**Qualitative Comparison Table – within case: Norway**

| **Dimension** | **Corpus Analysis (mass media)** | **Interviews** | **Field Notes** | **Internet Ethnography (netnography)** | **Document Analysis** | **Key points of comparison** |
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| Direct contact:  Conflict over oil exploration & extraction re: tourism | - Oil comes up primarily in relation to economy topics, but also in relation to community development and fisheries. Tourism is generally marginal to network. | - Recurrent theme, invoked in 5 interviews with government, NGO and tourism participants, is that oil harms image as a tourism destination. This theme often connects with talk about offshore oil & ecological risk, Lofoten as a UNESCO site, and oil-fisheries co-existence. Sentiment analysis suggests language is mostly negative/critical in this context. This also connects to the notion of tourism (along with fisheries) as part of the rationale for maintaining closed areas (i.e. Lofoten). | - There is only one reference to notion of oil potentially ruining area as tourism destination, conversation with Berit about her research findings with tourists, where this is more espoused by middle-aged tourists, whereas older tourists see risks of oil more in terms of potential fisheries impacts. | - Recurrent theme across 5 sites, mostly ENGO focuses on oil and tourism as incompatible development paths, in terms of environmental risks of oil for tourism & fisheries economy, with tourism and fisheries positioned as more sustainable employment & development pathways for coastal communities. Particularly in reference to the expansion of oil frontiers in Lofoten. | - The main conflicts over oil development focus on prospective new development that would extend oil frontiers into either LoVeSe (Lofoten) or the Arctic, though this is less explicitly about conflict with tourism than about protecting “unspoiled nature,” ecologically sensitive areas, and potential impacts on fisheries. Implicitly, though, Lofoten also comes up as a key nature-based tourism hub, so the protection of “unspoiled nature” is also – at least implicitly – about protecting the basis of tourism development | - Mostly, the two development pathways co-exist, but become contentious around expansions of new oil frontiers, particularly around Loften (LoVeSe) and the Arctic. Oil-fisheries conflict is more visible and significant, but both fisheries and tourism economies are seen as relatively more sustainable development pathways put at risk by oil development. |
| Direct contact:  Threat of oil extraction as “envirotisement” for tourism – increasing tourism as strategy for opposition to oil | - Not present. | - Not present. | - Not present. | - Not present. | -N/A | - Not present. |
| Direct contact:  Oil as a tourism attractor | - The only topic that includes more of a tourism focus (hotel, boat, sea …) also includes oil as a keyword, and this topic is well connected to the others on oil, economy, business. Not sure this coheres into anything though. | Not really present – only one government participant notes this. | - Coding for oil is a tourism attractor comes up quite a bit (24 references), and is often connected to oil as a source of pride for host communities, oil and tourism as complementary development paths, the positive social-economic impacts of oil, oil as a field of technological innovation, and coastal environments as sites of oil extraction. Interestingly, though, oil tourism narratives are not only boosterish, but there is also material that focuses on oil’s contribution to climate change and its environmental costs (i.e. at the Stavanger Petroleum Museum).  - This comes up primarily in relation to museums, aquarium, other tourist sites that present oil as part of the tourism narrative, often connected to envisioning the coast as site of oil extraction (visualized through ships and rigs at sea, with coastal backdrop), linked to notions of oil as a source of pride for host communities, positive impacts of oil – primarily in economic terms. The archetypal site is the Stavanger oil museum, but also shows up elsewhere.  - Oil sustainability discourse often comes up in the context of oil as a tourism attractor, linked to oil sector responding to climate change. | - The Norwegian Petroleum Museum comes up as a key “bridging tie” that is linked to both tourism-oriented and oil sector websites. The museum serves as the major hub of oil-oriented tourism, conveying historical narratives about the importance of the oil sector to Norway’s economy, culture, etc…., as well as providing some space for environmental reflexivity re: climate change. | -N/A | - Oil as a tourism attractor comes up primarily in relation to the Petroleum Museum in Stavanger (but also at other tourist sites, i.e. aquariums, maritime museums), the main site that is a bridging tie across oil and tourism that enacts tourist-oriented narratives about the social, economic, historical and cultural importance of oil for Norwegian society. Notably, the Petroleum Museum in not only boosterish, but offers some space for environmental reflexivity around climate change. |
| Direct contact:  Oil money supports tourism development | - Not present. | - Not present. | - Not present. | - Norwegian Petroleum museum is supported by various oil sector companies. | -N/A | - This is peripheral, and is most obvious at the Petroleum Museum, the main connector across oil and tourism. |
| Indirect contact:  tourism is carbon intensive | - Not present. | - Four participants talk about environmental drawbacks of tourism in relation to carbon footprint and climate change contributions, pointing specifically to aeromobility, automobility, cruise ships. This also overlaps with talk about tourism responses to climate change via technological innovation to decrease its carbon footprint.  - Cruise ship tourism is one of most frequently discussed modes of interaction with coastal environments, framed both positively and negatively (in terms of sentiment analysis) by participants. Negative sentiment largely focuses on environmental drawbacks and tourism contributions to climate change due to carbon intensity of aquamobility.  - talk about aquamobility often focuses on environmental impact (carbon intensity, pollution) and is viewed critically, though talk about aquamobility also talks about initiatives to improve environmental performance i.e. electrification. | - Automobility comes up repeatedly in field notes - car use, tour buses, RVs, parking lots – as key part of tourism experience and landscape, but not usually problematized in terms of environmental footprint or climate change. Rather linked, to coding for coastal landscapes, mountain landscapes, authenticity of rural communities, photography as tourist practice.  -The other main place automobility comes up repeatedly is in ONS field notes, where focus is on decarbonisation/electrification of car transportation, moving into the future – but framed around automobility in general, not tourism specifically.  - Aquamobility also comes up in relation to boat tours, ferries, cruise ships, but also mostly not in ways that are problematized or critically reflected on in terms of carbon intensity of tourism.  - Bergen fieldwork has a significant focus on cruise ships, cruise tourism as major tourism flow and Bergen as a tourism hub. Not really problematized in terms of carbon intensity, despite Bergen self-image as a nature (fjords, mountains, hiking) and historical tourism space. | - In terms of mobilities, aquamobility comes up most often, mostly on tourism (but also on oil) sites. With regard to tourism, this is often linked to cruise ships and material on tourism responding to climate change, and tourism sustainability discourse.  - Aeromobility doesn’t come up much. It is raised in the VisitNorway site in an unproblematized way in terms of flight routing & trip planning. One ENGO raises aeromobility as a problem as part of its material on individual-level behaviour changes for sustainability.  - While not a dominant theme, 5 sites (ENGO and tourism oriented) address the role of tourism in responding to climate change, primarily through energy efficiencies and the electrification of transportation (particularly around aquamobility, cruise ships).  - In terms of touristic modes of interaction with environment, coding for cruise ships is cross-linked with coding for tourism contributions to climate change.  - Environmental drawbacks of tourism are raised on 6 sites, mostly ENGO, often linked to cruise ships, and tourism contributions to climate change. | -N/A | - Across data, we see the intimate connections between tourism and carbon-intensive forms of mobility – especially around cruise ships, boat tours, etc.. (aquamobility), but also airplane and car use. This is often presented unproblematiclly.  - However, there is also some critical reflection on carbon intensity and impact of transportation related to tourism as an environmental drawback.  - There is also material focusing on attempts to lower the carbon footprint of tourism transportation through technological innovation as a way that the tourism sector can contribute to dealing with climate change. |
| Indirect contact:  tourism environments impacted by climate change | - Climate change is largely invisible from the network. | - Not present. | - Not present. | - 7 sites, across government, ENGOs and tourism orgs, talk about risks and impacts of climate change. This is generally broader than tourism per se, but negative impacts on tourism are addressed, i.e. changing weather patterns that will negatively impact boat tours, hiking, etc… and is seen as a challenge for the tourism industry. Much of the focus on risks and impacts from ENGOs also focuses on changing Arctic ecologies.  - In coding for modes of interaction with nature, coding for hiking and boat tours is sometimes linked to talk about risks and impacts of climate change for tourism landscapes. | - Key climate change impacts include sea level rise, increasingly extreme weather events, and disproportionate changes (i.e. temperature changes) in the Norwegian Arctic. Norway’s current climate is highly dependent on ocean currents, and as/if these shift (as noted in the notes on Denmark & Iceland), Norway could face significant environmental change. Also, there are potentially significant changes to fisheries in terms of species constitution and distribution, which has potentially significant social-ecological impacts for fisheries-based communities, such as Lofoten, which is also a key nature-based tourism site and site of contention around oil prospectivity and development. | - This comes out most in the website and document data, where negative impacts of climate change on coastal communities (sea level rise, extreme weather events) and Arctic ecologies are addressed. This is often framed in broader terms than specifically oriented around tourism per se. Through there is some talk about how climate change may impact things like hiking and boat tours. |
| Indirect contact:  oil infrastructure supports tourism | - The only topic that includes more of a tourism focus (hotel, boat, sea …) also includes oil as a keyword, and this topic is well connected to the others on oil, economy, business. Not sure this coheres into anything though. | - Not present. | - Not present. | - Not present. | -N/A | - Not present. |
| Culture:  Mediated discourses of coastal communities & environments as spaces for nature-based tourism & oil extraction | - The main topic that focuses on coastal communities and environments links to history, fisheries, and oil, only really tangentially to tourism. Oil and fisheries are more the focus. This topic is also very strongly linked to topics on: economy, government, downturn; and oil, economy, business. | - Discourse focusing on the value of the coast/seascape as a tourism attractor also comes up frequently (6 participants), often inter-linked with talk about the mountain landscape, whales, seabirds, and hiking. This is also often linked to talk about tourism governance and challenges of managing local impacts of nature-based tourism.  - The mountain landscape also comes up recurrently, and is talked about in relation to the coastal environment (above), hiking, surfing, as tourism attractors, also linked to the environmental drawbacks of tourism in terms of managing local environmental impacts.  - Relatedly, “being close to nature” comes up for several participants (government and NGO) as a key attractor for tourists coming to Norway, often framed in terms of hiking, coastal environments, mountains and fjords. This is also framed as characteristic of Norway and Norwegianness. In a couple times, this also relates to challenges for host communities in terms of overuse and potential damage to local environments.  - hiking also comes up recurrently as a mode of interaction with the environment. Often in positive terms (re: sentiment analysis) and as a key tourism attractor, but also in relation to environmental drawbacks of tourism and challenges of tourism for host communities (particularly around local environment issues of trail erosion, garbage and human waste from lack of facilities), and the need to develop rules of conduct for tourists, and to improve tourism governance to mitigate environmental damage from hiking.  - Facebook is invoked by a couple interviewees (from government) as a media forum that structures tourism mobility through the circulation of tourism photography – a “selfie effect” shaping engagement with tourism environments.  - Artic nature comes up with four participants in talking about 1) the tension with Artic oil frontiers, with tourism positioned as a sustainable alternative to oil, 2) environmental limitations to nature tourism, in terms of damage and risks to Arctic nature. | - There is a recurrent focus on the value of the coast/seascape as a tourism attractor (58 coding references), which often intersects with coding for fjords and mountain landscapes as tourism attractors. This is also often linked with hiking, photography as tourism practice, and history as a tourism attractor.  - Relatedly, coding for fjords is often connected with cruise ships, boat tours, hiking, and photography. Coding for mountain landscapes often connects with hiking, photography, and also with arts & culture as tourism attractor (i.e. mountain landscapes featuring prominently as art in gallery depictions of Norway).  - In terms of modes of interaction, boat tours and hiking both come up recurrently (with hiking being the most frequent). Coding these often links to the coastline/seascape as an attractor, fjords, and photography as tourist practice. Similarly, coding for cruise ships links to coastlines/seascapes and mountain landscapes as focal points, and photography as tourist practice.  - Relatedly, the main media & communication coding category here is on photography as a tourist practice, which bundles with hiking and boat tours (as modes of interaction), and seascapes/coastlines and mountain landscapes as focal points of tourist attention.  - History as a tourism attractor comes up repeatedly in field notes, with museums and historic sites as key tourism nodes/attractors. The Viking history of the region is particularly recurrent motif. This is also related to the notion of Norway is the sea, focus on coastal environments and seascapes, and Arctic nature (particularly in Lofoten).  - Similarly, History as a tourism attractor is also a key thematic in Bergen, linked to Vikings, coasts as site of fisheries, arts, craft & culture, fjords and boat tours as the key characteristics at this site.  - In terms of animals, most recurrent in field notes is salmon, based on cluster of iconography of salmon, Vikings, fjords. Relatedly, salmon are also talked about in relation to cod, marine life, and the ecological value of coastal areas. Moose also come up repeatedly as an animal icon (most obviously in the Bergen fieldnotes).  - Arctic nature also comes up in field notes, mostly as a tourism attractor, which is often linked to history as a tourism attractor, northern lights, and cruise ships.  - The coastal environment also comes up repeatedly as a site of oil extraction (41 coding references), often in the context of either the ONS conference in Stavanger, or in tourist sites that include oil narratives. This is typically visualized through oil rigs or supply/drilling ships at sea, with seascape serving as backdrop. This theme often connects with oil as a source of pride for host communities, the oil sector as a field of technological innovation, positive impacts of oil for host communities, and Statoil as a key actor.  - Though less frequent, there is also quite a bit of visibility for material on coastal environments as sites of oil prospectivity (19 coding references) and of Arctic oil frontiers (14 coding references), often within the context of ONS, also often linked to Statoil, oil as source of pride for host communities, sustainability discourse (particularly around prospectivity), and northern lights (particularly invoked/used in envisioning Arctic oil frontiers).  - In terms of network power/categories of social power, in field notes related to tourism the most notable observations seem to be around race & ethnicity, with the tourism field generally as a site of normalized whiteness, though there is also a fairly visible presence of Chinese visitors and groups in material on hiking, boat tours.  - In terms of the oil field (i.e. at ONS), there is also a sense of normalized Whiteness and masculinity (though noting that the field appears more gender balanced than NOIA/NL), and also of class boundaries – particularly professional/managerial class, often enacted through fashion (business formal, business casual). That said, the network of booths are also more internationally diverse, in terms of global region, than in NOIA/NL, positioning Norwegian coastal environments as oil sites as more globally connected. | - Arctic nature comes up in 8 sites (ENGO and tourism) in a couple different ways: a) in terms of climate change risks & impacts, and relatedly contestation over opening Arctic oil frontiers and environmental risks of oil development; b) in relation to tourism as a space for environmental education.  -Coastlines and seascapes as the focal point also comes up quite often (7 sites, across tourism and ENGOs), often linked to the ecological risks of oil development and notions of nature as fragile and vulnerable.  - In terms of the tourism landscape, fjords and mountains also come up repeatedly, in both ENGO and tourism sites, and are linked to coding for hiking and boat tours.  - Relatedly, wilderness framings are also invoked across several (6) sites, mostly ENGO and tourism.  - Conversely, the notion of coastal environments as harsh, risky environments is often invoked in oil sector websites and linked to framing coastal environments as spaces of oil prospectivity and extraction.  - Across 9 sites (mostly ENGO, but also tourism and oil) coastal environments are defined as spaces of fish/marine life (which is potentially in conflict with oil development).  - Primarily across ENGO sites, seabirds also come up as key features of coastal environments..  - Whales also come up, though to a lesser extent, among ENGO and tourism sites as key features of coastal environments, sometimes linked to hiking and boat tours as modes of interaction with coastal environments.  - In terms of touristic modes of interaction with nature, the main things that come up are: boat tours (tourism sites, linked with fjords, hiking, also some connection to talk about risks and impacts of climate change); cruise ships (mostly tourism sites, also ENGO, linked to fjords, tourism contributes to climate change, electrification of vehicles, tourism sustainability discourse); hiking (mostly tourism sites, also ENGO, linked with boat tours, sport fishing, mountain landscapes, fjords, also sometimes risks & impacts of climate change); and sport fishing (tourism sites only, linked with hiking, boat tours, hunting, cruise ships).  - In terms of coding for oil and coastal environments, the most prominent theme are coasts as sites of oil extraction (18 sites, across government, oil, and a couple ENGO), which is linked to notions of positive impacts of oil for host communities and oil as an important part of history and culture. Coasts as sites of oil prospectivity also come up on 9 sites (mostly oil sector), also linked to positive impacts of oil for host communities, as well as oil as a field of technological innovation.  - In terms of markers of social power, the recurrent motifs on the websites seems to be middle-aged (age), normalized Whiteness (race & ethnicity), often predominantly male (gender), with class largely visualized through industrial workers and workwear (in terms of fashion as marker of class – this more relevant for the oil sites). | - Overall, tourism seems less of a focus than oil extraction as a development pathway for coastal communities & environments. However, Lofoten comes up as a particularly important nature-oriented tourism destination.  - In the Norwegian Arctic, Sami Indigenous tourism also comes up as an emerging focus.  - Coastal environments are valued as sites of oil extraction, particularly in the Norwegian Sea, and increasingly in the Barents sea. However, new oil frontiers and areas of prospectivity (i.e. LoVeSe, the Arctic) are contested and oil prospectivity in new regions is the source of greater contention. | - Most of the focus is on coastal environments as spaces for oil extraction and oil prospectivity, which are valued and seen as economically and socially significant.  - The notion of coastal environments as sites of oil development is disturbed through particular conflicts over the expansion of oil frontiers into Lofoten and the Arctic, where this comes into conflict with tourism and fisheries economies (Lofoten) or impinges on unique, vulnerable ecologies (Arctic).  - Representations of coastal environments as tourism landscapes focus on mountains, fjords, wildlife (whales, seabirds), and hiking, boat tours, and cruise ships as major modes of interaction. History (i.e. Vikings) is also a key tourism attractor that comes up.  - Representations of Arctic environments are particularly notable, and appear in a range of ways: as sites of climate change impacts, environmental education (via tourism), as sites of emerging Indigenous tourism, and as sites of oil prospectivity and potential exploration, as well as conflict around this. |
| Culture:  Discourses of positive & negative social-environmental impacts of tourism development | - Not present. | - Almost all participants, across government and NGO participants, talk about the positive impacts of tourism for host communities, which are often talked about in terms of employment in smaller, more rural communities. This intersects with talk about sustainability and tourism, with the potential for tourism-fisheries synergies, rural communities, and the possibility for tourism to work as an avenue for environmental education.  - Interview talk frequently frames tourism as a sustainable development pathway “if managed correctly” in terms of governance, rules of behaviour, not necessarily inherently sustainable, but requiring appropriate governance to ensure sustainability. This also often connects to talk about tourism as a site of environmental education (which is further connected with the notion of tourism-fisheries synergy as modes of development), as well as the references to the positive impacts of tourism for host communities, with generally positive sentiment.  - Talk about challenges of tourism for host communities (which is also often connected to an overall positive view of tourism) mostly focus on perceptions of overcrowding and local environmental impacts (waste, trail erosion), i.e. linked to hiking and camping. This also intersects with talk about the need to develop tourism governance, or better rules of conduct for tourists. This talk about tourism governance and challenges mostly comes from our government interviews.  - Automobility also comes up for four participants mostly in a critical/negative way, as part of a cluster of negative impacts due to overcrowding, and part of the suite of issues that need to be resolved through developing better tourism governance. | - In the field notes, there is more coding for environmental drawbacks of tourism than for tourism as sustainable. This is mostly focused on localized environmental issues, including the issues raised in interviews: garbage, human waste, trail erosion, often linked to hiking as a mode of interaction with the environment. All of the references to environmental drawbacks is from the Lofoten fieldwork, and is often cross-referenced to challenges of tourism development for host communities.  - Among the social-economic thematic categories, the most prevalent is material on the challenges of tourism for host communities (13 references), which is often linked to environmental drawbacks of tourism (local impacts like waste, garbage, hiking trail erosion, overcrowding). There are also a few repeated references to rental housing and Air BnB issues. | - Positive impacts of tourism come up across 7 sites, including tourism, ENGO, and government sites (i.e. Research Council of Norway), most often defined through positive economic impacts and benefits for local communities (i.e. providing amenities and improving wellbeing more generally in host communities). At a couple points this is also linked to tourism-fisheries synergies.  - Tourism sector sustainability discourse comes up across 7 sites (including tourism sector and ENGO), cross-coded with corporate environmental responsibility, tourism’s role in responding to climate change, and electrification of vehicles.  - Environmental drawbacks of tourism are raised on 6 sites, mostly ENGO. This is most often linked to cruise ships, tourism contributions to climate change, and impacts on Arctic nature.  - There isn’t a lot on specific parks and protected areas, though a couple interesting more peripheral themes. Svalbard is brought up a couple times as a key tourist destination and site for protected areas, as an especially sensitive landscape that needs particular intervention (i.e. protected areas) for ensuring sustainable tourism. A few ENGOs also bring up the need to ensure the protection of natural areas – there is a particular instance (Naturvernforbundet) where this comes u in relation to conflict over renewable energy development, where tourism is seen to legitimate nature preservation. | - Lofoten comes up as a key nature-based tourism hub (as well as site of oil development controversy). There are a large number of tourism companies in the area, and tourism brings significant economic benefits. However, there are also indicators of the problems of tourism for Lofoten, including overcrowding of tourism sites and road infrastructure.  - There is also an emphasis on emerging Sami Indigenous tourism, framed in the language of Community-Based Tourism, with a high degree of community control and benefits-sharing. This is linked to enacting traditional Sami culture and practices. Conversely, as an emerging tourism region, there are challenges with creating the necessary infrastructure. | - In general, tourism is viewed positively in terms of social-ecological impacts, especially as an economic driver for more rural and remote communities, i.e. in Lofoten, or with emerging Sami community-based tourism development.  - At the same time, there is quite a bit of reflexivity demonstrated about the limitations and negative impacts of tourism. For the most part, this deals with local impacts of overcrowding of tourism spaces, travel routes, localized waste management issues, or the expansion of Air BnB that risks displacing rental housing. The solution is viewed as better tourism governance, not a retreat from tourism development. In other words, tourism is sustainable “if managed correctly.”  - There is also some more critical reflection linked to cruise ship tourism, in particular, around carbon intensity and contributions to climate change, as impacts on Arctic nature (for example, for sites like Svalbard). Here, we see attention to both the localized and extra-local environmental drawbacks of tourism. |
| Culture: Discourses of positive & negative social-environmental impacts of oil extraction | - Oil is integrated throughout the main topics, including: oil, economy, business; economy downturn, government; and history, community, fisheries, oil, and tourism (?). This network supports notion that oil is very dominant in terms of driving economic and social wellbeing. | - The positive social-economic impacts of oil are invoked by both government and NGO participants, pointing to the central role as oil as an economic driver for Norway. The benefits are primarily economic – employment and government revenues, which help support the quality of life and government services enjoyed by Norway. A couple participants link this to the corollary notion of dependency on oil and vulnerability during downturns, but the overall positive (and dominant) impact of oil for the Norwegian economy seems to be broadly acknowledged.  - Among culture & collective identity coding categories, most prevalent is “Norway is a global leader in energy innovation,” invoked in 7 interviews, across government & NGO participants. Though, in terms of sentiment, this is expressed in both positive (supportive) and negative (critical) ways.  -- Similarly, the notion that oil is an important part of history & culture comes up, invoked in 4 interviews, with sentiment that is both positive (supportive) and negative (critical). This theme overlaps with discourse of oil as source of ecological risk, but also with discourse of Norway as a global leader in energy innovation, and oil industry sustainability discourse.  - There is also talk by gov’t and other participants (5) about oil industry responding to climate change, in terms of carbon capture and storage, technological innovation, supporting renewable energy transitions, invoking sustainability discourse and notion that NWY sector is cleaner than elsewhere in the world.  - Relatedly, there is a quite a bit of talk about oil and sustainability, which takes two main forms: 1) positive sentiment: the Norwegian oil sector as more sustainable, more responsible in terms of responding to climate change, cleaner than elsewhere, more engaged in technological innovation, which positions NWY oil as relatively sustainable in a global context; 2) negative sentiment: invoking these positive narratives of Norway oil sustainability in order to challenge them, critique them.  - Two highly-overlapping themes are most common on ecological dimensions of oil: offshore oil creates environmental risk (which often intersects with Arctic oil frontiers, fisheries and ecological values of coastal areas); and oil-fisheries co-existence (which often intersects with cod, ecological risk, ecological values of coastal areas). Here, we see oil risk framed more in terms of fisheries health than tourism.  - Most discussed animals are cod and other fish/marine life, often in discussion about the ecological value of coastal areas, the possibility for oil-fisheries co-existence and oil as a source of risk (by both government & NGO participants). Risk of oil extraction to fisheries seems to be emphasized more than risks to tourism. | - The positive social-economic impacts of oil is a recurring theme (29 coding references), often connected to the notion that oil drives economic development. Doing keyword analysis of this coding, this is often framed in economic terms (employment, government revenues). This is also connected to the notion that oil is a source of pride for host communities, and oil and tourism as complementary. Statoil is also repeatedly mentioned in this context.  - The notion of oil as an important part of history and culture isn’t among the most prevalent themes, but does come up repeatedly (10 coding references), mostly in the Stavanger field notes, but also extensively in one of the Lofoten interviews. In the field notes, this mostly intersects with themes that Norway is a global leader in energy innovation, the positive socio-economic impacts of oil for host communities, and the coast as site of oil extraction.  - Similarly, the related theme that “Norway is a global leader in energy innovation” comes up 7 times in the field notes – so is not a major recurring theme – in both Lofoten and Stavanger, connecting with themes that oil is an important part of history, and coastal environments as sites of oil extraction. Sentiment is largely positive.  - Relatedly, one of the main social-economic recurring themes is that oil is a field of technological innovation (66 coding refs), which is often connected to material on renewable energy transition, coastal environments as sites of oil extraction, and coastal environments as harsh, risky environments.  - The notion that oil contributes to climate change comes up repeatedly across different sites (13 coding references). This is sometimes (as at the Stavanger oil museum) framed as the dilemma of oil – that it makes positive social-economic contributions but has ecological costs. The notion that oil contributes to climate change often intersects with the (much more prevalent – 30 coding references) theme that the oil sector has a role to play in addressing climate change, often framed through carbon capture and storage, technological innovation, and the renewable energy transition. i.e. technological optimism and re-envisioning the oil sector more broadly as an “energy sector.”  - Relatedly, sustainability discourse comes up repeatedly in relation to the oil sector (33 references), mostly in contexts of ONS and tourism sites that include oil narratives. Sustainability discourse is linked to oil sector responses to climate change, oil as a source of pride for host communities, and Statoil as a key actor.  -In terms of social futures, the main focus is on renewable energy transition, which comes up in 82 references, mostly from fieldwork in Stavanger (i.e. ONS). This is often linked to coding for oil role in responding to climate change, oil and renewables co-existence, and oil & climate cosmopolitanism (i.e. taking a global view, oil is still essential in decades to come to ensure development of less developed countries and regions of the world, so is a key part of the `global energy mix` even as we move towards the renewable energy transition). | - By far the dominant theme in oil social-economic networks is the positive impacts of oil for host communities, appearing in 20 sites, mostly across oil sector, and government, but also tourism (i.e. Petroleum Museum) and ENGO sites (though in these cases, positive impacts are often acknowledged alongside critique). Positive impacts are predominantly framed in economic and employment terms.  - The other main theme related to social-economic networks is that the oil sector is a field/driver of technological innovation, appearing across 12 sites (all oil sector or government), and also linked to positive impacts of oil for host communities, as well as oil sector’s role responding to climate change (via technological innovation), and notions of Norway as a global leader in energy innovation.  - Recurrent themes focus on corporate environmental responsibility (13 sites, mostly oil sector), but also some coding related more to tourism sector and oil sector sustainability discourse (13 sites, mostly oil sector, some government as well), both of which are often connected to oil sector responses to climate change.  - The ecological risks of oil come up across 14 sites. This includes several ENGOs, where this is used in a more critical way and often linked to oil contributes to climate change, and is also linked to contestation over Arctic oil frontiers/Arctic Nature by ENGOs. But in many instances this is also invoked by oil companies acknowledging the environmental risks of oil operations and coupled with the notion that oil risk mitigation is well done.  - The three main themes related to culture & identity all focus on oil and portray it in a positive light as part of Norwegian culture and collective identity. The notion that Norway is a global leader in energy innovation appears across 9 sites (government and oil sector), linked with the role of oil in responding to climate change via technological innovation, the positive social-economic impacts of oil for host communities, and the oil sector as a site of technological innovation.  - The theme that oil is an important part of history and culture comes up across 10 sites (mostly oil sector, but also government and a couple tourism sites as well, particularly the Norwegian Petroleum Museum), linked with oil as a tourism attractor, coastal environments as spaces of oil extraction, and positive impacts of oil for host communities.  - The notion of oil as a source of pride for host communities comes up across 7 sites, mostly oil sector, but also tourism and 1 ENGO site (Greenpeace), linked with oil and tourism as complementary development paths and positive impacts of oil for host communities. Notably, the Greenpeace site invokes this narrative in order to challenge and critique it as a counter-discourse.  - The risks and negative impacts of oil for fish & marine populations are often invoked by ENGOs, and contested by oil companies (i.e. acknowledging risk but placing it in the framework of appropriate management).  - The dominant climate change themes are oriented around the oil sector. 14 sites talk about the role of oil in contributing to climate change, but in two divergent ways. For the most part, ENGOs raise this in a more critical way and point to the irony of Norway’s climate policy goals and commitment to the oil sector, calling for limiting oil exploration/extraction, and more significant moves to decarbonization and electrification.  - By contrast, oil sector and government actors are more likely to evoke this to set up discussion of how the oil sector is working to respond to climate change (a theme that appears across 16 sites, mostly oil and government). Here, there is more positive framing of the oil sector working to address climate change through technological innovation and carbon capture and storage.  - Interestingly, one of the main environmental issues that comes up is biodiversity protection, across 7 sites, mostly from the oil sector (as well as a couple ENGO). Here, biodiversity protection programs are often framed as part of corporate environmental responsibility/sustainability initiatives and as a pro-environmental contribution of the oil sector.  - In terms of social futures the most common theme is renewable energy transitions, appearing in 9 sites, across oil, government and ENGO actors. This is generally linked with talk about oil sector responding to climate change and technological innovation (i.e. by government, oil sector and some ENGOs, i.e. Bellona), while for other ENGO sources this is more linked to an emphasis on government climate change performance and policy, and framing the oil sector as responsible for climate change.  - The notion of oil cosmopolitanism also comes up across 5 sites (oil sector and government) where talk about the oil sector’s role in responding to climate change, technological innovation, etc… is coupled with the idea that oil is necessary to human development more globally, resulting in a co-existence of fossil fuels and renewables for the foreseeable future. | - The oil industry is seen as a major economic driver and source of wealth and wellbeing via government revenues, producing the world’s largest sovereign wealth fund.  - There is also some material on offshore wind and renewable energy transitions that notes that this may create spatial tension/conflict with other users of coastal environments including oil, shipping, fisheries, and tourism. | - The dominant discourse is of the positive impacts of the oil sector for Norwegian society, in terms of being an economic driver, contributing to government revenues and employment, and being the foundation for Norway’s social welfare system and high quality of life. Norway is viewed as a global leader in terms of technological innovation, social responsibility, and environmental sustainability relative to the global oil industry. It is generally viewed as an important part of Norwegian culture and history.  - Negative impacts focus primarily on risks of opening new oil frontiers on fisheries and Arctic ecologies.  - Climate change also comes up here, in multiple ways: oil sector contributions to climate change as a negative impact (and the ironies of Norway`s Paris commitments coupled with its carbon-intensive economy), but also the potential for the oil sector to respond to climate change through technological innovation, resource efficiencies and restricting into a broader “energy sector” that is expanding renewable energy investment and transition. Here, there is also an interesting discourse of “climate cosmopolitanism” (mostly from the energy sector and government) that delocalizes Norwegian oil and considers it in a global perspective, arguing that if cleaner, more environmentally sustainable Norwegian can displace “dirtier” fossil fuels from the global energy system, this is a net gain from a climate perspective. |
| Culture:  Dominant discourse of relationship between oil & tourism as different development pathways – antagonism, co-existence, or silos (black-boxing) | - Oil is dominant throughout network, in terms of economy, government, business, etc… Tourism is generally quite marginal. | - Recurrent theme, invoked in 5 interviews with government, NGO and tourism participants, is that oil harms image as a tourism destination. This theme often connects with talk about offshore oil & ecological risk, Lofoten as a UNESCO site, and oil-fisheries co-existence. Sentiment analysis suggests language is mostly negative/critical in this context. This also connects to the notion of tourism (along with fisheries) as part of the rationale for maintaining closed areas (i.e. Loften).  - A few participants (3) talk about oil and tourism as co-existing development pathways that aren’t in conflict. | - Coding for oil and tourism as complementary development paths comes up quite a bit (32 references), often in the context of oil itself as a tourist attractor, and tourist-oriented narratives of oil development. This is also connected to narratives about the positive social-economic impacts of oil, oil as a source of pride for host communities, oil as a field of technological innovation, articulated for the tourist gaze.  - The Bergen case is interesting here as an example of blackboxing. In passing the Maritime Museum (the only minor contact point across tourism & oil) notes that the harbour’s current major uses are tourism traffic (cruise ships) and traffic for oil sector service and supply vessels. However, the ordering of the city for tourism gaze/experience is around historicity (the UNESCO World Heritage site) and nature/outdoor recreation (fjords, mountains, hiking, boat tours). The city/harbour role as a hub for offshore oil traffic is largely invisible in the enactments of Bergen as touristic space for visitors. | - The main node for oil-tourism interface is oil and tourism as complementary development paths, appearing on 7 sites, including oil, tourism, and government. This connects with oil as an important part of history and culture, and oil-tourism collaboration, especially around the Norwegian Petroleum Museum.  - Relatedly, 3 sites explicitly focus on oil as a tourism attractor, with a focus on the Norwegian Petroleum Museum.  - There is coding for oil-tourism collaboration on five sites, across oil and the tourism sector. This mostly deals with touristic narratives about the importance of oil as part of Norwegian culture and history, often pointing specifically to the Norwegian Petroleum museum as the contact point across tourism and oil. This also relates to notions of oil and tourism as complementary development paths.  - Conversely, 5 sites (mostly ENGO) talk about oil and tourism as incompatible development paths, that oil creates environmental risks that will impact tourism (and fisheries) and that tourism (and fisheries) offer more sustainable employment and development pathways for coastal communities. | - Antagonism comes up in particular instances of oil prospectivity and pushing development into new frontiers – LoVeSe and the Barents Sea/Arctic. Though, opposition is linked more explicitly to issues of fisheries and protecting ecologically sensitive and natural areas, more than framed around tourism per se.  - That said, Lofoten (LoVeSe) comes up as a key nature-based tourism region, so this is at least implicitly about tourism as well. | - Oil is the dominant development pathway, central to economic development and national politics and policy. By contrast, tourism is more peripheral and locally-significant in particular regions. Often, the relationship is one of black-boxing connections across the sectors, including in the social-ecological spaces where the co-exist.  - The major exceptions to this are the controversies over extending new oil exploration/extraction frontiers, such as at Lofoten and the Arctic. Opposition is often grounded more in risks to fisheries and Arctic ecologies, but tourism is also brought in here and is positioned as a relatively sustainable development pathway for coastal communities in contrast to oil extraction, while oil development may have negative impacts on the image as a nature-oriented tourism destination.  - The main sites of co-existence are tourism sites that include oil-oriented narratives – particularly the Petroleum Museum in Stavanger, but also at other museums, aquariums, etc… that position these as complimentary development paths. |
| Governance:  “Connective” element - Political spaces for engagement across oil & tourism | - Little sign of connectivity. Governance focuses more on oil sector. | - There is limited talk (two key participants, both from government, but both spend significant time on these topics) in interviews about the processes and potential for either Lofoten as a UNESCO site or a Lofoten national park, which overlap quite a bit. For the most part, the sentiment is positive, though also some talk about local-national tensions around the notion of a park or UNESCO site. There is also intersection with talk about the notion that protected areas may serve as a barrier to developing an oil economy in the region, and also in relation to oil as a source of risk.  - Where it comes up, participants note that there is little engagement across the tourism and oil sectors, though a few note that there could/should be more formalized spaces for engagement. Two dynamics appear to be at play: 1) scale – oil is seen more as the object of national-level governance and politics (and is much more of a political priority at the national level), while tourism is seen more as localized in terms of governance and politics; 2) the tourism sector is viewed as more fragmented and disconnected from other sectors in general.  - talk about oil governance focuses mostly on risk mitigation, with generally positive assessment the responsibility of the Norwegian oil sector in terms of addressing ecological risks. | - Not really present. Material on oil & tourism as complementary mostly focuses on oil as subject of tourist-oriented narratives, places where oil & tourism share cultural space, not political space. The closest might be spaces of social movement protest around extension of oil frontiers into places like Lofoten which have established and valued tourism and fishing economies. | - While oil governance is a site of discussion and contention (oil risk mitigation is well done, etc… vs. conflict over oil expansion & NWY climate commitments), there is very little that focuses on tourism governance. This reinforces a general pattern in the NWY case that tourism and oil governance are siloed, but also that oil governance is much more central in the political sphere, while tourism governance is pretty peripheral. The connective dimension of governance is underdeveloped, | -N/A | - The connective element is weakly developed, though in light of contention around extending oil frontiers (Lofoten, the Arctic in general) there is a sentiment that more connectivity in the political sphere would be good. At present connectivity is episodic and focused on specific points of conflict and controversy.  - Part of the absence of connectivity relates to scale and the structure of the respective fields: oil is more central to governance and national-level political spaces and policy making, it has more political visibility and influence. By contrast, tourism development unfolds at more regional/local scales, and is a sector that is more diffuse, fragmented, with less visibility or political influence.  - Where we see co-existence, or the idea that they are complimentary development paths, this is more in the cultural spaces of tourism sites, rather than in the political sphere. |
| Governance:  “vertical” element – governance as local, regional, national, international | - Not present for the most part. Though the topic on history, community, fish, oil, tourism (?) includes keywords of community, place, island, city, nation, alluding to multi-scale dynamics (tensions?) among different forms of development? | - Environmental drawbacks of tourism and need for codes of conduct for tourists are related themes, often connected to need to build tourism governance. This is often framed through overcrowding and local environmental issues of waste and trail erosion. Here, tourism challenges, negative impacts and development of governance are framed primarily as issues of local governance.  - Relatedly, the main cluster of themes related to tourism governance is that tourism governance is underdeveloped and needs to be developed, and that it is generally localized or seen as a local issue; these themes intersect with both talk about the positive community impacts of tourism and its potential as a sustainable development pathway, as well as negative impacts (local environmental impacts, overcrowding) and need to develop measures to deal with this, with solutions such as a tourist tax.  - One of the particularly interesting narratives focuses on oil as “national” in political scale, while tourism is “local,” which helps explain the lack of engagement across the two sectors, even when there is something at stake (i.e. issue of opening up LoVeSe for exploration).  - Relatedly, talk about oil governance also includes a few participants talking about need for community consent for development, and need for local community interests to be respected – which is somewhat in tension with the notion that oil is a national political concern/debate.  - A couple interviews focus particularly on the UNESCO process for Lofoten, which is linked to fisheries-tourism synergies, the historicity and authenticity of rural coastal communities, and also overlaps with the notion of protected areas as a potential barrier to oil development. This points to the role of UNESCO as an international actor with the potential to shape future local tourism and oil economies in Lofoten. | - There isn’t much on tourism governance in my field notes, but are a couple entries on the underdevelopment of tourism governance that generally support the interview material.  - In the arena of oil governance, the most prevalent theme (10 references) is that the current (national) Norwegian governance regime facilitates oil development – mostly something that comes up in talks at ONS about what makes the Norwegian Continental Shelf attractive as an operating site. Other, less prevalent themes include that government (national) needs to be strong with industry to ensure benefits; conversely that regulations can’t be too complex or onerous, and there needs to be a tax regime that supports industry.  - The Paris COP agreement comes up repeatedly in the field notes – the most notable critical event in thinking political opportunity structure (16 coding references). It is invoked repeatedly in connection with energy sector and government actors, and is often connected to the role of oil in responding to climate change, renewable energy transition, and automobility (i.e. vehicle electrification). This multilateral agreement (and the COP as a multilateral political arena) is significant in shaping the discourse of oil governance and adapting to the future.  - Relatedly, in looking at social futures themes, one of the recurrent themes is of cautionary tales and that the oil sector needs to respond to a broadly changing social-technological landscape (oil`s potential “Kodak moment”), which is also cross-referenced with mentions of the COP Paris agreement.  - In the field notes, there are lots of coding references for cross-case linkages, much of this connected to the notion of oil as an international network, coastal environments as sites of oil extraction, and positive sentiment. Doing a wordle of a word frequency query, Canada, Denmark, Danish, Scotland, and Aberdeen all come up within coding for cross-case linkages. (While much of the cross-case linkages relate to oil, there are also tourism references – mostly in terms of Viking historic tourist sites that reference other sites.) | - The Paris COP agreement comes up on 5 sites, including oil sector, tourism and ENGO (incl. the web 2.0 work on the Lofoten controversy from Elahe). On oil sector sites, the Paris COP agreement is part of the new political landscape that shapes government policy and performance, and which they must navigate. For ENGOs, it is used to oppose new oil development (i.e. at Lofoten), to call for stronger government policy and performance, and to provoke visions for post-oil social futures. | -N/A | - Issues of scale play out in interesting ways. There is the notion that oil governance (and contention) is much more central to the national political sphere, while tourism development and developing governance to deal with negative impacts is much more a local-regional concern (and peripheral from the national scale). So, there is a scale mismatch in developing conversation across sectors.  - However, the international scale also enters at various points, including in discussions about whether there should be a national park or UNESCO site for Lofoten (which could create barriers to oil development in the region), as well as in talk about the Paris COP meetings and agreement as a global critical event that is relevant to Norwegian debate about oil, social futures, decarbonisation, etc… which impinge on debates about oil development. |
| Governance  “horizontal” dimension –range of actors involved | -The key topics on oil and economy have keywords oriented around government and business actors. | - Statoil comes up as main oil sector actor, often in talk about collaboration or pushing for renewable energy transition, as a leading energy company in addressing climate change. Sentiment is mostly positive regarding its shift towards renewables and steps to address climate change, this includes comments from multiple NGO participants who have a critically-engaged perspective on the oil company.  - A cluster of ENGOs are invoked in interview talk. These include national chapters of international organizations (Greenpeace, WWF, Friends of the Earth), national NGOs (Nature & Youth, Bellona), and localized, more grassroots groups (Oil-Free Lofoten), and there is also a fair bit of talk about within-movement collaboration. This suggests a strong “social movement ecology,” which goes along with the narrative that the Norwegian government maintains an “open” relationship to NGOs, and that movement actors are involved in collaboration and conflict with government and political parties. | - The field notes mostly identify oil-sector related actors. Statoil is by far the most cited (36 coding references). This is often cross-coded with material on coastal environments as sites of prospectivity, renewable energy transition, Actic oil froniters, as well as oil & tourism as complementary development paths and oil as a tourism attractor. Other oil companies that come up repeatedly include Seimans (7 references), Shell (10 references), Wintershall (7 references).  - In material on social futures and oil and the renewables transition, Statoil comes up as a key actor, as does Siemans.  - The main government actor in the fieldnotes is the Norwegian Petroleum Directorate, which is often connected to coding for oil responding to climate change, carbon capture & storage, and oil as a field of technological innovation.  - ENGOs come up far less often, but those that come up recurrently include Friends of the Earth and Greenpeace, while there is also mentions of Bellona, Nature & Youth, and WWF.  - In the field notes, most of the network relation material focuses on collaboration within the oil sector (11 references), which is connected to coding for restructuring due to the downturn, oil as site of technological innovation, and positive impacts of oil for host societies. The actors that are most often cited here are Statoil, Wintershall, Maersk.  - Otherwise, there are also repeated references to government-oil collaboration (8 references), which connects with the notion of positive social-economic impacts of oil for host societies.  - One of the key social-economic recurring themes is that the recent downturn requires a restructuring of the oil industry (33 references), which especially comes up in the context of ONS, and which is often linked to talk about collaboration across industry actors, as well as oil as a field of technological innovation. In this context, Statoil also appears to be a key actor. | - The dominant social networks theme centres on oil-government collaboration, appearing on 12 sites, across oil and government actors, especially Statoil, INTSOK, the Norwegian Energy and Petroleum Ministry, Maersk, Research Council of Norway, and Norwegian Petroleum directorate. This often links to positive social-economic impacts of oil for host communities, corporate environmental responsibility.  - ENGO-government conflict comes up across 5 sites (all ENGO) primarily related to issues of oil development (i.e. protecting Arctic nature, oil & climate change, government climate performance & policy), as well as notions that government is dominated by oil interests.  - The dominant theme related to oil political/governance networks is that oil risk mitigation is well-done, which is linked to talk about oil sustainability discourse, oil sector responding to climate change, and the oil sector as a field of technological innovation. This discourse of oil risk mitigation aligns a wide range of both government agency and oil sector corporate actors. This theme is especially pronounced on the Norwegian Oil & Gas Association website.  - There is very little related to tourism governance here. An interesting, but marginal theme is that “we have to avoid the mass tourism model” due to ecological impacts, which appears on both ENGO (WWF) and tourism sector (VisitNorway) sites. | - The national government has been very interventionist in the evolution and development of the Norwegian oil sector, largely through its creation and involvement in Statoil and Petoro as key actors in the oil sector. This is interpreted as part of the reason for Norway’s success as a model for oil development. | - In relation to oil governance, a range of national government ministries and offices and oil sector organizations are particularly central. Equinor/Statoil comes up repeatedly as a key oil sector actor. The government-oil sector partnerships and relationship are seen as part of the reason for the success of the Norwegian model of oil development.  - ENGOs also come up as key actors, though often in conflict (but also collaboration) with government and the oil sector. This includes a mix of international, national, and localized environmental actors. A key idea that comes up here is that the Norwegian political sphere is particularly open to NGO actors.  - By contrast, there is less on tourism governance, which appears to be more localized/regionalized in terms of governance, less of a political priority, and more diffuse and fragmented as a field. |
| Social movements: when does intervention happen | - Not present. | - expansion of oil frontiers into closed/new areas (LoVeSe, Berents Sea) particularly problematic.  - Talk about tourism as a sustainability development pathway connects for some participants with talk about tourism-ENGO collaboration.  - There is some evidence of tourism-ENGO collaboration around specific tourism sustainability projects. | - Not a lot here, but notes from Oslo protest reinforce notion that interventions happen when oil expands into new frontiers (Barents Sea, LoVeSe). | - In the case of the web 2.0 report on the Lofoten controversy, mobilization is triggered by the threat of expanding oil exploration/extraction into new regions. While anti-oil opposition in Lofoten is often framed in terms of fisheries risks and impacts, and to a lesser extent tourism impacts, here the focus is on the oil sector as a source of environmental risk, but also more delocalized and scaled up to focus on risks and impacts of climate change, government climate change performance and policy, climate justice discourse, need to envision post-oil social futures. | - Opposition from ENGOs emerges around expansion of oil frontiers into new regions, particularly LoVeSe and the Barents Sea/Arctic. | - Mobilization and contention against the oil sector is triggered by the expansion of oil exploration into new regions, particularly Lofoten (LoVeSe) and the Arctic, framed primarily around risks to fisheries and Arctic ecologies, but also around climate change and tourism impacts. There is evidence here of ENGO-tourism alignments.  - There are also examples of tourism-ENGO collaboration around tourism sustainability projects. |
| Social movements:  Key discourses used to intervene in oil-tourism interface | - Not present. | - A moderate bit of talk (4 participants, mostly NGOs) about NWY climate change performance & policy, linked to themes about Arctic oil frontiers, need to maintain closed areas for oil, energy transition and Norway as leader in innovation. Sentiment mostly critical/negative.  - Relatedly, several participants (5), predominantly NGO talk about oil sector contributing to climate change in the context of Arctic oil frontiers, challenging sustainability claims of NWY oil industry, and desire to maintain closed areas from exploitation (Arctic, LoVeSe).  - Protest messaging (as articulated by NGO interviewees) focuses on maintaining closed areas for oil exploration (Arctic, LoVeSe), climate change awareness, and claims about need for renewables transition and building sustainable employment in the renewable energy sector.  - in terms of envisioning social futures, NGO participants talk about the necessity to move to post-oil society and more towards a renewable energy social future (a point of potential collaboration between oil sector & ENGOs), which is connected to oil’s contribution to climate change, national policy responses to climate change, and opposition to extending oil exploration into Arctic oil frontiers. | - Not a major recurrent theme, but there is mention of the Paris COP agreement as a key event among ENGO actors as part of the opposition to oil development – that Norway should not extend oil development any further without firm plans for meeting its Paris commitments.  - In my fieldnotes on ENGO protest in Oslo, framing focuses on protecting Arctic nature, broad demands for “climate justice” (without much detail specifying meaning of the term). | - In terms of ecological dimensions of oil, ENGOs often raise environmental risks of oil, which is often linked to oil contributions to climate change, as well as to contestation over Arctic nature/oil frontiers.  - Risks to fish and marine life are often invoked by ENGOs who are critical of the oil sector, or oppose opening new areas for oil development. The health of fish/marine populations are a basis of opposition to oil.  - A few sites also frame oil and tourism as incompatible development paths, with tourism positioned as a more sustainable alternative development pathway and employment generator.  - ENGO actors often invoke government policy commitments around climate change to frame critiques of the oil sector and call for limiting exploration/extraction, and to call for greater decarbonization. This is very much an argument that relies on highlighting the ‘ecological irony” of Norway’s stated climate change commitments and ongoing oil sector practices.  - The Paris COP agreement comes up a couple times, most notably in the web 2.0 work on the ongoing Lofoten oil controversy. It is invoked in the Lofoten Declaration to oppose further expansion of oil development and to hold government to stronger climate policy and performance, and to envision shifts to post-oil societies.  - In terms of social futures, there is an emphasis on renewable energy transitions. For some ENGOs this is framed in terms of an emphasis on oil sector responsibility for climate change and government climate performance and policy. For Bellona, however, their discourse is more aligned with government/oil sector discourse of renewable energy, which is framed in terms of oil sector responses to climate change and technological innovation.  - ENGO sites also raise critiques of negative impacts of tourism, framed around cruise ships, tourism contributions to climate change, and impacts on Arctic nature. However, ENGO sites also adopt tourism sustainability discourse and positive environmental framing of the tourism sector. | - An interesting frame is that when the world needs to address climate change, now is not the time for Norway to extend new oil frontiers. Here, it is oil prospectivity and expansion that is problematized, more than ongoing extraction in established oil regions (i.e. the Norwegian sea vs. LoVeSe and the Barents Sea). | - There are multiple discourses used, including a focus on localized risks and impacts of any new oil development (i.e. Lofoten, Arctic) on fisheries and vulnerable Arctic ecologies.  - The focus on local impacts also sometimes links to tourism, positioning these as incompatible development paths, tourism as relatively more sustainable, and negatively impacted by new oil development.  - There is also a climate change-based critical discourse that points to the ironies of Norway’s ostensible climate commitments (invoking the Paris climate agreement) coupled with intentions to extend oil exploration and extraction frontiers. There is a climate justice variant of these that asserts that given Norway’s history and benefits from oil wealth, that it can afford to keep remaining reserves in the ground and take a leadership role in this regard. There is also a focus here on renewable energy transitions and decarbonisation.  - More peripheral, but there is some critique of negative ecological impacts of tourism, mostly focused on cruise ship tourism and its impacts re: climate change (i.e. carbon intensity) and on Arctic ecologies. |
| Social movements: repertoire of action, tactics | - Not present. | - One ENGO participant in particular talks about the importance of Twitter as a communication medium for particularly attentive audiences, for connecting with, speaking to, mobilizing more politically attuned audiences.  - Public protests/rallies are also used, which are seen as providing a public forum to keep climate change in public & political view, and to point to “ecological irony” (as per Szerszynski) of new oil exploration in closed areas in light of Norway’s stated commitments re. climate change. | - My field notes capture an instance of a public protest rally/demonstration held in the square outside the parliament buildings. This material is cross-coded with key ENGOs that were present (Friends of the Earth, Greenpeace), Arctic nature, ENGO-oil conflict. | - The two main tactics that come up on ENGO websites are requests for donations (i.e. Bellona, Grenpeace, Naturvernbundet, WWF), which are sometimes cross-coded with ENGO-oil conflict and offshore oil as a source of environmental risk; and protest rallies and marches (Greenpeace, Naturvernforbundet, WWF, web 2.0 report of Lofoten controversy), also linked to notion of offshore oil as source of environmental risk.  - Less visible across a range of sites, but quite central to the web 2.0 report on the ongoing Lofoten oil controversy is the tactic of issuing public statements or declarations, in this case the Lofoten Declaration, which is a document that links a range of ENGO and academic signatories in opposition to the expansion of new oil frontiers, and which is linked with risks & impacts of climate change, climate justice discourse, oil-ENGO conflict, oil sector contributions to climate change, envisioning post-oil societies, and government performance and policy on climate change. The use of public declarations/statements is also found on the Naturvernforbundet website, which focuses on opposition to Arctic oil drilling. | -N/A | - The main tactics that come up are using social media for reaching attentive audiences, requests for donations, issuing public statements or declarations, and holding rallies and protests. This is a mix of e-tactics and occupying offline space, as well as more moderate, in-system tactics (public declarations, donations) and more contentious tactics (protest rallies). The range of tactics seems consistent with the notion of Norway as a diverse social movement field that bridges larger-scale, more institutionalized movement groups and smaller-scale organizations. |
| Social movements:  structure of field | - Not present. | - A cluster of ENGOs are invoked in interview talk. These include national chapters of international organizations (Greenpeace, WWF, Friends of the Earth), national NGOs (Nature & Youth, Bellona), and localized, more grassroots groups (Oil-Free Lofoten), and there is also a fair bit of talk about within-movement collaboration. This suggests a strong “social movement ecology,” which goes along with the narrative that the Norwegian government maintains an “open” relationship to NGOs.  - The coding for within movement collaboration reinforces the narrative of many groups with a “unified front” and shared interests, despite also some talk about within movement competition (ie. for memberships), and that the movement is characterized by good collaboration across more local/grassroots and larger national, more professionalized organizations. Bellona, Greenpeace, WWF are the main orgs invoked, central to the field. | - ENGOs that come up recurrently include Friends of the Earth and Greenpeace, while there is also mentions of Bellona, Nature & Youth, and WWF. Fieldnotes on protest in Oslo highlight the presence of Friends of the Earth and Greenpeace. | - ENGOs that come up recurrently (and beyond their own sites) include Bellona (3 sites), WWF (3 sites), Greenpeace (2 sites), and Naturforvernbundet (2 sites), consistently indicating a social movement ecology with a mix of national chapters of international organizations (Greenpeace, WWF) and national organizations (Naturforvernbundet, Bellona).  - Looking closely at the web 2.0 report on the Lofoten oil controversy, key actors that come up are Greenpeace, Friends of the Earth Norway, WWF, Bellona, Sea Legacy, and Oceanic Wildlife Conservation. Again, many of the same key actors, with a mix of national chapters of international orgs and national organizations.  - An interesting distinction comes up in looking at the social futures coding around renewable energy transition, with Bellona adopting a more moderate discourse of renewable energy transition that appears more aligned with the framing of government and oil sector actors, while other ENGOs (i.e. Loftoten Declaration, WWF) frame renewable energy transition through a more critical lens. | -N/A | - The Norwegian case is particularly interesting in having a diverse and complex “social movement ecology” that includes national chapters of international organizations (Greenpeace, WWF, Friends of the Earth as core orgs), national organizations (Bellona, Nature & Youth as core orgs), and more localized, less institutionalized or professionalized organizations (Oil Free Lofoten), which also adopt a range of orientations to conflict and collaboration around oil and tourism development issues, from more moderate to more critical. |
| Social movements:  Collaboration & conflict networks | - Not present. | - Statoil is the most invoked energy company, but is often discussed in terms of a “critical engagement” or perhaps “conflictual collaboration” (as per Giugni & Passy?) where ENGOs both oppose them at times, but also collaborate or encourage work on shifting to renewable energy.  - Similarly, interviewees talk about Norway as an open society, where there is a general principle of support for the rights of social movements to be heard, with a mix of conflictual and collaborative interaction with government and political parties.  - there is talk about both conflict and collaboration with government (often overlapping), which intersects with talk about the ecological risks of oil development, the notion of the (current ) government as dominated by oil interests, but parallel idea of Norway as an “open society” where government is presumed to be accessible to social movements; also, talk about conflict with government is linked to collaboration with other (non-ruling) political parties, and the idea that maintaining the LoVeSe closed area is a social movement victory. Again, the notion of “conflictual cooperation” might be relevant here.  - there is talk about tourism-ENGO collaboration around specific projects, often linked to framing tourism as sustainable, sometimes in explicit opposition to the prospect of oil development (i.e. at Lofoten) as the preferred, sustainable alternative to extractive government. The groups most cited in this context are Friends of the Earth and WWF. | - In terms of the broader field, the notion of collaboration between oil and government comes up recurrently.  - There is also recurring coding (4 references) for material on oil-ENGO conflict, all related to the Oslo protest rally/demonstration. | - The web 2.0 report on the Lofoten controversy highlights oil-ENGO conflict and ENGO-government conflict around expanding oil frontiers and climate change, but also ENGO-academic collaboration.  - ENGO-oil conflict comes up across 6 sites (5 ENGO, only 1 oil sector site focuses on this), and is most apparent in the web 2.0 report on the Lofoten controversy. This tends to connect with coding for offshore oil as a source of environmental risk, oil sector contributes to climate change, government climate performance and policy, and (particularly in the Lofoten web 2.0 report) envisioning post-oil societies.  - ENGO-government conflict comes up on 5 sites (all ENGO), primarily related to oil issues, linked to talk material on Arctic nature (and its protection), the oil industry contributes to climate change, government climate performance and policy, and notions that the government is dominated by oil interests.  - ENGO-oil collaboration comes up on 5 sites, including oil and ENGO sites (Bellona, WWF in particular), with oil sector engagement with civil society around environmental risks and risk mitigation. The Statoil and Norwegian Oil and Gas Associations are particularly notable in this regard.  - ENGO-tourism collaboration comes up across 5 sites, including both ENGO and tourism sites, with Hurtigruten and Rodne Fjord Cruises as the main tourism sites that allude to this, with Bellona and WWF as the main ENGO sites (plus the web 2.0 netnography of the Lofoten controversy). This is linked to coding for tourism sustainability discourse, corporate environmental responsibility, as well as aquamobility and electrification of vehicles. | - ENGO conflict with the oil sector and government focuses on moves to expand oil frontiers into LoVeSe and into the Barents Sea/Arctic. | - Regarding oil development, movements are mostly involved in conflict and contention with the oil sector and government, particularly around the extension of oil frontiers. Though, there are also instances of collaboration across ENGOs and oil around renewable energy transition projects or risk mitigation. This is a good illustration of the notion of “conflictual collaboration” between movements and other players in the political field, particularly with government. This links back to the notion of Norway as an “open society” where movements have access to engage with government.  - There are signs of ENGO-tourism collaboration and alignment, mostly around specific tourism sustainability projects, such as innovation to lower the environmental footprint of tourism and positioning tourism as a relatively sustainable development pathway. |

Discourse network: key categories for discourse network analysis

* CULTURE & COLLECTIVE IDENTIFY
  + history as a tourism attractor
  + Norway is a global leader in energy innovation
  + oil harms image as a tourism destination
  + oil is an important part of history & culture
  + oil is a source of pride for host communities
* ECOLOGICAL NETWORKS
  + Cod
  + other fish\_marine life
  + seabirds
  + whales
  + government performance & policy CC
  + oil industry contributes to CC
  + oil industry role in responding to CC
  + risks & impacts of climate change
  + tourism contributes to CC
  + Artic nature
  + being close to nature
  + coastline\_seascape as focal point
  + fjords
  + harsh, risky environment
  + mountain landscape as focal point
  + wilderness
  + biodiversity
  + boat tours
  + cruise ships
  + hiking
  + sport fishing
  + Arctic oil frontiers
  + coast as site of oil extraction
  + coast as site of oil prospectivity
  + offshore oil creates environmental risk
  + oil-fisheries co-existence
  + need to ensure protection of natural areas
  + corporate environmental responsibility
  + environmental drawbacks of tourism
  + nature tourism\_sustainability discourse
  + oil industry\_sustainability discourse
  + rules of conduct for nature-based tourists
  + tourism is a site for environmental education
  + tourism sustainability discourse

MEDIA COMMUNICATION NETWORKS

* photography as tourist practice

MOBILITY NETWORKS

* Aeoromobility
* Aquamobility
* Automobility

NETWORK POWER

* age
* class\_profession
* gender
* global region
* race & ethnicity
* rules that structure network

POLITICAL NETWORKS

* current governance regime facilitates oil development
* oil risk mitigation is well done
* Paris COP agreement
* Donations
* Public statements, decalaration
* Protest rally, march
* tourism as basis for opposition to oil development
* Norway is an open society
* building tourism governance
* tourism governance is a local issue
* tourism governance is underdeveloped

SOCIAL FUTURES

* cautionary tales\_oil needs to respond to social transformation
* co-existence of fossil fuels & renewables
* envisioning post-oil society
* oil cosmopolitanism\_oil drives human development
* renewable energy transition

SOCIAL NETWORK DYNAMICS

* ENGO\_collaboration within movement
* ENGO-government collaboration
* oil\_collaboration across industry actors
* oil-ENGO collaboration
* oil-government collaboration
* oil-tourism collaboration
* tourism-ENGO collaboration
* ENGO-government conflict
* oil-ENGO conflict
* cross-case linkages

SOCIAL-ECONOMIC NETWORKS

* downturn = restructuring of oil sector
* oil drives economic development
* oil industry is field of technological innovation
* positive social-economic impacts of oil for host communities
  + economic benefits
  + oil employment
* oil is a tourism attractor
* oil-tourism interface\_complentary development paths
* oil-tourism interface\_incompatible development paths
* challenges of tourism for host communities
* fisheries-tourism synergy
* positive social-economic impacts of tourism for host communities
* tourism cycle

KEY ORGANIZATIONAL ACTORS (for two-mode analysis)

Energy sector

* Maersk
* Seimans
* Shell
* Equinor/Statoil
* Wintershall

ENGOs

* Bellona
* Friends of the Earth
* Greenpeace
* Nature & Youth
* Oil Free Lofoten
* WWF

Government

* Innovation Norway
* Norwegian Petroleum Directorate
* Norway Energy & Petroleum Ministry

International Agencies

* UNESCO

Media sector

* Facebook
* Instagram
* Twitter
* YouTube

Tourism Sector

* Air BnB
* Hurtigruten
* Norwegian Petroleum Museum