While transparency can help identify opportunities for improvement, the real challenge lies in the outdated funding policies that hinder progress. The passage of time is not the core issue; it's the inability of current frameworks to evolve toward innovative, value-based approaches. Without these changes, financial resources will continue to support unsatisfactory outcomes. What's missing is a clear strategy for revising funding rules to enable the desired innovations. The collaboration among actors in the policy arena in Semarang contrasts with the challenges faced in the Wadden Sea Region, showing divergent outcomes in the effectiveness of policy transfer. The Semarang initiative demonstrates a successful integration of local knowledge and community engagement, while the Wadden Sea Region project struggled with cooperation and implementation, which shows the complexity and variability inherent in policy transfer across different cultural and geographical contexts.

The struggles of implementation

The findings regarding the Water as Leverage (WaL) programme reveal a positive sentiment among interviewees, although one researcher expressed critical reflections on the project’s implementation. They noted that progress was hindered by a dependency on funding between national and international levels, which complicated efforts. The successful implementation of the programme depended on how well the institutional and governance structures aligned in the countries involved. For example, in the Wadden Sea Region, the existing governance structures posed challenges for collaboration across borders. In contrast, Semarang had a more supportive environment for this type of transboundary work.

Funding has emerged as a major barrier to project implementation, with noticeable disparities across locations. In Semarang, despite limited municipal budgets constraining water-related initiatives, some projects have successfully reached the third stage with international support from financiers like the ADB. Local stakeholders, however, express frustration over the gap between design competitions and actual funding, particularly with initiatives like WaL that raise expectations but fall short.

In contrast, the Wadden Sea Region initiative has struggled to progress beyond the first stage due to resource constraints, even with the Netherlands' wealth. Competing national funding for water management has limited new proposals, and the absence of a clear financing pathway has stalled innovative approaches. To address these challenges, a robust governance structure and early engagement with national governments for funding are crucial. A critical interviewee highlighted the importance of the strong connections created among those involved in the program, but also pointed out that maintaining these relationships over time is not solely the program's responsibility.

Interview insights show the critical role of funding, networking, and effective communication in overcoming these challenges, highlighting the necessity of collaboration and community engagement for successful programme development.

6. Conclusions

6.1 What is policy transfer?

Policy transfer, as defined by Dolowitz and Marsh (1996), is the process by which knowledge of policies, administrative arrangements, or institutions from one political system is utilised in another. This transfer can be voluntary, where policymakers actively seek to learn from other jurisdictions for perceived benefits, such as adopting best practices or improving efficiency, or coercive, where policies are imposed by external actors through economic or political pressure, but policy transfer often exists on a spectrum (Dolowitz & Marsh, 2000). Stead (2012) highlights the importance of recognising contextual differences, cautioning against simplistic "copy-paste" approaches in policy application. Minkman, van

Buuren, and Bekkers (2018) further elaborate on the routes of policy transfer, indicating that effective transfer requires careful adaptation to ensure that policies meet the specific socio-political and cultural contexts of the receiver, which highlights the complexity of transferring policies, which necessitates not just knowledge sharing but also negotiation and reinterpretation (Booth, 2011; Nadin, 2013).

6.2 What is the WaL programme and to what extent can the WaL programme help to address water-related challenges?

The WaL programme is designed to tackle various water-related challenges by promoting sustainable water management and enhancing resilience to water-related risks. It aims to address issues such as water scarcity, quality, and ecosystem health through innovative practices and community engagement, however the extent of its impact largely depends on the implementation of its strategies with is dependent on funding and the collaboration of stakeholders involved.

6.3 To what extent and how did *Environmental factors* create an opportunity and limitation in the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?

The Environmental Factors affecting the WaL programme in both cases show the necessity for context-specific strategies. In the Policy Arena, the local, regional, and national authorities differs greatly in both cases, with the institutional structure shaping how these actors interact with each other. The Subsystem reveals a polycentric governance structure where diverse authority scales allow for collaborative opportunities, yet also challenge cohesive strategy development. In the General Context, Indonesia's urgent climate realities, such as rising sea levels, require adaptive interventions, while the Wadden Sea faces regulatory constraints that may inhibit experimentation. Lastly, the Levels of Power show the interplay of local, national, and global influences in managing these environments. Addressing power imbalances and creating collaboration among stakeholders is important in both regions. By recognising and integrating environmental factors within these frameworks, Semarang and the Wadden Sea Region can enhance their resilience and create more effective, equitable water management solutions.

6.4 To what extent and how did *Transferability* impact the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?

The Transferability of the WaL programme across diverse contexts like Semarang and the Wadden Sea region. The success of this transferability relies on key factors, including conveying ability, actor relations, normative fit, and policy features. The understanding of local contexts reveals the complexities of translating theoretical principles into practical applications, requiring an ecosystem that creates innovation and prioritises sustainable practices. Further, the establishment of strong relationships among stakeholders is vital, as evidenced by the collaborative efforts in Semarang and the Wadden Sea. These interconnections shows the importance of collaboration for enhancing legitimacy and scalability of initiatives. The concept of normative fit highlights that while WaL's values of inclusivity and justice are appealing, their implementation may clash with existing local practices, necessitating ongoing dialogue and adaptation. The Policy Features do not suggest major differences between the cases. In the Forms of Power, it shows that in Semarang there is a case of Visible Power. In the Wadden Sea Region was Visible Power, Hidden Power and Invisible power present. Ultimately, the insights gathered from both regions lay a foundation for future initiatives.

6.5 What role did *Process Design* play in facilitating or hindering the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?

The Process Design of the WaL programme in both cases were a diverse array of key actors involved working collaboratively to enhance resilience. The Mutual Understanding & Adaptation differed in both cases, as in Semarang the establishment of mutual understanding between Dutch experts and local stakeholders was important for project success. Due to limited time spent on-site, building relationships can be challenging and local communities expect tangible solutions to issues like climate change and flooding, making effective communication essential. While the Dutch embassy and local teams facilitate collaboration, there is a need for increased local empowerment and resource allocation. In the Wadden Sea region, there was enthusiastic collaboration among parties from the Netherlands, Denmark, and Germany, though uncertainties from I&W hindered progress, despite a positive outlook. The Transfer Type for both cases is Learning because it focuses on knowledge sharing, despite having minor evidence for Branded Transfer or Pressured Transfer. Lastly, Spaces of Power show that in Semarang Invited spaces, such as design workshops, served as essential forums for negotiating priorities between international experts and local stakeholders. Closed spaces, exemplified by donor meetings, have shaped project outcomes by prioritising financial considerations and donor agendas, which shows the challenge of aligning local needs with external funding approaches. The sustainability of these collaborative efforts hinges on a commitment from various actors to maintain and institutionalise partnerships beyond the immediate initiatives. Ultimately, creating genuine collaboration and addressing power dynamics among stakeholders will be important for achieving long-term resilience and sustainable governance outcomes in both cases.

6.6 To what extent and how did *Adoptability* differ in the implementation of the Dutch WaL programme to Indonesia and to the Wadden Sea Region?

The Adoptability affects the WaL programme in both cases. The Suitability of the Wal in Semarang was that the solutions were suitable for the local context because they comprehensively address water sector resilience, engaging various stakeholders from industry to village communities. In the Wadden Sea region, it was less suitable due to the unclear institutional and governance structure. The Capacity in the Wal was that the national government of Indonesia possesses greater financial and human resource capacity compared to local governments, playing a key role in international cooperation; nevertheless, community involvement were important for addressing water challenges. Resources in Semarang are limited due to municipal budget constraints, hindering water-related projects unless backed by international financiers. The gap between design competitions and available funding frustrates local stakeholders, as initiatives like WaL raise expectations that go unmet. To address these challenges, a strong governance structure and early engagement with national governments for funding is needed, as previous funding efforts have been overly optimistic and inadequate. In the Wadden Sea Region, resource constraints have created challenges due to competing national funding for water management limits new proposals, and unclear financing pathways hinder innovative approaches. Insights show the importance of funding, networking, and communication, which necessitates collaboration and community engagement for successful programme development. The Ability to Change Policy Course was limited in Semarang despite the flexible institutional frameworks but international partnerships played a strong role, while in the in the Wadden Sea Region, WaL faced institutional silos that limited its ability to shift entrenched governance routines. Ultimately, the insights gained from these can aid future initiatives by creating the adoption of effective practices and strengthening governance resilience to tackle both local and global challenges with greater efficacy.

6.7 To what extent was the WaL programme *adopted (or non-adopted)* in Indonesia and the Wadden Sea Region?

Minkman, van Buuren, & Bekkers (2018) categorise the outcomes of the policy transfer process, distinguishing between successful adoption, formal adoption and non-adoption of the transferred policy on the basis of the aforementioned adoption mechanisms. The adoption of the WaL programme in Indonesia, particularly in Semarang, and in the Wadden Sea Region reveals a complex landscape of implementation and engagement. In Semarang, local initiatives have embraced aspects of the WaL programme, showing a commitment to sustainable urban development and community involvement. However, challenges such as limited resources and varying levels of stakeholder participation have hindered successful adoption, due to that it was a formal adoption. Conversely, the Wadden Sea Region exemplifies non-adoption. The Wadden Sea Region did not go beyond the first initiation stage, and it did not get to the second stage except for Harlingen in the Netherlands, as non-adoption includes all transfers that were considered but never initiated or that were initiated but aborted along the way, this exemplifies the Wadden Sea Region case (Minkman, van Buuren, & Bekkers, 2018).

6.8 What are the opportunities and limitations of transferring the Dutch 'Water As Leverage' programme to Indonesia and to the Wadden Sea Region?

The opportunities and limitations associated with transferring the Dutch WaL programme to Indonesia and the Wadden Sea Region are complex after thorough examination.

The WaL programme aims to address various water-related challenges by promoting sustainable water management, improving access to clean water, and enhancing resilience to water-related risks, which the programme can provide for both Indonesia and the Wadden Sea Region.

One big opportunity in Semarang lies in the establishment of mutual understanding between Dutch experts and local stakeholders, which is critical for project success. Effective communication is essential, as local communities expect tangible solutions to pressing issues like climate change and flooding. However, the limited time spent on-site by experts hampers relationship-building, necessitating stronger local empowerment and resource allocation. In contrast, the Wadden Sea Region benefits from enthusiastic collaboration among stakeholders from the Netherlands, Denmark, and Germany. Despite a positive outlook, progress is hindered by uncertainties from I&W.

In both regions, the transfer type predominantly focuses on learning, emphasizing knowledge sharing and capacity building. Little evidence of branded or pressured transfer exists, suggesting that initiatives would benefit from an educational approach. Spaces of Power are critical in Semarang, where invited spaces like design workshops facilitate negotiation among parties, though power imbalances disadvantage local stakeholders. Contrarily, closed forums, such as donor meetings, can negatively bias project outcomes by prioritizing the agendas of financiers over local needs, which shows the importance of establishing claimed spaces for deeper dialogues, which create sustainable solutions despite pressures for immediate results.

A big limitation across both regions is funding. In Semarang, limited municipal budgets create obstacles for implementing water-related projects, leaving ambitious proposals unfulfilled without international backing from organizations like the ADB. This disparity between design and actual funding can frustrate local stakeholders. Similarly, in the Wadden Sea Region, although the Netherlands possesses considerable financial resources, competition with established national funding limits the ability to explore new proposals.

While the WaL programme offers considerable opportunities for creating collaborative relationships and enhancing water management strategies in both regions, challenges related to funding, communication, and power dynamics must be addressed for successful implementation and sustainability of these initiatives.

7. Reflections & Recommendations

This chapter presents reflections on the research regarding limitations of both the methods and the theory utilised in the study. Following this, recommendations for further research will be presented.

7.1 Reflections

This research adopted a qualitative research design, comprising a series of semi-structured interviews and a policy document analysis. Both case studies from the WaL programme involved multiple stakeholders from different parts of the WaL process, each presenting unique perspectives, making this research design particularly suitable. This qualitative research design was particularly fitting, as the semi-structured interviews facilitated an in-depth exploration of diverse viewpoints. By interviewing a range of participants, I aimed to enhance the validity of the research findings. The analysis of policy documents and academic literature regarding the WaL programme offered a nuanced understanding of the policy transfer dynamics associated with it. This approach allowed for a comprehensive examination of the WaL programme's context and implications. However, throughout the process the Conceptual Framework made some adjustments to prevent overlap of the results.

The study of the WaL programme included two case studies, which present challenges when trying to generalise the findings to a wider context of policy transfer. As specific circumstances surrounding each case may not reflect the situations encountered in other cases. However, this limitation is alleviated by including insights from stakeholders involved in other instances of the WaL programme. Most interviews were conducted via Microsoft Teams due to the international, with one interview conducted via written response and one in-person interview at the I&W, which enabled the observation of non-verbal cues and created a more relaxed atmosphere conducive to open communication,

A major challenge of this research was obtaining interviewees. The original aim was fifteen participants, however, many potential interviewees were either not reachable or had shifted their focus to more recent projects, thus reaching twelve participants. The Semarang project, being seven years old, was likely less familiar to potential interviewees and familiarity with older projects naturally diminishes over time, which limits detail and nuance for analysis, reduces discussion opportunities, and complicates extracting valuable lessons learned. While the Wadden Sea Region project not going beyond its initial stage, leading to potential participants feeling reluctant or disappointed to discuss it in an interview. This reluctance resulted in only one interviewee, who expressed feelings of disappointment about the project's termination, even though three years had passed since, which limited the validity of the results regarding the Wadden Sea Region as the experiences and perspectives of Denmark and Germany are not heard. Some other interviewees also knew about the Wadden Sea Region but limited.

Furthermore, handling questions around power dynamics proved challenging. My desire to maintain a respectful rapport with interviewees conflicted with the need to ask critical questions, as direct inquiries about power dynamics sometimes triggered defensiveness. The interviewees demonstrated a clear awareness of their word choices. To address this, I adjusted my approach. Instead of confronting power dynamics directly, I framed questions more subtly, exploring whose perspectives influenced decisions and how various voices were included in the process. This method not only deepened my understanding but also aligned with my goal of conducting rigorous and respectful research.

7.2 Recommendations for researchers

The recommendations for research arrived from interviews. Interviewee 3 suggested that further academic research be conducted to comprehensively analyse the follow-up WaL initiatives, like Cartagena, that have emerged since the programme's inception and the completion of the WaL guidance. As interviewee 6 mentioned that Cartagena incorporates many lessons learned from the first Asia programme of the three pilot cities. This research should focus on a cross-case comparison of the older and newer initiatives to assess how the programme has evolved and which lessons from the pilot they have integrated into the newer initiatives. It is recommended to conduct more in-depth research about the WaL Wadden, because of the limited interview data, the data might be skewed and not provide the complete picture. By researching these areas, it can provide valuable insights into the programme's adaptability and effectiveness, which will help inform future initiatives and policy decisions.

7.3 Recommendations for affiliates of the WaL Programme

The programme encountered several limitations related to funding, communication, and power dynamics between traditional and innovative water management methods, that need to be resolved for successful implementation. However, these systemic challenges render it difficult to offer concrete recommendations for affiliates. In Semarang, local knowledge and community involvement led to success, while the Wadden Sea Region struggled with cooperation and implementation, underscoring the complexities of policy transfer influenced by cultural and geographical contexts. Therefore, any recommendations must remain abstract, to acknowledge the deeper systemic issues within institutional structures that are challenging to address directly, while also recognising the unique challenges faced by each region. However, a shift in policy and funding approach will better support and integrate innovative solutions in water management.

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Appendix 1 – The Operationalisation Table

Environment	
Policy Arena	- What level initiates the transfer (local/national/global) - Policy origin - The contextual factors that shape the feasibility of transfer.
Subsystem	- How many available alternative policies - The institutional and political context - Is there competition between policies which hindered the process - Is there an absence of alternatives which facilitated the process
General Context	- Biophysical factors (such as geographic, climate or environmental conditions) - Cultural factors (such institutional legacies, ideologies orientations, value systems, societal norms and values) - Socio-economic factors (such as social structures such as income levels, administrative capacities, and political arrangements)
Levels of Power	- Initiation or contestation of what level (local, national & global)
Transferability	
Conveying ability	- The reputation and legitimacy of the source actor - The communication of policy across contexts - Receptiveness and aligned-ness of actors
Actor relations	- Strength of pre-existing ties, trust, or shared interests between sender and receiver - Influence of power relations on interaction - The tolerance of the adopting actor further - How much Receptivity or openness of the receiving actor to consider the policy from elsewhere - How much decision-making power does the adopting actor have
Normative fit	- The extent in which the values embedded in the transferred policy are aligned with those in the adopting context so how flexible, context-independent, and adaptable is it to diverse environments
Policy features	- Type of policy (modular, flexible, or rigid) - Conditions transferable or context-dependent - Has the policy a successful and effective reputation
Forms of Power	- The influence of visible (e.g. laws), hidden (e.g. agenda-setting), and invisible (e.g. norms, values) powers on the perceived legitimacy and uptake of the transferred policy
Process Design	
Actors	- How much participation - How much consultation - How much feedback incorporated - Regular participation and influence - Co-creation and shared decision-making - Key policy transfer agents and their distributed, legitimised roles in governance and decision-making
Mutual understanding and adaptation	- Alignment of interpretations between sender and receiver (such as miscommunication due to language barriers), with mechanisms (such as cultural comprehension and co-creation) for localizing the policy model
Management of the exchange network	- Formal or informal relationships managing the exchange

Transfertype	- The type of transfer (voluntary, coercive, negotiated, or symbolic The directionality of the transfer (e.g., bilateral, multilateral)
Spaces of Power	- The type of arenas (invited, closed & claimed/created) that transfer discussions are held.
Adoptability	
Suitability	- The connection of normative and institutional fit (as mentioned earlier in the Operationalisation Table) - The perception of the transferred policy as relevant or appropriate to the local problem and governance structure. - The flexibility to adjust the policy. - The barriers that support or inhibit implementation.
Capacity	- The institutional, technical, and human resources available to the adopting government or organization for implementing the policy.
Resources	- The availability of financial and infrastructural resources (such as time and human capital) for implementation and whether external support is necessary.
Ability to change policy course	- The ability of the receiving system to adapt or modify the policy to fit local realities without undermining its effectiveness (such as the interconnection of compatibility, organizational capacity, resources, and early engagement with key stakeholders to overcome institutional and normative barriers)
Policy (non-)adoption	
Imitation	- quick copying of solutions.
Adaptation	- incorporating changes to the original model and may include emulation, translation, and assemblage, where synthesis from multiple policies occurs.
Inspiration	- a new policy based on elements from other jurisdictions

Table 3 The Operationalisation Table (Author's design, 2025), based upon (Minkman, van Buuren, & Bekkers, 2018; Gaventa, 2006)

Appendix 2 – Interview Guide base

Opening

- Brief self-introduction and thesis background
- Explain research question & used theoretical framework by (Minkman, van Buuren, & Bekkers, 2018; Gaventa, 2006)
- Ask for informed consent. Explain how the interviewees information will be processed and will remain anonymous except for job description.
- Ask for permission to record audio for future use

Introductory questions

- What are your research interests right now?
- Can you describe your specific role and contributions within the Water as Leverage programme ?

1. Environmental Factors

Focus: To understand how broader systemic and contextual conditions shape the WaL and are received in the local setting

- How is climate change or urbanisation influencing local water challenges?
- How would you describe the local policy environment surrounding water management and urban planning?
- Which national or international actors are most influential in the water-related projects?
- How does the broader socio-economic or political climate affect the uptake of Water as Leverage ideas?
- Are there differences in how WaL is understood or prioritise d at the local, national, and global levels?

2. Transferability

Focus: Assess how transferable Dutch approaches and ideas are to the local context

- What are the dominant narratives surrounding water management here? Were these narratives embedded in the content of WaL proposals themselves?
- How is WaL perceived among different stakeholder groups (e.g., local government, NGOs, communities) in Indonesia?
- To what extent do the goals of WaL align with local needs and values?
- How do local stakeholders perceive the involvement of foreign experts, particularly from the Netherlands? Did perceptions change over time?

- How would you describe the relationship between Dutch partners and local actors?
- Which elements of the programme required adaptation to fit the local context?
- How do power dynamics (e.g., funding, expertise, visibility) influence what gets transferred or highlightd?

3. Process Design

Focus: Explore how the design and management of the exchange affect the transfer process.

- Do you feel that all relevant voices, including community groups, have been included in the process? How were they selected or invited?
- Has the transfer process been flexible enough to adapt to changes or unexpected local challenges?
- How would you describe the collaboration between Dutch and local stakeholders in the WaL process?
- How are responsibilities distributed among them?
- How are decisions made, and what is the role of public participation?
- Are there incentives or sanctions in place related to water practices?
- What type of power spaces (closed, invited, claimed) do you see in WaL stakeholder interactions?

4. Adoptability

Focus: Understand the local capacity and willingness to adopt or adapt WaL outputs.

- In your view, are WaL solutions suitable for the local context? Why or why not?
- What capacities (technical, institutional, financial) support or limit the ability to implement WaL proposals?
- Are there sufficient local resources to continue WaL-inspired initiatives after external partners leave?
- How much room do local institutions have to adjust or modify existing policies in response to WaL?
- What challenges or opportunities emerged during programme implementation?
- What supports or hinders stakeholders from embracing the programme's recommendations?

5. Adoption (or Non-Adoption)

Focus: Investigate how ideas are (or aren't) adopted and why.

- What have been the main outcomes of the Water as Leverage project in Indonesia so far?
- Were any WaL concepts directly copied (imitated), adapted, or used as inspiration?
- Do you feel WaL had a lasting impact on how water-related decisions are made in Semarang?

- What would be needed to sustain or scale these projects in Indonesia?

Closing questions

- Are there any aspects of water management or the programme that I have not covered?
- Do you have any final comments or questions?

Ask interviewees if they have any other interviewee who would be interesting for me to interview. Thank the interviewee for their time and insights.

Appendix 3 – Coding Scheme in Atlas.ti

Code group	**Code**
Environment	Policy Arena
	Subsystem
	General Context
	Levels of Power (local, national & global)
Transferability	Conveying ability
	Actor relations
	Normative fit
	Policy features
	Forms of Power (visible, hidden & invisible)
Process Design	Actors
	Mutual understanding and adaptation
	Management of the exchange network
	Transfertype
	Spaces of Power (closed, invited & claimed/created)
Adoptablity	Suitability
	Capacity
	Resources
	Ability to change policy course
Policy (non-)adoption	Imitation
	Adaptation
	Inspiration