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A pioneer country? A history of Norwegian climate politics

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Abstract The shift away from ecology towards climatology in Norwegian environmental policy in the late 1980s and 1990s was not accidental. A main mover was the Labor Party politician Gro Harlem Brundtland who did not want to deal with unruly and highly vocal Deep Ecologists. Better then to start afresh with a different set of environmental scholars appealing to the technocratic tradition within the Labor Party. Instead of changing the ethical and social ways of dealing with environmental problems as the Deep Ecologists were advocating, she was looking for technological and economic solutions. And she mobilized an international regime of carbon capture storage (CCS), tradable carbon emissions quota (TEQs), and clean development mechanisms (CDMs), all of which eventually were approved in Kyoto in 1997. This move towards technocracy and cost-benefit economics reflects a post-Cold War turn towards utilitarian capitalism, but also a longing to showcase Norway as an environmental pioneer country to the world. The underlying question was how to reconcile the nation's booming petroleum industry with reduction in climate gas emissions. Should the oil and gas stay underground and the country strive towards the ecologically informed zerogrowth society the Deep Ecologists were envisioning? Or could growth in the petroleum industry take place without harming the environment as the Labor Party environmentalists argued?

The summer of 1989 was unusually hot in Norway and the sweltering heat wave provided ammunition for a parliamentary argument about global warming. The Prime Minister and the former Chair for the World Commission on Environment and Development, Gro Harlem Brundtland, pushed hard for an ambitious program aimed at stabilizing carbon emissions by the 1990s. Her goal was to prove to the world that Norway took *Our Common Future* (1987) and its quest for sustainable development seriously. For Brundtland, this was no minor topic. She was up for re-election that fall and for more than one-third of the Norwegian electorate,

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environmental concerns were the most important issue in deciding whom they would vote for (Aardal and Henry 1995, 19). Brundtland used environmental concerns to push her success in this realm, and sway voters to vote for her.

But why global warming? This paper will examine Norwegian climate politics and policy in the late 1980s and 1990s, and attempt to explain the shift from a focus on ecology towards climate. In the late 1980s there were still valid scientific questions being raised in the scientific community with respect to the evidence provided by climatologists (Weart 2003; Fleming 2005; Edwards 2010). In addition, the Norwegian environmentalists, though concerned about global warming, were pushing politicians to address ecological depletion first. As will be argued, the political shift away from ecology towards climatology was not accidental. To Brundtland, the ecological approach meant having to negotiate with the unruly and highly vocal Deep Ecologists. She decided it was better then to start afresh with a different set of environmental scholars who would appeal to the technocratic and macroeconomic tradition of the Labor Party. Instead of changing the ethical and social ways of dealing with environmental problems as the Deep Ecologists were advocating, she was looking for technological and economic solutions. As a result, she mobilized an international regime of carbon capture storage (CCS), tradable carbon emissions quotas (TEQs), and clean development mechanisms (CDMs), all of which eventually were approved in Kyoto in 1997.

This move towards technocracy and cost-benefit economics reflects a post-Cold War turn towards utilitarian capitalism, but also, as I will argue, a longing to showcase Norway as an environmental pioneer country to the world. The underlying question was how to reconcile the nation's booming petroleum industry with a reduction in climate gas emissions. Should the oil and gas stay underground and the country strive towards the ecologically informed zero-growth society the Deep Ecologists were envisioning? Or could growth in the petroleum industry take place without harming the environment as the Labor Party environmentalists argued?

1 The Deep Ecologists

In 1971, in Norway's largest tabloid newspaper, a journalist reported that global warming "may cause the polar ice to melt, that the ocean will rise above its shores, that cities and large territories of land will be under water, [and] that humans will be displaced to mountain regions" (Anonymous 1971). This alarming news story, possibly the first reference to the issue of global warming in Norwegian press, was buried in a host of similar stories of doom and gloom. Since Earth Day a year before, readers had become used to hearing about a fast approaching environmental Ragnarök. This was alarming news to Norwegians who would typically spend their vacations enjoying the country's beautiful fjords and mountains. Indeed, in the 1970s, only 16 % of the population did not regularly take part in outdoor life and this group consisted mostly of the elderly (Central Bureau of Statistics 1970).

The press was nurtured with stories of environmental doom by a highly effective environmental organization called The Co-Working Group for the Protection of Nature and the Environment, known in the English-speaking literature as the Deep Ecologists. They found each other thanks to the exhibition *And after us…* created by students of the Oslo School of Architecture in June 1969. It was a highly popular travelling exhibition about the eco-crisis seen by 80,000 people in Oslo alone. Here the designers drew attention to the possibility of children "after us" having no natural environment in which to live (Anonymous 1970).

Dramatic graphic design crystallized a clear message about the environment "after us" either being in a state of disaster or a harmonious balanced ecosystem. Thanks to the Deep Ecologists, this either/or dichotomy between a future of industrial doom or ecological bliss came to dominate the environmental debate in Norway in the following decade.

The Deep Ecologists gained a significant following among activists seeking radicalism within acceptable socio-political boundaries of the Cold War (Anker 2007). Though self-fashioned as eco-radicals, their concerns had to be taken seriously by politicians. Interests in environmental issues would fluctuate from year to year, and typically be of key importance for the "swing" voters, who made up roughly 10 % of the country's electorate from the 1970s and onward. Organized by the charismatic philosopher Sigmund Kvaløy, the Deep Ecologists became a hard-hitting populist association, which, at its peak in the late 1970s, was one of the largest (and certainly the most vocal) environmental organizations in Norway, attacking industrialization and economic growth, particularly hydro-power developments.

Their formative experience was their attempt to save the Mardøla waterfall from hydro-power development during the summer of 1970. As Norway's highest waterfall (and the fourth highest in the world) its future became a symbol of the nation. Thanks to the well-organized Deep Ecologists the demonstration evolved into a dramatic—yet still strictly non-violent—civil disobedience sit-in. In the end the demonstrators either left voluntarily or, as in the case of Kvaløy and his philosophy teacher Arne Næss, were carried away by the police. For more than a decade the Mardøla demonstration was known as the defining event for environmentalism in Norway, in which taking a stand on hydro-power developments separated friends from foes.

The vocal Deep Ecologists would set the stage for environmental debate in Norway with non-compromising positions cast in Cold War bipolar terms as either "deep" or "shallow" (Næss 1973). They confronted Gro Harlem Brundtland head-on in her capacity as Minister of the Environment between 1974 and 1979. She was most definitely defined "shallow," something they would never let her forget. With major discoveries of oil in the North Sea, the Deep Ecologists would fervently protest against further exploration on the grounds that oil and gas would take Norway further away from the deep eco-political path and instead towards the destructive forces of capitalism, economic growth, and exploitation of natural resources. More specifically, petroleum would cause carbon dioxide emissions, and "the so-called greenhouse effect" would lead to a dramatic rise in sea-level (Parr et al. 1974, 35; Benestad 1978). In April 1977 the chief pipeline in an oil platform called "Bravo" exploded, causing a week-long major oil spill. This put Brundtland under an unwanted spotlight with national and international media covering the evolving disaster on an hourly basis. To the Deep Ecologists — shouting "Bravo! Bravo!" — the oil spill was evidence of a failed policy of economic growth endorsed by a Minster of the Environment not worthy of her title.

The tensions between the Deep Ecologists and the government culminated with what became the most dramatic civil disobedience demonstration in post-war Norwegian history: the effort to save the Alta–Kautokeino waterway in the north of Norway from hydro-power development (Hjorthol 2006). After an application process that began in 1968, the Norwegian Parliament voted in 1978 in favor of the project, thanks to support from the Labor Party. As Minister of the Environment and subsequently as Prime Minister from February to October 1981, Brundtland had wholeheartedly defended the project. The Deep Ecologists were furious. "IS IT TIME FOR ANOTHER MARDØLA DEMONSTRATION?" they challengingly questioned (Kofoed 1978, 3). The issue at stake was not only saving a truly pristine environment, but also defending the civil rights of the indigenous Sami population who lived and worked in the landscape. To construct or not construct the dam was the question, which cast

the debate in a dichotomy that left little room for the political middle ground of the Labor Party. By the summer of 1979 demonstrators were in place blocking the construction site, where they stayed until the fall of 1981 when the largest police operation in the nation's history removed the strictly non-violent but very determined Deep Ecologists. These events occupied the country's environmental and social debates, often as front-page news. Yet for all the efforts of the demonstrators, the police operations put an effective end to the demonstrations. In 1982 the Supreme Court ruled the project lawful, and the Deep Ecologists reluctantly gave up the fight.

2 Labor party environmentalism

Although she was despised by the Deep Ecologists, it is important to understand why Brundtland was regarded as a committed environmentalist among her peers. The Labor Party was known for scientific and technocratic ways of handling issues regarding both humans and nature. Brundltand would continue the Party's technocratic tradition, even though she belonged to an emerging group of reformists within the Party expressing concerns about the social and environmental costs of economic growth.

One key mover among the Labor Party environmentalists was Eilif Dahl, a professor of botany who was inspired by the American ecologist Eugene P. Odum. Dahl was the first to introduce ecology as a research topic through his lectures at the Norwegian Agricultural College in 1963 (Dahl 1966). Throughout the 1960s he addressed environmental problems head-on from within the Labor Party, arguing that politicians and scientists alike were much too focused on producing "products to live on" instead of "a good environment to live in." (Dahl quoted in Anonymous 1968, 7).

Brundtland knew Dahl and his work well. She took her medical exams at the University of Oslo in 1963, and earned a Master of Public Health from Harvard University in 1965. In Norway she was known for fighting for women's right for abortion, a struggle that was particularly intense in debates leading up to the Norwegian Law of Self-Determination of 1975. Brundtland was socially in the midst of these events, which led her to view scientists and experts with some skepticism. In the abortion debate, she noted, "experts" were presenting a "mixture of facts and personal beliefs" in a way in which they "abused – knowingly or unknowingly their expert or scientific role in a political context." (Brundtland 1977). As a young feminist she was chosen to become Minister of the Environment. Her experience as a physician and as a supporter of women's right to choose framed the ways in which she engaged with natural scientists on environmental issues. "Politics is like preventive health care," she said (Brundtland quoted in Hansson and Teigene 1992, 38). She transferred decision making about a patient's body to the body politic. She saw herself as a former scientist able to read complicated scientific papers, yet she had been unable to finish her doctoral dissertation. Indeed, her sole academic publication was a historical study of medical records (Brundtland and Walløe 1976). She argued that right knowledge would lead to right action. She recognized that different scientific "specialists" could have competing explanations of reality, and it was therefore of key importance to find scientific "generalists" with the ability to "translate" and "mediate" clusters of relevant facts to politicians. The problem of "which expert one should listen to" was a matter of willingness to base decisions upon scientific uncertainty, which was normal in the medical treatment of patients (Brundtland 1977). It was based on this argument of risk that she would argue, from the rostrum of the Parliament in 1975, that the

environmental effect of resource exhaustion and pollution "would set finite limits to growth in the use of energy in the world" (Brundtland 1975, 4163).

This framing of the issue was a not so subtle reference to the *Limits to Growth* report for the Club of Rome. One of the authors of this report was the 27-year-old Norwegian solid-state physicist Jørgen Randers (Meadows et al. 1972). When he moved back to Oslo in 1974 after four remarkable years as a graduate student and subsequently as a professor at MIT, he became a key Labor Party environmentalist. Yet he received a cold reception upon his return and was denied academic jobs, as he was deemed a "shallow" technocrat by Deep Ecologists who were in control of hiring for environmental positions at the universities. In order to find an income he started the Resource Policy Group and made himself the Director. The Group's programmatic statement came in the report *A Quest for a Sustainable Society* which, incidentally, was an early appearance of the word "sustainable" in the title of a publication addressing environmental issues. Here Randers argued that "the major goal of the sustainable society is to deliver to the next generation a carrying capacity better than the one inherited from the past." (Randers 1975, 7).

It was these ideas about sustainability that Randers brought to Brundtland and the Labor Party, who secured him the financial backing to run his Resource Policy Group through funding from the Norwegian, Swedish, and Danish research councils. Brundtland saw herself as a leader of a larger movement fighting for social and environmental justice, and Randers became an important voice in deciding how to proceed.

3 The Brundtland commission

By 1982 Brundtland had won the battle but lost the war with the Deep Ecologists. The oil spill of 1977 still continued to haunt her, and as Prime Minister she pushed hard for developing hydro-power at the Alta River at the expense of losing her environmental credibility among voters. The new conservative government that replaced her in the fall of 1981 would gleefully acknowledge the importance of national parks and point out the failures of the callous technocratic planners within the Labor Party.

The opportunity to recast herself as a true environmentalist came when Brundtland was asked to chair the World Commission on Environment and Development in 1984. There is no need to review its history here as a recent historical study has covered much of the material (Borowy 2014; Bolin 2007). In her capacity as Chair she was able to mobilize the language of sustainability she got from Randers. Despite a decade filled with criticisms from the Deep Ecologists, it is important to note that she did share the same dream of a harmony within humankind, as well as between humans and the environment.

By the 1980s Randers' vision for a "sustainable society" also began to take on a life of its own. One early approach was the anthology *The Sustainable Society: Implications for Limited Growth* (Pirages 1977), and Lester Brown, the director of the Worldwatch Institute, introduced "the sustainable society" in a book to a larger audience in 1981 (Brown 1981). Around the same time, biologists began using the word "sustainabile" as a descriptive term for processes in nature (Carpenter 1981; Knorr 1983). Internal reports by the World Bank, the International Union for Protection of Nature, and the World Wildlife Fund also used it in the early 1980s, and in 1984 the term was used again as a subtitle on the *State of the World* report (Brown and Starke 1984). To achieve sustainability the world would need to practice development that "meets the needs of the present without compromising the ability of future generations to meet

their own needs," as the World Commission would define the term "sustainable development" in its final report (World Commission on Environment and Development 1987, 16).

The importance of global warming came to the forefront of Brundtland and the World Commission's attention in a written submission to its public hearing in Ottawa in 1986 by the climatologist Kenneth Hare at the University of Toronto (Hare 1986). What caught Brundtland's interest were not the catastrophic predicted consequences of climate change. Ecological doom was old news to her, as the Deep Ecologists for a decade had provided her with a stream of reports on the proximity of a civilizational collapse. What was intriguing, however, was the possibility of moving the environmental debate into a new scientific domain, and perhaps, in the process, creating a new global political regime that would speak to the patron of the Commission, the United Nations. Thus, their report, *Our Common Future,* spelled out the dangers of global warming by presenting the problem as one of the world's chief environmental challenges (World Commission on Environment and Development 1987, 11, 14, 16, 20, 33, 52, 106, 128, 146–149).

Brundtland received only half-hearted applause when she presented the report at home. The bitterness from Alta was still lingering among environmentalists during her second period as Prime Minister (1986–1989). That she would enjoy fame as an environmentalist abroad chairing the World Commission was understood among the Deep Ecologists as ironic, at best. The initial reactions to *Our Common Future* among eco-philosophers were therefore to ignore Brundtland's role and assume that the report was written by someone else. Kvaløy, for example, did not mention her in his review of it, in which he argued that the report supported his own theories about the inevitable ecological collapse of the industrial world (Kvaløy 1987). Brundtland, however, made it perfectly clear in the media that she, as Prime Minister, stood by the report, though few environmentalists took her seriously.

4 A sustainable climate

One of Brundtland's top priorities after the publication of *Our Common Future* in 1987 was to issue a white paper that would flatten criticisms at home that the Labor Party did not take the environment seriously. When sent for Parliamentary approval, Brundtland, as Prime Minister, put her full force behind it. She was determined to silence opponents and put both herself and the Labor Party on the environmental offensive before the 1989 election.

At the core of *Environment and Development*, as the white paper was entitled, was a vision of Norway as "a driving force" and a "pioneer country" for environmental change (Ministry of the Environment 1989, 8). Norway was to show the world the path towards a sustainable society. This was part of Brundtland's foreign policy agenda to establish "Norway as a humanitarian super power" in the world (State Secretary Jan Egeland quoted in Østerud 2006, 303). The white paper addressed key issues related to *Our Common Future*, such as the need to protect biodiversity, minimize acid rain, end ozone layer depletion, and protect the oceans, as well as the importance of public transportation and the need for financial support of developing countries. It also promised to reorganize and strengthen Norway's environmental agencies and, perhaps most exciting for the academic community, increase research funds.

Yet climate change was at the forefront of *Environment and Development*, labeled as "perhaps the most pressing environmental issue for the 1990s", and Brundtland was determined to do something about it. She asked the Parliament to approve a policy that would "reduce the CO_2 emissions so that they will be stabilized in the 1990s and in year 2000 at the

latest." Thereafter, the policy stated, the emissions were to "subside" (Ministry of the Environment 1989, 10). The opposition naturally ridiculed this ambition as unnecessary and unfounded in scientific facts, with the most vicious attacks coming from scholars on the political far left who claimed they were shocked by the "ignorance, bluff, and partly dishonest use of data" among climatologists (Rosenqvist 1989).

To counter such claims Brundtland initiated research programs and two new centers: Center for Development and the Environment (SUM), and a Center for International Climate Environmental Research, Oslo (CICERO). The task of these centers was to provide science to the politicians. They were to do their own research, as well as digest and summarize other research on how to realize the World Commission's vision for "sustainable development" in Norway and beyond. Though officially independent, Labor Party environmental politics would, in both subtle and not-so-subtle ways, frame research agendas at both centers. For example, a portrait of Brundtland hung prominently in the meeting area of SUM (and indeed is still hanging in its Director's office), and the hands-on Chairman of its Board, Hans Christian Bugge, was one of her acolytes. Back in 1977 he was one of the principal authors of the Norwegian Official Report that vindicated Brundtland from any responsibility for the Bravo oil-spill, despite claims to the contrary from the Deep Ecologists (Andersen et al. 1977).

Center for Development and the Environment (SUM) was not created from scratch, but instead took over and absorbed the Council for Nature and Environmental Studies that had been active at the University of Oslo since 1972. The Council had been the bulwark of Deep Ecology scholar activism. As longtime opponents of Brundtland and her environmental policies, its researchers found this reorganization challenging. Soon tensions and disagreements emerged with respect to action research and the role of ecology in envisioning a sustainable future. Should the Center question the deeper foundations of society or simply (as Brundtland thought) generate ecological facts to bring to the political table? Unable to find a clear answer, environmental research at the Center became marginalized by its Chairman through the end of the 1990's. During this period an aging Næss was the only scholar from the Council who stayed put in his office. To new scholars moving in he was a charming emblem of the past with a ring of fame around him that was suitable for generating public attention.

At the Center for International Climate Environmental Research the story was different (Anonymous 2000). Its first Chairman was Henrik Ager-Hansen. He had served as Vice-President of the all-dominating state-owned Norwegian oil company Statoil ("state oil") for 24 years, and had just stepped down in order to be the company's chief adviser on environmental policy. His role was to make sure that climate research at CICERO would not undermine the nation's booming petroleum industry. CICERO's first Director Ted Hanisch was a keen supporter of Brundtland, serving as her Parliamentary Secretary from 1986 to 1989. This close link to the Labor Party and Statoil was not accidental. The aim for CICERO was to envision a way forward for ambitious Norwegian climate politics to exist in harmony with oil and gas exploitation.

While these new research centers were in the process of establishing themselves, other large research programs began investigating climate change (Braathen 2000). The Norwegian Research Council for Sciences and the Humanities (NAVF) and the European Science Foundation (ESF) arranged a large conference to kick-start such research in Europe. It happened in the Norwegian city of Bergen in 1990 in lieu of the Regional Conference addressing the World Commission's *Our Common Future*. Most of the European environmental ministers attended this meeting in order to prepare for the forthcoming Earth Summit in Rio in 1992. Politically the conference was a failure, as the ministers attempted to take the bus

to their hotel in order to showcase public transportation, but were blocked by environmentalists (many of whom were Deep Ecologists). With the activists shouting "Bergen meeting! Talking and eating!" the ministers were stuck for more than an hour, after which they had to run the gauntlet among the activists in order to get to their meeting rooms. (The police did not intervene as they were settling scores with local politicians who had accused them of being too violent in an unrelated case).

Among the 138 scientists attending the conference it was paramount to show that they were not only "talking and eating" but actually contributing. The result was a thick anthology, produced with great speed, in which climate change was at the forefront. It included conclusions and recommendations for politicians preparing for the Earth Summit in Rio, stating that climate change was real, and that the way forward was in the domain of international law, as well as in using "cost effective" financial initiatives to curb emissions of greenhouse gasses (Anonymous 1990, 9).

All this was happening during the year that Brundtland's government was in opposition to the ruling conservatives. The Labor Party, however, regained power in the fall of 1990. For her third term as Prime Minister Brundtland appointed Thorbjørn Berntsen as the new Minister of the Environment. Known by friends and foes as "The Slugger", he was a man of action, and a clear sign that Brundtland was determined to reach her ambitious goal of stabilizing Norway's climate emissions by the millennium. Yet the prospect of curbing the emissions that had appeared feasible in 1989, looked overambitious by 1990. What had changed was the gradual realization that reducing emissions was not possible at the same time as dramatically increasing the nation's oil and gas production. How could one increase production and spur economic growth while also finding a way to reduce the emissions? Or, in the language of *Our Common Future*, how could one meet "the needs of the present without compromising the ability of future generations"?

Brundtland appointed the leader of the Labor Party's youth wing, Jens Stoltenberg, to be the Parliamentary Undersecretary at the Ministry of the Environment, and "The Slugger" delegated this difficult question to him. At the time Stoltenberg was 31 years old and working for Statistics Norway. He had, back in 1985, completed his *candidatus oeconomices* degree at the University of Oslo, which was a specially designed master degree for talented students of macroeconomics. While students at other departments would be required to study different fields, this economics degree stood out as its students were allowed to focus only on economics for 5 years. The Department of Economics, it is worth noting, was the very jewel of University of Oslo, with two former Nobel laureates and an intense research tradition. It is a department from which historically many of Norway's leading bureaucrats and politicians have emerged.

Despite their talents, the economists had, since the 1970s, hardly been a productive force with respect to environmental issues. With the Deep Ecologists framing the debate, economists were asked whether or not it was possible to put a monetary value on wilderness (it was not!), and were asked to find the path towards developing an alternative non-growth ecologically informed economy (Næss 1976, 116–175). These were large problems, to which the economists provided few answers. However, things changed with regards to climate research. There has been more of a tradition of mathematical modeling in climate research than in the life sciences, which may, perhaps, explain why the economists rose to the podium with mathematical solutions to climate change. In any case, Stoltenberg saw in global warming an opportunity to engage the technocratic and macroeconomic tradition of the Labor Party.

Historically the Department of Economics in Oslo has been decidedly leftist, with John Maynard Keynes as their protagonist and Milton Friedman as the antagonist. Stoltenberg was no exception. His thesis "Macroeconomic planning under uncertainty" was about developing

an optimal plan for the nation's oil revenue. The thesis is today widely accepted as the very architecture of what became the Government Pension Fund of Norway (known simply as the "oil fund"), which by 2011 evolved into the largest sovereign wealth fund in the world, holding more than 1 % of the global equity market (Stoltenberg 1985; Reinertsen 2009).

In 1990 Stoltenberg knew what was worth knowing about the past, present, and future of Norway's oil economy, and he was a keen proponent of exponential growth of its industry. He was also an outdoor enthusiast (an ardent hiker and cross country skier), and he did not take environmental issues and global warming lightly. Indeed, he would, as Norway's Prime Minister from 2005 to 2013, view global warming (next to poverty) as "the main challenge of our time" and he would restate Brundtland's vision that Norway, with regard to environmental policy, was to be a "pioneer country" for the world (Alstadheim 2010, 8, 13; Viksveen 2011). However, the question remained of how one could nurture Norway's oil and gas exploitation while at the same time curbing the world's greenhouse gas emissions. Stoltenberg brought the question to his former student friends and professors at the Department of Economics, while also getting input from Hanisch and his colleagues from CICERO. At the time a growing body of literature on environmental cost-benefit economics had emerged (Randalls 2011). Drawing on this and inspired by the US emissions trading system for sulphur dioxide quotas, Stoltenberg came to the conclusion that the most cost-effective way of reducing greenhouse gasses without having to curb oil production would be to introduce a similar system to the US sulphur dioxide quotas for greenhouse gasses in Europe, and perhaps the entire world. With plenty of money from the oil, Norway could then buy such quotas and thereby reach its millennium goal.

There was only one problem: they would first have to establish an emission market supported by an international regime. Thanks to the remarkable work by current historians there is now a viable account of what happened next (Nilsen 2001; Asdal 2011; Martiniussen 2013). In the years leading up to the Earth Summit in Rio, Norway engaged in an intense diplomatic campaign led by Stoltenberg's father, Torbjørn Stoltenberg, who was Brundtland's Minister of Foreign Affairs. In keeping with the division of labor between scientist and politicians that Brundtland had suggested (Sörlin 2011), the actual traveling was done by professional diplomats, mostly Stoltenberg's (Sr.) Deputy Secretary Kåre Bryn, who was assisted by Harald Dovland and Jostein Leiro. They met much resistance in European countries who argued that Norway should perhaps curb its own emissions instead of buying the achievement of others. The reception was not much better in newly industrialized countries such as India, Thailand, and Malaysia. When Brundtland, Berntsen and Stoltenberg (Jr.) traveled to Rio in 1992 to promote the idea, they too failed to convince the world about the virtue of carbon emission trading. The Rio delegates had widely diverse opinions about how to achieve sustainable development in reality, and could consequently only agree on the importance of biodiversity. Yet the meeting was not an entire failure with regards to climate change and carbon emissions, as it established the United Nations Framework Convention on Climate Change (UNFCCC). Back in Oslo the Norwegian diplomats concluded that they would have to show that Norway would be willing to cut some of its emissions at home while at the same time mustering support from the developing world for the carbon quotas.

At home in Norway carbon capture and storage technologies (CCS) became the designated approach to achieve the millennium goal. The basic idea was to replace oil with carbon dioxide when producing oil in the North Sea, and there was a government tax in place to act as a financial incentive to target such emissions from the petroleum industry. Stoltenberg argued that if Norway was able to capture and store greenhouse gasses deep in the continental shelf, it

should count towards climate gas reduction. In 1996 Statoil's Sleipner platform became the world's first offshore CCS plant to inject carbon dioxide into the oil reservoirs (though the platform would still be one of the single largest climate gas polluters in Norway). Finding technological solutions to social problems was very much in the Labor Party tradition, and CCS became the Party's most ambitious anti-global warming initiative at home. In his New Year's speech in 2007 Stoltenberg announced to the nation that Norway's equivalent "moon-landing" would be to develop CCS technologies for its petroleum industry (Alstadheim 2010, 80). The attempt failed financially, however, and then backfired on a Prime Minister who soon faced criticisms for his state-driven innovation policies along with numerous "moon-landing" jokes.

On the international scene Norway tried to muster votes from the developing world in order to get acceptance for emission trading before the scheduled meeting in Kyoto in 1997. After Rio, Norwegian diplomats spent a large amount of time trying to convince the leaders of the world's poorest nations of the virtues of carbon emissions trading. What they suggested was a system in which a rich country would pay for a carbon clean development initiative in a poor country and then get credit for it in their carbon account at home. For example, if Norway installed solar cells in sunny Burkina Faso they could get carbon emissions credit for the project in Norway. This would benefit both rich countries and poor countries in different ways and create a state of interdependence and mutualism. To prove their sincerity, Norway actually did install such cells and got Burkina Faso's vote in Kyoto in return. Between 1992 and 1997 Norway did numerous projects like these in the developing world, mustering support for what would eventually be called Clean Development Mechanisms or CDMs.

CDMs also meant increased business in Norway, as one of the nation's more obscure industries is certification provided by Det Norske Veritas (DNV), which is one of the three large classification companies in the world (the others being Lloyd's Register and the American Bureau of Shipping). With more than ten thousand employees DNV is a voice to be reckoned with in a small nation. For them the Clean Development Mechanisms meant big money and more jobs, as every CDM project had to meticulously researched and certified. Stoltenberg visited the DNV headquarters and promised jobs, and even appeared in their intramural news bulletin. He would later take pride in having helped DNV to become the largest CDM certifier in the world (Alstadheim 2010; Paulsen et al. 2014).

By 1997 Norway had secured votes from developing nations with the help of CDM test projects, and Norwegian diplomats arrived in Kyoto, confident of the outcome. In United Nations international agreements every vote is equal, whether you represent the United States or Antigua, Belize, and Guyana (the last three being allies of Norway). As a result, in Kyoto, many countries committed to reducing greenhouse gas emissions. They could do so in three different ways: at home, by trading carbon dioxide equivalent quotas (TEQs), and by buying clean development mechanisms certificates (CDMs).

Soon the European Union established a market for emission trading, and the certification industry began issuing purchasable CDM certificates based on projects mostly located in the developing world. Despite being a significant buyer in these new markets, Norway never met its millennium goal from 1989 as its greenhouse gas emissions increased. The income from exports of petroleum never came close to the expense of importing CDMs, of course, but the financial cost of these tradable emission quotas was nevertheless significant over the years (Karlsen 2014). Yet to understand this endeavor only in terms of economic efficiency would be to miss the point. What was important to the Labor Party environmentalists was to showcase Norway as a virtuous "pioneer country", both to its

own citizens and to the world. Promoting "sustainable development" was, as this paper has indicated, a way of reforming the Labor Party's technocratic tradition in order to be viewed in a more environmentally friendly light. And the ultimate contradiction was that it was all paid for by the production of the very cause of global warming — petroleum.

5 Coda: Paris 2015

Current affairs are not a product of history, though the above discussion may shed light on what happened next, both in Norway and at the Climate Change Conference in Paris in 2015. The Labor Party was replaced by a new conservative government in 2013. After that Stoltenberg continued to promote carbon capture and storage technologies (CCS), along with tradable energy quotas (TEQs) and clean development mechanisms (CDMs) in his capacity as a United Nations special envoy on climate change and chair of the High-Level Advisory Group on Climate Change Financing from 2013 until March 2014. Though his tenure was short, his technocratic and macroeconomic approach laid the ground for the direction of the Paris negotiations. In his more recent capacity as Secretary General of NATO he has put the damaging effect of carbon emissions on the agenda when evaluating military operations and he sees climate change as one of many factors that may lead to future warfare.

With the introduction of the new conservative government that replaced Stoltenberg in 2013 there has been a renewed climate debate in Norway. The high-middle ground of the Labor Party's climate politics described in this paper has been called into question by conservatives and environmental activists alike. The conservatives are skeptical of the state being involved in new inventions, finance, and the ownership of carbon capture and storage technologies (CCS), and they are questioning the purchase of the very hallmark of Stoltenberg's climate policy, clean development mechanisms (CDMs). On the other hand, the conservatives have taken activists by surprise by embracing the climate politics of the European Union. Norway will be the Union's pioneer country, the conservatives now argue, by cutting its emissions at home and through Europe's emission trading systems by as much as 40 % by 2030. At the same time many activists have lost faith in market mechanisms such as tradable energy quotas (TEQs). Instead, they have found inspiration in groups like 350.org, who pitch capitalism versus climate and demand full divestment from fossil fuels (Kelin 2014). These activists argue that Norway should drastically cut emissions at home, divest from its fossil fuel industry, stop giving licenses for oil and gas explorations, and embrace carbon clean renewable energy. They were recently successful in their divest campaign with the Parliament voting in favor of a $8 billion divestment of its Pension Fund from coal mining companies. The outcome was chiefly due to 350.org's campaign. In Paris Norway was among the countries pushing for a strong climate change deal. The conservatives wanted the best of both worlds: to maintain Norway's image of being the world's environmental "pioneer country" while at the same time boosting the petroleum industry.

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