

Green Preach, Real Practice?

Analysing Coherence in
Denmark and Singapore's
green diplomacy and action

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Abstract

This master's thesis uses an exploratory sequential mixed-methods comparative case study design, with an integration of qualitative document analysis and quantitative data, to analyze credibility of public diplomacy by evaluating congruence between their statements regarding environmental policies and their current progress in green transitions.

By doing so, we see how Denmark and Singapore utilize the same themes in their respective narratives to cement their positions as green leaders. When comparing this to quantitative data we see how both Denmark and Singapore show some congruence between their established narratives and their current action. However, looking at a broader picture and challenging their epistemological understanding of the climate issue, some deviations in the intersection between speech and practice come to light challenging the congruence and thereby the countries' credibility in the international arena as green leaders.

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Problem Area

Amidst war, power struggles and inflation, one of the major issues currently threatening the global community is climate change, Co2 emissions and overconsumption. The initial idea for this project was sparked in conjunction with the Sustainable Development Goal (SDG) spokesperson from the Danish Social Democratic Party, Birgitte Vind. What she sought was an idea of how to place the UN Sustainable Development Goals further up on the agenda for civil society, leading us to the conclusion that the SDG's are not at the top of mind, when debating new policy. We soon realized however, that this task was outside our scope, although it did make us inquire about the current state of SDG politics in Denmark. In 2023, COP28 was held in Abu Dhabi, where, among other initiatives, a phasing-out of the carbon-based energy era was firmly discussed (UNFCCC, 2023) - a suggestion that would seem incredibly ambitious. However, as seen in prior declarations, such as the COP26 in Glasgow (United Nations, n.d), the language is vague and non-committal, focusing on phrases such as "continuing", "improving", and "Strengthening" (COP28, 2023). What caught our attention, however, is that Denmark positioned itself as a frontrunner, calling for a binding agreement on stopping the production of fossil fuels. However, Denmark refuses to commit to phasing out its own oil and gas production before 2031 (Jensen & Stigsgaard, 2023), which Equity Review (2023) suggests would dramatically increase the chance of reaching the 1.5c¹ target if it were to be adopted across the developed world. This left us with a line of questions such as: do countries do what they say? Are commitments fulfilled? And does it even matter when it comes to the perception and credibility of climate actors? To investigate this, we will, through the lens of soft power and Public Diplomacy, conduct an exploratory sequential mixed method comparative case study, focusing on Denmark and Singapore. These actors will drive the discussion and analysis of whether actors do what they say, and if this affects their ability to exert soft power and Public Diplomacy. We chose these countries as they, despite having a wildly different mode of governance and motivation, are quite similar in a range of factors, such as population, Co2-emissions, and ambitions towards limiting their share dramatically. Singapore is due to its location and territorial restrictions highly motivated to engage the global community to mitigate the impact of climate change on the nation (MSS & MSES, 2024) Without this, a dramatic increase in mean temperatures, rising water levels and more extreme weather incidents could

threaten the existence of Singapore. Although Denmark could face similar consequences (Lindsey, 2022) if Co2 reduction targets are not met, these consequences are rarely a top-of-mind discussion.

The analysis is split into three sequences: a qualitative sequence, focusing on establishing a correlation between public statements by relevant officials and the corresponding politically established targets. This first sequence will rely on a small-n thematic analysis of official statements. After this, a quantitative sequence will follow, checking whether there is in fact progress towards the established targets identified in sequence 1. This part of the analysis is based on official datasets from national and supra-national databases and will be modeled and interpreted through descriptive statistics. Finally, the triangulating sequence will combine the findings of sequence one and two, focusing on establishing a correlation between what is said and what is done.

We have found that public diplomacy and soft power is rarely measured. Where therefore seek to operationalize the concepts in such a way that we build on the theory, introducing congruence or coherency in relation to credibility and thus political power. In practice, this means that we are defining measurable terms, although still in an abstract sense, given the non-concrete nature of the overarching theoretical position.

Hypothesis/question

How does Denmark and Singapore's public diplomacy efforts as green leaders cohere with their climate and sustainability-related policy outcomes?

1. What are the main sustainable development and climate policies put forward by Denmark and Singapore, based on a small-n sampling of public statements by government officials related to the field?
2. To what extent are these narratives supported by data, and can congruence be established?

¹ 1,5 degrees Celsius represents the maximum increase in global average temperature – Agreed upon in the 2015 Paris Agreement: <https://unfccc.int/process-and-meetings/the-paris-agreement>

Literature review

The literature review's focus is to map out the role and use of public diplomacy, especially in climate- and sustainability policies. It emphasizes the use of coherence, credibility, and consistency to contextualize and operationalize these into working concepts for this project's analysis.

Public diplomacy is generally acknowledged as a tool for nations to exercise soft power in achieving foreign policy objectives and fostering long-term relationships to support national interests (Pipchenko & Ryzhkov, 2019). It is not only a communication process but also a foreign policy tool and should be analyzed as such (Sevin, 2017). Anholt (2006) initially depicted public diplomacy as a subset of nation branding but later recognized it as a distinct discipline with potential influence over policy conception and execution. He acknowledged public diplomacy as a "master discipline" of international relations, serving as an instrument of policy. Effective public diplomacy enhances a nation's reputation globally, attracts foreign investment and tourism, promotes its culture abroad, and familiarizes foreign policymakers with its policies to garner support (Syed et al., 2020). However, for public diplomacy to be effective, policy coherence is essential. It must be closely connected to a nation's policies to maintain credibility (Cull, 2010). Policy coherence ensures that goals are aligned across different levels of governance, enhancing the credibility of the overall policy framework (Candel & Biesbroek, 2016).

Credibility is an important element in public diplomacy and soft power, since it is dependent on intersubjectivity, and relationship-building and it significantly impacts a nation's ability to engage with international audiences and achieve its foreign policy goals. It is vital for establishing trust and legitimacy with foreign publics, as well as for enhancing the reception of messages and initiatives (Nye, 2008; Saaida, 2023). A credible sender is more likely to be positively perceived and to have its messages accepted by the target audience, thereby contributing to the overall success of public diplomacy efforts (Saaida, 2023). Furthermore, credibility in public diplomacy is connected to the authenticity and consistency of a nation's actions on the global stage (Rawnsley, 2015). Actions are a key factor in public diplomacy as they represent the states will efforts. Maintaining credibility necessitates aligning words with deeds to foster trust and confidence among audiences (Rawnsley, 2015). Consistency in

messaging and behavior can therefore be helpful in establishing a reputation for reliability and sincerity in public diplomacy (Rawnsley, 2015). Moreover, credibility in public diplomacy is intertwined with the concept of soft power, where a nation's attractiveness and influence stem from its values, culture, and policies (Eren, 2020). By projecting credibility through different initiatives, nations can support their soft power and effectively engage with global audiences (Eren, 2020). The credibility of a nation's public diplomacy endeavors can significantly influence its capacity to shape perceptions, cultivate relationships, and advance its interests on the international stage (Xu, 2021). However, achieving credibility is an exercise of coherency, where statements must merge with the policies implemented and the following results. This is also what OECD defines as policy coherence. A systematic and cross-departmental strategy that informs the coordination of different policy areas towards a common goal (Globalnaps, n.d.).

The issue we are particularly interested in for this project is how countries want to reach their 2030 and 2050 targets. Molocchi (2021) suggests that a lack of departmental coordination e.g. if the climate department and energy departments pursue different policies, it can result in a series of harmful and beneficial subsidies that may be mutually exclusive and therefore counterproductive in reaching the overarching goal. A concrete example of this would be if the department of energy gives subsidies to incineration plants, as this type of energy is greener than oil or coal, but subsidies are also given to recycling plants for increasing recycling in general or the discrepancy of climate progress evaluation between the Danish climate department and the energy agency (Green, 2006: Jensen & Ratz, 2024). This would, with a goal of a higher of recycling, result in counterproductive subsidies and thus a lack of coherence within a common goal. However, coal subsidies would be more harmful to a reduction in Co2 emissions than waste incineration. There is thus a need for specificity in goal-setting and high-level policy coordination as to what the overall goal is (Ylönen & Almivaara, 2021). Additionally, Green (2006) suggests that subsidies encouraging 'cleaner' practices or taxes discouraging 'black' practices is effectively the same, however subsidies have a negative impact on the national economy, whereas taxes have a positive effect, encouraging the use of taxes over subsidies. Ylönen & Almivaara (2021) further argues that in the context of Finland, a political culture of short-term thinking exists, which harms its' political ability to construct mutually beneficial and long-term departmental coordination towards the goals of Agenda 2030. This could be due to

definitional ambiguity and a lack of European ownership over agenda 2030 generally, and an expectation that private corporations will be able to progress developmental issues without governmental intervention (Ylönen & Almivaara, 2021).

Public diplomacy also plays a significant role in advancing environmental policies and the green transition agenda by leveraging soft power and credibility. Diplomatic efforts can influence environmental policies, as seen in the case of the U.S. utilizing the "Beijing Air" issue to enhance its soft power in China (Jung, 2022). Aligning public diplomacy with sustainability goals is crucial for overcoming policy incoherence and promoting green transitions effectively (Saaida, 2023).

It is suggested by the literature (Toni & Feitosa Chaves, 2022, Celik, 2022, Hristova & Chankova, 2020), that sustainability-focused public diplomacy can be referred to as climate diplomacy, however its differences is miniscule and therefore considered mostly identical, except for focus. Not unlike lack of credibility or coherence in public diplomacy, negative climate diplomacy exists as well. This is, according to Toni & Feitosa Chaves (2022) exemplified by leaders like Bolsonaro, who, influenced by Trump's climate denial, prioritized perceived sovereignty over environmental responsibility. Bolsonaro's reluctance to commit to the Paris Agreement stemmed from his belief that Brazil shouldn't bear the financial burden of rainforest maintenance, vis a vis a loss of sovereignty. However, this stance backfired, resulting in both national and international condemnation, eroding Bolsonaro's credibility in climate management among peers and civil society (ibid).

Meanwhile, the European Union strives to assert itself as a global climate leader, yet analysts detect incoherence between its rhetoric and actions. Celik (2022) argues that this ambiguity or hypocrisy serves as a strategic tool, enabling the EU to navigate complex climate negotiations while projecting an image of organized diplomacy. By presenting itself as both a fair negotiator and a progressive leader, the EU can adapt its stance at forums like the COP, leveraging its flexibility to advance its climate agenda on the global stage (ibid). In the realm of climate diplomacy, two prominent narratives emerge: the urgent need to combat climate change to safeguard humanity and the promise of economic and material security through sustainable

practices. However, achieving global coordination remains a challenge, with the UN grappling with this issue. Hristova and Chankova (2020) warn that failure to meet climate agreements could lead to a shift towards addressing climate migration and refugee crises - recovery rather than mitigation. Thus, effective climate diplomacy is essential to navigating the intersecting interests of nations and fostering collective action to mitigate the impending climate catastrophe.

Existing literature points towards a relationship between credibility and public diplomacy but the intersection is hardly apparent in empirical research. We identify a lack of research specifically in relation to the application of credibility. We therefore seek to develop and test credibility as an indicator of successful public diplomacy through policy congruence.

Theory:

In the following section this project's theoretical framework will be elaborated. The theory chapter will consist of two sections. Section one will expand upon the concept of soft power and section two on public diplomacy. The following will start with soft power as we argue that in order to unfold public diplomacy adequately, one must understand the effect public diplomacy can have on an actor's soft power and subsequent legitimacy on the international stage.

Soft power

In an international system without a night watchman to uphold order, power becomes the ordering factor which restrain the outbreak of conflict and sustains the integrity of an actor's sovereignty. It is the pervasive struggle for power, i.e. the ability to and prospect of making others do as one pleases without the intervention of opposing actors, that constitute the behavior of states on the international stage. Herein, actors, mainly states, can recruit different kinds of power to secure an international environment favorable to their interests. Power takes on different shapes based on the many international relations disciplinary fields. Neoliberal institutionalists, liberals and constructivist for example contest the narrow conception of power as a coercive force through means of material and military might (Barnett & Duvall, 2005; 40). These schools in tandem with the English one emphasize another kind of power, that wields similar qualities of complying mechanisms though through different means. Interdependence, diplomacy, international organizations, cooperation, and values are soft power institutions that in the current world order have been attributed as ordering factors by the abovementioned schools (Ibid. 40). Although the soft power institutions suggest a different kind of power ecology, they do not discredit a struggle for power. Hence the implications of this thesis' reliance on the perspective of soft power, means that the arena in which the power struggle takes place in, and the subsequent dynamics being researched, are different to that of the military and material competition that characterize realist thought. This is also why we will refrain from delving deeper into the realm of hard power, and instead proceed to elaborate on the attributes and significance of soft power, as public diplomacy as we shall see in the coming section is thoroughly embedded in the ecology of soft power.

Soft power is the ability to influence others and achieve a desired goal without the employment of force or payment. The pervasiveness of soft power has expanded under an international order

that has reduced the utility and viability of military tools and hard power (Keohane & Nye, 1987; Huseynov, 2016). In order to influence others to pursue a proposed objective, the soft power projecting actor must rely on its attractiveness to win over the hearts and minds of the audience it seeks to convince. To Joseph Nye Jr. it is on this basis, that social relations such as the perception of an actor's behavior and the perceived legitimacy and attractiveness of said behavior, which is informed by the actor's culture, values, and policies, becomes soft power assets (Nye, 2008; 94 + 103). As such, by making oneself more attractive to others, an actor can sway the opinion of peers and adversaries and convince them to comply with the proposed objectives voluntarily and freely which is an extremely effective tool to exercise power and maintain legitimacy simultaneously (Barnett & Duvall, 2005; 4; Huseynov, 2016; 71-73). Hence Nye argues that congruence between the professed values and the subsequent behavior is instrumental in making an actor credible in the eyes of its peers which is a main element in the creation of attraction of peers to pursue the proposed objectives (Nye, 2008; 95).

This is an important relation to recognize as this establishes the premise in which soft power struggles will spawn and compete and constitutes the theoretical assumption for this project. Actors must vie for soft power through securing the integrity of their statements and claims, i.e. the projected values and goals, through ensuring they are corresponding with the policies they implement and support. Without a strong congruence they will take on a less credible status and will face difficulty in convincing their peers to voluntarily commit to its interests in the future. The intersection between what is preached and what is practiced constitutes the central mechanism, that is credibility, which determines the degree of attractiveness as well as the actors' ability to gain support for one's foreign policy goals (Ibid.: 95). A relation that has proved vital in foreign political affairs, especially during the 2000s. The United States suffered a decline in soft power after the blunted Iraq invasion, which was initially legitimized on the erroneous foundation of Iraq's possession of nuclear weapons systems (Sun, 2008; Scott & Ambler, 2007; Goldsmith & Horiuchi, 2012). The lack of congruence between the American narrative that warranted the action of invading a country and precipitated a reluctance among the US's allies to follow the American foreign political propositions (Kay, 2015). Lack of credibility, i.e. incongruence between claimed values and actions, can thus lead to skepticism and hesitation among targeted actors in subscribing to the proposed foreign policy issues. The lack of

credibility's impact on the mobilization of support, however, is dependent on the assumed salience the issue contains for each actor (Goldsmith & Horiuchi, 2012; 582).

This theoretical conception stresses the importance of credibility in order to gain soft power, but also informs why we believe it is enriching to dissect how actors such as Denmark and Singapore manage to live up to their statements. We have found that both nations are firmly positioning themselves as green leaders in the energy transition in various disciplines of the field, but by looking into various evaluations and reports we will see if their narrative in turn corresponds to with their behavior, possibly resulting in a relapse of credibility and soft power if disjointed and vice versa.

Nevertheless, the achievement of soft power is not only determined by the actor's ability to live up to the heralded values, but also by the meaning of the values and the associated identity the actor seeks soft power through. If the policies to others are perceived as illegitimate and inappropriate, the behavior of the actor will create a repulsive effect diminishing the attractiveness and credibility of the actor, and thus decreasing its soft power (Ibid.; 95). As such what policies are perceived as credible and appropriate is for the audience to judge.

But this acknowledgement also indicates that credibility is competitive and susceptible to the most convincing narrative. Credibility is a most central quality in current politics, as this relation demonstrates who is a legitimate actor eligible to be followed and respected among the international actors. Thus, credibility becomes an important metric by which the relation between policy and practice should be scrutinized through, as will be demonstrated in the following section on public diplomacy. If the statement and policy is deemed mutually exclusive by the audience the actor will swiftly be dismissed and the statement regarded as propaganda, which will weaken the credibility of the actor and ultimately undermine the government's soft power (Ibid.; 100), diminishing future influence and the likelihood of recruiting allies for ones' cause.

Public diplomacy

As described above soft power is a valuable resource in achieving a desired outcome without the implementation of coercion. Herein the activities of public diplomacy become central as they build relationships and help create awareness through spotlighting the soft power assets elaborated above (Nye, 2008; Szondi, 2008). This project defines public diplomacy as a foreign

policy strategy directed from a state and targeted at societies of other countries abroad, with the main goal of increasing soft power and influence.

Public diplomacy is a subtle communication strategy that relies on behavior, namely the policies and values the state is implementing and living by. Many scholars see this subtle yet strategic communication as a branding strategy called nation branding and some scholars use the terms interchangeably, however scholars like Szondi argue that they are quite distinct disciplines. Even though they are similar, nation branding is strongly embedded in the marketing discipline and contains a holistic approach to eligible branding actors, from the government to corporations, organizations as well as citizens. They all engage in the branding and projected narratives, and the role which the state takes in this international interaction is therefore downplayed (Szondi, 2008; 4). Both concepts seek to raise awareness of the actor's desired image, although they have different approaches and purposes for international communication. According to Szondi, public diplomacy "*traditionally means government communication aimed at foreign audiences to achieve changes in the 'hearts and minds'*" (Szondi, 2008; 6). Public diplomacy aims at influencing the perception, thinking and interests of opposing states and create a receptive environment for one's foreign policy goals (Ibid.; 7). It involves a range of strategies aimed at influencing narratives and perceptions about a country's policies and achievements. These strategies include press releases, social media campaigns, publications such as books and brochures, diplomatic visits, and summits. Press releases and social media campaigns are utilized to shape public opinion and disseminate information widely (Manheim, 2023). This project, however, will mainly focus on press releases, summits and official statements made by the respective governments, as these are direct outlets for decision makers to engage their audience.

These press releases and statements are intended to allow the actor to engage with its targeted audience and mobilize support for its policy issues. What constitutes the audience is not a fixed entity but is made up of different kinds of actors and members of society (Szondi, 2008). Due to the international political outlook of this project and our liberal perspective, we will treat the audience as a mosaic of all sovereign states. Additionally, Denmark nor Singapore has outright mentioned who they specifically target in the international community, why we will treat the audience as the whole international community. Important to note, is that their communicative strategies and what they gone on to emphasize and how they frame their achievements, indicates

a more nuanced targeting of audiences, although we will refrain from analyzing the presumed actors their public diplomatic efforts targets.

What makes public diplomacy attractive to actors in international relations, is the ability to create a narrative and meaning, framing events, policies etc. While the government maintains the direct or indirect involvement, it does not have to be on the front of a campaign, but at least construct a strong association with a particular value or policy (Ibid.; 11). To public diplomacy, the state is the one determining the brand while in nation branding, the brand the nation is associated with can be determined by group of different actors. This thesis relies on the notion of states as the main actor, although we recognize other kinds of actors on the international stage, we intend to investigate what narrative the Danish and Singaporean governments seek to associate themselves with. It is ultimately the government that is the central international actor and defines the direction of the country's interests and political objectives. Van Noort (2019) further elaborates on the idea of narrative creation, as a tool for exerting influence over, and changing the behavior, of both domestic and international actors. This implies that the narrative takes on a strategic quality when it is applied to alter the discursive environment in which it operates.

There are various dimensions to public diplomacy, of which lasting relationships, i.e. the creation and maintenance of relations between key individuals, are central elements to realize an attractive image of the actor, with the purpose of increasing its' influence in the international system (Nye, 2008; 102). In terms of this project, we cannot say if Denmark or Singapore are successful in their public diplomacy, but we can discuss the extent to which the relation between their communicative efforts and the policies is disjointed or not. However, to Nye (2008; 103), what makes public diplomacy successful is the actor's ability to acknowledge and adapt its efforts to its audience, and engage in dialogue of mutual understanding and respect, instead of a monologue that characterizes much of the West's interaction with the rest of the world.

This concern is crucial in the struggle for meaning, and the negotiation of legitimacy and eligibility of punishment and sanctions in the international system. The Global South has increasingly become more assertive in their desire to be regarded equally and has in turn contested the paternalizing attitude of the West, seeking partnerships with less liberal countries. Peter van Ham argues that in the postmodern world of geopolitics and power, identity politics is creeping into the center of the powerplays, as narratives, in a gradually volatile order, becomes

the ordering element in the world we live in (Szondi, 2008; 14: Ham, 2001; 2). Hence the management of image, legitimacy and perception is increasingly important. Public diplomacy is arguably therefore constituting the frontline of power struggles in the 21st century, as it is a necessary tool to win over the support of other countries. Additionally, this is accentuated by the information (over)load the world finds itself in today, as attention and the ability to steer that attention towards a particular issue, becomes ever so important (Nye, 2008; 99).

The success of public diplomacy is thus based on credibility, created by coherence between statements and policy programs. This mechanistic relation is what this paper intends to measure and analyze. Public diplomacy serves as the hypothetical utopia where successful or unsuccessful public diplomacy will result in a gain or loss of soft power. The mechanistic relation we seek to explore is thus coherence between statements and policies leads to successful public diplomacy which may result in a gain of soft power.

We recognize how public diplomacy is a complex process being analyzed through multiple academic fields, such as strategic communications studies or sociology. We also recognize that public diplomacy consists of a varied field of public diplomacy actors. We, however, have chosen to employ the focus on actors from a liberal IR perspective, namely states and the subsequent behavior they practice, i.e. policies. This liberal constructivist combination will allow us to infer how states construct soft power through interactions, while testing the operationalized concepts of public diplomacy.

Operationalized indicators

Congruence in this project is made up of two main branches; policy-statement-alignment and integrated or coordinated communication efforts. In practice, we will evaluate and investigate whether public statements are aligned with the long-term programs and trajectory related to climate and sustainability affairs. Finding a connection between public statements and progress will enable the evaluation of whether the actors practice what they preach and therefore, warrant the perception as credible of the international community.

Methods

In the following section we will present and contextualize our methodological framework, case selection process, and methods of data collection and analysis.

Research Design

In this project, we will employ an exploratory sequential mixed-methods research design (Alele & Malau-Aduli, 2023). This is a research design that combines qualitative and quantitative approaches in a specific sequence to explore a research question. With the purpose of this project being to analyze what extent Denmark and Singapore creates credibility through a congruent relation between public statements and policies related to sustainable development and climate change, we will analyze this problem sequentially.

Firstly, with a qualitative phase, by looking for qualitative public statements and policies aimed at reducing or off-setting Co2. Secondly, with a quantitative phase, where we will rely on reports, statistics and evaluations produced by organizations and agencies and compare the progress, or lack thereof, in the country's performance vis-a-vis its policies. Finally, with a triangulation phase, we will triangulate the political statements and policy output to establish whether congruence and thus credibility is present (Lalor et al, 2013).

We thus make use of a mixed-method approach, relying on public statements by official representatives, governmental reports, policy programs and national & global statistics, to establish a relationship between goal setting, public statements, and policy outcomes.

Furthermore, we will only focus on public statements and efforts at public diplomacy in English. Firstly, because we assume that the Danish language is rarely used in an international context, which public diplomacy is. Secondly, because Singapore's formal institutional language is English although we acknowledge its national language is Malay, and the most widely spoken language is Singaporean Mandarin (PolyLingua, n.d).

Case Selection

By adopting a 'most similar/most different' approach (Seawright & Gerring, 2008), we have selected Denmark and Singapore as cases for our study on the congruence between public

diplomacy and policy outcomes in the context of sustainable development and climate policies. While both countries share a commitment to reducing their consumption and Co2-emissions, they exhibit distinct approaches to solving this problem, offering fertile ground for comparative analysis. This comparative approach allows us to achieve analytical richness through the nuances of both cases while also facilitating the identification of common or divergent patterns or divergent. Through triangulation of our findings from multiple cases, we aim to enhance the validity and reliability of our conclusions. Furthermore, our choice of Denmark and Singapore enables us to assess the transferability and translatability of policy interventions, offering insights that extend beyond the borders of these two nations. By examining the congruence between policy plans and outcomes in both contexts, we seek to contribute to the broader discourse on public diplomacy and its legitimacy, thereby laying the foundation for future research in this field.

Choosing Denmark and Singapore is both interesting and relevant to the problem we are trying to investigate. Firstly, Singapore and Denmark are similar in Co2-emissions (Annex 1.2: Annex 2.1), total population and pursue the position as green leaders internationally (Green Plan, Nd. & The Danish Government, 2020). The countries however differ on the strategy towards co2 reduction and thus focus as a green leader. Secondly, both countries have focused on climate mitigation, more specifically regarding resource efficiency and renewable sources of energy. According to the Danish 2020 agreement on waste management (Regeringen, 2020), resource inefficiency would make up 5,7% of Danish Co2-emissions in 2030, without regulating initiatives. Furthermore, it is suggested that 90% of plastics would be incinerated alongside 33% of general waste. The agreement states that waste production and incineration is a liability to both biodiversity and the climate, by emitting Co2 and cadmium (Regeringen, 2020 & Saner et al, 2011) to solve this problem, Denmark wants to decrease waste production, include partnerships with competent private actors and introduce more sorting options to the public, to assist in overall recycling of materials (Regeringen, 2020). Achieving better resource efficiency is therefore an important part of the Danish strategy to reduce Co2-emissions by 70% in 2030 (Regeringen, 2020).

While Denmark focuses exclusively on Co2-targets in their climate mitigation efforts, Singapore has expanded on the ability and benefits of efficient resource management. In its' Zero Waste Masterplan (Oh, 2019), Singapore mentions both economic and resource resilience, to keep the Singaporean economy competitive despite a lack of natural resources, alongside Climate resilience and co2-emission limiting. However, the process of achieving a better resource-efficiency, is similar to the Danish strategy of involving both the wider public and competent private actors.

Despite the differing end goals of these political initiatives, we believe that we are, within the frame of sustainable development and climate mitigation, able to answer whether policy plans and policy outcomes are congruent within either country or effectively compare this relationship between them. Doing so will enhance the credibility of our findings and create a foundation for further research within public diplomacy and its' legitimacy.

In addition to their strategic selection based on their shared commitment to sustainable development and climate change mitigation, Denmark and Singapore were chosen as cases due to their similar population sizes as small state actors and their significant influence within global sustainability discussions. Despite their unique contexts, both nations face parallel challenges in waste management and resource efficiency, presenting an opportunity for comparative analysis to glean insights applicable not only to these countries but also to other small states navigating similar environmental issues. By focusing on Denmark and Singapore, we aim to contribute nuanced perspectives that can shape policy decisions and initiatives, resonating beyond their borders and empowering small state actors in their pursuit of sustainable development.

Delimitation

We place our focus on public diplomacy and the results of sustainable development and climate mitigation policy programs, from implementation in 2019 until the latest possible datasets from 2021-2023. We acknowledge that the long-term goals of these policies have yet to be achieved, as we have yet to reach its conclusion. However, we will ideally be able to infer the possibility of the success of subgoals if datasets are available and projectable.

Data collection

We place our focus on statements made by the relevant ministers of our case countries, political programs related to sustainable development and climate mitigation efforts within the case countries and the related statistical data, delimited as data related to the themes found in the thematic analysis.

Data collection for this project first relies on public statements made by official representatives related to sustainability and climate policies, such as Dan Jørgensen, Lars Aagaard, Mette Frederiksen, Goh Swee Chen, Amy Khor and Grace Fu. We consider these public statements, if exerted in English, as acts of public diplomacy in the respective regions and wider international sphere, and therefore relevant in relation to policies and programs related to sustainability and climate. We will compare these statements to the goals set out in these. To collect sufficient data, we will rely on small-n sampling, aiming for at least 12 but no more than 30 samples per nation. Furthermore, we expect to reach a point of saturation within this number of samples.

Secondly, we will collect statistical data from relevant databases such as Danmarks Statistik², Singapore Department of Statistics, Our World in Data³ and official reports. Indicators discovered through specific target-setting in the respective nations will serve as the basis for comparison and development to ensure consistency and comparability in relation to congruence and credibility. Finally, we will triangulate these findings to discuss and evaluate the credibility of the narrative the two actors attempt to construct. The data for the analysis in this project will therefore consist of primary data. This will strengthen our results and ensure replicability and external validity as other researchers can replicate our study and assess the robustness of our findings based on transparent data collection methods.

Data Analysis

Data analysis for this project is comprised of three distinct parts: a qualitative phase one, focusing on the results of the thematic analysis of statements, the quantitative phase two,

² Danmarks Statistik is the central authority on Danish statistics, responsible for collecting, compiling, and publishing statistical information on various aspects of Denmark.

³ Our World in Data is an online publication that provides research and data on major global issues like climate change. <https://ourworldindata.org/about>.

focusing on describing and discussing data related to the outcome of policies and the integrative phase, focusing on congruence between phases one and two.

The Qualitative Phase

In the qualitative phase, we will make use of thematic coding, recognized as a systematic and effective analytical process, involves the identification and categorization of recurring themes, patterns, or concepts within the selected documents (Kelstrup & Lynggard, 2019; 167) and will be used to analyze what has been communicated by the respective representatives over the period of 2019-2024. This phase will include coding and analyzing the outwards political foci of Denmark and Singapore respectively. These are included to check the ministers' public statements' policy-coherence, effectively cross-referencing ambitions over time. On this basis, a broad selection of public statements related to sustainable development and climate policy will be included to map out the climate narrative trajectory. The political statements, i.e. the public diplomatic efforts, will be dissected from themes and patterns of narratives the governments try to create. The thematic patterns we extract from the statements establish the ground and claim on which we will proceed to the quantitative part of the thesis to compare what they say with what they do.

The Quantitative Phase

The quantitative phase involves checking the expected policy outcome and ambitions of specific targets in public statements, with statistical development in the areas. We will make use of descriptive statistics to do so. This method will allow us to discuss and conclude the central characteristics, statistical development, and trends of the sustainability and climate policy area, in both countries. Using descriptive statistics will also allow us to draw on visual representations of the data, making this part of the analysis easier to read and understand, through charts and plots. The purpose of this phase is to quantify the relationship between politics and reality.

The Integrative Phase

In this final part of the analysis, we will discuss policy and result congruence by triangulating the findings of phase one and two. This part of the analysis seeks to integrate and interpret both sets of findings in order to gain a more comprehensive understanding of the themes, patterns and trends in political statements, policy programs and policy outcomes.

Limitations

We found that statistical data related to sustainable development and climate mitigation efforts are poorly maintained and updated. First, a lack of yearly updates was found, as most datasets were collected and finalized before 2022. Secondly, despite clear performance indicators given by the Sustainable Development Goals (UNDES, n.d), indicators lacked standardization in both format and units of measurement. Finally, we found that public reporting in sustainable development and climate mitigation efforts are poorly maintained. This is based on the fact that we contacted the relevant Danish ministry who could inform us that the 2022 report, based on 2021 performance, is yet to be published.

Analysis

The analysis will be split into three distinct sequences; the qualitative sequence 1, described in further details just below, the quantitative sequence 2 focusing the practical efforts exerted by the respective countries and the integrative sequence 3, bringing together the qualitative and quantitative parts.

Sequence 1

Sequence 1 of the analysis will rely on a qualitative foundation, focusing on statements made by official representatives associated with environmental and sustainability policies of the respective country. Sequence 1 will be split into two parts; Denmark and Singapore, followed by an overall sub conclusion.

Denmark

Green leadership

In this section of the analysis, we will discuss how Denmark portrays green leadership, based on three underlying themes identified in the thematic analysis: The state as facilitator, call for action, and overarching ambitions and goals.

The state as facilitator

Throughout the coded statements, we observed a continuous effort by Denmark to establish itself as a key facilitator in global climate action (Annex 1.1: Annex 1.10). This recurring theme highlights Denmark's strategic use of public diplomacy to position itself as a leader in international environmental governance. The following quote exemplifies Denmark's role in mobilizing international cooperation and underscores its commitment to translating global climate agreements into actionable policies and stands as a representative of the reoccurring theme of Denmark as a facilitator.

“Now climate ministers and leaders from more than 30 countries meet in Denmark to discuss how to turn the words of the agreement into global action [...] It is crucial that we get everybody on board with a fair and realistic target for climate finance, which addresses the real needs of developing countries. Reaching an agreement on this difficult issue will require time and effort. That effort starts now here in Denmark,” (Annex 1.1, paragraph 2).

The quote emphasizes Denmark's role as a facilitator in international climate action by hosting climate ministers and leaders from over 30 countries. Denmark positions itself as a central player in global environmental governance, showcasing its commitment to transforming international agreements into concrete actions. This strategy enhances Denmark's attractiveness and credibility on the international stage by demonstrating its commitment to inclusive and equitable solutions that address the needs of developing countries. This aligns with the soft power asset of projecting values that are perceived as legitimate and attractive.

Denmark's proactive approach in hosting the meeting and setting the agenda for climate finance suggests coherence with its policy and statements. This coherence between Denmark's statements and its facilitative role in international climate action could enhance its soft power, as it may be seen as a reliable and committed actor in the global effort to combat climate change. Denmark's active engagement in facilitating international climate discussions serves to demonstrate a tangible commitment to environmental issues, thereby building credibility and trust among other nations. This practical involvement, when aligned with stated values and policies, enhances Denmark's attractiveness and influence. Being perceived as a leader and facilitator in addressing global challenges can significantly enhance Denmark's national image. This positive image can translate into greater influence in international forums and negotiations, as other countries may be more inclined to support and align with a nation they perceive as responsible and forward-thinking. This provides Denmark with opportunities to build and strengthen relationships with other countries which creates a repeating cycle of facilitation leading to influence which foster opportunities of facilitation.

Denmark frames this in a way of attracting and steering international attention towards environmental issues. This helps to highlight Denmark's environmental policies and achievements, drawing global attention to its efforts and reinforcing its soft power.

Call for action

Under the auspices of the dual climate charge between the Minister of Climate, Energy, and Utilities Lars Aagaard and the Minister for Development Cooperation and Global Climate Policy Dan Jørgensen, initiatives have been done to secure a position as a facilitating force within the international community to uphold the climate agenda and urgency (Annex 1.1). In addition to this assumed role and a clear audience creation of relevant stakeholders and decision-makers that

attend the summits, meetings and conferences Denmark facilitates. Denmark has made efforts to encourage and galvanize its peers to accelerate the climate progress and materialization of the commitments. During the abovementioned meeting among 30 ministers hosted by Denmark in early 2024, the Minister for Development Cooperation and Global Climate stressed the urgency of implementing the transition away from the fossil fuels, which the international community had committed to three months prior at the COP28 (Annex 1.1). The Danish minister, Dan Jørgensen, made it clear that the developing countries needed significant financial backing if they, and consequently the rest of the world, had any hopes of reaching the climate targets. Dan Jørgensen, who hosted the meeting between the ministers, encouraged them to increase their countries' aid to developing countries.

By persistently taking on the role as a vocal and frequent encourager and an avid urger for taking responsibility, Denmark appears as an actor who is aware of the accountability and immediacy climate change calls for. This induces a sense of leadership, which by achieving such a status, allows Denmark to sway the opinions of others more easily, and convince them of following Denmark's interests without the use of force or payment. A position which Denmark grasped for in the following quote from the meeting:

“Reaching an agreement on this difficult issue will require time and effort. That effort starts now here in Denmark” (Annex 1.1, paragraph 3).

From the quote above it becomes evident that Dan Jørgensen is portraying the meeting between the 30 countries, assembled, and hosted by Denmark, as the catalyst for the cohesive integration of the developing countries in the climate agenda. They are thereby framing themselves as the responsible and proactive actor who will initiate the necessary measures to accelerate the transition, placing them firmly in a central position in the climate progress. Additionally, this position is further exacerbated as they explicitly call *“for all actors to revise their climate targets in correspondence with the COP28 agreement”* (Annex 1.1, paragraph 4).

By being the one calling to action, Denmark is framed as a leading and responsible actor who initiates action. It is a behavior that is intended to frame how Denmark is perceived by its audience of the participating ministers and the international community in order to mobilize actors to the complex challenge of accelerating the developing countries climate transition. Effectively convincing others to invest resources in the developing countries' transition, could

hypothetically mean an increase in Danish export of green technology and energy solutions, making others more dependent on the Danish industry and secure the country a greater degree of influence. This could both influence Denmark's position by providing soft power and create a positive economic outcome. However, the significance of Denmark's encouragement is dependent on the extent to which they themselves manages to revise their plans accordingly and prove their claim to leadership through their policies. If they fall short of leading by example, they will fall short of leading at all, and fail to achieve an authoritative position that yields influence on the international stage, crippling their ability to make others follow Denmark voluntarily. Something that will be scrutinized in the coming sections.

Ambitions and overarching goals

This section focuses on how Denmark is establishing and creating a narrative that highlights the overarching ambitions and goals, thereby this section seeks to analyze how the nation uses future perspectives in their public diplomacy. An upcoming section will focus on previously reached goals. We discuss the credibility of the analyzed statements, when particularly related to ambitions rather than concrete policies.

Firstly, as part of Denmark's ambitions towards becoming a climate leader, it wants to set an example by building energy islands or windfarm hubs (Annex 1.3). This ambition is listed first in the Danish climate regulation of 2020 (KEFM, 2020) and commissions two islands connected by 2030 - this is argued to cement the Danish position as a climate leader (KEFM, 2020). In 2023, a provision to the climate regulation, focusing on the energy islands, was made and warned of significant risk of delay, given the remaining timeline until 2030 (Energistyrelsen, 2020, Annex 1.11). Despite the perceived importance and public hedging of these energy islands, the real reduction expected from these would be less than 0,1 million. t. CO₂e/year., in 2030 (KEFM, 2020) making it effectively the least impactful solution and hardly a claim to climate leadership by itself. Furthermore, the 2023 provision introduced additional marine climate requirements which may complicate the process. We therefore argue that despite the publicity surrounding the energy islands, it is largely still in the political sphere, and lacks progress in practice. However, we will investigate whether a general increase in wind energy is found and infer the impact on the overall green energy output of Denmark, if the energy islands are realized within the timeframe, in the next chapter. Given the importance attributed to these energy islands as, it

could be paramount that Denmark achieves these in practice in relation to the image of Denmark as a leading power in wind energy. That said, the largest reduction is, according to the Danish climate regulation (Regeringen, 2020), found in the green tax reform, suggesting a total reduction of 4.3 million Co₂e by 2030. Denmark public diplomacy is therefore focused on a narrative of grandiosity, which maintains an image of an ambitious and advanced climate actor, rather than relying on intricate tax policies to engage its audience.

Secondly, there is an ambition to create a climate neutral waste sector and improve Danish conversion towards a circular economy (Annex 1.3). The ambition is described in the Danish climate regulation for a green and circular waste sector (KEFM, 2020) as essential for bringing down overall Co₂ emissions. The most significant contributor to waste sector emissions is from incineration plants (ibid), and a lack of change will result in a 1.5 million co₂e emission per year by 2030. On the other hand, there is an ambition to make sure that at least 80% of plastics are recycled before incinerated by 2030 (annex 1.3). These ambitions are congruent with the agreed goals in the Danish climate regulation for a green and circular waste sector (KEFM, 2020) and we will thus check whether there is an increasing or decreasing trend of recycling and waste sector emissions.

The challenge presented by Dan Jørgensen, in his keynote speech to FEPS, is that the government's policies are being criticized by the opposition for not being sufficiently 'green' due to a lack of urgency in implementation (Annex 1.2). His counterargument is, firstly, that Denmark is hardly a serious contributor to global emissions, being accountable for only 0.1% (Annex 1.2). Seen from a public diplomacy perspective, this shows the strategic narrative produced by Denmark, focusing on overall emissions rather than emission per capita, which in turn is much higher. This downplays the significance attributed to a western lifestyle, making its ambitions seem more genuine, by continuing to reaffirm its image of being a green nation (Ritchie et al., 2020). Ambitious and concrete measures, as promised in the Danish climate regulation (Regeringen, 2020), are therefore significant to the overall status and image of Denmark as a climate leader.

Continuing, instead of focusing on the tangible progress, Jørgensen argues that Denmark must

inspire other countries, by being very ambitious politically and perhaps not in practice - out of fear that being too practically ambitious may hurt the Danish economy by closing down workplaces, outsourcing jobs and result in greater inequality (Annex 1.2). On the one hand, Denmark needs to set an example by launching ambitious policy programs that could have a great effect in the future and inspire other countries by that. On the other, it is argued by Dan Jørgensen that if Denmark implements too ambitious reduction goals too soon, other countries will look at Denmark as a cautionary tale. This highlights the strategic balancing of global ambitious and domestic environmental progress.

Policy promises and proposals

Generally, throughout the statements we have found from Denmark, there is a strong focus and commitment towards renewable sources of energy, as the main tool for Co2 reduction (Annex 1.1: Annex 1.3: Annex 1.10: Annex 1.11: Annex 1.14: Annex 1.15). Further emphasis is placed on the energy islands, serving as hubs for wind energy, essentially functioning as the Danish flagship policy. Not unlike the section on ambitions above, however, these islands are emphasized as if they were already in construction and finalized. Additionally, the establishment of energy islands would, according to Dan Jørgensen, assist in the decarbonization of Europe in general, as overproduction of clean energy can be used to produce ‘green’ hydrogen for green fuels. Given the overall estimated output of 10 gigawatt, the energy islands are estimated to produce more than 87 terawatt hours (TWH) per year, vastly surpassing the Danish consumption in 2023 of ~33 TWH, making this policy enormously impactful if successful (Annex 1.15: Energistyrelsen, 2024; Ritchie et al., 2024).

A vagueness characterizes the Danish policy promises as it is difficult to identify any policies that expressively reinforces the existing initiatives of actively bringing down Co2 emissions. Moreover, extremely ambitious ideas and projects are at the forefront of promises rather than highlighting and building upon existing climate initiatives. This focus on innovative and large-scale projects over small and incremental improvements suggests a visionary approach by Denmark and a potential strategic emphasis on doing something groundbreaking - essentially pioneering in search of leadership and international acclaim. The lack of highlighting incremental progress may however impact the feasibility and reliability of the Danish climate

strategy in the short term, on the other hand, if the plans eventually succeed within the timeframe the benefits may be larger in terms of credibility and leadership acclaim.

Acts of establishing credibility through pioneering and highlighting achievements

Even though most of the Danish statements highlight future policies and projects, one theme we also established is represented by the quote below. It originates from a speech that Dan Jørgensen held in 2020 during his tenure as Climate Minister. Here, and throughout the statements, Denmark tries to establish their originality as green first movers, often by highlighting their previous achievements or policies. Thereby not only highlighting their high ambitions for future projects and policies but articulating their provenance⁴ in environmental policies instead. Take the quote from Dan Jørgensen as example:

“Sometimes, we are fortunate enough in our country to be considered a front-runner and a pioneer. Just last week the Environment Performance Index by Yale and Columbia University[...] was published and Denmark was ranked for the first time at number one, meaning that hopefully we can inspire other countries [...] So, if you look at it from 1990 to today, we've increased the size of our economy by 60 percent, decreased our energy consumption by 6 percent, and decreased our emissions from our energy sector by 38 percent. So, that is to show you can decouple growth and emissions pollution, and you can actually make these policies in a way that's fair and equal.” (Annex 1.2, paragraph 4).

By emphasizing Denmark's achievements and pioneering efforts, the statements functions as a strategic tool to enhance Denmark's credibility and attractiveness on the international stage. Attractiveness is highly important when trying to influence others and Denmark's efforts to establish their status as a front-runner and first mover in environmental performance, highlighted here through its top ranking in the Environment Performance Index by Yale and Columbia University, positions themselves as leaders in the green transformation. This positioning is

⁴ Provenance refers to the sense of origin – Simon Anholt (1998) explains how this is a powerful tool to establish legitimacy for states. Anholt, S. (1998). Nation-brands of the twenty-first century. *The Journal of Brand Management*, 5(6), 395–406. <https://doi.org/10.1057/bm.1998.30>.

intended to inspire other countries to emulate Denmark's model, thereby extending its influence without the need for coercion.

As mentioned earlier credibility is an important mechanism in achieving soft power and Denmark enhances their credibility by citing its top ranking, and affiliation of reputable institutions like Yale and Columbia University. Such third-party validation can increase credibility, as it heightens the perception of Denmark's behavior and legitimacy. The reference to these institutions serves to demonstrate Denmark's claims and enhance its credibility on the international stage.

The statement also illustrates a congruence between Denmark's proclaimed values—sustainability and equity—and its actual achievements. By showcasing how Denmark has achieved significant economic growth while simultaneously reducing energy consumption and emissions, the statement demonstrates a maintained alignment between Denmark's environmental policies and economic outcomes. This consistency between values and actions helps enhancing soft power, as it shows that Denmark's actions are in congruence with their rhetoric, demonstrating how they practice what they preach.

Denmark also highlights how social responsibility and green transition is accounted for in their approach to environmental policies. In the collection of analyzed statements, Denmark shows, what they represent as universal values of fairness and social equity, by highlighting that the green transformation has not been achieved at the expense of the poorest segments of society and has maintained competitiveness and job creation. This economic appeal is yet another attempt at increasing Denmark's attractiveness and thereby reinforcing its audience's receptiveness to Denmark's sway and demonstrated competence by proving that sustainability can be achieved without compromising social justice.

In a TEDtalk by Dan Jørgensen from 2020 (Annex 1.14) he follows the above-mentioned themes, but this speech also serves as a great example of Denmark trying to establish provenance through pioneering and innovation. Here he mentions former Prime Minister Thorvald Stauning⁵

Vores historie - Danmarks Naturfredningsforening. (n.d.). <https://www.dn.dk/om-os/historien/>

as an environmentalist even before the term was coined and Henrik Stiesdal⁶ respectively as the original climate innovator through his wind turbine design. By this, Denmark establishes their provenance of being green and innovative. The power of provenance can have a significant aspect in public diplomacy, as it extenuates the frontrunner narrative, which Denmark is keen on establishing by underscoring Denmark's leadership and innovation in renewable energy. Stiesdal's contributions to wind energy symbolize Denmark's role as an ambitious innovator in the green energy transition, further warranting Denmark's reverence as an environmental role model. This strategic use of history, through Stauning, and Stiesdal, pioneers serve as a powerful tool in public diplomacy, as it builds a narrative of enduring leadership which strengthens their credibility.

Specific targets

Generally, Danish statements repeat the overarching specific goal, of a 70% reduction in Co2 emissions by 2030 (Annex 1.1: Annex 1.2: Annex 1.5: Annex 1.7: Annex 1.12). The remaining statements are concrete measures for reaching the desired reductions. Additionally, to reach the desired reduction, additional policies are needed in the short term to achieve the overall reduction target of 19 million tons of Co2 (Annex 1.2).

Among the statements we found, there are 3 specific goals:

- Reach a climate neutral waste sector by the 'end of the decade', expected to reduce emissions by 0,7 million tons (Annex 1.4). It is not specified in the statements how the reduction is achieved or how a climate neutral waste sector is defined. However, the figure of 0,7 million tons reflects the goal set in the Danish climate regulation and specified further in the concurrent waste regulation (KEFM, 2020 & Regeringen, 2020). Additionally, the statements specifies that 80 percent of plastic waste must be sorted from incineration by 2030 (Annex 1.4)

⁵ Thorvald Stauning was Social Democratic Prime Minister of Denmark and was one of the driving forces behind the landmark nature conservation law of 1937.

⁶ Henrik Stiesdal is a Danish inventor who build a wind turbine design that he later sold to Vestas. Source: <https://www.altinget.dk/energi/artikel/serieopfinderen-henrik-stiesdal-vi-skal-fandeme-bare-goere-noget-ved-det-elendige-klimaproblem>

- Massively increase the production of sustainable energy, by quadrupling the production of solar and land wind energy by 2030 (Annex 1.13). In 2021, a total of 12TWH of wind and solar energy was produced. This would in turn suggest that Denmark is aiming for a total sustainable energy production more than 48TWH by 2030.
- The implementation of an ambitious tax reform, aimed at reducing Co2 emissions by 4.3 million tonnes by 2030, making this the most significant contribution towards reaching the overall goal of a 70 percent reduction (Annex 1.13). The tax is based on a stick- and carrot model, where sustainable practices become more profitable, while less sustainable practices and fossil fuel consumption will become more expensive (Annex 1.13).

Despite being coded as specific targets; the most developed target seems to be related to an increase in sustainable energy production. Denmark emphasizes the energy islands mentioned in the previous sections, which alludes to the idea that Denmark is hedging its international climate efforts on being an absolute leader in sustainable energy production. Despite the attention given to the production of sustainable energy, the green tax reform will be the most significant contribution towards reducing overall Co2-emissions. Wind energy is therefore by itself far from sufficient at reaching the overall reduction target of 19 million tons of Co2. However, in relation to public diplomacy, we have observed a consistent narrative construction which heavily relies on the significance contributed to the development of renewable energy production.

Singapore

Green leadership

The state as facilitator

Akin to Denmark, Singapore also tries to emphasize its role as a facilitator of international cooperation and climate action. This positioning could enhance Singapore's soft power by showcasing its public diplomacy efforts of presenting their narrative of commitment to multilateral solutions to global challenges and its capability to bring about collective action. Singapore participates in and facilitates a long list of different working groups and programs, and they strongly commit themselves to convey their central role in this process, as exemplified by the selection of statements below:

“Through the Singapore Cooperation Programme (SCP) and our Climate Action Package, we have shared our experiences with more than 132,000 government officials from over 180 countries, territories, and intergovernmental organisations in areas such as the green economy, sustainable development, urban planning, flood and water management, disaster risk reduction.” (Annex 2.1, paragraph 23).

And:

“Singapore also played a key role in facilitating the conclusion of the first Global Stocktake (GST), which reviewed the collective progress towards the achievement of the goals of the Paris Agreement. Our Chief Negotiator for Climate Change Mr Joseph Teo co-chaired the joint contact group for the Global Stocktake, which helped to tee-up substantive outcomes under GST that were successfully adopted as a key outcome at COP28. The GST decision will guide Parties’ collective actions to achieve low-GHG emission and climate-resilient development. It will also inform the preparation of the next round of Nationally Determined Contributions by Parties due in 2025.” (Annex 2.10, paragraph 5).

By positioning itself as the facilitator of international cooperation through the Singapore Cooperation Programme (SCP), their Climate Action Package and the Global Stocktake, Singapore project themselves as a consistent actor in global governance and it demonstrates Singapore’s commitment to addressing global challenges such as sustainable development and climate change. This is a representation on how Singapore conducts its public diplomacy by assuming a having a key role in the green transition.

The statement about the SCP highlights Singapore’s extensive experience-sharing efforts. This extensive engagement tries to underscore Singapore’s credibility by showcasing their commitment to sustainable development, not only on a domestic level, but as an international leader. By sharing its expertise in areas like the green economy, urban planning, and disaster risk reduction, Singapore builds a reputation as a knowledgeable and reliable partner. This credibility

increases their soft power, as it enhances Singapore's legitimacy and attractiveness as a model for other nations to follow.

Singapore's active role in facilitating showcases its ability to drive substantive international outcomes and can be a soft power asset, as it illustrates Singapore's capability to influence global climate policy and foster collective action towards low emission and climate-resilient development.

Singapore's facilitative role is a strategic component of its public diplomacy. These programs not only disseminate Singapore's expertise but also build relationships with government officials worldwide. This relationship-building is a core dimension of public diplomacy, as it fosters a network of international partners who are familiar with and receptive of Singapore's policies and values.

Being a facilitator also means that Singapore has an opportunity to create a susceptible environment for its foreign policy goals. By facilitating arenas for creating change through global climate policy, Singapore enhances its reputation as a leader in climate action. By consistently showcasing its contributions to global sustainability and climate resilience, Singapore constructs a narrative of leadership. This narrative helps alter the discursive environment, making Singapore's policies and values appear more influential and acceptable globally.

Call for action

By calling others to action, Singapore creates a position for itself as an agenda setting actor, and essentially taking leadership on issue of climate change. This is exemplified, when Minister for Sustainability and the Environment, Grace Fu, during a summit on sustainability in 2022, made the following statement:

“In a world where we need to think hard about “reduce, reuse and recycle”, we need to re-think and re-work some of these existing [Co2e-heavy] practices.” (Annex 2.9, paragraph 7).

In the quote, Minister Fu argues that the world should keep an open mind towards alternative methods of Co2-reduction, requiring innovative and visionary approaches. More specifically, it refers to the idea of adopting a Circular Economy, naming the three core components of this alternative economic model, over a Linear Economy. Consequently, progress will stagnate if more ambitious solutions and adaptation schemes are neglected. By constructing a sense of urgency, Singapore enables itself to create an opportunity to designate what it finds as the appropriate response, and secure a position as an agenda setting actor, which in turn establishes a conduit for mobilizing support for their interests. It is a reoccurring phenomenon in Singapore's communication where they construct current solutions or strategies as insufficient and overdue of improvement, to steer the agenda in a different direction (Annex 2.13).

At the COP26 meeting in Glasgow in 2021, Singapore sketched out the directions and ambitions while they encouraged a global effort in reaching the Paris Agreement. Minister Grace Fu once again took on the representative role of Singapore at the COP and in a speech during the segment with high level decision makers, addressed the crowd and rebuked the slow progress the international community had made towards the Paris agreement (Annex 2.1). Taking on a position of authority to criticize the community's efforts, namely that it has been six years since the Paris agreement was declared, and that progress since then had left much to be desired, exemplifies a Singaporean call to action. Minister Grace Fu ensued her criticism by avouching her desired outcome of COP26, namely the international community's re-invigorated engagement in multilateral cooperation towards the climate transition (Annex 2.1). In such fashion, Singapore transmits an authoritative attraction by describing what's lacking and assert what's needed, for others to follow their call. Clearly taking on a role as a leader.

Moreover, Singapore stresses the importance of collective action at numerous occasions trying to mobilize a collective action and sense of accountability (Annex 2.4: Annex 2.5: Annex 2.8: Annex 2.9). At a banquet celebrating the Canadian and ASEAN cooperative project in 2024, Minister Grace Fu commemorated the ASEAN-Canada Strategic Partnership and its potential to increase the respective actors' efforts and improve the sharing of information and technology in the climate adaptation and mitigation process (Annex 2.4). As such Singapore emphasized the assumed necessity of cooperative measures:

“Climate change and agri-food security are global challenges that we cannot solve alone. We will need to work together and leverage on each other’s strengths to deliver solutions with greater global impact.” (Annex 2.4, paragraph 12).

In doing so, they inspire the countries to accelerate their efforts but also encourage mutual engagement and multilateral projects. By emphasizing that no country can duly reach their targets within the timeframe, without cooperative and collective efforts, Singapore is effectively positioning itself as a leading force in a communal impetus. And by such virtue strengthens a narrative of Singapore as a warranted leader.

Singapore acknowledges that collective efforts are needed, but they go beyond the extend of mere encouragement of actors. In their willingness and ambition to actualize the fulfillment of the targets, Singapore proposes the institutionalization of the climate adaptation process, intended to stabilize, and make the progress resilient to political fluctuations. At a regional summit between Asian leaders and high-ranking actors in 2024, Minister Grace Fu gave the following remarks:

“Second, many governments around the world are entering elections. There are concerns that the political commitment to tackle climate change might wane in some countries. However, changes in governments do not stop climate change. We must institutionalize climate action, so that they can be more resilient regardless of the political cycles.” (Annex 2.5, paragraph 3).

By calling out the volatility of the climate initiative among actors in the international community and indecisiveness that permeates the transition, Singapore reflects a strong commitment to the climate agenda. However, this is a strong call as it simultaneously demonstrates that Singapore do not hesitate to take on accountability and responsibility of the climate adaptation, while also pushing others to commit themselves to the extend Singapore has. Thus, yet again reinforcing Singapore’s image as an ambitious and determined leader.

Ambitions and overarching goals

Singapore generally places a strong emphasis on concrete plans and projects, while involving public and private stakeholders for an integrative net-zero roadmap. Additionally, a focus is placed on self-sufficiency, particularly within water and natural resources, given the status and

physical space of Singapore (Annex 2.6: Annex 2.7). Resource efficiency on the long term is considered a key priority in Singapore (Annex 2.7).

Firstly, Singapore's approach is exemplified by concrete policies and infrastructure projects, such as the proposed Tuas Nexus Water- and Materials Recycling Facility, described as “... *a water reclamation plant that is self-sufficient co-locating and integrating with a waste management facility*” and “... *best in class in wastewater-retreatment*” (Annex 2.3, paragraph 1). This facility, expected to be completed in 2025, will be an example of Singapore's commitment to green public procurement and green finance, where green bonds will serve as ear-marked investments directly into sustainable infrastructure projects (Annex 2.13). It is notable, however, that this project is not advertised as a part of bringing down the overall carbon footprint of Singapore; rather, its construction is based on a desire to become sustainable in the most basic sense, by being able to reduce the import of natural resources and reclaiming water resources that would otherwise be lost (Annex 2.3: Annex 2.7), while still retaining an overarching goal and commitment to the Glasgow Climate Pact of being carbon-neutral no later than 2050. (Annex 2.11: Annex 2.9). By showcasing concrete projects such as the Tuas Nexus plant in conjunction with green financing options, Singapore is demonstrating its practical and technological achievements and thus attempt to prove themselves as a leading force in innovative and practical solutions for sustainability. By extension, green bonds may be viewed a very concrete opportunity for other countries to invest in the innovation potential of Singapore, given its physical restrictions.

Secondly, to continue along the line of overarching commitments, Singapore's approach is exemplified by comprehensive and inclusive plans. Singapore has, not unlike the EU and Denmark, launched a 2030 plan called the Singapore Green Plan 2030. Under this plan,

“The public sector will set new and ambitious sustainability targets, and lead green demand to serve as a role model for corporates and individuals” (Annex 2.14, paragraph 15).

And by extension, it will also plan ahead and include undesired ‘costs’ in the Co2 balance, such as water desalination (Annex 2.5). Singapore argues that not just mitigation efforts should be considered in the net-zero scheme, but also adaptation measures, showing their ability to think ahead and thus position the country as a climate leader.

A second commitment made by Singapore, is to retain highly inclusive plans that involves not just public and private sectors, but also civil society, encouraging private individuals to adopt sustainable practices, stating that:

“Singaporeans must be willing to change our habits, no matter how ingrained, and adopt climate-friendly actions like recycling right and bringing our own reusable bags when shopping” (Annex 2.14 paragraph 16)

Encouraging public participation could serve as a litmus test for how to properly engage with civil society and make use of the resource they represent, especially when it comes to consumption patterns and recycling. It suggests a holistic approach to climate change mitigation and as a transferable model which could draw the eyes of other governments.

Finally, a focus is place on research and development towards urban solutions for sustainability. Innovations include the Tuas Nexus (Annex 2.3), but also the extensive plans such as the Sustainability Action Package,⁷ focusing on resilience-building strategies and regional development (Annex 2.7)

Notably, Singaporean ambitions seem concrete and focused on the short-term, under the umbrella goal of climate neutrality in 2050. However, it does not promise or drive the ambition of policies that is effectively a big leap forward.

Policy promises and proposals

Singapore emphasizes both their proactive efforts and the thoughtful approach they are taking in response to climate issues. At the COP26 summit in Glasgow in 2021, Minister Grace Fu held a speech, in which she made the following statement:

“In February this year, we launched the Singapore Green Plan 2030, which complements our NDC and LEDS and sets out concrete near-term plans to achieve our net zero aspiration.”
(Annex 2.1, paragraph 8).

The abovementioned statement reflects a general climate strategy Singapore employs, when observing their statements. Many of the policies Singapore mentions they have implemented and

⁷ Overarching Singaporean action package akin to the European Green Deal and Circular Economy Action Plan.

seek to implement in the near future are preponderantly concrete policies that complement each other and address near-term targets, necessary to propel their carbon reduction trajectory (Annex 2.11: Annex 2.12). It is the imminent projects and initiatives that function as the main vector for the Singaporean reduction, and they seldomly reference initiatives that will become big and groundbreaking projects when they materialize decades ahead in the future. Only one example was found during the analysis of Singapore framing an ongoing project with a sense of audaciousness and visionary status:

“The Tuas Nexus Integrated Waste Management Facility (...) will be Singapore’s first integrated facility to treat incinerable waste, source-segregated food waste, and dewatered sludge. Its automated Materials Recovery Facility will consolidate and sort all recyclables collected under the National Recycling Programme (...) resulting in improved energy and resource recovery, land savings, as well as carbon savings of more than 200,000 tonnes annually.” (Annex 2.13, paragraph 14).

Although Singapore, in this quote highlights an ambitious project, they are still maintaining the ways the project correlates with other initiatives and feed into a multipronged effort to reduce their environmental footprint. They generally demonstrate a pragmatic approach to climate solutions, but also make sure that the policies that are put forward, being it highly technological or immediate and incremental, all correspond and are mutually reinforcing. This in turn means, that Singapore has many different plans, projects and policies that conceives a scope of diverse mechanisms enabling a ubiquitous climate intervention. Essentially, framing their climate adaptation strategy as cohesive and deliberate but diverse, solidifying its position as a responsible and agile role model for other countries.

Singapore also demonstrates a regional responsibility and concern for its co-members of the ASEAN and their ability to actualize their targets, proposing regional solutions and projects. Singapore recognizes that reaching its climate targets is to no avail if others do not follow suit. Hence, the ASEAN-countries trajectory is also of utmost concern for the Singaporean government, and responsibility and desire to boost a regional progress is evident in their statements on the climate transition through political initiatives:

“Regional power grids can help to accelerate the investments and development of lowcarbon energy in the region and enhance electricity security and resilience for connected parties. We

hope our trials and pilots to import electricity from Malaysia and Indonesia, and through regional arrangements such as the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project, will serve as a pathfinder towards a broader ASEAN Power Grid vision (...).” (Annex 2.1, paragraph 10).

By engaging in regional projects, they integrate solutions and strengthen the mutual dependence and gain for all countries, making the achievement of the targets increasingly attainable. Yet, they do not restrict themselves to convenient and politically smooth propositions, but also entertain contentious initiatives that will potentially confront other actors with a reality check:

“Singapore has announced various new initiatives to support and accelerate a green transition in Singapore, our region, and beyond, including (...) the Singapore-Asia Taxonomy to define transition activities across various focus sectors. This will help to minimize greenwashing, while allowing financing to flow to climate-friendly transition activities.” (Annex 2.10, paragraph 6).

As such, their climate campaign does not shy away from difficult solutions that can potentially deteriorate the audience’s receptiveness to Singapore influence by reducing greenwashing. Through their policy proposals and ideas, Singapore stresses the urgency of the impending difficulties awaiting if climate change is left unattended. They are thus enabling the perception of themselves as a precedented actor who embodies accountability and responsibility in a political environment occasionally permeated by hesitance (Annex 2.1, paragraph 2).

Acts of establishing credibility through pioneering and highlighting achievements

Singapore often highlights its achievements in various environmental initiatives throughout its statements. This consistent emphasis helps position Singapore as a leader in both global and regional environmental governance (Annex 2.1: Annex 2.2: Annex 2.4: Annex 2.8: Annex 2.9: Annex 2.10: Annex 2.11: Annex 2.12: Annex 2.14). By showcasing its prior accomplishments, Singapore demonstrates its proactive role and credibility in addressing environmental challenges. This strategy not only reinforces Singapore's image as a pioneering nation but also builds trust and legitimacy on the international stage, enhancing its influence and soft power in environmental diplomacy.

Singapore's strategy of establishing itself as a pioneer in various environmental initiatives can boost its public diplomacy efforts. For example, Singapore was the first country in the region to

introduce a carbon tax: *“We are the first country in the region to introduce a carbon tax, to strengthen the impetus for businesses to invest in decarbonisation.”* (Annex 2.4, paragraph 9). By highlighting this, Singapore demonstrates leadership through being first movers in climate tax policy. This pioneering move not only sets a precedent for neighboring countries, but also positions Singapore as a forward-thinking and proactive actor on the global stage. They highlight themselves as being one of the original climate actors creating credibility through provenance. This originality can enhance Singapore's soft power by showcasing its long-standing commitment to environmental sustainability, making it an attractive model for other nations to follow.

This is backed up by Singapore's early adoption of measures such as joining the Powering Past Coal Alliance and transitioning from fuel oil to natural gas for electricity generation:

“We are pleased to be among the first countries in Asia to join the Powering Past Coal Alliance [...] Having pivoted from fuel oil to natural gas, the cleanest form of fossil fuel, for electricity generation 2 decades ago, we will phase out unabated coal power generation completely by 2050. We already do not finance unabated coal power projects overseas.” (Annex 2.1, paragraph 13).

This quote is meant to further emphasize Singapore's attempt at establishing their role as long-time leader in clean electricity. By phasing out unabated coal power generation by 2050 and refraining from financing such projects overseas, Singapore reinforces its image as a responsible and future-oriented nation based on past achievements. This sense of provenance, coming from early and decisive actions, underlines Singapore's credibility in leading the way towards sustainable development.

Throughout the statement, they generally focus on how they have realized specific projects or goals. Like the construction of one of the world's largest floating solar farms and the inauguration of a fifth desalination plant are concrete examples Singapore uses to present themselves as having innovative approaches to overcoming environmental and resource limitations (Annex 2.8). These pioneering projects not only address immediate needs but also serve as long-term investments in sustainability. They even present how they are aware of the

opportunity costs⁸ of these large-scale projects and investments in the short term but argue that this is a necessity for their longevity as a country and that economic concerns fall in the background when making these investments and innovation. As they put it “(...) *we pushed ahead because we must address our limitations through innovation and investments – investments made ahead of the time when we need them.*” (Annex. 2.8, paragraph 10) This forward-thinking approach shows how y to are trying to mobilize credibility through innovation, being first movers and acknowledging sacrifices, as it projects an image of strength and determination, advantageous traits for a small nation facing significant environmental constraints and thereby adding to their image as a green leader.

Specific targets

Singapore demonstrates a diversified and specific path towards net-zero emissions by 2050, with carbon-neutrality being the overarching goal. Diversified, as it publicly aims to split its efforts into three distinct areas: Renewable and low-carbon energy sources, urban and waste management, and sustainable transport and household initiatives. Specific, because it builds on principles and initiatives that already work, within these areas.

Renewable and low-carbon energy sources

As part of its strategy towards reaching net-zero emissions by 2030, Singapore aims to quadruple solar energy by 2025 from 2020 levels (Annex 2.1). In 2021 Singapore “...opened one of the world’s largest floating solar farms which will offset 33,000 tonnes of carbon dioxide annually” (Annex 2.1, paragraph 9), a specific target, which makes Singapore’s progress tangible, even though they very idea of carbon off-setting is holistic and math-based approach to climate change mitigation.

Furthermore, Singapore aims to reduce the carbon footprint of its energy sector, by increasing its import of low-carbon electricity up to 4 GW by 2035. This increase “...will constitute around 30% of Singapore’s electricity supply” (Annex 2.1, paragraph 9). The import of low-carbon energy was set to begin in the second quarter of 2022 (Annex 2.11). Combining these efforts,

⁸ Opportunity costs are the loss of revenue when choosing one expenditure over another. Britannica money. (2024, May 15). <https://www.britannica.com/money/opportunity-cost>

Singapore portrays an ambitious plan to reduce its carbon footprint from its energy sector, building on and expanding current practices.

Finally, Singapore has committed itself to being a frontrunner on transition financing within the ASEAN region (Annex 2.5). At COP28 it pledged to mobilize US\$5 billion to derisk transition projects (Annex 2,10). Given the territorial restrictions faced by Singapore's landmass, this not only portrays it as an economic leader in ASEAN, a transition in neighboring countries could also allow Singapore to achieve its goal of importing 4 GW of low-carbon energy by 2035, strengthening regional cohesion and climate adaptation in general.

Urban Environment and Waste management

Given the tight territorial restrictions and lack of natural resources, another important strategy Singapore is pursuing, is the development and efficiency of the urban environment and its waste management.

Firstly, this is done through a general 'greening' of the urban environment, one of the five Green Plan 2030 pillars (Annex 2.1). According to this plan, Singapore aims at ensuring that 80% of all new buildings are built with a low production carbon-footprint in mind, while also achieving an 80% improvement in energy efficiency by 2030 (Annex 2.1). Furthermore, Singapore wants to restore nature by planting more than a million trees by 2030. With Singapore being a city-state, other countries might look at its urban 'greening' strategy, as an ambitious example for their capital city.

Secondly, Singapore aims to reduce landfill waste by 30% per capita by 2030, while frontloading the first 20% by 2026 (Annex 2.9: Annex 2.13). Additionally, it aims to reach an overall recycling rate of 70% by 2030 - the Tuas Nexus serves as a significant and specific tool for reaching these goals, as it will accommodate an automated materials recovery facility, capable of sorting all fractions of collected waste (Annex 2.13). By frontloading its goals, Singapore demonstrates a proactive approach towards transitioning into a more sustainable economy. Furthermore, setting a recycling goal in conjunction with an innovative new technology, such as the Tuas Nexus, adds to the idea of proactivity and urgency displayed by Singapore.

Finally, a steppedⁱ carbon tax has been, and will be, introduced, starting at S\$5 per tonne and is gradually raised to S\$25 and between S\$50 to S\$80 per tonne by 2030 (Annex 2.4). Having a

stepped carbon taxation scheme could serve a dual purpose: on the one hand, it shows transparency towards private corporations and trade partners who can adjust their budgets accordingly and linearly. On the other hand, it shows a practical and specific commitment towards a desire to reduce carbon emissions, by discouraging unsustainable practices at an operational level. Implementing and gradually increasing carbon taxing could serve as an example and case study for other nations to take note of, especially in terms of trade competitiveness vis-à-vis carbon emissions. Open but significant taxation makes Singapore's ambitions and goals clear to the outside world and demonstrates a willingness to take concrete steps towards a sustainable future.

Sustainable Transport and Household Initiatives

Another pillar of the green plan mentioned in the statements, is an intensification of green transportation. The overarching goal is that 80% of households should be within walking distance of public transport opportunities and that 75% of commutes during peak time is by public transportation by 2030 (Annex 2.14). This goal is further exacerbated by the fact that Singapore has capped personal vehicle growth to zero since 2018 and seek to phase out internal combustion engines by 2040 (Annex 2.1). Both initiatives are encapsulated by the quote:

“We are aggressively pushing for a cleaner and more efficient transport system.” (Annex 2.1, paragraph 9)

Placing a cap on the development of personal vehicle growth is indeed an aggressive strategy for convincing more people to choose public transport. However, given the fact that Singapore concurrently wants to update, expand, and simplify their public infrastructure, there is an incentive to comply with this line of legislation. Additionally, a well-covered public infrastructure could serve as a model for sustainable urban development and a touristic appeal.

Another example demonstrating Singapore's determination towards a more sustainable urban environment is that it involves civil society by giving subsidies towards purchasing more sustainable appliances (Annex 2.12). The subsidies ran from November 2020 to March 2024 and included vouchers given for the purchase of *“energy-efficient refrigerators, LED lights and*

water-efficient shower fittings. This helps to reduce energy and water consumption, lower utility bills, and reduce greenhouse gas emissions.” (Annex 2.12, paragraph 15).

Aggressive policies towards limiting personal Co2 emissions while upgrading infrastructure and helping the public to make sustainable consumer choices through subsidies would, if it works in practice, serve as an example of effective community engagement in environmental sustainability. Furthermore, it may serve as an overall strategy that other countries might pursue if concrete results are needed in a short period of time, as opposed to 10- or 30-year plans.

Singapore’s overall strategy and specific targets demonstrate a wide range of measures taken towards a more sustainable future, while not focusing on one specific do-it-all policy. Singapore seeks to achieve ambitious domestic targets, which in turn conveys leadership in renewable energy, urban sustainability & transportation, and waste management.

Comparative analysis of initial national findings

In comparing the statements by Denmark and Singapore, a key difference comes to light in the way they hedge their statements regarding environmental initiatives and goals. Denmark often relies on hedging their statements with cautious and aspirational language. Their unspecified and therefore malleable agenda facilitates political maneuverability to make their current trajectory somewhat fit their narrative. This in turn complicates the audience’s ability to discredit Denmark’s credibility as the political targets can potentially move. However, it simultaneously creates room for critique of formulating vague and imprecise proposals as well as confusion for their audiences of what they truly propose. One could for this matter, argue that imprecise and vague directions is not befitting a proper leader, especially not during times of crises and high stakes, and thus leaves a relatively less convincing impact on the international community’s perception of Denmark’s leading skills. Contrarily, Singapore employs a more assertive and definitive language, putting forth clearer targets and means for action, thereby conveying a sense of determinism and commitment to concrete actions. Arguably leaving a longer lasting imprint and stronger effect on the perception of what Singapore does and the efforts that warrants a leading position.

These distinct rhetorical strategies indicate different approaches to woo for green leadership. Denmark's hedged statements suggest a narrative conceived of fantastic ideas and projects while attempting to underscore a perception of collectivity aimed at building consensus and inspiration through like-minded ambitions. By articulating their ambitions, particularly the encouragement to unite and general need to act in unison, puts Denmark in a central position and resembles an actor who is aware of the challenges. This approach may resonate well with countries and stakeholders who value pragmatism and shared efforts in addressing global environmental issues. Singapore's assertive language projects a leadership style that is more decisive and aimed at demonstrating capability and authority. By making definitive commitments and repeatedly highlighting their accomplishments, Singapore positions itself as a proactive and results-oriented leader, who does not hesitate or remain idle in the immediate response to the climate challenges. This arguably invokes a strong incentive for others to commit themselves to pursue the same objectives as Singapore. Moreover, this approach can be particularly effective in establishing Singapore's credibility and influence, as it showcases the country's determination and ability to achieve its environmental goals. It signals a leadership capable of delivering real outcomes, which can inspire confidence among international audiences. However, some actors of the international community might perceive this as too aggressive or costly either politically or economically, which could make certain members of the audience less attracted to the example Singapore presents, and hampers Singapore's influence.

Singapore and Denmark's divergent strategies are also represented in their approaches to meeting their environmental targets. Singapore tends to frontload its efforts, ensuring that significant progress is made early in the process to maintain momentum and secure the achievement of their goals. This proactive strategy involves substantial initial investments in infrastructure, technology, and policy implementation, setting a solid foundation for sustained success. For instance, Singapore's early adoption of a carbon tax and its ambitious projects like the floating solar farm exemplify this approach. By taking significant steps early on, Singapore not only demonstrates its commitment but also builds a track record of measurable progress and reinforces its reputation as a capable and forward-thinking green leader.

On the other hand, Denmark appears to follow a strategy of the "hockey stick"⁹-model, where efforts and progress start slowly and accelerate exponentially towards the end of the target, as the development of advanced technology will enable an increasingly rapid progress. Such a strategy relies on building policies over time and then rapid implementation of technology actualization of policies in the last part of the time frame with the expectation that innovations, increased efficiencies, and intensified efforts will lead to reaching the targets closer to the due dates. Unlike Singapore's floating solar farms, Denmark's energy island remains a concept without commencement of its preliminary construction. By postponing constructions and initiation of projects, Denmark facilitates some wiggle room to adapt to evolving technologies and changing circumstances, making it possible to implement more effective solutions as they become available. However, this strategy also carries risks, as delays or initial slow progress could lead to increased pressure towards the end of the timeline, potentially jeopardizing the achievement of goals. Additionally, it also relies on how well they have managed to convince their audience that the proposed project and initiatives will be successful, to sustain the audience's attraction as climate risks rise and progress lags behind. This will arguably strain the influence Denmark sways in the international community among some members. Herein, it becomes interesting to investigate what kinds of actors might subscribe to this persuasion. As difficult decisions can be costly in political terms, a general and less explicit communicative strategy can be successful in recruiting support from actors who are less willing to commit themselves to concrete initiatives. This could be due to the enablement of scrutiny, and thus exposing themselves to shaming if left unreached, which restricts the political leeway that vagueness and general messages present. Hence, one could argue that the difficulty of the climate changes and the myriads of ways they impact each individual government in the world, provides an opportunity to project a narrative that can mobilize support and legitimacy for one's interests among particular actors, by projecting an image of responsiveness and responsibility or demonstrating previous and current achievements. We argue that an international audience is not homogenous but consist of heterogenous actors whose particularities determines the legitimacy of different public diplomacy strategies, which in turn could support the idea that no single public diplomacy

⁹ The hockeystick-model refers to an exponential development path, with little to no progress ramping up towards the end of the policy period, taking the shape of a hockey-stick, typically based on economic or technological considerations. The term was introduced to Danish politics by Nicolai Wammen in 2020.

strategy is better than the other. Signifying, that perhaps the success of the public diplomacy strategy relies to a greater extent on the audience being targeted than the quality of the public diplomacy efforts? A point that could be interesting to investigate in future research.

Complementary to this point and alluded to above, we have observed a stark contrast between Denmark and Singapore's public diplomacy efforts throughout our analysis of their statements, concerning the manner in which the two frame themselves. Singapore relies on what we have designated as a straightforward and unassuming stance that is matter-of-fact in their record of previous accomplishments and current initiatives that is consistently employed to convey what they are doing in specific terms. Their poignant narrative construction leaves little to the imagination and by frequently listing the concrete contributions of their initiatives they solidify a strong claim to green leadership. Moreover, they also elaborate on the interconnectedness of their projects and how they complement each other in the achievement of the climate targets. This arguably accentuates a network of policies and a bond between them that relieves political leeway to call the general progress a success even if some prove to fail. Thus, the mutual policies can by proxy create an umbrella argument that allows the Singaporean government to label their model as successful and effective, because they have spread the risk of missing their targets over a vast selection of policy areas and interventions.

On the other end of the spectrum, Denmark's public diplomacy efforts remain relatively vague, when compared to Singapore. Denmark attempts to conjure a narrative as an international leader, by alluding to their past as a green pioneer in addition to insistently trying to put themselves in positions where they can be perceived as a de facto leader, by facilitating meetings and invigorating the international community to act. As such, they invest heavily in relationship building and employ a greater degree of historicity in their communicative efforts and focus less on reciting the actual contents of their initiatives. Their narrative stays within future project and their most specific target of the energy island remains as a theoretical solution to energy issues at this point in time.

Singapore and Denmark also diverge in their acknowledgment of the sacrifices necessary for an effective transition to more environmentally friendly policies. Singapore candidly acknowledges the sacrifices required, such as significant financial investments and potential short-term

economic disruptions, to underscore its commitment to real, tangible change. This upfront admission of the challenges involved establishes Singapore as a brave leader willing to confront difficult realities head-on. However, this bluntness may also intimidate other nations that are not ready or willing to make similar sacrifices, potentially limiting Singapore's influence over those who are hesitant to embrace such stringent measures.

Denmark, on the other hand, tends to downplay the potential sacrifices involved in its sustainability efforts. Denmark aims to inspire rather than frighten other nations by focusing on the message that sustainable practices do not necessarily entail significant economic or employment challenges. They even present how full implementation of ambitions in Denmark and the possible implications of these policies might discourage nations who look up to Denmark as their green inspiration. While this may foster greater initial engagement and enthusiasm from the international community, it will arguably risk being perceived as less bold or committed to immediate and substantial action.

Framing and Context of Climate Efforts

Throughout sequence 1, we have noticed that although both countries state that they contribute around 0.1 percent of global emissions (annex 1.2 & 2.8), they are framing the consequence very differently. On the one hand, Denmark suggests that it is a small fish in the ocean given its overall emissions. Denmark argues that national changes will not make a difference overall, and therefore emphasizes larger and more effective solutions on a global scale and longer-term targets through the call to action for other states to internalize their ambitions. Denmark keeps its focus on these large-scale projects and does not mention any negative externalities in its public statements. On the other hand, Singapore acknowledges that its emissions are negligible in the overall calculation, however it argues that it is severely affected by the remaining 99.9%. Firstly, because its location makes it vulnerable to flooding and there is little space for retreat. Secondly it argues that its location in an already volatile environment makes it more vulnerable to climate deterioration. Finally, Singapore argues that it is at risk of supply chain shocks if climatic conditions worsen. It therefore suggests that although it is only responsible for 0.1 percent of global emissions, they would still prefer to inspire surrounding countries, as it will do better if a collective effort is exerted globally towards mitigation.

On this note we see a related difference between Singapore and Denmark in their perceived severity of the climate crisis. Singapore uses a sense of urgency and highlights how they are especially vulnerable to the implications of climate change by being a low lying island. Therefore, they need to act now as they view the crisis as impending soon. Denmark, however, see this differently. The way they present the issue does not convey the same degree of immediacy as the Singapore rhetoric do, as they continuously allude to the effectiveness of the hockey-stick. This transpire, although Denmark is one of the most exposed countries in the European Union to climate change and they are, together with The Netherlands, paying the most in damages caused by extreme weather events (EEA, 2021). Indicating a discrepancy between the two countries risk perception.

Building on the idea of a call-to-action towards its surrounding nation; we found that Singapore is heavily interested and economically invested in ensuring the success of its neighboring countries at reaching their targets. On the contrary we did not find the same regional emphasis from a Danish perspective. Rather, it focuses on leading the way with green energy, particularly power-to-x, as the potential new primary source of combustion-based energy – a potential oil and gas replacement, produced from clean energy. Moreover, we found that Denmark emphasizes its ability to innovate and become the sustainable lighthouse of Europe, by transforming the European economy through power-to-x (Annex 1. 11). From a framing perspective, we have noticed a tendency throughout the analysis of the statements, that the nature of the public diplomatic efforts can take on different characters, exemplified by Singapore and Denmark; Singapore appears to deploy a more technocratic, direct, and clear version of public diplomacy, whereas Denmark engages with a more politicized and ambiguous public diplomacy. Both actors seek to assume green leadership, but Singapore is more poignant in the framing and construction of its narrative, while Denmark remains relatively vague at that.

Climate and sustainability concerns are rarely understood as robust legislation, we therefore consider it a trust-based exercise in a democratic society. If ambitious plans are continuously proposed but never fulfilled, one could argue that trust in the actor could deteriorate, fostering skepticism in its audience. On the one hand, this could be avoided by the Danish strategy of non-commitment in the short term, or the Singaporean strategy of focusing on small and incremental goals, although perhaps less ambitious. We thus conclude that Danish climate efforts mostly,

publicly, relies on a grandiose energy project, whereas Singapore rely on diversification and perhaps less ambitious sub-goals. That said, the next section will focus on whether these grandiose or sequential goals can be given any practical significance, or if a lack of transferability into concrete change exists.

Sequence 2

On the basis of the previous sequence, this second part of the analysis will proceed to compare the inferred themes and targets of the Danish and Singaporean statements with their respective progress, to examine if congruence exists between what they practice and preach.

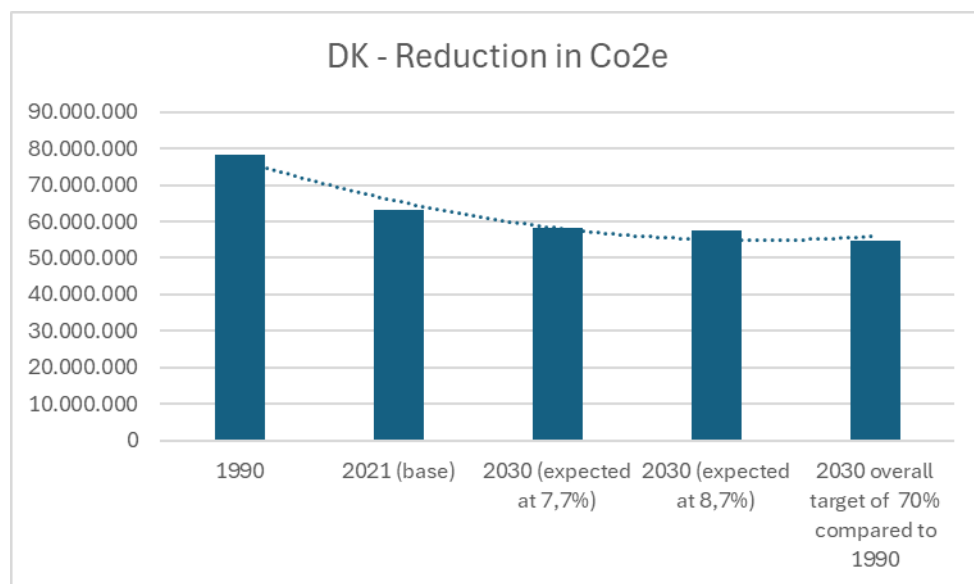
Denmark

Target 1 – Tax reform

As mentioned in sequence one, Denmark presented a new tax reform in 2022, because of Co2 reduction goals in the climate regulation of 2020, with the overarching goal, of saving 4.3 million tons of Co2, through Co2-taxation and carbon-capture subsidies by 2030 (Finansministeriet, 2022). Currently, Danish businesses pay 180 DKK per ton of Co2e¹⁰ which is expected to increase to 750kr per ton of Co2e by 2030 (Sæhl, 2022). What is interesting about this specific goal is that it is a demand by the European Union (Klimarådet, 2024), rather than a unilateral decision originating from the Danish government to implement a carbon tax. Furthermore, the demand by the EU suggests that carbon taxation should be implemented sequentially towards 2030 (ibid), however Denmark has yet to establish a sequential plan (Finansministeriet, 2022). Currently, an expert group is trying to establish what model may be the best, however the group does not seem to have a mandate for evaluating a potential sequential plan towards the overall unified carbon tax of 750k/tonne of Co2e in 2030 (Skatteministeriet, 2024). Furthermore, it is not clear how a carbon tax will effectively reduce Co2-emissions by the very specific goal of 4.3 million tons of Co2, as currently this relies on the idea that 60 percent of reductions should be derived from more sustainable production patterns in the private sector and the remaining 40 percent relies on carbon capture from chimneys, criticized as being a technology too new to count on (Sæhl, 2022). With this in mind, we are, however, not able to currently measure any progress, as no progress is currently happening.

¹⁰ Carbon Dioxide Equivalent. This unit takes all greenhouse gases and their global warming potential and measures it in the equivalent amount of Co2.

Mehta and Prajapati (2024) have in their long-term study of the E27 countries found a causal relationship between both government spending and Co2e taxation on the reduction of Co2e-emissions. However, on the one hand, taxation is found to bring an overall reduction of 0.005% per 1% increase in Co2e tax. On the other hand, a 1% increase in government expenditure towards environmental protection leads to a 0.18% decrease in Co2e-emissions. It is therefore suggested by Mehta and Prajapati (2024) that an increase in government expenditure will lead to an overall higher increase than taxation. That said, they also found that a reduction in either will lead to a much higher level of Co2e-emissions.



Graph 1, Source: Klimarådet, 2022. Vurdering af Danmarks nuværende og kommende klimamål i et globalt klimaperspektiv (2021 baseline figure)

Following this argument, visualized above (Graph 1), we can therefore assume that the Danish expectation of a 4.3 million Co2e reduction by 2030 from the latest public measurement in 2021 will, on the one hand, consist of a 316.67% (180kr → 750kr) increase in Co2e tax, outside of the EU's emissions trading system, or a 108.33% (180kr → 375kr) increase within the system, leading to a theoretical reduction of 1.5% or 0.54% in Co2e in 2030. On the other hand, a 40% increase in government subsidies towards carbon capture, leading to a theoretical reduction of 7.2% Co2e by 2030, totaling an 8.7% or 7.7% decrease in Co2e-emissions in 2030. This would theoretically lead to a total reduction of 5.48 or 4.85 million tons of Co2e in 2030, assuming the policies are implemented and based on the 2021 emissions numbers (Klimarådet, 2022), as no

practical laws have been implemented yet, making the proposition theoretically more ambitious than first assumed.

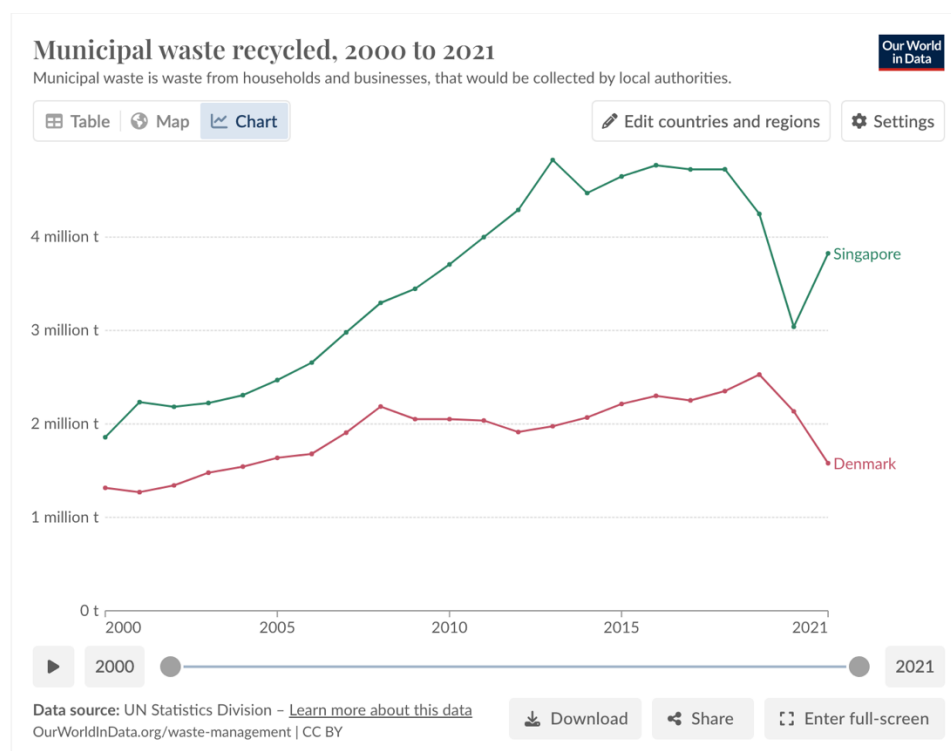
We can therefore conclude that congruence exists within the theme of Danish carbon taxation. However, as discussed, there is a lack of sequential progress making it currently impossible to evaluate progress over time. Furthermore, Denmark would theoretically be very close to its promised 2030 reduction target, with Co2 taxation and subsidies alone.

Target 2 – Climate neutral waste sector

As established in the first part of the analysis, Denmark have expressed a commitment to reach a climate neutral waste sector by 2030, as well as stressed the pivotal role waste management assumes in enabling the reduction in Co2 emissions by 70%, due to waste's recyclable qualities that can be turned into energy. For this matter this part will look into statistics from Our World in Data as well as Statistics Denmark on the Danish waste management and recycling in combination with the amount of material the average Dane consumes on a yearly basis, which represents the waste that is generated and must be processed by the initiatives the Danish government has put forward.

Waste management and recycling

When looking at graph 2 an interesting trend appears. From 2000 and up until 2019 the municipal waste recycling had an upward trend of increasing the amount of recycled waste by more than one million tonnes from approximately 1.5 to 2.5 million tonnes, but by 2019 a drastic drop ensued with the latest available data indicating a drop to approximately 1.5 million tonnes in 2021.

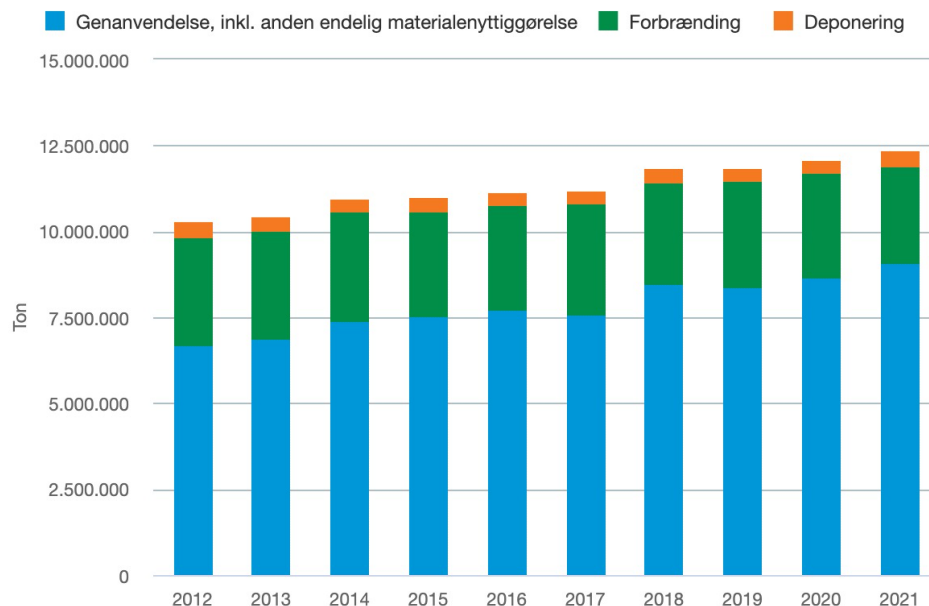


Graph 2, Source: OWD. (n.d.). Municipal waste recycled. Our World in Data.

This informs a significant decrease in the effectiveness of Denmark's waste management, while the data from the Statistics Denmark also demonstrates that the overall waste production has increased from 2012 to 2021 (Graph 3), but in tandem with the overall waste recycling as well. In the same graph (Graph 3) from Statistics Denmark the amount of waste being recycled in 2012 of 6.7 million tonnes increased within a nine-year period to nine million tonnes in 2021. Incineration of waste performed a slight reduction from 3.1 in 2012 to 2.8 million tonnes in 2021, while reaching its top point in 2017 of 3.2, that show a slight decrease within the nine-year period, but a jump that mainly materialized in the past five years, indicating a deliberate intervention in waste management (Graph 3). Turning the attention to the relative progress Denmark has made towards reaching a climate neutral waste sector, they have performed an improvement from recycling 64.9% of the national waste production in 2012 to recycle 73.8% in 2021.

Affaldsproduktion efter behandlingsform

Affaldsfraktion: Affald i alt (ekskl. jord) | Branche: Brancher og husholdninger | Behandlingsform:

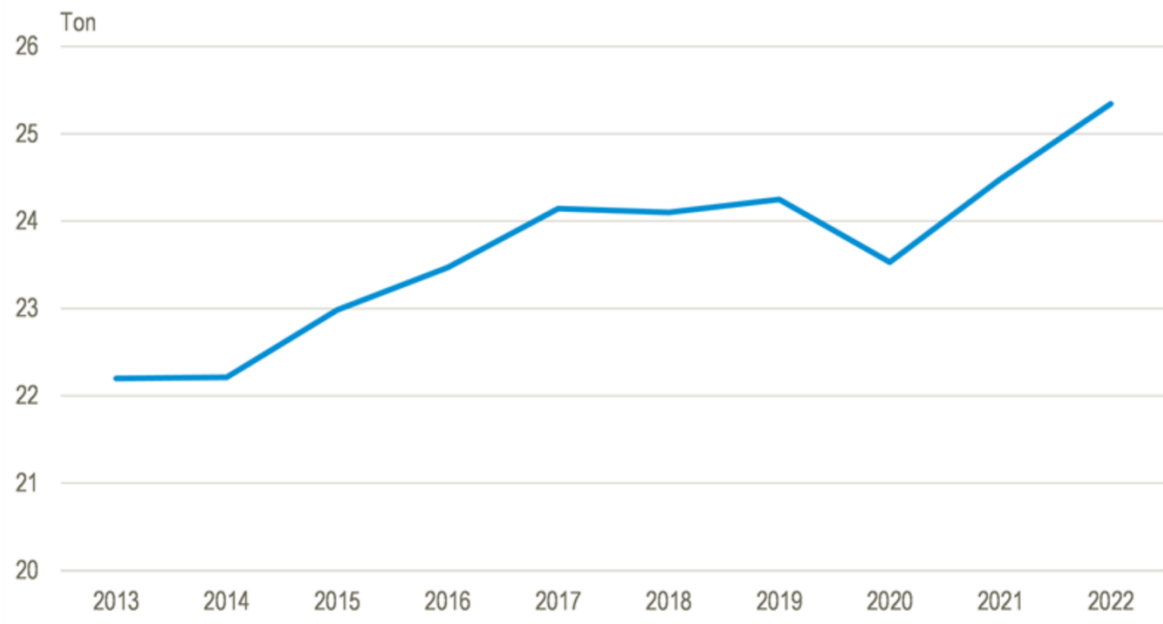


Graph 3, Source: DST. (2023). Materiale- og affaldsregnskaber.

However, the material consumption and subsequent waste generation has increased over the last decade as well. The waste generation per capita increased from more than 22 tonnes to more than 25 tonnes from 2013 to 2022 (Graph 4), which is a scaling that surpasses that of the recycling rate during the approximately same period. This should call Denmark's attention, as the incineration and deposition units would appear to remain stagnant. It will consequently become difficult for Denmark to achieve its recycling goals and Co2 emission reduction, potentially prevent them from reaching their targets.

Denmark shows signs of slowly transitioning towards improving their waste management, although the average material consumption per capita is increasing (Graph 4) and continues to do so at a higher pace than the trends for recycling waste, which can prove hampering in the accomplishment of their targets.

Dansk materialeforbrug pr. indbygger



Kilde: www.statistikbanken.dk/16962

Graph 4, source: Danmarks Statistik [DST]. (2023). Vores materialeforbrug er fortsat stigende.

All in all, their current state does not pose any immediate issues for concern in relation to their credibility, as the waste recycling trajectory is upward, but the relatively slow progress does expose risks, as Denmark becomes increasingly dependent on the success of the projects they have presented, to pick up the recycling pace, if they seek to reach their ambitions of a neutral waste sector by 2030 or otherwise experience a cut in credibility and consequently lose sway in the international community.

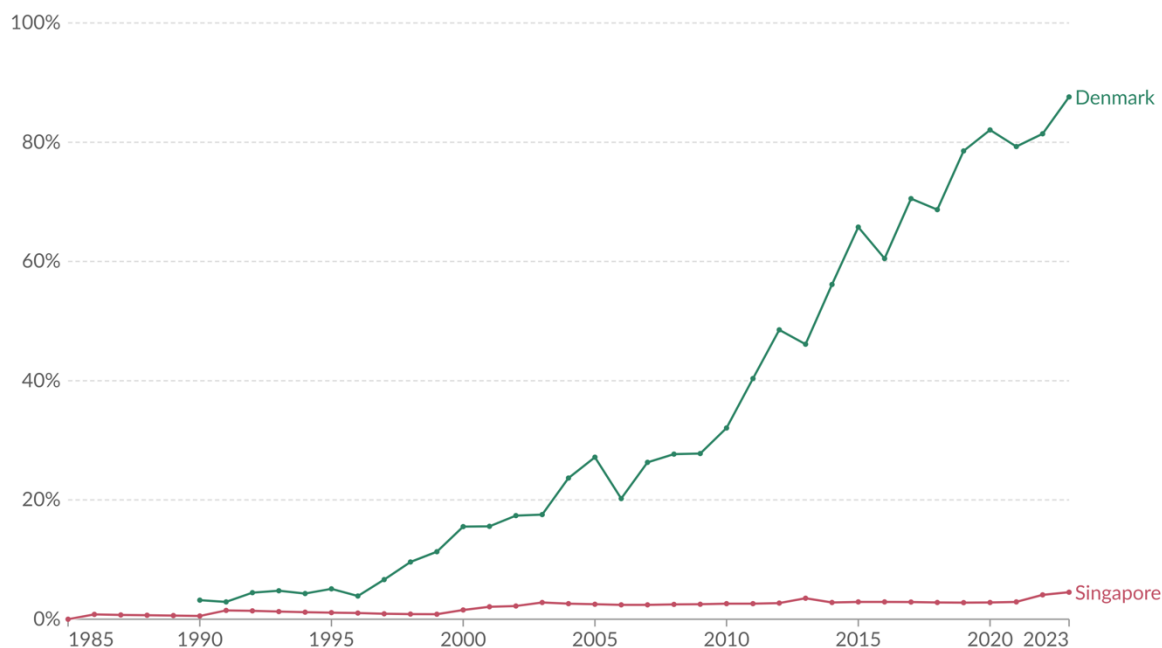
Target 3 – Production of sustainable energy

In Sequence 1, we established how Denmark has an ambitious stance when it comes to the future of their energy production. It seeks to quadruple their production of solar and wind energy in 2030 compared to overall production in 2021. This is an increase from 12 TWh to 48 TWh (Green Power Denmark, 2023). By utilizing the following graphs, their targets will be compared to their current progress of producing wind and solar energy, to see if congruence can be established.

Share of electricity generated by low-carbon sources

Our World
in Data

Low-carbon electricity is the sum of electricity from nuclear and renewable sources (including solar, wind, hydropower, biomass and waste, geothermal and wave and tidal).

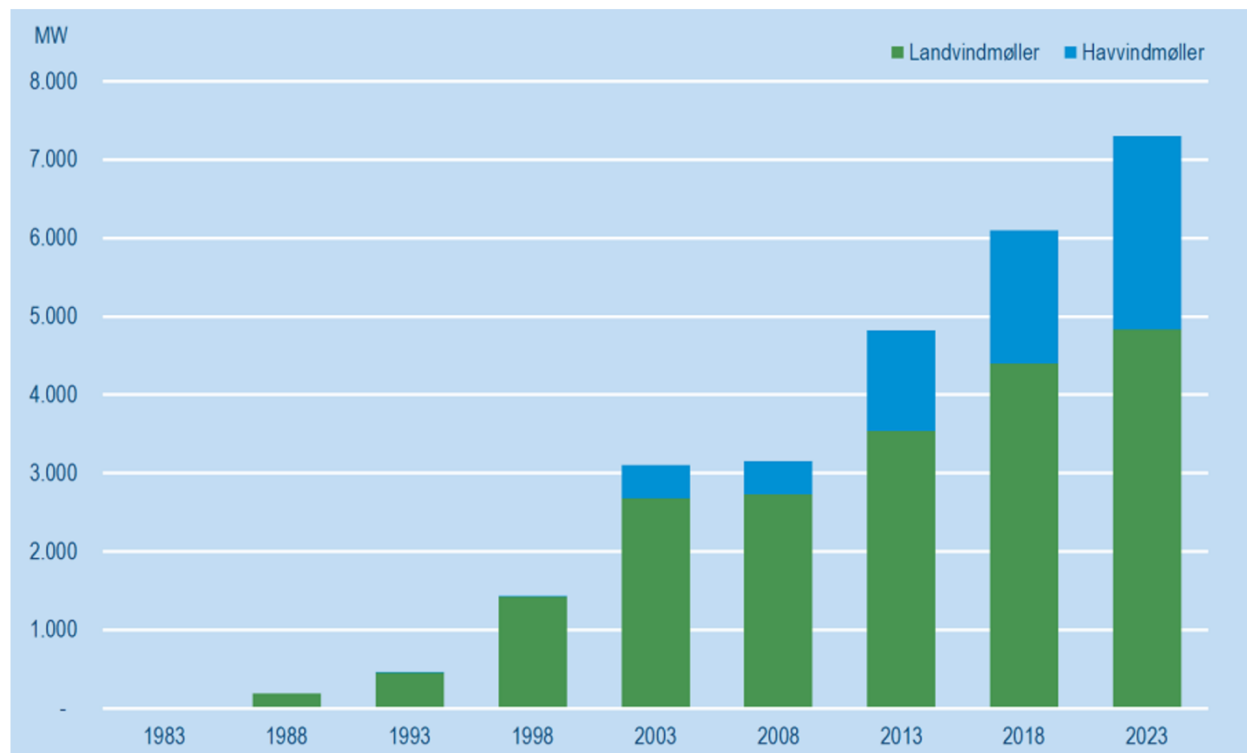


Data source: Ember (2024); Energy Institute - Statistical Review of World Energy (2023)
OurWorldInData.org/low-carbon-electricity-by-country | CC BY

Graph 5, Source: Ritchie, H., Roser, M., & Rosado, P. (2020, May 11). Country Profile Singapore. Our World in Data.

Graph 5 shows the share of electricity generated by low-carbon sources, which includes nuclear and renewable sources. Focusing on Denmark, the graph shows a continuous increase in the country's low-carbon electricity share from around 20% in the late 1980's to over 80% by 2023. Denmark's trajectory demonstrates transition towards low-carbon electricity generation sources.

Samlet vindmøllekapacitet i Danmark (MW) 1983-2023



Kilde: Danmarks Statistik, særkørsel af Energistyrelsens Vindmøllestamregister

Anm: Opgørelsen dækker vindmøller med en kapacitet større end 25 kW.

Den gennemsnitlige kapacitet for en landvindmølle er aktuelt lidt under 1.200 kW, hvor gennemsnitskapaciteten for en havvindmølle er på ca. 3.800. Den markant højere kapacitet pr. mølle hænger sammen med, at havmøllerne typisk er væsentligt højere og større end landmøllerne

Graph 6, Source: Danmarks Statistik (2024), Samlet vindmøllekapacitet i Danmark (MW) 1983-2023.

Graph 6 shows the total installed wind power capacity in Denmark from 1983 to 2023, divided into onshore wind turbines and offshore wind turbines in the respectively green and blue columns. In 1983 and 1988, Denmark had a very limited wind power capacity, which was entirely onshore at that time. However, starting from the late 1990s and early 2000s, both onshore and offshore wind power capacities grew substantially. As of 2023, Denmark's total wind power capacity is projected to reach more than 7000 MW (7GW). Graph 6 illustrates a steady growth in wind power capacity and represents how Denmark's is actively expanding its wind energy infrastructure, especially in the offshore sector.

Congruence:

Analyzing the congruence between Denmark's energy targets and the actual trends depicted in the graphs reveals some alignment in their public diplomacy and real-world actions. Denmark's target of increasing the production of sustainable energy by quadrupling solar and land wind energy are not clearly reflected in the graphs but the graphs point towards real action taken to meet their targets. However, the pace of implementation is at the moment too slow compared to their target. According to Green Power Denmark (2023), Denmark was in 2023 only 5% of the way to realizing the targets of quadrupling energy production from wind and solar. Even though Graph 5 demonstrates a sizable increase in the share of electricity generated from low-carbon sources, rising from around 20% to over 80%, the starting point of 2021's wind and solar energy production requires a steep investment to reach. Denmark has established their idea of exponential growth in Co2 mitigation efforts through their hockey-stick metaphor. Therefore, the remaining 95% progress is still doable according to this mindset. It is by this metric not possible to prove lack of congruence, since they still have time to reach to exponential turning point. That said, Denmark needs to reach the heel of the hockey-stick soon in order to reach their targets in time. This can be challenging given the current pace of development, since there is also a bottle neck in the short-term plan. Wind farms can take decades to establish from the original planning phase to the final construction (Jove, 2023). When the offshore wind farms currently put out for tender are fully operational, they will be able to produce 6 GW accounting for 52,56 TWh ($6 \text{ GW} * 8760 \text{ hours/year} / 1000 = 52.56 \text{ TWh}$) (Danish Ministry of Climate, Energy and Utilities, 2024). This will fulfill their solar and wind production goals of 48 TWh. This requires most of the wind farms to be operational within 6 years. When taking the time of establishment into considering, together with the fact that the wind farms were put out for tender in April of 2024 (Ibid.), it seems highly unlikely that Denmark will reach their 2030 target. However, the concrete solar farms are being processed and their potential production capacity supports their public diplomacy narratives.

While the graphs (5 & 6) show impressive growth in wind energy, Denmark's targets also include substantial increases in solar energy production. Although there is progress, the data indicates that wind energy vastly outstrips solar energy in terms of installed capacity and output. This disparity suggests that while Denmark is on track with its wind energy goals, achieving the

same level of growth in solar energy might require intensified efforts and additional policy support and their overall targets may have to be moved into a new timeframe fitting the specific windmill plans.

When looking at Denmark's ambitious targets as a product from their public diplomacy efforts it is hard to conclude congruence between what they preach and how they practice. The substantial increase in wind power capacity shows significant efforts and achievements. However, given the current slow pace of progress, it is unlikely that Denmark will fully meet its 2030 targets as planned. Therefore, while there is congruence in Denmark's commitment and direction, the execution pace indicates that full congruence between public diplomacy and policy output has not yet been achieved.

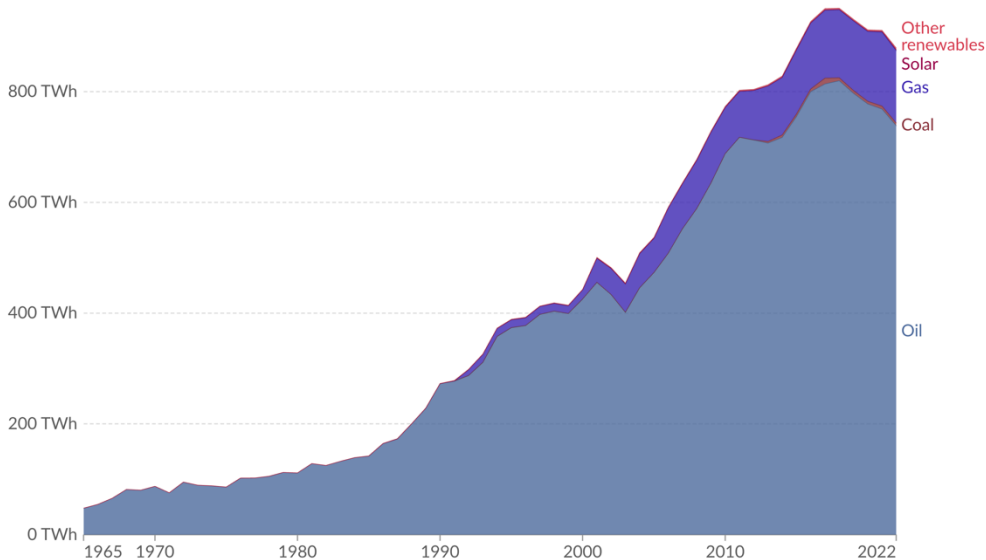
Singapore

Target 1 – Energy

Singapore also highlights their energy production as a target throughout the analyzed statements. This was also established in Sequence 1, Specific Targets. As part of its strategy towards reaching net-zero emissions by 2030, Singapore aims to quadruple its solar energy capacity by 2025 from 2020 levels. In 2021, Singapore opened one of the world's largest floating solar farms, which will offset 33,000 tonnes, representing their narrative of highlighting their solar power progress. Additionally, Singapore plans to reduce the carbon footprint of its energy sector by increasing its import of low-carbon electricity up to 4 GW by 2035, which will constitute around 30% of the country's electricity supply. This effort began in the second quarter of 2022. This will be compared to the graphs below (7 & 8).

Energy consumption by source, Singapore

Measured in terms of primary energy¹ using the substitution method².



Data source: Energy Institute - Statistical Review of World Energy (2023)

OurWorldInData.org/energy | CC BY

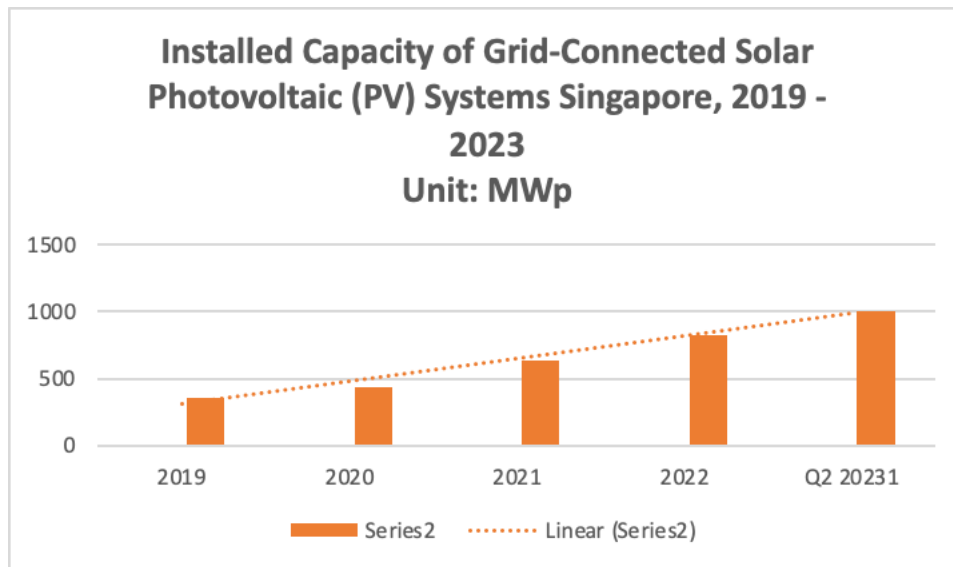
Note: Other renewables include geothermal, biomass and waste energy.

1. Primary energy: Primary energy is the energy available as resources – such as the fuels burnt in power plants – before it has been transformed. This relates to the coal before it has been burned, the uranium, or the barrels of oil. Primary energy includes energy that the end user needs, in the form of electricity, transport and heating, plus inefficiencies and energy that is lost when raw resources are transformed into a usable form. You can read more on the different ways of measuring energy in our article.

2. Substitution method: The 'substitution method' is used by researchers to correct primary energy consumption for efficiency losses experienced by fossil fuels. It tries to adjust non-fossil energy sources to the inputs that would be needed if it was generated from fossil fuels. It assumes that wind and solar electricity is as inefficient as coal or gas. To do this, energy generation from non-fossil sources are divided by a standard 'thermal efficiency factor' – typically around 0.4. Nuclear power is also adjusted despite it also experiencing thermal losses in a power plant. Since it's reported in terms of electricity output, we need to do this adjustment to calculate its equivalent input value. You can read more about this adjustment in our article.

Graph 7, Source: Energy Institute (2023). Statistical Review of World Energy.

Graph 7 shows the energy consumption by source in Singapore over time, measured in terms of primary energy source. The graph shows a steep and consistent increase in overall energy consumption, primarily driven by oil. The consumption of oil, represented by the light blue area, has risen dramatically since the 1960s, making it the largest energy source for Singapore by far. The use of gas, shown in the dark blue area, has also increased significantly, especially in recent decades. Besides this, the graph also shows how other energy sources like solar or other renewable sources are a part of Singaporean energy consumption, although these sources play a miniscule role compared to oil, coal and gas. The development depicted in the graph reflects Singapore's rapid industrialization and economic growth, which has led to a high and rapid demand for energy, which have been met by fossil fuels. However, Singapore suggests efforts to diversify the energy sources and transition towards more sustainable options.



Graph 8. Source: Energy Market Authority [EMA]. (2023). *Installed Capacity of Grid-Connected Solar Photovoltaic (PV) systems by User Type*.

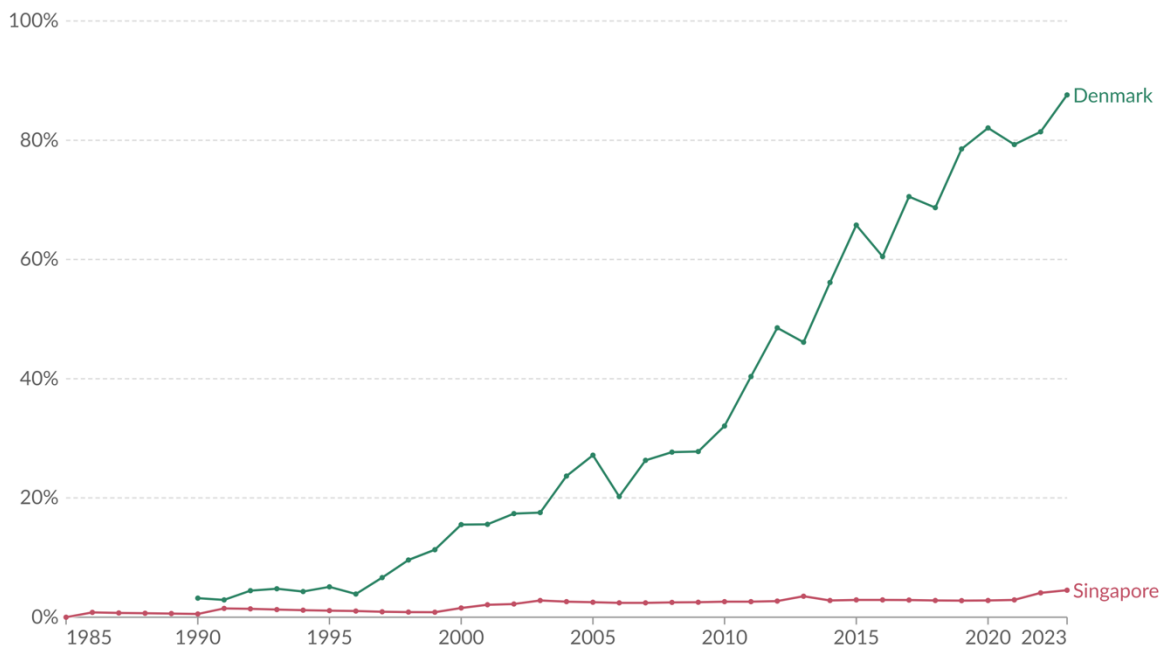
Graph 8 depicts the installed capacity of grid-connected solar photovoltaic (PV) systems in Singapore from 2019 to 2023 (Q2). The capacity is measured in megawatt-peak (MWp), which indicates the maximum output of the solar PV systems under standard test conditions.

Compared to the previous graph (7) showing Singapore's overall energy consumption, the installed capacity of solar PV systems represents a small but growing contribution from renewable energy sources and while the previous graph highlighted Singapore's heavy reliance on fossil fuels like oil and coal, this graph illustrates the country's efforts to diversify its energy reliance by increasing its solar power generation capacity with a projected capacity of around 1000 MWp by the second quarter of 2023. This growth in solar power generation aligns with Singapore's narrative of promoting their solar power adventures. It is important to note that the installed capacity of solar PV systems remains relatively small compared to Singapore's overall energy consumption.

Share of electricity generated by low-carbon sources

Our World
in Data

Low-carbon electricity is the sum of electricity from nuclear and renewable sources (including solar, wind, hydropower, biomass and waste, geothermal and wave and tidal).



Data source: Ember (2024); Energy Institute - Statistical Review of World Energy (2023)
OurWorldInData.org/low-carbon-electricity-by-country | CC BY

Graph 9, Source: Ritchie, H., Roser, M., & Rosado, P. (2020, May 11). *CO₂ and Greenhouse Gas Emissions*. Our World in Data.

Graph 9 shows the share of electricity generated from low-carbon sources in Denmark and Singapore over time.

Focusing on Singapore's share of low-carbon electricity generation, we see how it has remained relatively low throughout the timeframe shown, hovering around 5% or less. Singapore's continued reliance on fossil fuels, primarily natural gas, for most of its electricity generation, which matches their energy consumption from the first graph. While Singapore's share of low-carbon electricity remains low, the previous graph showed a gradual increase in the installed capacity of solar panels, suggesting some effort to incorporate renewable energy sources. However, this graph indicates that these efforts have yet to make a significant impact on the overall electricity generation mix in Singapore.

Congruence

Graph 8 shows a steady increase in the installed capacity energy systems from 2020 to 2023 (Q2), reaching approximately 1000 MWp from 500MWp. This suggests significant progress towards the target of increasing solar energy capacity and how their target is reachable with their current progress. However, Graph 7 indicates that despite the rise in solar energy, overall energy consumption is still heavily dominated by fossil fuels, particularly oil and coal. It is therefore possible to establish congruence since they are in the right direction within a feasible timeframe. However, the credibility this congruence creates can be foiled by the larger picture of the energy mix being dominated by fossil fuels.

Graph 9 shows that the share of low-carbon electricity generation in Singapore has remained relatively low, hovering around 5% or less. This low percentage indicates that, as of now, the impact of importing low-carbon electricity has not yet significantly altered the overall energy mix. This low share of low-carbon electricity suggests that while efforts to incorporate renewable energy sources are ongoing, they have yet to make a significant impact on Singapore's overall electricity generation.

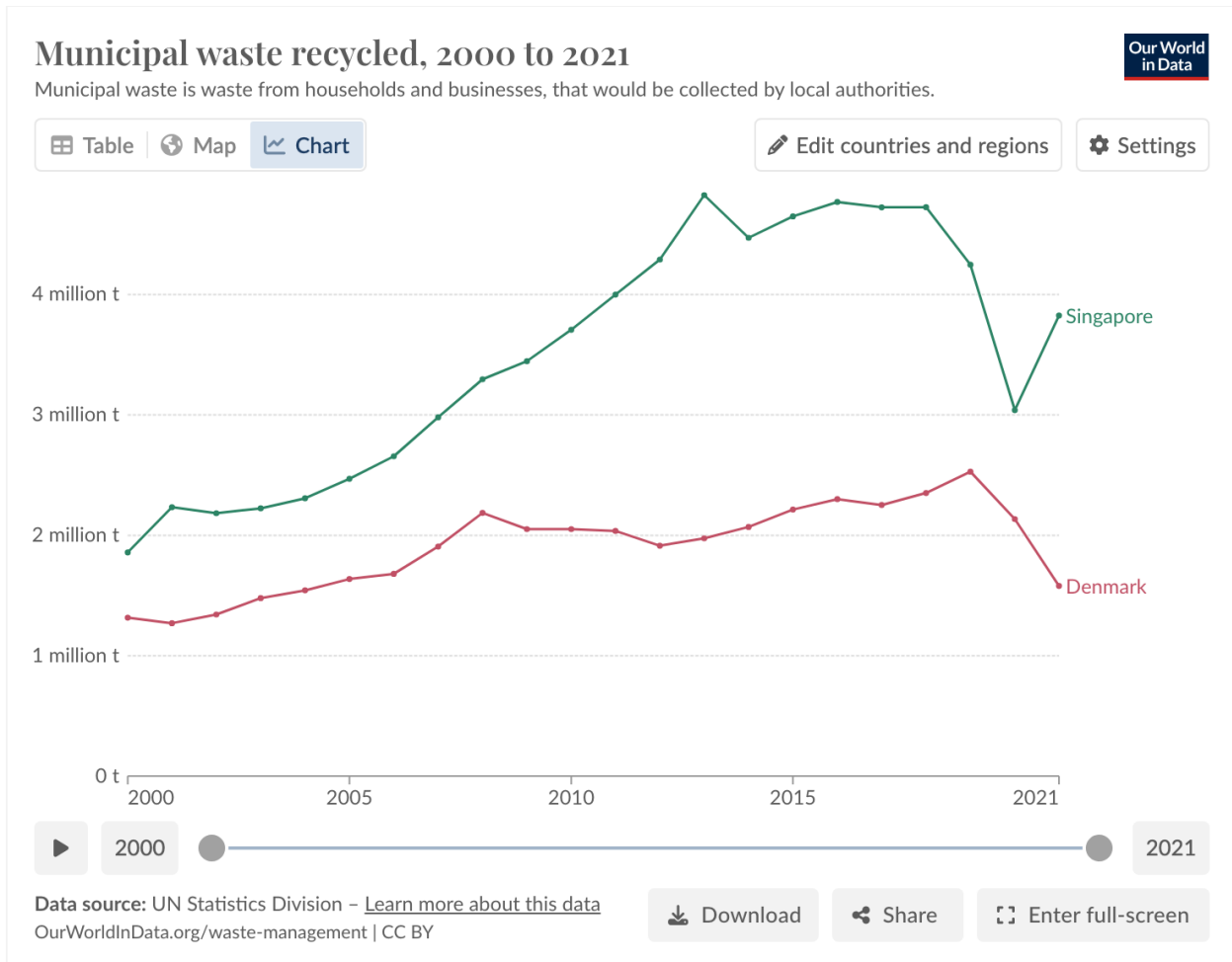
Evaluating the congruence between Singapore's energy targets and its actions reveals a complex picture. Singapore has set ambitious goals from a narrative reflecting a strong commitment to transitioning towards more sustainable energy sources. Some progress is evident, and these developments indicate that Singapore is actively working towards its stated objectives and showing real steps towards enhancing its renewable energy infrastructure.

However, it is hard to conclude that Singapore shows clear congruence between targets and practices. As mentioned above, Singapore's overall energy consumption remains heavily dominated by fossil fuels, particularly oil and gas. This dominating reliance on fossil fuels makes the increase in renewable energy constitute a relatively small portion of the total energy mix. Therefore, while Singapore's actions demonstrate progress and a clear commitment to its targets, the transition to a more sustainable energy system is still a long way away, and the path towards achieving these ambitious goals may be further from realization than what is being highlighted in their public diplomacy.

Target 2 – Waste Management

As established in the first part of the analysis, Singapore committed themselves to improve their waste management, and emphasized this as a staple for their domestic capacity to reach their targets of 70% reduction of Co2 emissions. The Green Plan Singapore initiated in 2019 is meant to precipitate the achievement of this target, by increasing their overall recycling rate by 70% as well in 2030. Similar to the scrutinization of the Danish waste management section, this part of the investigation will employ statistics on waste management from Our World in Data as well as the department of Statistics Singapore in combination with reports from the Singaporean Ministry of Sustainability and Environment.

In Graph 11 below, the amount of waste municipals recycle in Singapore is visualized. An upward trend is appearing within the period of 2000 to 2021, from right below two million tonnes of waste being recycled to almost four million tonnes of recycled waste in 2021. It is, however, noteworthy that the trend had a steady progression from 2000 to 2013, then hovered just below five million tonnes for five years until a sharp decline occurred in 2018 reducing the waste recycled to three million tonnes in 2020. By 2021 the trend proved signs of correction by improving the amount of waste recycled by almost one million tonnes to just below four million tonnes.



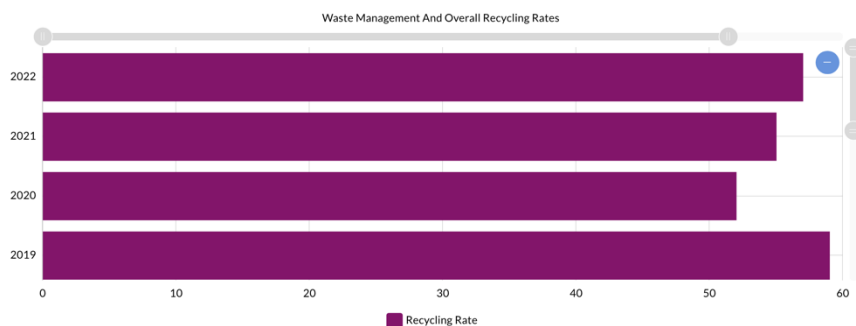
Graph 11, Source: *Our World In Data [OWD]. (n.d.). Municipal waste recycled. Our World in Data.*

Considering the 3.8 million tonnes of waste Singapore managed to recycle in 2021, as displayed in Table 1, some four million tonnes was either incinerated or landfilled of the seven million tonnes that was generated that year. This means that Singapore has a recycling rate equivalent to 55% percent, which is a slight increase from 52% in 2020 but a decrease from 2019 of 59% total waste recycled, demonstrating a drop from 2019 to 2020, that slowly recovered until the last available data from 2022 in Graph 12 which shows a recycling rate of 58%.

Solid Waste Management*

	Unit	2019	2020	2021
Total waste generated¹	Mil tonnes/yr	7.23	5.88	6.94
Total waste recycled²	Mil tonnes/yr %	4.25 59%	3.04 52%	3.83 55%
Total waste incinerated³	Mil tonnes/yr %	2.74 38%	2.62 44%	2.88 42%
Total waste landfilled⁴	Mil tonnes/yr %	0.24 3%	0.22 4%	0.23 3%

Table 1: Source: *Ministry of Sustainability and the Environment [MSE], 2022. Key Environmental Statistics 2022*



Footnote: In 2019, wood and horticultural wastes recycled include 458,400 tonnes sent to facilities (e.g., biomass power plants and Sembcorp's Energy from Waste plant) for use as fuel. In 2020, wood and horticultural wastes recycled include 406,000 tonnes sent to facilities (e.g., biomass power plants and Sembcorp's Energy from Waste plant) for use as fuel. In 2021, wood and horticultural wastes recycled include 435,000 tonnes sent to facilities (e.g., biomass power plants and Sembcorp's Energy from Waste plant) for use as fuel. In 2022, wood and horticultural wastes recycled include 414,000 tonnes sent to facilities (e.g., biomass power plants and Sembcorp's Energy from Waste plant) for use as fuel. The overall recycling rate increased to 57% in 2022 largely because of increased amounts of Construction & Demolition waste generated for recycling from a higher number of demolition projects. Data in this table are rounded to the nearest thousand tonnes and percentage point.

Graph 12: Source: *Ministry of Sustainability and the Environment, National Environment Agency [MSE], 2023. Waste Management and Overall Recycling Rates.*

Additionally, although Singapore committed themselves to reduce incineration in their Green Plan, the share of waste that has been incinerated within the three years of 2019 to 2021 has increased from 38% to 42% (Table 1). While the outbreak of Covid presumably have impacted the consumption patterns of the Singaporeans and the capacity to manage the different types of waste, and thus influenced the degree of waste being recycled or incinerated, it inevitably

illustrates a Singaporean state whose recycle capacity hovers right above half of their total waste production.

Congruence

In Singapore's Green Plan, reduction in waste landfilling and incineration and increase in recycling is paramount to ameliorate their Co2 emissions, due to the country's geographical size and resource-scarcity, and therefore stressed the importance to adapt their domestic energy structures. But noting the target of reaching a 70% recycling rate in the Green Plan by 2030 (Annex 2.13) as well also indicates a reasonable chunk remains to be progressed as their latest available data show they sit at 58% mark in 2022 and progress have proved leashed. The trajectory they display of 3% increment a year will suffice the accomplishment of their 70% recycling target by 2030, and with the completion of the Tuas Nexus Integrated Waste Management Facility by 2025, they will arguably position themselves within the bounds of limitation.

Now, considering the period from 2019 to 2024 we sampled our statements, this section acknowledges a promising trajectory for the Singaporean waste management and the government's ability to live up to their statements and the narrative they have constructed around their responsiveness. Although we cannot finalize a complete judgement on the congruence, Singapore do convey a solid claim to practice what they preach in the alley of waste management.

Target 3 – Public Transport

Description of practices (A very brief contextualization of the policies they have expressed)

As mentioned in the first sequence of the analysis, Singapore has a two-pronged strategy towards ensure a greener transport sector and public transport system. Firstly, Singapore placed a cap on privately owned vehicle growth in 2018 (annex 2,1). Secondly, it aims at increasing the availability of public transport to the extent that 80% of people should be within walking distance of public transport opportunities and that 75% of all peak-time transportation should be in public transport.

Vehicle growth

Taking our departure in 2017, a year before the introduction of the cap on car population growth, an overall increase of 4,5% over 6 years has been found in the population of private cars.

Motorcycle growth, although more stable, has seen an increase in 1,5% over 6 years. This can however be translated into an average of 0,75% for cars and 0,25% for motorcycles, as shown in the model below (table 2).

Year	Private Cars	Annual Growth Rate (Private Cars)	Motorcycles & Scooters	Annual Growth Rate (Motorcycles & Scooters)
2017	502,187		141,304	
2018	509,302	1.4%	136,842	-3.2%
2019	515,036	1.1%	140,398	2.6%
2020	519,132	0.8%	140,782	0.3%
2021	532,204	2.5%	141,594	0.6%
2022	532,348	0.03%	142,453	0.6%
2023	524,613	-1.5%	143,488	0.7%
Total Change		4.5% over 6 years, Avg: 0.75%		1.5% over 6 years, Avg: 0.25%

Table 2, Source: Land Transport Authority (LTA), 2023. *Annual Vehicle Statistics 2023: Motor vehicle population by vehicle type*

Singapore has therefore, objectively, not delivered on their specific goal of zero growth, however we argue that an average increase of 0,75% for cars and 0,25% for motorcycles and scooters is negligible, as it is incredibly close to the theoretical utopia.

The reason for this precision towards annual vehicle growth can most likely be attributed to the Singaporean Certificate of Entitlement (COE), a part of Singapore's Vehicle Quota System (LTA, n.d). This system only allows citizens to own and operate private vehicles for 10 years, and a renewal or entitlement is gained through a competitive bidding exercise (ibid). The vehicle ownership system is explained to retain this level of control, because of the limited space on Singaporean roads vis-a-vis its high population density (Tjoe, 2024).

Public transport:

Average number of rides per day

(in millions)

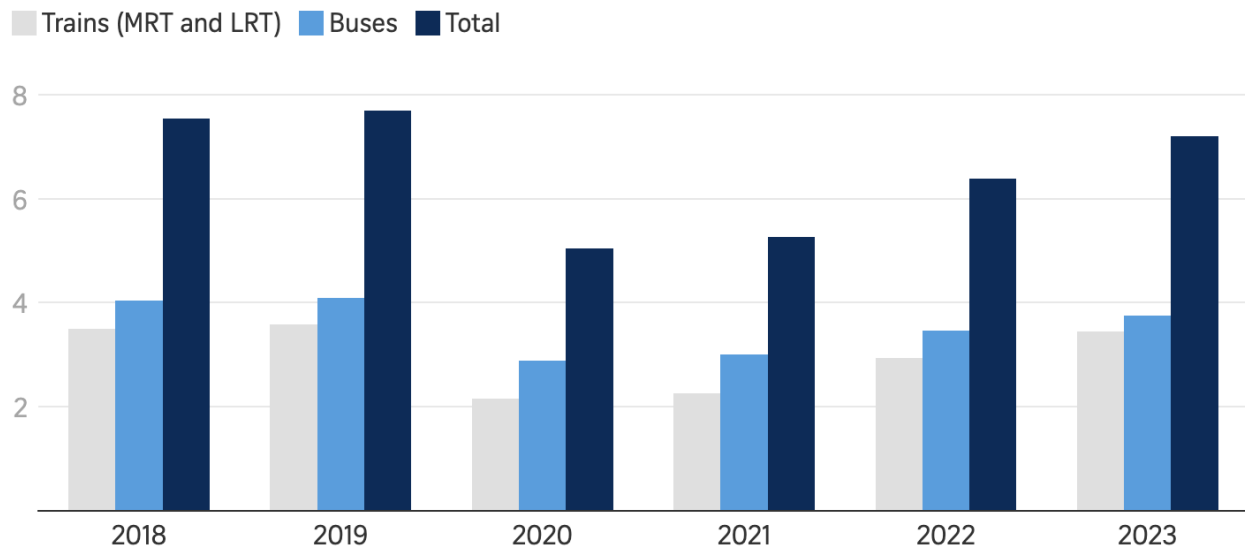
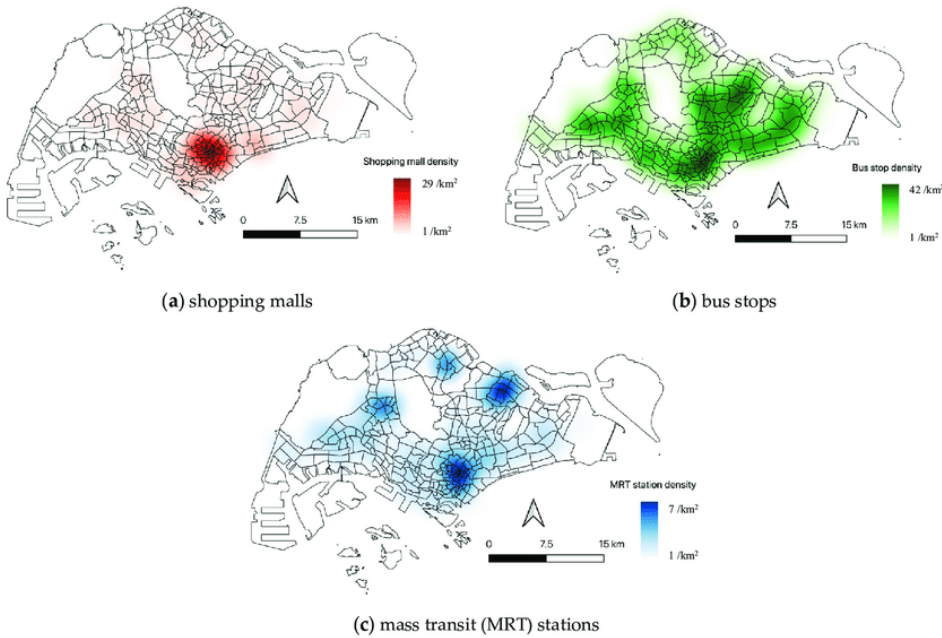


Chart: STRAITS TIMES GRAPHICS • Source: LAND TRANSPORT AUTHORITY

Graph 13, Source: Loi, E. (2024). Public transport ridership hit 93.5% of pre-pandemic levels in 2023. The Straits Times.

In general, Singapore has seen a parabolical development of its daily passengers since 2018, as demonstrated by Graph 13. However, this can largely be attributed to the Covid-19 pandemic (Loi, 2024). Given this circumstance, it is difficult to evaluate whether a positive development in public transport is underway. However, given the stagnation of private vehicles and a wealth of increased taxes and fees on private transport during peak-hours, an increase in peak-hour use of public transport alternatives could reasonably be expected to rise above pre-covid levels (Agarwal & Koo, 2016). A lack of data exists on the concrete use of public transport on an hourly or peak/off-peak basis, limiting us to commentating on the overall use of public transport vis-a-vis private vehicle ownership.



Map 1, Source: Cheng, C., Sakai, T., Alho, A., Cheah, L., & Ben-Akiva, M. (2021). *Exploring the Relationship between Locational and Household Characteristics and E-Commerce Home Delivery Demand*. *Logistics*, 5(2), 29

That said, focusing on the green area of the maps above (bus stops, map 1), in a combination with Huynh (2022)'s definition of a walkable distance to public transport, more specifically defined as 240m or 3-4 minutes, we can conclude that most of the populated areas of Singapore is covered by public transport of varying density in 2021. In the central area and its immediate surroundings, the southern part of Singapore, we observe a high density of public transport, more than within the scope of 240m or 3-4 minutes, given the density is around 42 stop/km². This trend follows upwards to the northeast but lacks towards the western part of the city-state. Since no concrete data exists on the coverage of public transport, it appears that around 55-70% of inhabited areas are well-covered, making the goal of 80% coverage within walking distance reasonably achievable in 2030, if focus is placed on the northwestern part of Singapore.

Congruence

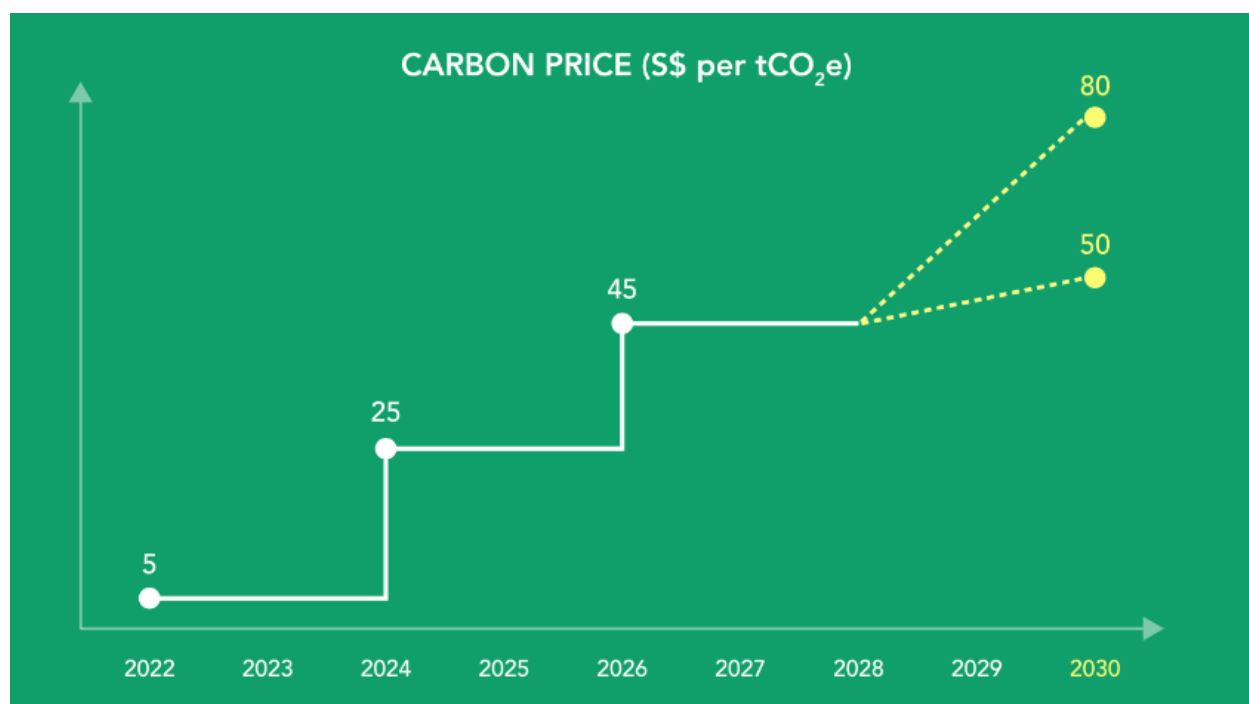
On the one hand given the small increase in private vehicles, it can be reasonably concluded that congruence exists between the ambition of zero car population growth and practice. On the other hand, some improvements are needed to fulfil the 2030 target of 80% walkable public transport coverage. However, we estimated a 2021 coverage of 55-70%, making a goal of 80% reasonable,

given the swift recovery in post-pandemic usage. Finally, when combining all these factors, congruence can be established in the form of discouraging the use of private transport, through the use of taxes, fees, and control, while encouraging the use of public transport by expanding public transport infrastructure.

Target 4 – Tax Reform

As discussed in sequence 1 of this analysis, one of Singapore's main targets is that they are pursuing an increase in carbon taxation from S\$5 in 2022 to S\$50-80 in 2030, to support their reduction goals by in- and disincentivizing unsustainable behavior in the private sector.

Furthermore, we found that a stepped model is suggested as this serves as a mitigating factor for the private sector, to avoid economic shocks with a sudden increase (annex 2.4).

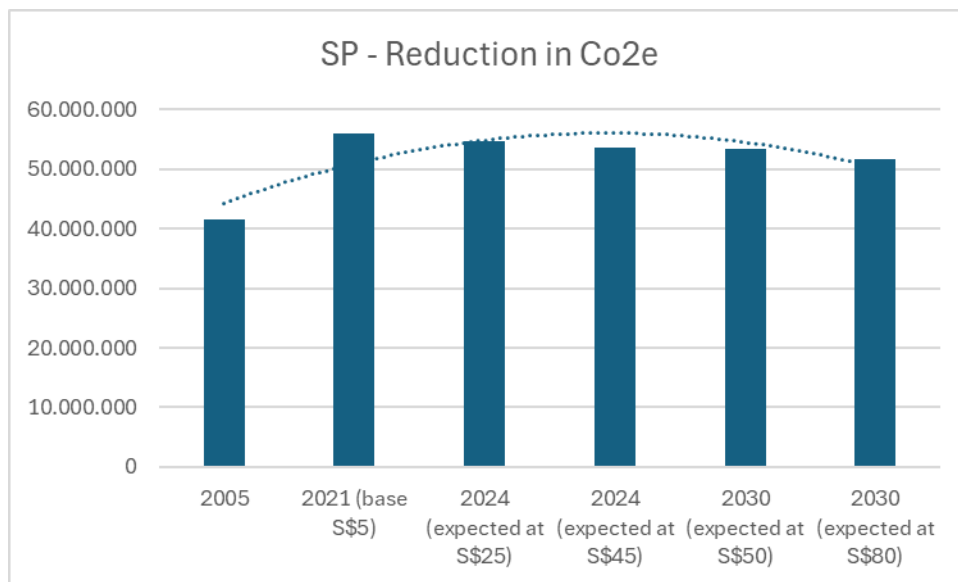


Graph 14, Source: NCCS, 2023 - Key Updates to Singapore's Carbon Tax from 2024

According to Graph 14 above, carbon taxation is expected to increase to S\$25 in 2024, S\$45 in 2026 and S\$50-80 in 2030 (NCCS, 2023).

Continuing on the model provided by Mehta & Prajapati (2024) and discussed in sequence 2 target 1, Singapore's plan can be assumed to increase its taxation by 900%-1500%, with a 2024 reduction step of 400% and a 2026 reduction step of 800% (S\$5 – S\$25 – S\$45-S\$50/80). This would lead to an expected Co2e reduction of 2%-4%-4,5%/7,5%. In order to maintain

comparability, we will measure these reductions compared to 2021 levels, with an overall reduction target of 36% compared to 2005 levels (MFA, n.d). This is visualized on the graph (15) below.



Graph 15, Source: *Ritchie, H., & Roser, M. (2024, January 22). CO₂ emissions. Our World in Data.*

Despite confirmation of the introduction of the 2024 carbon tax (Tan, 2024), no measurements have been taken since 2021, making the basis for comparison and projection highly theoretical and difficult to project, not unlike Denmark. That said, confirmation of the increase in carbon taxing suggests that congruence exists between what Singapore says and what it does. It is then another debate, whether what it does makes a significant difference, as shown on the graph. Expected Co2 levels are much less significant in the overall reduction than the baseline from Co2 taxes alone, compared to Denmark. However, it supports the idea, that Singapore has diversified its strategy towards net zero in 2050.

Sequence 3

In this section, we will summarize the main findings of sequence 1 and 2

Denmark

Target 1: Tax Reform

The Danish target of a 4,3 million tons Co2e reduction by introducing a new tax reform was in fact under-ambitious, if the content of the reform is fully introduced, according to a calculation developed based on E27 development. By extension, we found that the emission target from the tax reform by itself is almost enough for Denmark to reach a 70% reduction overall in 2030.

Using existing data and projections, we can carefully conclude a congruence in the calculations. However, in practice we can currently neither confirm nor deny congruence.

Target 2: Climate Neutral Waste Sector

Denmark wants to reach a climate neutral waste sector by 2030. The production of waste is increasing in Denmark, but so too is the recycling rate, which has increased by 9 percentage points from 2012 to 2021 from 64.9% to 73.8%, which still leaves some 26% percent between Denmark and its goal for 2030. Their trajectory is upward, but they depend on the policies they have put forward and the success of these, to reach their targets, since they cannot rely on the previous period of progress to satisfy their achievement. The congruence between what they have stated concerning their ambitions for the waste sector and what they do does not entirely warrant a cut in credibility, but it leaves something to be desired.

Target 3: Production of Sustainable Energy

Denmark has been increasing its sustainable energy output dramatically since the 1990's.

However, technological advancements have changed the type of windmills and their location. Instead of having the majority of wind energy placed on land, there has been a shift towards windmill parks in the ocean. Secondly, there is a strong bias towards wind energy over solar.

Despite a strong focus and development in wind energy production, Denmark has yet to reach a quadrupling in production. It does, however, display a significant effort towards making progress, as shown in graphs 5 & 6. So, despite not technically having achieved its political goal of production, Denmark displays a strong commitment to improving its production of sustainable energy sources.

Singapore

Target 1 – Sustainable energy

Singapore maintains a large share of non-sustainable energy production, with sustainable energy sources accounting for around 5% in total. This makes its goal of increasing its production of solar photovoltaic energy rather insignificant in the grand scheme, but does serve as a case in point, when referring to the overall efforts exerted by Singapore.

Singapore is in fact increasing its share of solar photovoltaic energy, as an effort towards reducing its need to import energy from unsustainable sources.

Target 2: Waste Management

Singapore has committed themselves to reach a 70% recycling target by 2030 in their Green Plan. A target which their current trajectory proves is not beyond limits, in fact, if they can sustain the rate at which they have progressed of a 3% increase a year, they will reach the 70% recycling target in 2027. This puts them firmly on the right path secure their targets and thus sustain the integrity of congruence between Singapore's statements and their actions.

Target 3: Public Transport

In this two-pronged strategy towards an increased public transport sector, Singapore has introduced a zero cap on vehicle population growth while investing in the coverage and availability of public transport. According to our analysis, Singapore's growth cap has circumstantially worked, with a growth of respectively 0.75% and 0.25% on average. However, no comparable data exists on the development of the public sector over time. Conclusively we found congruence on the growth cap, but a lack of data can neither confirm nor deny congruence in public transport development. That said, we found an existing large coverage of public transport already established.

Target 4: Tax Reform

The Singaporean plan of introducing a stepped carbon tax, with the first change in 2024, has in fact been achieved. However, no data exists that can corroborate the climatic significance of this, as the latest measurement was made in 2021. Furthermore, there has been a steep increase in overall emissions since the baseline year of 2005, effectively making the proposed carbon tax overall less significant to overall emissions, than the Danish counterpart. Conclusively, we have found congruence in the Singaporean tax reform in practice. Generally, throughout sequence 1

and sequence 2, we have found that ambitions are generally more grandiose and longer term for Denmark, whereas Singapore takes on a more conservative approach. That said, we have generally found it difficult to establish a binary relationship between policy goals and outcomes.

Comparative observations

We have, throughout the analysis, been forced to rely on inference, as a general vagueness or lack of specificity has made data gathering and analysis more difficult than anticipated.

Additionally, when specific indicators were found, a lack of sampling rate hindered our ability to evaluate current progress, or even to make well-founded inferences. We observed that sampling has generally not been done since 2021 or has yet to be reported due to the recent nature of some policies. Furthermore, internal evaluations are generally lacking. We were unable to find the expected yearly waste report, and contacted the Danish Ministry for Climate, Environment and Utilities in vain, as the 2022 report, based on 2021 figures, have yet to be released. By extension, it is unclear whether sampling has taken place in the years 2022 and 2023, making it difficult for citizens to keep track of policy effectiveness.

Considering we have observed a tendency of the Denmark and Singapore to load their statements with the desired level of ambitiousness they wish to convey the projects resemble, we have found that the gap these ambitions place between them and their targets varies in “ambitiousness”.

Denmark has, in terms of their targets, a wider gap to close than Singapore has of reaching 100% waste recycle in 2030, from 73.8% in 2021 vis-à-vis 55% reaching 70% waste recycle in 2030 from 55% in 2021. This demonstrates an 11-percentage point difference between Denmark and Singapore, making the Danish ambition on paper more ambitious. This is interesting because we have argued in sequence 1 of our analysis that the Danish narrative construction was relatively vague compared to Singapore, and Singapore emphasized concrete measures and figures to convey a sense of ambition and leadership. But considering the actual gap Singapore must close opposed to Denmark it is on paper less ambitious, indicating Denmark could advantageously spotlight their merit to a higher degree than the current case suggests. The Singaporean narrative employs a rhetorical strategy of focusing on numbers to strengthen the claim to leadership and significance.

Conclusively, we argue that a combined strategy between the Danish grandiosity, focusing on vague but highly ambitious targets and Singaporean specificity, focusing on short-term gains,

could theoretically lead to more convincing public diplomacy and effective steering of their audience's attention.

Conclusion

Throughout this project we have utilized a comparative case study design, which integrated qualitative document analysis and quantitative data to contribute to the literature on public diplomacy, by scrutinizing the credibility of public diplomacy efforts. This evaluation is important based on the argument made by Nye, that credibility is a soft power asset which international actors can rely on in seizing an advantageous position within a liberal international society that has eroded the viability of hard power. Hence the following research question was posed:

How does Denmark and Singapore's public diplomacy efforts as green leaders cohere with their climate and sustainability-related policy outcome?

Both Denmark and Singapore's public diplomacy efforts display congruence to an extent. On the one hand, Denmark demonstrates an ambition to increase its sustainable energy output dramatically, but the current pace of progress jeopardizes the transition's accomplishment within the timeframe. On the other hand, Singapore demonstrates a strong preach and practice towards the improvement of waste management and public transport, while fossil fuels remain a predominant energy source. Both countries share significant issues with transparency and reporting, making it difficult for the international community to scrutinize their respective progress, and thus credibility.

Sub-question 1:

What are the main sustainable development and climate policies put forward by Denmark and Singapore, based on a small-n sampling of public statements by government officials related to the field?

As a result of the thematic analysis based on 14 statements from each nation yielded an overall focus towards, firstly, the production of sustainable energy sources, from both Singapore and Denmark. We found, however, that despite similar targets, e.g. quadrupling solar photovoltaic energy production, a large gap exists between the overall impact of sustainable energy production. We found that Denmark produces sustainable energy upwards of 80% of its total

energy need, whereas Singapore's consumption entails less than 5%. Secondly, an emphasis was placed by both nations on the efficiency of their resource recovery and recycling rates. We found a difference of 11 percentage points on recycling rate goals, where Singapore needs to close a significantly shorter gap than Denmark before 2030. Finally, both countries share a desire for tax reform, however with very different theoretical reduction outcomes. Singapore aims at a 900-1500% increase in carbon taxation, whereas Denmark aims for a 108,33-316,67% increase. That said, we found that the bulk of the Danish tax reform reductions are found in government subsidies, whereas the Singaporean reform is more focused on commercial transparency. Finally, we found that an exclusive focus was put on public infrastructure and civil subsidies by Singapore, aiming at making public transport more accessible, limiting the availability of new vehicles, and subsidizing sustainable consumer options.

Sub-question 2:

To what extent are these narratives supported by data, and can congruence be established?

When looking at Denmark's and Singapore's public diplomacy as green leader and whether or not they correspond with their respective sustainability-related policies, we cannot provide a definitive answer.

Both the implemented initiatives and future project show how Denmark and Singapore both demonstrates a degree of congruence between statements and action and thereby theoretically realize relative credibility as green leaders in their own particular ways. Denmark as the ambitious pioneer with an outward oriented mindset that assumes global responsibility and Singapore as the regional dynamo with concrete actions and ambitious implementation of short-term plans. However, by conducting sequence two of our analysis we are able to assess the degree to which the two small states demonstrate congruence, and thus facilitates the ability to scrutinize the narratives both countries are trying to create. Singapore has a clear incentive to focus more heavily on public transport and waste management, and brands them as leaders in this capacity, while still having a clear oil stain underneath their image. Their energy mix is defined by the mix of fossil fuels burned and not by difference in green energies used. The same story goes for Denmark, where clear plans and windmills are up for tender to realize tangible goals but at a pace much lower than the ambitions put forth.

The evaluation on congruence lies on the grounds of contemporary data to show if targets are being met. Without national measurements or reports, these statements are presented in a vacuum, which makes it opaque for the audiences of public diplomacy to grasp whether or not coherence is true and take away credibility if it isn't. In these cases, the states are behind on yearly evaluations in multiple sectors and a ground for evaluation is therefore not present. Especially in waste management, this comes to light. When publishing of reports stops on an upward trending trajectory it is possible for public diplomacy to ascertain a certain level of flexibility regarding its future, both in terms of concrete progress but also to alter ambitions to match the real progress and thereby diminishing loss of credibility.

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ⁱ Gradually turned up from base to higher year by year