CHAPTER 11

Governing Toward Sustainable Development

From a Path-Dependent Transition to a Disruptive One

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CONTENTS

11.1 INTRODUCTION

In 2019, an independent expert group appointed by the United Nations (UN) found that the world is not on track for achieving most of the 169 targets that comprise the SDGs due to "rising inequalities, climate change, biodiversity loss and increasing amounts of waste" (UN, 2019, p. xx). All member states have made a commitment to fulfill Agenda 2030 with its 17 SDGs designed to achieve UN's vision of sustainable development involving economic growth, social progress, and promotion of environmental sustainability (see Chapter 1). The SDGs are not legally binding but provide the member states with global sustainability

DOI: 10.1201/9781003325086-11

goals whose fulfillment requires a transition involving "a profound and intentional departure from business as usual" (UN, 2019, p. 5). The UN experts responded to the lack of progress on the SDGs by urging member countries to devise transition pathways containing fundamental changes in current socio-environmental–economic systems. As the layers of change needed to attain the SDGs vary across countries and regions, different transition pathways will be created (UN, 2019, p. xx).

The UN experts' recommendations shed the light on the importance of political efforts in accelerating sustainability transition. At the same time, climate emergency has started to cast doubt on the ability of techno-solutionism (see Chapter 1) and the "reformed" capitalist system to secure sustainable development (see Chapter 17). Political efforts accelerating sustainability transition do not operate in vacuum but interact with technology, the national context, and pressures from the regional/global level. Political actors seek, for example, to promote technological changes to solve what they see as a problem, and they react when technology creates new opportunities or threats (see Carstensen & Schmidt, 2016; Acemoglu & Robinson, 2010). Moreover, sustainability transition can be facilitated by changes in a broad range of interrelated technologies that create, for example, technical solutions to the negative environmental effects of economic growth involving unsustainable resource use and carbon emissions. Both the health crisis created by COVID-19 and the War in Ukraine with its negative effects on food and energy prices have caused performance problems on the SDGs in many countries (see Zhao et al., 2022).

Different transition models have been suggested as a means to achieve sustainable development. These models involve green growth, circular economy, and greening of the economy in a fair and inclusive manner (just transition). According to the green growth theory, technological change, substitution, and structural change toward fewer resource-intensive services will allow us to decouple fast enough GDP growth (SDG 8) from resource use (SDG 12) and carbon emissions (SDG 13) to meet environmental targets. However, Hickel and Kallis (2020) were unable to find empirical support for this assertion. Surprisingly, their findings also apply to countries following the OECD's and the World Bank's recommendation to deploy technological innovation and government policy to achieve this decoupling. Hence, Hickel and Kallis claim that "green growth is likely to be a misguided objective, and that policymakers need to look toward alternative strategies" (2020, p. 469). Similarly, Geels (2014, p. 25) and Kivimaa and Kern (2016) argue that policymakers need to put greater emphasis on the destruction part in what Schumpeter (1942) calls "creative destruction" involving not only creation of green industries but also phasing out of fossil fuel industries.

A circular economy model is a model of production and consumption that ensures economic growth (SDG 8), while materials and products maintain their values, waste is avoided, and resources are kept within the economy (SDG 12). This is achieved through sharing, leasing, repairing, and recycling existing materials and products as long as possible (see Corvellec et al., 2021; Geisendorf & Pietrulla, 2018, p. 779). Critics maintain that the model is just another technical fix to the challenges of climate change that depoliticizes sustainable growth by emphasizing the role of consumers, markets, and corporations in the development of recycling economy (see Corvellec et al., 2021; see also Chapters 12,

15, and 17). According to Korhonen et al. (2018, p. 41), the limitation of the model is that cyclical production systems still consume resources and create wastes and emissions given the current technological state of the economy. Moreover, the extent to which the circular economy model is able to ensure social sustainability needs thorough investigation (see Mies & Gold, 2021).

Studies of environmental and climate change demonstrate how countries with high level of GDP per capita who are governed through social goals and relative egalitarian redistribution such as the Nordic countries are more likely to be successful in achieving sustainable development (see Lockwood, 2015; Kuzemko et al., 2016, p. 100; Koch, 2020, p. 122). This is also manifested by Sachs et al. (2022) who compared the overall performance of 163 countries on the 17 SDGs, giving equal weight to each goal. The comparison for 2022 places Finland, Denmark, Sweden, and Norway at the top of the list with scores ranging from around 86.5 to 82.3 followed closely by Austria and Germany. Sachs et al. (2022) found that Finland, Denmark, Sweden, and Norway have achieved the goals of no poverty (SDG 1) and affordable and green energy (SDG 7), while they have major problems attaining reduction in greenhouse emissions (SDG 13) and sustainable production and consumption (SDG 12). The good performance of the four Nordic countries on the SDGs has given support to what the global labor movement calls "just transition".

According to the International Labor Organization (ILO), "just transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind" (ILO, n.d.). In other words, economic growth (SDG 8) is compatible with high level of environmental protection (SDG 13) and social progress (SDG 5 and SDG 10) as a shift to a low-carbon energy system can create jobs that are not only environmentally friendly but also decent (see Sabato & Fronteddu, 2020, p. 13). The labor movement's understanding of just transition has been criticized for embracing economic growth and techno-solutionism (see Xinxin Wang, 2021; see also Chapters 17 and 18). Moreover, the just transition framework fails to acknowledge the need to transform power relations and structures underlying unsustainable growth regimes (Xinxin Wang, 2021). Hence, just transition needs to involve a radical critique of capitalism and green growth (see Normann & Tellmann, 2021, p. 424).

As the three transition models of green growth, circular economy, and just transition demonstrate, the SDGs are putting the developmental trajectory of many countries under strain. The SDGs involve partially contradictory goals that green technologies and political efforts have, so far, not managed to solve (see also Chapter 1). In addition, transitional changes facilitated by, for example, disruptive technologies and policies create not only winners when new structures are created but also powerful losers when old unsustainable ones are destroyed (Turnheim & Geels, 2012; see also Chapter 15). Hence, various actors are seeking to inform and/or control the terms of the debate about the need for continuity, adaptation, and transitional change to meet them. At the same time, the climate urgency has increased awareness that much more needs to be done to accelerate the sustainability transition. However, the four Nordic countries, Finland, Denmark, Sweden, and Norway, scoring highest on the SDGs are not characterized by transitional change but stability and path-dependent development involving just transition or inclusive economic growth (see

NOU, 2021a; Khan et al., 2021). This puzzle creates a need to gain a better understanding of the impulses behind stability and disruption in sustainability transition.

In the following, the literature on the political dimensions of sustainability transition is reviewed to unwrap the meaning of sustainability transition, identify the role political actors play in sustainability transition, and how their efforts are shaped by the national context. Based on our literature review, we develop a framework for analyzing the role of politics and path dependency in shaping sustainability outcomes. Our contribution to scholarship on the political dimensions of sustainability transition is to explain why top performance on the SDGs can be achieved without transitional change. Moreover, our framework goes beyond policy outputs by considering sustainability outcomes and their implications for transition pathways, that is, whether they are path-dependent, lock-in, or disruptive. Thereafter, we illustrate our framework by a case study. We have chosen Norway as our case as it has attained a high overall score on the SDGs and played an important role in the global partnership for sustainable development (achieved SDG 17). At the same time, Norway has a petroleum-based economy and is characterized by strong institutions (achieved this part in SDG 16) that are sign of stability rather than disruption. Finally, we analyze the national context prevailing in Norway in view of our framework to improve our understanding of why a certain transitional pathway receives support, and why it is associated with stability rather than disruption.

The main assumption of our framework is that ideas underlying the global SDGs need to be compatible with underlying political values and supported by material conditions (technology and wealth) for a country to attain a high score on the goals without radical change. The ideas on which the SDGs are grounded are "destructive creation", inclusive development, and fair distribution of opportunities and income. The last two ideas are in line with Social Democratic values of solidarity and universalism that have to vary degrees become entrenched in institutional structures of countries with top score on the SDGs. Our case study highlights how political actors in Norway have been assisted by the Nordic/Norwegian model of tripartite collaboration and the welfare state (the Nordic/Norwegian model) and, especially its entrenched values in their efforts to secure a path-dependent development in a petroleum economy. These values are *solidarity* with oil workers and future generations, *universalism* involving the need to maximize employment and welfare (state income) and *decommodification* of future generations by saving for their pension in the sovereign wealth fund (oil fund). However, there exists a real risk of lock-in situation at the current high level of the SDGs due to the enormous wealth creation of the petroleum industry and lack of technological advances allowing "decoupling" of environmental harm from economic activity.

11.2 STATE OF THE ART ON SUSTAINABILITY TRANSITION AND ON POLITICAL DIMENSIONS

11.2.1 Sustainability Transition

An important assertion of studies in the field of sustainability transitions is that incremental improvements and technological fixes are not enough to achieve sustainability

transition (Fuenfschilling & Binz, 2018; Köhler et al., 2019). Instead, transition requires considerable changes along institutional, technological, organizational, political, and socio-cultural dimensions that make up the so-called socio-technical system (Markard et al., 2012; Duygan et al., 2019). The drivers of such radical regime change can, for example, be a large and unexpected system shock (e.g., drought, flood, financial market crash) and changes incubated by transition actors that accumulate into a transition of the current socio-technical system (see Werbeloff et al., 2016, p. 120). The main role of political actors and public policy in sustainability transition is to influence the transition's direction and speed (see Edmondson et al., 2019). However, political actors will disagree about the directions of transitions, appropriate ways to govern such processes, and the extent to which transitions create potential winners and losers (Köhler et al., 2019, p. 6).

Few studies focus on the implications of the SDGs on sustainability transitions, although they are a set of stretch goals defining UN's vision of sustainable development in terms of outcomes. Hence, the commitment of the UN member countries made in 2015 to achieve the 196 targets underlying the 17 SDGs by 2030 settled disputes over how sustainability transitions can be accomplished (mission), while the choice of transition pathways to sustainable development (strategy) was left to the national level to decide on (cf. strategic management). We know from studies of sustainability transition that political efforts to govern or facilitate transitional change along certain pathways are contingent on the national context and influenced by socio-technical change (see Fuenfschilling & Binz, 2018; Edmondson et al., 2018). As the SDGs are global goals, the extent to which political and institutional settings at the national level support their attainment varies across countries. Hence, political pressures arising from performance problems on the SDGs and potential distributional effects of the transition differ across countries.

11.2.2 Politics

As pointed out by Köhler et al. (2019), studies of the political dimensions of sustainability transition have sought to identify the (potential) effects of sustainability transition on different actors (winners and losers) and their strategies to protect their interests (see, e.g., Kalt, 2022; Geels, 2014; Turnheim & Geels, 2012). The focus of these studies has also been on how different groups seek to use their power to shape discourses and build alliances (based on shared beliefs, discourse, or common interest) to influence policy processes, and thereby policy outputs (see, e.g., Edmondson et al., 2019; Kuzemko et al., 2016; Kern, 2011). As transition involves fundamental changes in the distribution of power, there will be multiple political actors with multiple interests and strategies seeking to influence policy outputs (see Köhler et al., 2019; see also Chapter 15).

Geels (2014) identified various ways in which incumbent actors such as businesses in coal, gas, and nuclear production in the United Kingdom used power and politics to actively resist fundamental transitions to new low-carbon systems. According to Geels (2014), incumbent actors resist fundamental system change, using instrumental, discursive, material, and institutional forms of power. Instrumental forms of power are exercised when regime actors use resources in interactions with other actors as a means to achieve their goals and interests. Regime actors can also apply discursive forms of power to resist

change by shaping not only what issues are being discussed but also how they are discussed. Material strategies are adapted by the regime actors when technical capabilities and financial resources are used to improve the technical dimension of socio-technical regimes. Examples are technological solutions like Carbon Capture and Storage (CCS) to reduce emission problems created by fossil fuel industry. Institutional forms of power are embedded in political cultures, ideologies, and governance structures. Institutional power is wielded when regime actors are able to use the institutional context or norms and decision-making procedures to shape policymaking in their favor or away from alternative transition (Geels, 2014).

Kalt (2022) has, for example, identified four possible transition strategies that different trade unions can adopt. The choice of strategy is shaped by the extent to which the unions regard the transition as an opportunity to renew their power or fear a loss of power. First, oppositional strategies are practiced by actors when seeking to protect jobs in fossil fuel industries through subsidies and relying on technological solutions. Second, the reactive strategies are adopted when actors accept slow phase-out of fossil fuel. Third, actors apply affirmative strategies when supporting changes within the existing institutional framework. Fourth, the transformative transition strategies are pursued when actors reject green capitalism by demanding radical changes in power relations and institutional and economic structures. His study of union's strategies in Germany and South Africa showed that social justice-oriented unions are more likely to adopt transformative transition strategies. Moreover, unions are more likely to be on the offensive when neoliberal approach to green transitions is adopted as it is believed to have negative employment effects (Kalt, 2022).

11.2.3 Path Dependency

The interaction between politics and the institutional context is also the focus of research on sustainability transition policies (see Kuzemko et al., 2016; Kivimaa & Kern, 2016; Kern, 2011). Kern (2011) studied, for example, the relationship between ideas, institutions, and interests and its influence on policy initiatives to promote system innovations in the United Kingdom and the Netherlands. In line with Schmidt (2008), Kern (2011, p. 1120) maintains that we need to pay attention to the processes through which actors create new policy ideas, and to the extent to which these ideas are shaped by existing institutional factors such as formal rules (e.g., laws, regulations, and standards) and informal rules (e.g., norms, habits, and customs). Ideas are the substantive contents of discourse that is to some extent constrained by existing institutions through their influence on what can be said meaningfully (Schmidt, 2008; Kern, 2011). According to Kern (2011, p. 1129), "radical policy change is expected to occur only when a new discourse transforms existing interests and successfully challenges existing institutional commitments". Moreover, policies are path-dependent when a new discourse transforms existing interests, while a mutually supportive relationship exists between a new discourse and existing institutions. Finally, little or no policy change takes place when the new discourse, existing interests, and institutions are mutually supportive.

Kuzemko et al. (2016) give a detailed account of why it is difficult to change existing institutions that they attribute to their path-dependent qualities. These qualities are, for

example, sets of ideas that have become embedded in institutions and are used to mediate between interest groups that in turn influence which voices are "heard" in political debates and which are not. Hence, embedded framework of ideas shapes choices of policy objectives and instruments used to achieve them (Kuzemko et al., 2016, p. 99). Moreover, the path-dependent qualities of institutions diverge across countries and regions resulting in different transition pathways. In countries with strong market-liberal ideas as, for example, the United Kingdom, the range of acceptable policy options in response to climate change has been narrowed down to market-based instruments, while countries characterized by core values of Social democracy and greater collective and/or coordinative capacities allow for a more active role for government actors in setting and meeting sustainability goals (see Kuzemko et al., 2016, pp. 102–103). Chapter 13 also demonstrates how the neoliberal state in the United Kingdom has implemented policies focusing on "nudges" that seek through framing rather than economic incentives to steer people's behavior in green direction as a means to maintain its policy of austerity.

Kivimaa and Kern (2016, p. 205) argue that sustainability transition requires innovation policy mixes aiming at "creative destruction" or facilitating both creation of the new and destabilization of the old. However, studies have found that most policy mixes have developed through *policy layering* including new policy goals and instruments added on top of existing ones or *policy drift* including changed policy goals without changing the instruments (Howlett & Rayner, 2013). Designing innovation policies aiming at phasing out/destroying wasteful or polluting industries has been challenging as they contradict the ideology of traditional innovation policies seeking to contribute to economic growth (Kivimaa & Kern, 2016, p. 214). Disruptive policies are also actively opposed by those who believe they will lose out or are uncertain about its economic advantages (see Turnheim & Geels, 2012; Geels, 2014).

11.2.4 Governing Sustainability Transition – A Framework

Based on the central issues in the literature reviewed earlier, we develop a framework for analyzing the role of politics and path dependency in shaping sustainability outcomes. The aim is to explain why sustainability outcomes associated with transitions coexist with stability and incremental policy changes, and what the implications are for transition pathways. Its basic assumption is that the SDGs are based on ideas offering political blueprints for how to achieve sustainable development. These ideas need to be compatible with dominant political values embedded in the institutional context and supported by material conditions (technology and wealth) for a country to attain a high score on the goals (see Kern, 2011; Geels, 2014). In other words, the more compatible these factors are, the more successful a country is in attaining the SDGs with only incremental changes.

The SDGs not only are global goals defining sustainability outcomes but also contain ideas that favor certain policy objectives and instruments. These embedded ideas are inclusive development (e.g., SDGs 1, 2, 7, 8, 11, 16, 17), fair distribution of opportunities and income (e.g., SDGs 3, 4, 5, 10, 16), and "creative destruction" involving destruction of wasteful and polluting industries and consumption patterns at the same time as new green ones are created (e.g., SDGs 6, 9, 12, 13, 14, 15). Interestingly, inclusive development and

fair distribution are in line with the Social Democratic idea that all who are able and willing to work should have access to employment and should receive a fair share of the economic benefits produced (von Platz, 2020, p. 22). Hence, countries where Social Democratic values have become embedded in the political cultures and governance structures have a comparative advantage and will start off with a better performance on the SDGs than countries dominated by other political ideologies (see Mósesdóttir & Jonsson, 2020).

When the SDGs and the national context are based on compatible ideas, the political elite is able to deploy their instrumental, discursive, material, and institutional forms of power to implement their oppositional strategy to transitional change involving emphasis on technological solutions to environmental challenges (see Geels, 2014; Kalt, 2021). The sustainability pathway is then characterized by a changing discourse arising from the SDGs' emphasis on not only the economic and social dimensions of the SDGs but also its environmental dimension. The changing discourse puts a pressure on the domestic interest constellations, while the institutional context remains intact due to its path-dependent qualities (see Kern, 2011; Kuzemko et al., 2016). This external pressure on the domestic interests may push the dominant political actors to adopt reactive strategy or to accept slow phase-out of not only the consumption but also the production of fossil fuel (see Kalt, 2022). Policy outputs are then layered (new policy objectives and instruments) or drifted (changed policy objectives but old instruments) and added on top of existing ones facilitating path-dependent policy outcomes (see Kivimaa & Kern, 2016).

We assume that most transition pathways to sustainable development as defined by the UN are at first path-dependent or shaped by stable institutions such that transition actors only make small adjustments in strategies and instruments in response to changing global discourse on sustainability (see Werbeloff et al., 2016; Hanger-Kopp et al., 2022; Kern, 2011). These path-dependent transition pathways differ across countries as they are contingent on the national context. Moreover, they are less contentious and contradictory in countries with high scores on the SDGs than in countries with lower scores. However, political tensions will also grow in high-scoring countries when it becomes apparent that the SDGs cannot be fulfilled without radical changes.

Path-dependent transition pathways will eventually create a lock-in situation manifested in a persistent lack of progress on the SDGs and no prospect of an improvement through, for example, technological advances in the country's performance (see Hanger-Kopp et al., 2022). If the balance of power and structures remain inflexible at the same time as no new technological solutions appear, a country moves from its path-dependent pathway to a lock-in pathway characterized by minor changes that do not meet external and internal pressures for change (see Hanger-Kopp et al., 2022). The lock-in period is marked by a real critical juncture in which actors struggle for different alternatives in societal development after the long period of path dependency with relatively stable institutions and power relations. During the critical juncture, the actors attempt, despite their conflicting interests and visions, to build coalitions around a shared vision of how future society is to be constituted (Mósesdóttir & Jonsson, 2020, p. 113). External pressures arising from climate emergency and the domestic lock-in crisis may tilt the political balance of power toward more radical alternatives, paving the way for disruptive changes along

institutional, technological, organizational, political, and socio-cultural dimensions (see Markard et al., 2012; Duygan et al., 2019). The move toward disruptive transition pathway will be evolutionary, if radical changes do not impact simultaneously all three dimensions of sustainable development: The economic, social, and environmental.

Later, we illustrate how our framework can be applied to a case example. The aim of our brief narrative description, which is based on secondary sources, is to highlight how political efforts, material conditions (e.g., oil revenues, technology), and institutional conditions prevailing in Norway underpin its high score on the SDGs. We then analyze and discuss the case using key assumptions of our framework to identify the sustainability pathway of Norway.

11.3 THE CASE OF NORWAY

11.3.1 The Global Ambition

Norway is an interesting case among the Nordic countries as it has been trying for the last three decades to find a solution to its paradox of being dependent on oil revenues at the same time as it has climate leadership ambitions (Lahn, 2019; Tellmann, 2012; Tjernshaugen, 2011). According to Asdal (2014), political actors tried to solve this paradox during the 1990s and 2000s by organizing climate and petroleum policymaking as two separate policy fields. Hence, political efforts focused on pursuing ambitions of climate leadership by being the first country to adopt a target for CO_2 emissions reductions, which was subsequently expected to be achieved through carbon taxes and then emissions trading (Lahn, 2019; Tellmann, 2012; Tjernshaugen, 2011).

The broad consensus in Norway around its leading role in framing climate change as a demand problem rather than a supply problem was fundamentally shaped by concerns about how climate policy might impact oil and gas production. This decoupling of climate and petroleum in policy discussions was strengthened by international commitment to climate change (Kyoto Protocol in 1997) that focused on carbon trading (Lahn, 2019). According to Bang and Lahn (2020, p. 1001), this emphasis on the demand side of fossil fuels allowed Norway to continue pursuing its contradictory interests as a major oil and gas exporter and its ambition of acting as an international climate leader.

In Norway, the effects of market solutions such as carbon taxes and carbon trading on the emission of CO_2 turned out to be limited. Hence, the focus of political efforts to reduce carbon emissions gradually shifted after 2000 to measures supporting the development of technological solutions such as Carbon Capture and Storage or CCS (Lahn, 2019; Tellmann, 2012; Tjernshaugen, 2011). While public investment in CCS projects has enjoyed widespread support, a full-scale project for capture, transport, and storage of CO_2 in Norway has not materialized due to the high costs involved (Lahn, 2019, p. 14; Tvinnereim & Ivarsflaten, 2016, p. 366).

11.3.2 A Mismatch Between the Global and National Discourse

When ambitious global climate goals were agreed on (cf. Copenhagen 2009 and Paris 2016), it became increasingly clear that measures to reduce consumption of fossil fuels were no longer sufficient. As a result, the political controversy around the future of the Norwegian oil and gas industry intensified. According to Lahn (2019, p. 6), this political

controversy shifted the political discourse toward framing that connected the two policy areas together, that is, petroleum policy and the climate policy. Oil was framed as an object of carbon risk since petroleum extraction contributes to global greenhouse gas emissions. However, smaller political parties go further in linking the two policy areas together than the two largest political parties, the Labor Party (LP) and the Conservative Party (CP), as they have advocated restrictions on new oil and gas extraction and in due course managed decline of petroleum production (see Bang & Lahn, 2020; Lahn, 2019).

During the last two decades, governments led by either the LP or the CP have had to form coalitions with the smaller parties to gain parliamentary majority. When in government, the largest party has secured the basic features of Norwegian petroleum policy, while the smaller parties have managed to impose restrictions on oil and gas development in some specific cases (Lahn, 2019, pp. 20–21). According to Bang and Lahn (2020, p. 998), the political majority has justified its support for a continuation of the main aspects of Norwegian petroleum policy with reference to "oil as welfare" and the relatively low level of production-related emission of Norwegian oil. Oil creates welfare in Norway as its production provides employment opportunities for current generations, and income to sustain the welfare state for future generations and during crisis (cf. COVID-19). Since the mid-1990s, all of the revenue that comes to the state from oil and gas production has been paid into the sovereign wealth fund (oil fund). The fund is meant to secure the welfare of future generations through its financing of their pension. Only returns from the fund's investments are paid out annually and used to finance infrastructure investments, and to maintain the welfare state during crisis (see Arvin, 2021).

11.3.3 Pressures From Below

The Nordic tradition of extensive tripartite cooperation on employment and social issues has enabled broad consensus-building in different policy areas (see NOU, 2021a; Dølvik & Steen, 2019; Lidskog & Elander, 2012). The Norwegian Confederation of Trade Unions (LO) is the largest umbrella organization for trade unions in Norway, and it has been the most powerful in terms of political influence due to its close links to the LP (Normann & Tellmann, 2021, p. 425). Conventionally, LO has been a supporter of petroleum industry as it organizes many petroleum workers who fear job losses (Houeland et al., 2020). Normann and Tellmann (2021, p. 429) claim that LO has during the last 10 years increasingly embraced the concept of just transition in an attempt to reconcile the interests of both petroleum workers and its affiliated unions with members in the service and public sectors who have become increasingly concerned with climate change. LO achieved this reconciliation by defining the concept of just transition in terms of reduction of emissions from production within the oil and gas industry through green technologies and the creation of new green jobs (Houeland et al., 2020; Normann & Tellmann, 2021).

In 2017, LO showed a sign of willingness to accept transformation away from fossil fuel industry after intensified pressure from affiliated unions in the service and public sectors. This happened when LO adjusted its policy of a clear support toward impact assessment (seen as a first step toward exploration) to a compromise that included permanent protection of some environmentally sensitive areas (cf. Lofoten, Vesterålen og Senja) from new oil

and gas extraction. In 2018, the minority government led by the CP announced that it also went for permanent protection of these areas and the LP followed suit in 2019 (Normann & Tellmann, 2021; Lahn, 2019). In the Spring of 2022, the controversy among the affiliated unions of LO over oil and gas production surfaced again at the LO's Congress. The policy compromise agreed on by the Congress stated that extraction of new gas and oil fields should only take place if economically feasible and climate-sustainable (Svenning et al., 2022).

11.3.4 The Piecemeal Approach to the SDGs

In 2020, the Office of the Auditor General assessed the Norwegian government's management and review of the national follow-up of the sustainable development goals from 2016. During this period, the governments were headed by the CP in coalition with smaller right-center parties. The Office concluded that political efforts to attain SDGs have been piecemeal and lacked coordination across various governmental departments. This has led to, on the one hand, low awareness of the national challenges posed by the various SDGs and, on the other hand, insufficient efforts to improve progress and attainment of SDGs (see Fosser, 2020, p. 6).

Norway is not alone among the Nordic Social Democratic countries in adopting a piecemeal approach to greening the economy. In their study of public discourses in policy documents on greening the economy in Denmark, Norway, and Sweden, Khan et al. (2021) found that all three countries lack comprehensive national policy strategies on the green economy. Instead of radical approaches, the public discourses in the three countries were based on the optimistic view that economic growth and environmental improvements can occur simultaneously through the use of technological solutions and innovation enabling recycling, sharing, and re-use of resources. Khan et al. (2021) also found an emphasis on state-led transition to sustainable development where technology is a key factor in greening the economy. The main role of the state is to regulate the economy and promote technical change and innovation in green technologies in close cooperation with the social partners and relevant stakeholders, while the welfare state is important in securing social welfare and human well-being (Khan et al., 2021).

11.3.5 The Case in View of Our Framework

Our case study highlights how Norway has safeguarded its economic prosperity based on oil and gas revenues by framing and organizing petroleum policy and climate policy as two separate policy areas. The petroleum sector accounted in 2019 for about 35% of Norway's exports and the petroleum-related employment constituted about 5.8% of total employment (NOU, 2021b, p. 56; Statistics Norway, 2021). Moreover, the petroleum export has made Norway's score on the target *CO_2 emissions embodied in fossil fuel exports (kg/capita)* by far the worst among the Nordic countries and even higher than that of, for example, the United States (see Sachs et al., 2022). The disconnection between petroleum policy and the climate policy has been justified with direct and indirect references to core values of Social Democracy such as *solidarity* with workers in the oil industry and *universalism* or the need to maximize employment and welfare (see Normann & Tellmann, 2021; Houeland et al., 2020; Lahn, 2019; Cox, 2004; Esping-Andersen, 1989). Moreover, the sovereign wealth

fund (oil fund) is presented as a manifestation of *solidarity* with future generations whose *decommodification* (freed from the market) is secured by paying all state revenue from oil and gas into the fund to finance their pension (see Bang & Lahn, 2020; Arvin, 2021). This pension solidarity with future generations makes it difficult to criticize the Norwegian government, for compromising the ability of future generations to meet their own needs with its oil and gas production.

Solidarity, universalism, and decommodification are core Social Democratic values that have become embedded in the Nordic/Norwegian model including tripartite regulation of the labor market and policymaking, on the one hand, and the Social Democratic welfare state model providing extensive welfare services and generous welfare benefits, on the other hand (see NOU, 2021a; Mósesdóttir & Ellingsæter, 2019; Cox, 2004; Esping-Andersen, 1989). Hence, the political majority in Norway has wielded discursive and institutional power through references to core Social Democratic values to gain broad support for its implementation of oppositional strategy involving investment in green technologies to prevent cuts in oil production, and for its reactive strategy supporting reduction in oil consumption through economic incentives (see Geels, 2014). At the same time, the country's wealth and the Nordic/Norwegian model underlay Norway's full score on five SDGs within the social and economic dimensions, that is, on zero poverty, gender equality, affordable and clean energy, reduced inequalities, and partnerships for the goals (SDGs 1, 5, 7, 10, and 17). None of the other top-scoring Nordic countries has managed this (see Sachs et.al., 2022; pp. 342–343).

Ambitious global climate goals since 2009 have empowered less powerful actors in their efforts to contain production of oil and gas in Norway. The political majority and the labor movement (LO) have, therefore, come under increased pressure to acknowledge that these two policy areas are interconnected. These internal political pressures and climate urgency have made the political elite more willing to restrain new oil and gas extraction, and to acknowledge that extraction industry may gradually wind down due to falling global demand (see Lahn, 2019; Bang & Lahn, 2020). However, the volume of petroleum exports from Norway continues to be steered by market conditions rather than sustainability concerns.

Governments in Norway, Denmark, and Sweden have been able to integrate the SDGs into prevailing governance structures such that conflicts over policy efforts to attain the goals have been avoided (policy without politics). The compatibility between, on the one hand, the SDGs' ideas of inclusive development and fair distribution and, on the other hand, core Social Democratic values of universalism and solidarity has enabled this integration and made the current transition pathways path-dependent or shaped by prevailing power relations, embedded norms, and institutional arrangement. A similar compatibility underlay the top performance of Denmark, Finland, Norway, and Sweden on the SDGs. However, the governmental commitment and efforts to attain the SDGs have been greater in Denmark, Finland, and Sweden than in Norway (Sachs et al., 2022, Figure 3.6). Hence, Norway's climate leadership ambitions appear to be greater outside of its national border than inside (cf. achievement of SDG 17).

In Norway, the separation of climate policy and petroleum policy, and relatively good performance on the SDGs have meant that policy changes have been incremental or in the form of policy layering (cf. green technologies, carbon taxes, and carbon trading). However, the SDGs facilitating "creative destruction" (e.g., SDGs 6, 9, 12, 13, 14, 15) poses a dilemma for the Norwegian/Nordic model of industrial relations and the welfare state as it was originally not designed to solve the tensions between economic growth and environmental protection. In Norway, employers have, for example, supported the model of extensive tripartite cooperation as it has contributed to industrial growth and moderation of wages, while employees have enjoyed secure working conditions and benefits from growth (Ravn & Øyum, 2018, p. 2). Moreover, economic growth and stable stream of returns from the oil fund's investments are essential for the financial sustainability of the extensive Social Democratic welfare state.

In Norway, there exists a real risk of lock-in situation at the current high level of the SDGs due to the enormous wealth creation of the petroleum industry and lack of technological advances allowing "decoupling" of environmental harm from economic activity. Internal actors do not appear to be able to solve this lock-in problem by phasing out the fossil fuel industry in Norway, although policy framework for retraining and compensation of workers is in place. This became apparent after the parliamentary election in 2021, when smaller parties with ambitious disruptive approaches to climate change fared less well than expected. In the political platform of the current government, climate change is stated as top priority at the same time as the country's petroleum industry "must be developed and not terminated" (Office of the Prime Minister, 2021).

11.4 CONCLUSION

The main assumption of our framework of path dependency and real critical junctures is that ideas underlying the SDGs need to be in line with political values embedded in the institutional context and supported by material conditions for a country to achieve top performance on the goals without a disruptive change. We argue that the SDGs contain ideas of "destructive creation", inclusive development, and fair distribution of opportunities and income. The last two ideas are compatible with Social Democratic values of solidarity and universalism that are to vary degrees entrenched in the institutional context of countries with high scores on the SDGs. Our case study highlights how political actors in Norway have managed to separate fossil fuel production from climate policy with direct and indirect references to institutionally embedded Social Democratic values of solidarity, universalism, and decommodification. This separation and the Nordic/Norwegian model have secured political support for path-dependent pathway to sustainability.

Most transition pathways to sustainable development are initially path-dependent or shaped by institutions such that transition actors only make small adjustments in response to changing global discourse on sustainability. The small adjustments implemented in Norway involve measures to cut petroleum consumption and not its production, and then acknowledging the need to contain new oil and gas extraction. Path-dependent pathways will eventually create a lock-in situation manifested in growing political conflicts arising

from persistent lack of progress on the SDGs and no prospect of a technological solution to unsustainable resource extraction, production, and consumption.

Inflexible power relations and socio-technical systems will move the country to a lock-in pathway marked by a real critical juncture or struggle among actors for different societal alternatives. External pressures arising from climate emergency and the domestic lock-in crisis may tilt the political balance of power toward more radical alternatives, paving the way for a move toward a disruptive pathway. The enormous wealth creation of the petroleum industry and lack of technological advances to solve emission problems creates a real risk of lock-in situation in Norway at the current high level of the SDGs. For Norway to continue to realize its ambition to be a climate leader, political support for large-scale "creative destruction" is needed. This political support is lacking today, although the country has wealth (oil fund) to finance its pursuit of a sustainable societal development that will benefit both present and future generations.

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