Exploring the blue economy: Resource sovereignty and seabed mining in Namibia

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Abstract

Following its global emergence, the blue economy agenda is now touted as a mechanism through which the Republic of Namibia can achieve long-term sustainable and equitable growth. In (re)defining the ocean, seabed mining has been central to these discussions. Drawing on fieldwork and semi-structured interviews undertaken with key actors in Namibia and South Africa, between 2016 and 2018, as well as recent policy debates and discourse surrounding the potential extraction of marine phosphate this thesis critically examines the framing of the marine environment as an extractive space. The global ambiguity of the blue economy concept is reflected in Namibia and divergent definitions exist across and between the state and non-state actors involved with the formulisation of the concept. This has effectively reduced the marine scape to a space that actors can exert influence over and apportion in accordance with their own agendas. The blue economy presents opportunities for new forms of capitalist accumulation and this has resulted in struggles over who can accumulate in the marine sphere. This thesis therefore analyses the emerging and competing claims to sovereignty over this "new" resource frontier, including by state and non-state actors, and identifies which actors have been included or excluded from the blue economy agenda. In discussing sovereignty over this frontier and resources therein, it undertakes a rigorous analysis of the complications created by the ocean as a three-dimensional, voluminous, "borderless" space.

This material from this thesis has contributed to two peer-reviewed articles by the author:

Carver, R (forthcoming), 'Lessons for blue degrowth from Namibia's emerging blue economy', *Sustainability Science.*

Carver, R. (2019), 'Resource sovereignty and accumulation in the blue economy: the case of seabed mining in Namibia', *Journal of Political Ecology,* 26(1), 381–402.

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Author's declaration

I declare that this thesis is my own work, and has not been submitted by me in substantially the same form for the award of a higher degree elsewhere. Any sections of the thesis which have been published, or submitted for a higher degree elsewhere, are clearly identified.

I declare that the word length of this thesis is 75,347 words, and confirm that this does not exceed the permitted maximum word length of 80,000 words.

SIGNED: ..... DATE: 9th September 2019……...

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Chapter 1

Introduction

The study of the Republic of Namibia [1] represents an opportunity to analyse the emerging blue economy, the seabed as an emerging site of mineral extraction and the resultant ownerships claims over the marine space. Globally, the blue economy agenda has emerged as a development opportunity for littoral states and there is an increasing interest in the potential for marine mineral mining. This knowledge can be used to interpret the Namibian context but can also provide insight for other similar situations engaging with the blue economy agenda or the potential of seabed mining.

Oceans constitute seventy two percent of the surface of our planet, providing food and livelihoods and accounting for eighty percent of global trade, by volume (UNCTAD n.d.). The blue economy is touted as a new mechanism through which states including Namibia can achieve long-term sustainable and equitable growth. This follows the global emergence of the blue economy by state and non-state actors seeking to harness the economic potential afforded by the ocean (Silver *et al.* 2015: 142). The agenda draws on development rhetoric with the aim of addressing the "multiple and overlapping uses in ocean and marine environment" (Winder and Le Heron 2017: 4) and professes to sustainably utilise ocean resources for economic growth without compromising the health of the ecosystem (World Bank 2017). This spatial reworking of the ocean as a new economic frontier therefore calls for a level of critical engagement with the blue economy and the emergent politics related to sovereignty over resource extraction therein (Winder and Le Heron 2017: 3). Concurrently, seabed mining has become central to discussions of the blue economy in Namibia. Due to the unique upwellings of the Benguela Current Ecosystem,[2] Namibia is described as a "phosphate factory"[3] following the accumulation of rich phosphate deposits in the seabed over thousands of years (Filippelli 2011: 759).

Namibia is now in the process of debating whether to conduct marine mining at greater depths within its Exclusive Economic Zone (EEZ), a position that has attracted significant opposition. The emerging tensions and territorial disputes over the marine domain has included protestation from the fishing industry and advocacy organisations. Concerns that offshore phosphate mining could have environmental implications by damaging sensitive breeding grounds for fish have been raised by the fishing industry, who collectively have historically dominated the marine sphere. This has culminated in a situation where Namibian fishing industry associations, supported by the company Omualu Fishing, have become embroiled in a court case. This court case has been raised against Namibian Marine Phosphate Mining (Ltd), one of the proposed mining

[1] Hereafter referred to as Namibia.
[2] The Benguela Current Ecosystem is a transboundary ocean current extending from South Africa in the south, through Namibia in the centre, to Angola in the north.
[3] Interview 32.

companies, and the Ministers of Environment and Tourism, Fisheries and Marine Resources and Mines and Energy, targeting the mining licence issued to them and the validity of the environmental clearance certificate they hold (Shapwanale 2016). An additional case has been raised against NMP by a private activist, indicating that articulations of sovereignty differ between state and non-state actors.

In recognising that terrestrial epistemologies cannot be directly applied to the marine environment (Dodds 2012; Steinberg and Peters 2015), this thesis highlights how current discourse in Namibia continues to perceive the ocean through the lens of landed imaginaries, and how in so doing it ignores the ways in which the unique nature of the marine environment complicates traditional conceptualisations of resource sovereignty. Rhetoric around these imaginaries also often fails to recognise that the "blue" and "green" economies do not exist as separate, unconnected entities; rather, they are inextricably interlinked. This is particularly evident in Namibia, where minerals harvested offshore will subsequently be "landed" and processed onshore. By discussing sovereignty over this frontier and resources therein, this thesis therefore bridges the gap between these debates through a rigorous analysis of the complications created by the ocean as a three-dimensional, voluminous, "borderless" space.

The research problem

This thesis identifies that the seabed as a site of extraction must be antagonised, recognising the historical and contemporary (re)articulations of the marine scape as a frontier. It also argues that the effects the global ambiguity of the blue economy's definition has on states formalising the agenda must be analysed. This ambiguity has consequences on the ground, including the opening-up of the marine space to private accumulation.

Claims that Namibia would have sovereignty over its resources were central to Namibia's decolonisation process and remain integral to the state's contemporary political rhetoric. However, this thesis recognises that it is important to unpack how the blue economy agenda has been applied to and understood within a site that has historically rarely been the centre of attention on account of its perceived invisibility.

Motivation for research

The emergence of Namibia's EEZ as a potential new resource frontier affords this study the opportunity to engage with debates around resource sovereignty and to conceptualise how its unique geography, resources and the technologies of extraction complicate this discourse and present challenges for those seeking to secure mineral wealth. With disparate ownership and sovereignty claims to those pertaining to land-based extraction sites, this sub-surface frontier opens new perspectives on theoretical debates surrounding resource extraction. This thesis will therefore build upon the geographical and spatial understanding of the marine scape as a site of resource extraction, considering its implications for the wider theoretical debates on resource sovereignty.

Namibia is one of the first African states to be considering the potential for seabed mining. As such, Namibia is a case study through which one can evaluate articulations of the blue economy and the ways in which differing sovereignty claims over this emerging extractive space are challenged by the nature of the marine environment. It is also possible to analyse the resulting conflicts arising from the desires of different sectors to establish, or continue to exert influence over, the marine domain.

Context

The global emergence of the blue economy

This section introduces the concept of the blue economy, its global origins and the interest it has garnered from the AU and African states. The rolling-out of the agenda across the continent, and specifically within Namibia, are discussed in more detail in Chapter 4. As scholars such as Tor Benjaminsen and Ian Bryceson (2012) recognise, there is an absence of scholarship on the consequences of the blue economy's claims on a national level. While the agenda presents opportunities under development rhetoric it also excludes other actors.

The concept of the blue economy first gained global prominence in 2012, at the United Nations Sustainable Development Conference in Rio (UN 2014). The blue economy agenda argues that if the ocean is maintained in a healthy state then it has the potential to meet global sustainable development needs (UNEP 2014: 1). The agenda refers, broadly speaking, to "a wide range of economic activities in the maritime sector" (Dziura and Cernota 2015: 35), however there is a lack of consensus surrounding its precise definition (Silver *et al*. 2015). By ensuring that definitions of the blue economy have breadth, it encompasses a multitude of interests. However, there has been a void in debates surrounding the importance of industries such as marine mining to states' economic growth (Lewellyn *et al.* 2016: 52). This includes the challenges that the question of sovereignty over these mineral resource presents to conceptualisations of the blue economy, and this thesis will address these challenges. This (re)focusing of attention onto states' EEZs and the blue economy has been motivated by several factors. The ocean has been framed to evoke imaginaries of an under-utilised space full of development possibilities. This is complemented by the emergence of interests, including seabed mining, within the marine scape (Silver *et al.* 2015: 152). In turn, increasing levels of state and private interests in both conservation and development opportunities, such as the World Bank's Global Partnership for Oceans, have come to the fore (Silver *et al.* 2015: 142).

The paradigm of the blue economy espouses the landed theorisation of the green economy, utilising "economic modelling to incorporate ocean values and services into the decision-making process" (UN 2014: 3). In an attempt to address the dichotomy that exists between the environment and development, the blue economy assigns a monetary value to natural (blue) capital (UNEP 2014: 3) and this notion has been widely adopted, particularly by states in the African Union including Namibia. Given that 39 of Africa's 54 states and islands are littoral states (Egede 2011: xx), the blue economy has been

gaining traction across the continent, and this will be unpacked in Chapter 4. The Namibian government has stated that it recognises that the concept of the blue economy is in line with its current marine development plans (Republic of Namibia 2017). However, in relation to the green economy, but applicable to the emerging blue economy, James Fairhead and colleagues argue that these conceptualisations of nature have been institutionalised by multilateral agencies including the World Bank and UNEP (2012: 244). Therefore, through its study of Namibia, this thesis will analyse which state and non-state actors are involved in the conceptualisation of the blue economy.

The African Union has focused on the blue economy's potential to improve states' and populations' socio-economic positions (van Wyk 2015: 166), claiming it as the "new frontier of African renaissance" (UNECA 2015: xi). This is echoed at the national level, exemplified by the reference made by the Republic of Seychelles to the "Blue Economy concept as a vital part of Africa's future development" (2014). Frontier rhetoric can legitimise the divergent and sometimes conflicting ideologies of state and non-state actors which include industry, International Organisations (IOs), INGOs and local NGOs (Barney 2009: 147). However, the attribution of economic value to nature, through the blue economy agenda, has resulted in the governance of the Earth's seas being framed as a technical challenge rather than one that requires the integration and reconciliation of the diverse perspectives and aims of a multitude of state and non-state actors (Silver *et al.* 2015: 143). Debates and scholarship relating to the blue economy have therefore predominantly focused on issues surrounding marine conservation and fishing (Andriamahefazafy and Kull 2019; Barbesgaard 2018) and despite these literatures' efforts to allude to subsurface mining, there has been little engagement with how resource extraction and sovereignty claims will play-out under the blue economy agenda.

The EEZ as a site of extraction

EEZs are not formalised as "territory" – territorial waters only extend to 12 nautical miles from the baseline of coastal states – but instead different legal regimes are assigned to different aspects of sovereignty. Extending no more than 200 nautical miles from the territorial sea baseline, the EEZ can be understood as a three-dimensional space with three separate yet interconnected planes: the surface, the water column and the seabed (and subsoil) (see Figure 1.1). Here, the coastal state has "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil" (UN 1982: 43). These planes are comprised of separate legal structures which impact state sovereignty at different spatial levels. The surface is regarded as having the same conditions as territorial waters where external states have freedom of navigation and overflight. The coastal state has jurisdiction over the water column and the power to control activities that utilise the marine environment in accordance with their national laws. The coastal state also has sovereign rights, which are rights of a specific functional purpose, rather than sovereignty over the seabed and

subsoil for the sake of the exploration, exploitation and management of its natural resources.

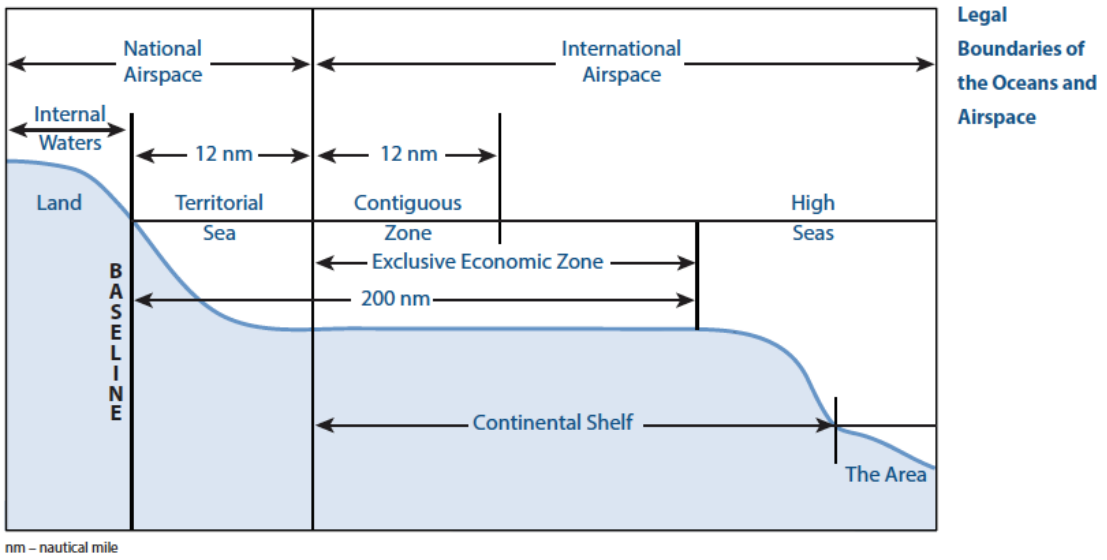


Figure 1.1. The Exclusive Economic Zone (EEZ) (Jones et al*. 2017: 11)*

The exercise of sovereignty remained of much importance for post-colonial states following independence, and particularly for African post-colonial states. The desire to assert sovereignty over internal natural resources remained an integral part of nationalist rhetoric in these states (Emel *et al.* 2011: 71). The expansion of rights based on national sovereignty over marine resources formed an important part of the UNCLOS III negotiations (Adar 1987: 666; Suárez-de Vivero 2012), leading to the consolidation of EEZs whereby sovereign rights over resources in the EEZs were assigned to states (Steinberg 2011).[4] However, this assignment of rights is not uniform: instead, it differs across different planes in the sea.

During the UNCLOS III negotiations, a clear dichotomy emerged between states. UNCLOS III was one of the first opportunities that most African states had been given to participate in the arena of international law (Adar 1987: 666). As a result, negotiations moved away from traditional aspects of the Law of the Sea, which had been dominated by maritime powers, and began to address issues regarding the exploitation of natural resources and the role of the sea in the welfare of citizens (Adar 1987: 668).[5] These negotiations were crucial to shaping environmental governance on a global scale and saw African states act in solidarity in order to raise intra-African concerns, which states viewed as taking precedent over global and economic considerations (Adar 1987: 668).

The expansion of rights based on national sovereignty over marine resources formed an important part of UNCLOS III negotiations (Adar 1987: 666; Suárez-de Vivero 2012),

[4] The area outside of national jurisdiction, however, is subject to the Common Heritage of Mankind, based on the theorisation that the resources that exist therein belong to the international community.
[5] Traditional aspects of the Law of the Sea include navigational rights and issues pertaining to national jurisdiction.

leading to the consolidation of EEZs, where sovereignty exceeds territory. The area outside of national jurisdiction, however, is subject to the Common Heritage of Mankind, based on the theorisation that the resources that exist therein belong to the international community. Sovereign rights over resources in the EEZs are assigned to states (Steinberg 2011), but this is not uniform across the different planes in the marine scape (the surface, water column and seabed) and, following extraction, sediments will be moved to landed terrain to be processed.

The importance of control over the sea remains a contemporary issue with submissions for the extension of states' continental shelves (including those of Namibia) still under negotiation (UN Division for Ocean Affairs and the Law of the Sea 2015). However, the discourse used during negotiations relating to the ownership and governance of the marine scape has consisted of an idealised vision of sovereignty, with political leaders articulating ideas associated with national sovereignty in opposition to foreign competitors (Dodds 2012: 993). Sovereignty in contemporary "resource nationalism" scholarship has often been constructed as if it operates in direct opposition to foreign investment, with nation-states exerting exclusive control over internal resources, an interpretation which stems from the literature's focus on a predominantly territorial conception of sovereignty (Emel *et al.* 2011: 70).

Using Namibia as a case study, this thesis will analyse the roles of key state and non-state actors involved in the marine phosphate debate in order to highlight how this unique space of extraction opens-up discussions around sovereignty over resources. The involvement of non-state actors is particularly evident in Namibia's case due in part to the unique nature of marine mineral extraction and, consequentially, the technologies required. Other claims that will be unpacked by this thesis include those from multinational corporations and the fishing industry.

Figure 1.2. Map of Namibia (CIA 2019)

Seabed mining

Seabed mining offers insight into the ocean-based economic 'frontier'. Worldwide, extraction projects have begun to develop, including off the coast of Japan (which successfully mined zinc in its EEZ in 2017). Permissions are currently under negotiation in the EEZs of Mexico and Namibia (UNEP 2014: 1; see also Mengerink *et al*. 2014), the latter of which provides the case study for this thesis. Although many of the technologies for extraction remain under development, and the required techniques only in their conception phase, mining is projected to occur through a variety of harvesting systems depending on the physicality of the resource being extracted (ISA 2008). Concurrently, there has been recognition of the potential for sustainable economic growth arising from states' EEZs. This has led to the sea and the natural resources within this space being conceptualised and commodified as part of the 'blue economy'. Namibia is likely to be one of the first countries to engage with seabed mining and provides the case study through which the themes of this thesis will be addressed.

The seabed has re-emerged as a potential resource frontier due to the projected abundance of minerals in the ocean (Ramirez-Llodra *et al.* 2010: 2882). Around the world, extractive projects have begun to develop under the guise that demand for these minerals is increasing the economic viability of seabed mining (WTO 2010). This revived interest in the potential of the marine scape as a resource frontier is perceived

to owe to an increase in demand for minerals, which in turn is due to the trend amongst Western states to transition to resource-intensive economies. However, that there is a direct correlation between scarcity, demand and the market value of minerals has been contested by scholars such as Julie Klinger (2018a; 2018b). This interest in phosphate mining is is compounded by the continued reliance upon phosphorus-based fertiliser in intensive agricultural practices which, when coupled with pressure on food production from a rising global population (WTO 2010). Phosphate is an important input in the production of fertiliser and has become central to modern agricultural production. As the human population grows, so do fears surrounding food insecurity as the demand for resources considered adequate to meet future needs increases. These claims underpin the economic viability of extractive projects such as those proposed by Namibian Marine Phosphate Ltd (NMP), which acts as a case study for this thesis.

Occurring at both the lower and upper parts of the continental shelf, the accumulation of phosphate occurs in some of the driest places on earth. Along with the littoral states of Peru and Chile, Namibia has very large deposits of phosphate and is credited with possessing the seventh-largest deposit in the world.[6] The sea floor has the heaviest accumulation of phosphate, and deposits are seen as the "survivors of a series of inter-related tectonic, geochemical, sedimentological and oceanic conditions" (Filippelli 2011: 759). Found in relatively shallow waters generally less than 600 metres deep, phosphorites are restricted to the continental shelf and slope. It is here that upwellings of nutrient-rich water occur. Organic matter including phosphate then settles and is then buried on the sea's subsurface. This sediment then transforms into phosphorite which takes the form of nodules or thick crusts, found most abundantly on the continental shelves of south-western Africa (Giresse 2007: 245, 259). However, unlike its contemporaries whose continental shelves are steep (Hampel *et al.* 2004), the gradual gradient of Namibia's continental shelf makes it an attractive investment option for the type of mining discussed. As one interviewee stated, offshore mineral extraction in Namibia is desirable due to the presence and accessibility of phosphate: "The [dynamic nature of] the Namibian coastline has done the compacting work for mining companies. It is an easy grab".[7]

While habitual interest in the oceans is absent, social (re)constructions of the marine sphere are integral to discussions of the blue economy and marine mining. With a marine scape characterised by the presence of a multitude of actors with various different relations to the sea, discussions of resource sovereignty must take into account the influence of non-state actors that shape the accessibility and control of resources and move away from the concept that territory and sovereignty are an "*a priori* attribute of the state" (Reeves 2011: 906 emphasis in original; see also Dodds 2012: 1992). NMP is a joint venture company between the Oman-based Mawarid Mining LLC and the Namibian company Havana Investments (PTY) Ltd, responsible for the Sandpiper

[6] Interview 32.
[7] Interview 32.

marine phosphate project: which is referred to throughout this thesis. This in turn is situated 60 kilometres off the coast to the south of Walvis Bay in Namibia's EEZ.

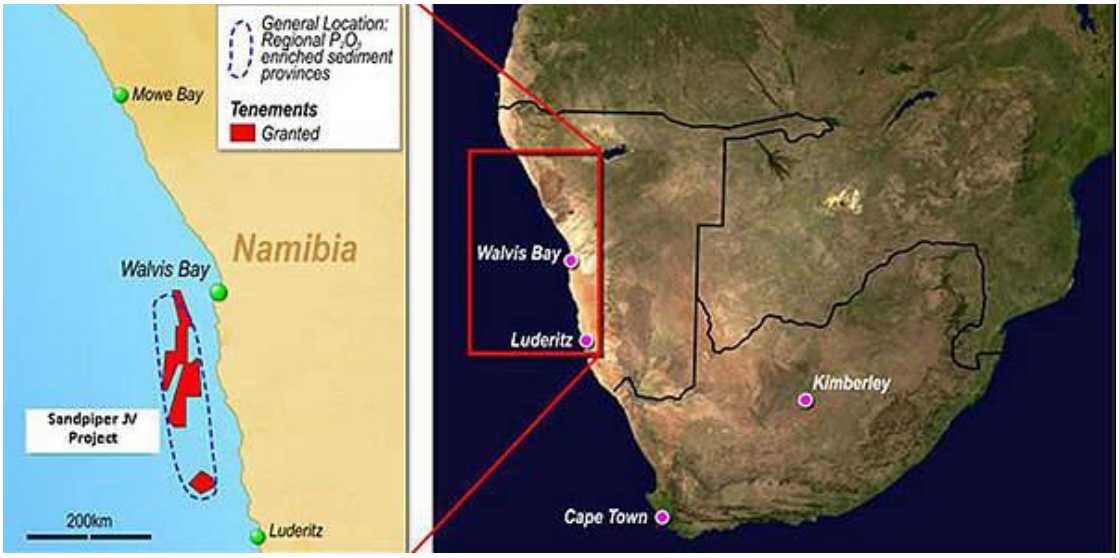


Figure 1.3. Sandpiper project location (Mining Technology (n.d.))

Permits for exploration are currently under negotiation by Namibia Marine Phosphates Ltd (MVP).[8] The Sandpiper project, which is situated on Namibia's continental shelf, consists of an area of approximately 2,233 square kilometres with depths ranging between 180 and 300 metres (NMP 2016). The company currently possesses a valid Mining Licence, which was issued on 26 July 2011 and permits it to mine phosphorite minerals offshore, 120 kilometres west of Walvis Bay (High Court of Namibia 2018). The licence has a lifespan of 20 years; however, when the project can actually commence depends on the company's obtainment of an Environmental Clearance Certificate. Despite NMP stating on its website that it is in the "advanced stage in the gaining of such clearance" (NMP n.d.), this clearance has been contentious (as will be discussed below) and as a result is still under negotiation. Furthermore, additional projects are being considered by other companies further south, offshore from Lüderitz.

Marine phosphate mining – an introduction

Thee extraction methods involved in seabed mining differ from that achieved by traditional terrestrial mining due to their manipulation of the seabed within a volumetric site of extraction. The technologies entailed in offshore mineral extraction include remotely operated vehicles, cutters and in the case of Namibia, Trailing Suction Hopper Dredgers. This technology is characterised by a retractable dredger arm and head which extracts sediment from the seabed. This sediment will then be transferred to the vessel, then pumped to the shore. Initial estimates of approximately five million tons per annum of phosphate recovery were provided (NMP n.d.), but I have not been able to clarify this amount. As aforementioned, the unique physical nature of the seabed, materiality

[8] A moratorium is currently in place upon presentation of a comprehensive Environmental Impact Assessment (EIA), following protests and concerns raised by the Namibian Ministry of Fisheries. This EIA is in progress and negotiations are ongoing.

of resources and associated mining technologies opens challenges to the conceptualisation of sites of extraction and resource ownership and sovereignty. Marine phosphate mining is not point source and presents different challenges to those of offshore oil and gas extraction. The technologies involved have complicated theories of point source extraction, with the resources themselves moving through the ocean's three-dimensional water columns. Marine mineral mining differs from its land-based counterpart due to the remote underwater extraction methods employed and controlled from a floating platform on the sea's surface (ISA 2008). The process of mineral exploitation, following exploration, involves extraction, lifting and surface operations, each of which interact with various legal regimes, sovereign claims and physical characteristics at different spatial levels.

Despite the unique nature of the extractive space, terrestrial ontologies continue to be applied to the marine environment without sufficient consideration of the particularities of the fluid and voluminous nature of the sea. This understanding is further complicated by the fact that the sea is a three-dimensional space consisting of multiple layers that are interdependent in nature (Ryan 2015). Unlike the human and other natural interactions that occur on land territory, society is less able to mould the sea in accordance to its desires due to the seas' uncertainty (Peters 2012: 1243). The emergence of the sea as a potential new resource frontier, its unique nature, volume and the consequential development of the geopolitical order affords one the potential to understand issues of space and power through a different lens (Steinberg and Peters 2015: 254). Resource extraction in the marine scape differs from terrestrial mining, where resources are brought to the surface from beneath the ground, as minerals interact with different spatial dimensions and projections of power. Minerals such as marine phosphate are extracted from the seabed, moved through the water column and finally onto the shore to be processed in plants which may reside outside of a given coastal state's jurisdiction. These planes have separate legal structures which in turn impact upon state sovereign rights. Furthermore, as Gavin Bridge indicates, the ability to exert power relies upon the capability to manipulate volume (2013: 56). Thinking about the marine scape in terms of volume enables one to discuss the emerging contentions and ownership claims that are masked through traditional, and terrestrial, two-dimensional thinking.

A contentious project

The increasing global interest in the marine scape, due to its conservation and development potential (Abbott *et al.* 2014; Campbell *et al.* 2013; Silver *et al.* 2015: 138), highlights the need for further research in relation to this emerging frontier (Benjaminsen and Bryceson 2012; Silver *et al.* 2015; Steinberg 2008). The spatial dimensions of political geography are often overlooked (Badie 2000; Elden 2010), despite the fact that they are integral to one's understanding of natural resource ownership, governance and distribution. These contentious issues can aggravate political unrest in countries of extraction and result in political and economic tensions among foreign investors, governments and citizens (Bebbington 2014; see also Collier

and Hoeffler 2005; Le Billon 2001), and therefore it is imperative that this thesis considers the spatiality of the seas.

The potential of marine phosphate mining has been met with contention in Namibia. Concerns have been raised on environmental grounds (due to fears of plumes and the release of toxic materials into the water column) and regarding the extraction's impact on the fishing industry. In 2012 and 2016, protests against the mining occurred in Swakopmund and Walvis Bay. The issue has also been the subject of frequent media attention and public discussion since 2012. Groups including Swakopmund Matters (SM), which is an anonymous advocacy organisation, have been central to these debates, circulating reports and consultation documentation relevant to seabed mining via email. Articles have also been written by adversaries to the project in *The Namibian* (Namibia's main print and online news publication).

The emerging tensions and territorial disputes over the marine domain have created a situation whereby Namibian fishing industry associations, supported by the company Omualu Fishing, have become embroiled in a related court case. This case has been raised against NMP and the Ministers of Environment and Tourism, Fisheries and Marine Resources and Mines and Energy, regarding the validity of the mining licence issued to them and of the environmental clearance certificate they hold (Shapwanale 2016).[9] An additional case has been raised against NMP by a private individual, indicating that articulations of sovereignty differ between state and non-state actors. Namibia is therefore an appropriate case study for research into the articulations of the blue economy and the ways in which differing sovereignty claims over this emerging extractive space are challenged by the nature of the marine environment, as well as the resulting conflicts arising from the desire of different sectors to establish, or continue to exert influence over, the marine domain. With the exception of Philip Steinberg who has argued that terrestrial matters should not be applied directly onto the sea (2013: 156), the importance of how marine mineral extraction conforms to landed conceptions of resource sovereignty is vacant from the literature. The involvement of non-state and state actors in this debate has also been neglected. This thesis will therefore build on these gaps and will uniquely offer a detailed analysis of resource sovereignty in the context of the seabed in Namibia's EEZ.

Namibian context

Before this thesis proceeds with its analysis, it is first imperative to understand the context under which discussions of the blue economy and seabed mining are emerging. As such, this section introduces the relevant background to the Namibian context into which I arrived for fieldwork first in 2016 and again in 2017 and 2018. The detailed context of Namibia's historical relationship with its marine scape, meanwhile, will be discussed in Chapter 3.

[9] An 18-month moratorium on marine phosphate mining was imposed place in 2013 but this has been extended and remains in place at the time of writing.

Namibia gained independence in 1990, following the end of German and then South African mandate rule. Namibia's colonial experience was defined by large-scale foreign exploitation of marine species, including through fishing, by both indentured and contracted migrant labour (Paterson *et al.* 2013) as well as apartheid rule by South Africa. UNCLOS III was signed on Namibia's behalf by the United Nations Council for Namibia and current mining structures (including offshore diamond mining) were inherited from the days of colonial rule.[10] Following Namibian independence, the South West Africa People's Organisation (SWAPO) – the liberation movement which was the only internationally-recognised representative of the Namibian people (Malkki 1995; see Melber 2007a, 2014: 26) – attempted to rectify the resource exploitation that Namibia had experienced during colonisation. In 2011, the Ministry of Mines and Energy (MME) declared several minerals to be of strategic interest following concerns within the government about the domination of the mining sector by foreign-owned multinational corporations (Melber 2014). The key objective of SWAPO's economic development strategy was the "total transformation of the undesirable historical, structural, ideological and political parameters that had led to the perpetuation of conditions of socioeconomic underdevelopment" (Kaapama 2007: 33). However, despite the nationalist rhetoric accompanying them, projects promoting self-determination have not been isolated from external involvement (Melber 2014).

Drawing on theories of developmental sovereignty this thesis argues that, given the loss of some of its sovereignty over resources due to the involvement of external actors, Namibian state policies are formulated for the territory under the state's control. However, there have recently been claims that SWAPO is blurring the line between the state and political parties, and between political and public interest. This distortion masks the interests of communities which in turn remain unaddressed (Melber 2014). As has been argued by Keith Barney in the case of Laos, resource frontiers capture "an important empirical 'reality' concerning the political economy of rapid and uneven development in the country" (2009: 150). Studies focusing on power relations and imbalances have emerged, particularly in relation to the state and to international investors (see Littlewood 2015), and the attempted nationalisation of resources has been criticised for allowing government-sponsored elites to acquire resources for private benefit under the guise of empowerment for the general population. In reality, power imbalances coupled with the continuation of the *de facto* foreign ownership of Namibian resources has meant that the process has been of little benefit to the marginalised majority of Namibians (Melber 2003). This thesis will therefore analyse various actors' relationships with the marine scape, considering the historical and political conditions that have shaped these interactions, and will discuss and evaluate the extent to which these claims fracture the policy-making process surrounding the blue economy and marine mining in Namibia. As Namibia is one of the first countries

[10] Mining remains integral to the Namibian economy, accounting for the highest proportion of Namibia's GDP with mineral wealth and constituting 52 percent of the country's exports (Namibian High Commission 2011).

to undergo this type of mineral extraction, lessons identified by this thesis are likely to inform discussions on other emerging seabed mining projects.

Despite being classified as an upper middle-income country (World Bank 2019), Namibia maintains some reliance upon donor involvement and grants, particularly during its current financial crisis. At the time of writing Namibia is in recession following economic contraction (Nyaungwa et al. 2018) with its unemployment rate standing at 23.3 percent according to the most recently available figures (World Bank 2017). However, Namibia's transition to upper middle-income status has meant that it is ineligible for various development assistance funds, and as a result it is instead seeking alternative sources of income, including in relation to its EEZ. Despite proposals for phosphate mining occurring prior to the formalisation of the blue economy in Namibia's 2017 National Development Plan 5 (NDP5) the potential for marine mining to contribute to economic development has become central to blue economy discussions in Namibia.

The ocean's physicality means that, unlike the land, the ocean holds limited value for human habitation. As such, ownership of or control over these spaces has been projected predominantly by interests in state security and/or state and non-state resource extraction. The dynamic quality of Namibia's dynamic coasts has limited coastal habitation and resulted in an almost complete absence of artisanal fishing. Because of this, it appears that projects such as marine phosphate mining are unlikely to be met with the contention. This is especially important to consider given the perception by governments and industry that the EEZ is void of social dynamics and ignored by citizens due to its invisibility. However, the emerging contention around marine phosphate mining illustrates the contrary.

Research questions

This thesis will draw on literature on the green and blue economy, space and territory and resource sovereignty to analyse the emergence of the blue economy in Namibia, the consequences of associated frontier rhetoric and the competing claims to sovereignty over and within this "new" site of extraction.

In doing so, this thesis will investigate the following research questions:

RQ1. "How has Namibia's blue economy and the associated discussion of marine phosphate mining emerged? (Chapter 4)

RQ2. How is the blue economy understood within Namibia and what are the consequences of this? (Chapter 4)

RQ3. What work does frontier rhetoric do to empty and (re)make the marine scape as a site of extraction? (Chapter 5)

RQ4. How can the seabed as an extractive space be conceptualised? (Chapter 5)

RQ5. What are the competing claims to sovereignty that have emerged from discussions of marine phosphate mining? (Chapter 6)

RQ6. How does the sea resist or conform to traditional notions of (resource) sovereignty? (Chapter 6)

Contribution

This thesis contributes to three main areas of literature: scholarship on the blue economy, space and territory and resource sovereignty.

Using the case study of Namibia, this thesis will deliver its first key contribution: providing insights into how the blue economy has emerged in Namibia and the consequences of the concept's ambiguity.

The second main contribution of this thesis is to bolster research in frontiers, to which this thesis will introduce empirical insights relating to the EEZ as an emerging extractive frontier.

The third main contribution of this thesis is to strengthen research on sovereignty over mineral resources in the marine scape, to which this thesis will introduce empirical insights relating to the multitude of ownership claims in the marine scape.

Structure of the thesis

This chapter has outlined the background to the research problem and the research questions that this thesis will address, as well as the main contributions this thesis will deliver. To make these contributions, this thesis proceeds in six substantive chapters. Chapter 2, the literature review, offers a critical review of the relevant literature and theories that provide the grounding for this thesis. It draws particularly on research on the green and blue economy, space and territory and delineates resource sovereignty to identify the research gaps that this thesis addresses. Chapter 3 provides a detailed explanation of the research methodology that this study applies. In doing so, it identifies the strengths and relevance of the methodology in analysing the case study of Namibia. It also offers a reflective understanding of the limitations of the qualitative methodology selected. Before the thesis moves into the three core empirical chapters, Chapter 3 provides a detailed contextual introduction to the Namibian case study. It does so with a marine focus, which is integral to the understanding of the embedded dynamics discussed in the subsequent empirical chapters.

Each of the three empirical chapters addresses one of the research questions detailed above. Chapter 4 analyses how the blue economy has come into fruition in Namibia, and who is driving the formalisation of the agenda. Drawing on fieldwork interviews and policy documentation, this chapter analyses the agenda's origin and funding, as well as the divergent definitions of the blue economy that are evident in Namibia. This chapter argues that the ambiguity of the concept at a global level is reflected in Namibia and that divergent definitions exist across and between the state and non-state actors involved with the formulisation of the concept. This has effectively reduced Namibia's marine environment to a space that actors can exert influence over and apportion in accordance with their own agendas. The chapter then proceeds to analyse the consequences of this ambiguity. In doing so it argues that, because of this, the concept

of the blue economy can be utilised to justify incursions by emerging projects, such as marine phosphate mining.

Chapter 5 provides a critical analysis of the sea scape as an emerging extractive frontier. It argues that Namibia's EEZ is not a new frontier but has been reconfigured over time. It then constructs the sea scape as an emerging site of extraction, paying attention to concerns of volume, three-dimensionality and fluidity. It concludes by arguing that the sea challenges predominantly terrestrial conceptualisations of sites of extraction.

Chapter 6 engages with the final two research questions[11] and analyses the key claims to sovereignty over the space. They include, though are not limited to, claims made by the Namibian state and by the fishing and mining industry actors. It concludes by arguing that the unique characteristics of phosphate extraction exposes conflicting interpretations of the marine scape and ownership over it. It highlights that this has resulted in a coalescence of multiple and often dichotomous interpretations of sovereignty even at the level of the nation-state.

The concluding chapter will summarise the arguments put forward by this thesis and will deliver the study's researching findings. This thesis demonstrates that Namibia's EEZ, contrary to its framing as empty and as a "new frontier", is far from void. The offshore nature of the seabed as an emerging site of extraction can incorrectly mask the complex, coalescing claims to the marine scape. However, the contention over marine phosphate mining in Namibia highlights that traditional terrestrial conceptualisations of resource extraction are complicated by the geophysical nature of the marine sphere. The chapter will also give broader reflections on this study's research findings, including (theoretical) implications and limitations. Finally, the chapter will deliver recommendations for further research.

[11] RQ5: What are the competing claims to sovereignty that have emerged from discussions of marine phosphate mining? RQ6: How does the sea resist or conform to traditional notions of sovereignty?

Chapter 2

Literature review

Introduction

At present there is no specific strand of literature linking scholarship on space and territory, resource sovereignty and the 'blue economy'. Therefore, this chapter will engage with the relevant literature in order to provide a point of departure from which this thesis can explore these relationships. This chapter's review will be split into three sections: the blue economy, space and territory, and sovereignty over natural resources.

The first section will draw on literature on the green economy to situate the global emergence of the blue economy. In doing so it discusses the divergent definitions of the green economy and the consequences that this has engendered. It then unpacks the emergent literature on the blue economy, with reference to its establishment in African states. It identifies the need for scholarly engagement with the concept – a void that this thesis hopes to contribute to. The second section discusses scholarship on space and territory, with reference to frontiers and mineral extraction. This section argues that although scholarship has engaged with spatial themes including vertical reciprocity and the role of volume, it has a predominantly terrestrial focus. Concurrently, as the blue economy emerges as a new frontier, there has been recognition that scholarship pertaining to the marine scape must avoid a terrestrial and two-dimensional lens. This thesis therefore combines these literatures to analyse how the marine scape is framed as a new, potential, extractive frontier.

The third and final section draws on theories of resource sovereignty and recognises the importance of moving beyond the state, to analyse the role of non-state actors. This is apposite to this thesis. In considering how the marine scape challenges traditional conceptualisations of resource sovereignty, through the lens of seabed mining, this thesis will analyse the diverse claims from state and non-state actors. This chapter will then conclude with an evaluation of the current literature. In doing so, this chapter locates a significant void in the literature on resource sovereignty: namely, there has been little in the way of attempts to address the contestation between the blue economy and marine mineral extraction.

Previous research

The emergence of the ocean as a potential frontier has garnered global attention, with recognition of the opportunities presented by the marine economy attracting interest on an international, regional and local level regarding its management. According to Kacynski Wlodzimierz, the blue economy offers a new lens through which to analyse emerging ocean industries including marine transportation, offshore energy, tourism, exploration and mineral extraction (2011: 21), the latter of which forms the focus of this thesis. However, this framing is an oversimplification which ignores the number of

often competing state and non-state interests that exist within the marine environment. Namibia offers an opportunity to engage with these contemporary issues, due to the emerging and ongoing contestation pertaining to marine phosphate mining.

The emergence of the blue economy

From green to blue

Drawing on terrestrial conceptualisations of the green economy, the blue economy has emerged as a new agenda, including in Namibia, signified by the United Nations Environment Programme (UNEP) arguing that ignorance of the world's seas impinges upon a state's ability to achieve a green economy (2012: 2). Nicholas Kathijotes conceptualises the blue economy as the maritime version of the green economy; the result of the interplay between the ocean, science and technological advancement (2013: 8). Therefore, when attempting to situate the 'blue economy,' it is imperative to understand the emergence and implementation of the 'green economy' and green growth discourse.

The green economy, like sustainable development, emerged as a strategy in political discourse in an attempt to reconcile and reduce environmental problems that accompanied development (Brand 2012: 28). Thomas Wanner argues that the green economy agenda emerged from environmental economics, with calls for a "new economic paradigm" to be developed based on greening growth (2015: 22; see also Ekins 2000). Hence it was implied by Ulrich Brand that this emergence recognised that the sustainable development rhetoric was largely unsuccessful due to its exclusion of actors required to push its agenda forward led to the conception of the 'green economy' a strategy that was socially and, crucially, economically attractive (2011: 28). The OECD, however, disagrees with the claim that the sustainable development agenda has failed, arguing instead that the green economy is "not a replacement for sustainable development, but rather should be considered a subset of it" (OECD 2011: 11).

A lack of cohesion remains around the definition of a green economy with the World Bank defining green growth as "economic growth that is environmentally sustainable" (2012: 24) and the UNEP highlighting the "range of different social, economic and environmental objectives which [the] green economy is supposed to achieve" (Wanner 2015: 28). These objectives are multiple and broad in remit. They include job creation, poverty alleviation and social equality as well as economic growth (UNEP 2011). Encompassing similar remits, the International Union for Conversation of Nature regards the green economy as "a resilient economy that provides a better quality of life for all within the ecological limits of one planet" (IUCN 2012) and the United Nations defines it as

> unit[ing] under a single banner the entire suite of economic policies and modes of economic analyses of relevance to sustainable development. In practice, this covers a rather broad range of literature and analysis, often with somewhat different starting points
> (quoted in Hossain 2014; see also Brand 2012; Khor 2011)

These definitions begin to highlight some of the conflicts and contradictions that are inherent in strategies surrounding the green economy and that characterise this debate. As Matthew Dornan and colleagues argue, in relation to the green economy's deployment by Pacific Island states, this ambiguity has led to actors deploying contesting meanings in accordance to their own agendas and world views (2018: 408). The inherent potential conflicts and contradictions between these definitions must therefore be considered when looking at how sovereignty claims, particularly in relation to marine mineral extraction in Namibia, challenge the notion of the blue economy.

Despite the lack of consensus on its definition, the Rio +20 United Nations Conference on Sustainable Development (UNCSD) saw the green economy established as part of the international environmental agenda, positioned alongside development and poverty alleviation priorities. However, as aforementioned, calls had also previously been made for a "new economic paradigm" that encompassed growth and environmental concerns (Wanner 2015: 22). Olivia Bina notes that the 2008 financial crisis can help to explain the popularity of the green economy (2013; 1027). Joseph Stiglitz argues that it was this crisis that "shifted neoliberal capitalist hegemony" (quoted in Nathan Gardels 2008) whilst Immanuel Wallerstein agrees that this indicated the "demise of neoliberal globalisation" (2008). This view is, however, contested by Wanner who argues that the outcome from the financial crisis has not resulted in the demise of "neoliberal globalisation" but is in fact primarily a "passive revolution" (2015: 23) providing an orientation which neutralises challenges to neoliberalism. By commodifying and creating markets for nature, scholars such as Kate Symons (2018) and Wanner sees this not as an end to the neoliberalisation of capitalist society, but as its extension (2015: 24). Wanner also argues that the rhetoric's attention to the economic dimensions of the green economy ignores the political and social dimensions of sustainability (2015: 28). This can be seen in the comparison of Botswana and Namibia where, in both instances, natural resources have been depleted. However, as Geoffery Heal argues Botswana is reinvesting rents into socio-economic projects Namibia is not (2012: 152).

The World Bank has been central to promoting both the blue and green economy through the means of financial and technical assistance and knowledge dissemination (Dornan *et al.* 2018). The UNEP has also been crucial in highlighting the green economy's apparent potential role in the eradication of poverty and defining the environment as one of the key drivers of economic growth (UNEP 2011). The UNEP promoted increased market access and commodification of resources in order to address concerns that arose when there was lack of clarity over resource ownership. "People [would consequently] lack the incentive to manage [the resource] well" (UNEP 2008: 565), resulting in issues surrounding the tragedy of the commons and ecosystem degradation.[12] This was promoted by the Green Economy Coalition, comprised of NGOs and private sector organisations who favoured a 'recapitalisation of our natural resource base' to 'incentivise investment' (Green Economy Coalition 2011: 7).

[12] The tragedy of the commons argues that resources held in common, such as oceans and air, are subject to high levels of degradation and exploitation (see Hardin 1968).

The green economy's commodification of nature has, however, been challenged, although this is often framed as a challenge against the 'agenda' itself as opposed to the key actors who were and remain involved with the formalisation of the green economy (Brand 2012: 29). This view is shared by Martin Khor who argues that the green economy depoliticises sustainability and does not address the structural causes of economic inequality and poverty (2011), and these criticisms would arguably be applicable to the blue economy as well. The green economy has been further criticised for not distinguishing between developed economies and developing ones such as Namibia: Wanner argues, for example, that a one-size-fits-all approach perpetuates the global asymmetries that currently exist (2015: 27). James Goodman and Ariel Salleh agree with this notion, arguing that the green economy is an attempt to homogenise discourse, a process which will not only fail achieve sustainable growth but also challenge democracy (2013: 412).

The green economy has been publicly supported by the Namibian government (Faccer *et al.* 2014: 653) and Namibia's terrestrial approaches within this transition have been praised (WWF 2013). Approaches such as Community-Based Natural Resource Management (CBNRM), where revenue is increasingly derived from international tourism and the practice of trophy-hunting, draw on market-based conservation (Lapeyre 2011; Naidoo *et al.* 2016). However, Sullivan and colleagues have criticised CBNRM projects for moving knowledge and decision-making processes away from communities to external tourism demands and (usually larger and international) NGOs (Sullivan *et al.* 2016). Despite this contestation, a uniform approach has also been applied to the blue economy.

The contestation surrounding the green economy that characterised debates at Rio + 20 did not extend to blue economy discourses, even though different actors "espousing quite different human-ocean relationships freely used the term" (Silver *et al.* 2015: 150). However, as Jennifer Silver and colleagues argue, the blue economy remains undefined (2015: 152). It is this lack of definition that has begun to highlight the "power and precariousness of discourse in global environmental governance" (*Silver et al. 2013*: 152; see also Corson and MacDonald 2012; Suarez and Corson 2013).

The blue economy

The concept of the blue economy is relatively new in the field of global environmental governance, originally pioneered by Small Island Developing States (SIDS). However, it is relevant to all coastal states and countries that also have an interest in waters beyond national jurisdiction, including Namibia. Interests in the marine environment as a new frontier are not limited to conservation, with the discovery and development of scarce natural resources offering potential for economic development (Ehlers 2016: 195; Barbier 2012: 110). Ray Allen Billington argued that a frontier is

> a geographic region adjacent to the unsettled portions of the continent in which a low man-land ratio and unusually abundant, unexploited, natural resources provide an exceptional opportunity for social and economic betterment (1966: 25)

This definition has been expanded to encompass not just landed terrain but also minerals and their extraction (Barbier 2012: 110) processes which occur, or have the potential to occur, in the world's oceans. These emerging frontiers, such as Namibia's EEZ, are characterised by abundant, unexploited natural resources offering the potential for socio-economic development. Regarded as zones where the "economy, nature and society" collide, frontiers are often characterised by formation of "systems of legality… [conceived] in response to market imperatives" (Barney 2009: 146). As Nancy Peluso and Christian Lund (2011) argue, in relation to the production of urban-agrarian-natured environments, frontiers can be understood as sites of struggle between historic legitimacies and new methods of enclosure. This collision of economy, nature and society is apparent in conceptualisations of the blue economy, despite the lack of uniformity between definitions.

Much as in the case of the green economy, little consensus on a definition has been reached for the blue economy, with a variety of articulations existing across competing discourses. Simone Smith-Godfrey argues that the notion of a blue economy has its origins in the 2012 United Nations Conference on Sustainable Development (UNCSD) also referred to as Rio+20 (2016: 59). Silver and colleagues in their analysis of the articulation of blue economy in the lead up to Rio+20 also identify that it was during the preparatory meetings of March 2011 that sustained use of the terminology occurred, initially by the UNCSD Secretary-General and representatives of the SIDS (2015: 140–141). Mishra and Iyer (2019) argue that the United Nations Conference on Trade and Development in 2014 defined the blue economy as the "economic and trade activities that integrate the conservation and sustainable use and management of biodiversity, including maritime ecosystems and genetic resources" (see also Van Wyk 2015: 154). More recently The World Economic Forum adopted the following working definition for the blue economy: "A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy" (McIlgorm 2015). These various definitions illustrate that a lack of coherency also pertains to the blue economy.

Examining the usage of the term "blue economy" by different actors during Rio+20, Silver and colleagues (2015) found that the concept did not have a uniform definition. In contrast to Smith-Godfrey's search for a uniform and universal definition, Silver and colleagues offer an alternative theorisation, asking "whether the blue economy will eventually be understood singularly or as the domain of a particular actor or discourse" (2015: 135). The generalised lack of consensus over a definition of the blue economy has engendered varying articulations that exist across competing discourses (Winder and Le Heron 2017: 5). As Maria Hadjimichael (2018) argues, this profusion of definitions globally serves to constrain the agenda. Although there has been scholarly

recognition that the concept of the blue economy lacks a uniform interpretation, there has been little engagement with the consequences of this fact (see Winder and Le Heron 2017: 10). As such, this thesis will analyse the consequences of the divergent definition in Namibia.

The Rio+20 discussions and UNEP's report on the "Green to Blue Economy" championed the outcome of "improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities, endorsing low carbon, resource efficiency and social inclusion" (UNEP 2011). Meanwhile, the UN conceptualised the marine environment as a development space (Silver *et al.* 2015). Silver and colleagues contemporaneously found that particularly during Rio+20 discussions, different actors when discussing different oceanic issues adapted the term in ways that were incongruous to one another (2015: 137). Silver and colleagues argued that at Rio+20 in the context of human-ocean interactions these articulations were dependent on whether oceans are conceptualised as constituting natural capital, representing good business, or appearing integral to Pacific Small Island Developing States or small-scale fisheries livelihoods (2015: 135). However, the multiplicity of definitions raises questions as to where these potential definitions of the blue economy are coming from.

Peter Ehlers (2016) argue that the emergence and usage of the terminology blue economy, highlights a variety of discourses by different actors within these debates (2016: 195). Though the frameworks outlined by scholars such as Silver and colleagues differ, they broadly agree with Catherine Corson and colleagues, whose conception holds that both developmental and conservational discourses are "cultivated through, and coordinated by international environmental policy institutions, organisations, activists, academics and transnational capitalist and managerial classes" (2013: 3). These disparate conceptualisations also change how the blue economy will be enforced and institutionalised into policy, a process which will be considered by this thesis within the case study of Namibia.

Following UNCLOS, states' rights over resources within their EEZs were legally formalised. However, as Juan Luis Suarez-de Vivero and Catherine Corson argue, this accounted for only 42 percent of the ocean, with the concept of the Common Heritage of Mankind applying to the remaining "Area" (2013). Silver and colleagues (2015) therefore imply that the governance of ocean is fragmented, with Natalie Ban and colleagues (2014) distinguishing this as an indicator of increasing vulnerability towards the inequitable allocation marine resources. Furthermore, attempts to compartmentalise the ocean present many disparate challenges due to its fluidity and the multi-layered legal framework imposed upon this environment. International frameworks including UNCLOS are ratified and institutionalised at regional, national and local levels, but successful marine planning requires that the international-level decisions integrate with countries' national-level economic and value-based agendas (Smith-Godfrey 2016: 1).

Africa and the blue economy

Despite being a new concept, the blue economy agenda has begun to gain traction in several states (van Wyk 2015: 154) including Namibia. Jo-Ansie van Wyk highlights how island states such as Mauritius have initiated policies at a national level to increase engagement with the economic potential of this emerging frontier (UN 2014). In moving from the land to sea, the emergence of the blue economy in states such as Namibia illustrates the global shift towards the ocean. Just as Sharad Chari discusses in relation to the Indian Ocean, but also applicable to the Atlantic, Africa's marine space "signifies a new center of gravity in contemporary capitalism and geopolitics, a space of circulation interrupted in seemingly anachronistic ways by "pirates" and by US counterpiracy" (Chari 2015: 84). While traditional scholarship on the seas is often dominated by discussions of piracy – reflected in engagement with the overlap of maritime security and the blue economy (see Bueger and Edmunds 2017) – the emerging (re)configuration of the ocean moves it beyond purely being a space of circulation, viewing the ocean as a productive space in and of itself. This (re)configuration requires further interrogation particularly considering the (geo)physical differences between the land and sea.

Challenges

The challenges and conflicts illustrated by the green economy offers insight into the commodification of nature by the blue economy in Namibia and the resultant sovereign challenges. As Catherine Corson and Kenneth MacDonald (2012) argue, the green economy differs from the concept of sustainable development due to its grounding in capitalist logic. They have criticised this commodification of nature, arguing that it is instead being used to enforce a capitalist agenda (see Silver *et al.* 2015: 138). As the ocean is framed as a new frontier under a multitude of agendas (Abbott *et al.* 2014) there is a need to ensure that attention is given to the institutional contexts and discourses that constitute the blue economy and its conception (Silver *et al.* 2015: 138; see also Steinberg 2008). Due to increasing interest in the potential of Namibia's sea including, but not limited to, those advocating for conservation and development agendas (Abbott *et al.* 2014; Campbell *et al.* 2013), discourse(s) of commodification of the global oceans have emerged. As seen in the case of the green economy, but relevant also to discussions relating to the blue economy, conceptualisations of nature and its resources as commodities, with development potential, are being institutionalised by multilateral organisations including conservation-based INGOs (Corson 2010; Fairhead *et al.* 2012: 244) particularly in developing states. James Goodman and Ariel Salleh observe that the green economy is a concept "waged across several dimensions, engaging both state and non-state actors" (2013: 412), and it can be argued that the same is now occurring in relation to the marine scape, raising questions as to who is defining the blue economy.

National space and its governance must therefore "be situated in the processes that produce it" (Kuus 2018: 2). While international organisations and INGOs are promoting blue economy rhetoric, their relationships with Namibia entail deep political agendas

(see Chalfin 2015: 113). With interest in the potential of Namibia's sea, the range of actors and interests involved in seabed mining must be analysed. Echoing the calls of Jennifer Franco and colleagues (2014), Silver and colleagues there is a void of case studies analysing the discourse(s) of commodification of the global oceans (2015: 153). The fact that the concept means different things to different people and industries implies that one must analyse the ownership of knowledge and the diverging interests that currently inform marine policies. This is particularly pertinent given that the depletion of onshore minerals, alongside technological advances, has led to a resurgence of interest in the exploration and exploitation of reserves located in the seabed. Despite recognition of the wealth of marine minerals, including in Namibia's EEZ, discussions of the blue economies of African states have focussed on the continent's fisheries and conservation priorities, with scant reference to the emerging frontier of marine based mineral extraction.

Discussions of the green and blue economy have articulated concerns around land or sea "grabbing". The potential for land or sea "grabbing" is centred around the idea that the environment is being appropriated by actors in the interest of capital accumulation who give the appearance of operating in accordance to "green" values (Corson *et al.* 2013). John Vidal's theorisation of "green grabbing" (2008), associated with the debates on "land grabbing", is central to these discussions (see also Fairhead *et al.* 2012: 238). According to Vidal, "green grabbing" has enabled natural resources, including minerals, to be appropriated as ownership rights are transferred from the poor or wider populous to those in power (2008: 238). This view was also proposed by David Harvey's "accumulation by dispossession" theory, which argued that the appropriation of public assets for profit—in this instance natural resources—resulted in increased levels of social inequality (2003; see also Fairhead *et al.* 2012: 243). Drawing on Vidal's (2008) work along with that of Bakker (2005) and Robertson (2007), James Fairhead and colleagues apply this theorisation to the agrarian setting (2012: 241), arguing that the formalisation of natural resources as commodities open to the market has emerged as a result of politico-economic relations and the nexus that exists between science and politics. According to Corson and MacDonald, this marketisation of natural resources has enabled the adoption of neoliberal governance practices whilst allowing diverse state and non-state actors to employ the concept of achieving a "green economy" and the language surrounding this concept to "shift [both] priorities and practices" (2012). Therefore, Fairhead and colleagues argue that these political and economic relationships are integral when analysing the process of green grabbing and draws on Lyla Mehta's work to suggest the existence of "a Foucauldian knowledge/power relation in the production of scarcity" (Fairhead *et al.* 2012; see also Mehta 2011).

The emergent political and economic relationships are not uniform and have inherent power relations. In relation to "green grabbing", Fairhead and colleagues argue that this commodification of nature can result in the emergence of new spatial dimensions that could in turn increase inequality due to the dislocation of market transactions from the local geography of the resource (2012: 244). Hence it is implied by Fairhead and colleagues that the emergence of the green economy has led to degradation of state

sovereignty over natural resources, particularly in developing regions. As aforementioned, the state, through its sovereignty over natural resources, is the custodian of those resources on behalf of its citizens. However, the green economy presents an alternative articulation of who can have ownership over resources and there is a need to consider new methods and outcomes of emerging actors and resource appropriation (2012: 242). As Peter Haas argues, the green economy advocates a development and conservation agenda, instilled through a "global policy network of private and public actors" (2012: 95). These concerns have been raised in reference to land territory but are factors which will be considered throughout this thesis in relation to Namibia and its EEZ. This thesis will therefore analyse what challenges the sea scape presents to conceptions of the blue economy and will unpack how this dislocation from the local geography of resources takes form in relation to marine mineral extraction.

Space and territory

This thesis unpacks the unique (geo)physical characteristics of the marine scape to discuss how the seabed as a site of extraction complicates traditional notions of resource sovereignty. As noted by Philip Steinberg, it is essential that the analysis of terrestrial environments is not applied directly onto the marine community (2013: 156). The ocean must be located at the centre of analysis of oceanic matters, to ensure that its unique (geo)physical characteristics, materiality, movement and multidimensionality are considered. It is these unique characteristics that complicate understanding not only of territorial space but also of the role that space plays in the exertion of power – in so far as there is an unevenness in the capacity of actors to influence governance outcomes – and governance when analysing resource extraction in states' EEZs.

Resource extraction has the potential to encourage conflict and result in political and economic tensions among foreign investors, governments and citizens and has been discussed extensively in relation to terrestrial mineral mining (Bebbington 2014; see also Collier and Hoeffler 2005; Le Billon 2001). Through its commodification, nature becomes contested: both as a subject and producer of often unequal social relations (Weszkalnys and Richardson 2014; 10, see also; Ferguson 2005). As asserted by Anthony Bebbington (2014: 4), in order to fully understand the governance of extraction and its implications for development, one must deal explicitly with the spatiality of the resource itself and how these spaces and flows are constructed, valued and governed must be dealt with explicitly (Bebbington 2014: 4; *see also* Ey and Sherval 2016; 176). Anna Tsing argues that descriptions of frontiers regard the environment as inert: with resources enumerated and ownership assigned, enabling their ingression into the capitalist system (2003: 5100). With focus on South Kalimantan, Indonesia, Tsing asks, "how are landscapes made empty and wild so that anyone can come to use and claim them" (2003: 5101). On land the process of enclosure and, by association, exclusion can be pronounced, often characterised by violence and the forced displacement of communities. In contrast frontiers like the sea, are viewed as untameable wildernesses, void of resources but these are far from empty environments with unequivocal ownership claims as this thesis demonstrates

It can be argued that the marine scape, through the rhetoric of the blue economy is also becoming functionalised into the flows of the capital system. Just as Barney's work in Laos identified how frontiers were produced, marine scapes are becoming "functionally integrated with global capital flows and investment" (see 2009, 150). It can be argued that the sea scape, through the rhetoric of the blue economy is also becoming functionalised into the flows of the capital system. However, research into frontiers has been predominantly terrestrial (Barney 2009; Peluso and Lund 2011; Watts 2012). In his analysis, Bebbington discusses the geophysical challenges of resource extraction and the global scale and range of actors exerting ownership. He argues that space must be treated as endogenous to analysis of the governance of resources (2014: 14 ,16). Bebbington's work, however, also focuses on mining as a land based, point source activity, and his framework does not discuss the additional geophysical and governmental challenges that are presented by the sea as a space of extraction. It is this gap that this thesis will address.

Natural resources, in the simplest sense, move across space, forming over time until they are bought to the surface through evasive techniques such as mining or blasting (Bridge 2013: 56; Mumford 1934) or, in the case of marine mining, cutting and hydraulic suction. During this physical movement resources interact with different exertions of power and legal regimes. Mining, which sees resources move through multiple surface and subsurface layers, offers a clear example of how corporations and states exert their power through volume. However, geopolitics has traditionally taken a flat approach to space, adhering to two-dimensional cartographic representations of the world (Elden 2013: 37). These depressed representations flatten understandings of resource frontiers (Bridge 2013; Elden 2009, 2013), as they overlook the multitude of physical, legal and political layers that exist, and compete, within the space. By recognising the materialities that constitute space and how these inhibit or facilitate "the construction of territory whilst exerting power in multiple dimensions", can enable one to gain a better geopolitical understanding of the emerging frontiers (Elden 2013; Steinberg and Peters 2015: 251). This is particularly true in reference to the sea, which is a fluid and voluminous space.

The understanding of space and power has progressed, moving beyond conceptualising territory as divided and bound areas. Stuart Elden (2009) builds on Michel Foucault's assertion that "the vertical is not one of the dimensions of space, it is the dimension of power" to reconceptualise territory and demonstrate the verticality of geopolitics. With reference to 9/11 and the consequential "war on terror"), Elden (2009) draws on the work of Peter Sloterdijk (2002) to discuss how the vertical dimension of space has been utilised to assert dominance and challenge states' perceptions of security. Recognition of these new vulnerabilities illustrates how space and territory needs to be considered as three dimensional, rather than simply two-dimensional demarcated areas on a map, which this thesis recognises.

Space has been analysed by vertical approaches (Weizman 2002; Brige 2013).Eyal Weizman argues that exercising power across the vertical dimensions of space is

achieved by "severing the territory into different, discontinuous layers" (2002; see also Steinberg and Peters 2015: 251). Weizman analyses the vertical landscape of the Israeli-Palestinian conflict, identifying the significance of layers from mountain tops all the way down to the underground, where the politics of water and sewage continue to be contested. With reference to the landscape he identifies how infrastructure has been utilised to separate communities and how the militarisation of airspace over the West Bank has led to another discrete layer of control (2007: 15). However, this division of territory into separate layers is contested by Elden (2013), who expands his argument to analyse how power is exercised through volume, considering height, depth and the horizontal dimensions of space, with a focus on bunkers and tunnel systems. He argues that territory is achieved through the control of volume, arguing that power is projected vertically and across horizontal surfaces (Elden 2013) a projection that also accords to the marine scape.

By calling for scholarship to recognise the voluminous nature of the Earth's space and its implications on politics and power, Elden (2013: 49) seeks to ensure that discussions pertaining to the subsurface recognise the importance and interplay that exists between levels. These relationships exist not only below but also on and above the surface, are important themes that this thesis will unpack in relation to the sea. However, Elden overlooks the complications presented by the occurrence and movement of mineral resources at the subsurface but recognises that, despite its geography inhibiting the potential for regulation, the underground has been subject to the application of politics of the surface. It is this politicisation of the area that has added further complexity to these subterranean spaces (Elden 2013).

The fact that the movement of mineral resources from the subsurface to the surface interacts with different projections of power must be antagonised. Gavin Bridge (2013: 55) expands on Elden's attempt to explore the three dimensions of volume and their implication on the exertion of power. With reference to the extractive industry, and the political and legal techniques associated with the capture and control of resources, he argues that the industry's history is plagued by problems of verticality (Bridge 2013: 56). Drawing on Peter Adey's (2010) work which developed the notion of "vertical reciprocity to describe the relationship between the conjoined environments of land and air", Bridge considers the role of volume. He argues that historical struggles between landed property extractive enterprises offer an illustration of the reciprocity that exists between the surface and subsurface and how depth challenges those wishing to capture mineral resources (Bridge 2013: 56). Here Bridge analyses the historical extension of sovereignty which has led, in many instances, to a "split estate", characterised by issues of verticality.

Land ownership often encompasses the right to minerals that exist below its surface, but these rights can also be separated and transferred thereby separating minerals from the land. It is "this separation of mineral from surface ownership of land [that] is called a split estate", with ownership over minerals recognised as the dominant estate (Collins and Nkansah 2015: 688). Drawing on the concept of the "split estate", Bridge illustrates

the role of verticality in resource access, highlighting the disconnect that exists between surface and subsurface rights. With surface rights facing vulnerability from below, it is this division of ownership, which operates on the vertical, that complicates access to mineral wealth (Bridge 2013: 56). These challenges also occur in the sea with the oceans characterised by divisions of ownership. With different rights adhering to three separate yet interconnected planes—the surface, water column and seabed (subsoil)— this thesis asks how terrestrial conceptions of the "split estate" develop when the unique volumetric three-dimensional nature of the sea is considered.

Liam Campling and Alejandro Colás (2018) define EEZs as "terraqueous territories" that separate the political (sovereignty) and economic (property ownership) rights which, Gordon Winder and Richard Le Heron note, enables the remapping of the ocean space as a resource for exploitation (2017: 14). Attempts to harmonise non- state actor's mobility over the seas, with the appropriation of resources therein, is best understood by moving away from traditional "flat" or two-dimensional ontologies to consider the volumetric, three-dimensional space through which resources are circulated and controlled (Bridge 2013).Disregarding how the sea scape is conceptualised, the seabed as a site of extraction remains under-researched in Namibia and elsewhere. Hence, although there has been an increase in the role of volume and its relationship to ownership and the exertion of power, this thesis will address a void in the body of research on resource extraction, which feeds into the overall discussion of emerging frontiers and resource sovereignty. A major part of this thesis involves understanding how the unique nature of the marine scape complicates our understanding of resource sovereignty. In so doing, this thesis will argue that a new conceptualisation of a "sea scape" as an extractive space needs to be constructed.

Volume and the circulation of resources

Scholarship on the terrestrial scape has begun to recognise the role of volume in the circulation of resources. Although Elden and Adey's work begins to conceptualise the relationship between territory and volume, Bridge (2013) extends this argument to encompass the role of volume in the circulation of resources. Commodities themselves are mobilised and controlled through volume, interacting with a multitude of legal, historical and institutional characteristics at different levels and planes, thereby impacting sovereignty. As a result, sovereignty over resources is often determined by the acquisition of rights at different stages of its movement, with a "substance's location in space…[seeping] into cracks and [transforming] itself, all while insinuating its material properties into the infrastructures and institutions that are established to enable the reproduction of volume as territory" (Steinberg and Peters 2015: 252). Volume and vertical displacement, then, are foundational conditions for the ownership of resources in many jurisdictions.

In his analysis, Phillipe le Billon (2008: 366) recognises that when discussing the spatiality of resources, it is not just their physical location that need to be considered. A resource's "materiality, modes of production, regulation and consumption" are all essential to informing broader spatialties. As Bridge (2013) argues, the ability to exert

power also relies upon the ownership of technologies and the ability to manipulate volume. He concludes by arguing that the subsurface has become a "vertical territory" (Braun 2000). Recognition of this therefore allows a "rich register for a dramatic exposition of the possibilities associated with territory" (Tsing 2005: 57; Bridge 2013: 57).

The emergence of the marine scape as a potential new resource frontier offers the opportunity to re-engage with this debate and to conceptualise how its unique geography, the materiality of resources and the technologies of extraction complicate this discourse and present challenges for those seeking to secure mineral wealth. The technologies involved in seabed mining include remotely operated vehicles, cutters and Trailing Suction Hopper Dredges, which interact with and manipulate the seabed in a way that is different to traditional terrestrial mining. Unlike terrestrial mining, in which resources are brought to the surface from beneath the ground, minerals are extracted from the seabed, moved through the water column and finally onto shore to be processed in plants which may reside outside of a given coastal state's jurisdiction.

As Bridge (2013) indicates, the ability to exert power relies upon the technology and ability to manipulate volume. This concept is not only true of terrestrial mining that Bridge's discussions pertain to but is also inherent to the sea. The marine scape does not easily fit into current debates on the implications of space on power and politics. Although geographical research has challenged traditional ways of thinking about the vertical and volume in relation to mining, oil and gas reserves, authors, such as Bridge (2013), have focused on terrestrial as opposed to seabed mining. Within the world's oceans, various sovereignty claims compete to apply ownership (both as an expansion of terrestrial territory and of resources) to this dynamic space. This is further complicated as the sea is a three-dimensional space consisting of multiple layers, which are interdependent in nature (Ryan 2015). Paul Virilio on the other hand has conceptualised the sea not as a flat, immobile and desolate plane but as a spherical or voluminous space (2009). This view was also proposed by Philip Steinberg and Kimberly Peters (2015: 252–253) who recognise that contestation over space and natural resources no longer exists solely on the surface, but that these struggles have depth.

Despite having previously been regarded as an "empty space" between terrestrial limits (Steinberg 1999: 370), the oceans illustrate a new space that "can be occupied, harnessed and utilised by different actors in any direction" (Steinberg and Peters 2015: 253). Unlike point source terrestrial mining where resources are brought to the surface from beneath the ground, potential sub marine mining will see minerals extracted from the seabed, moved through the water column and finally processed on shore in plants that may reside outside of a given coastal state's jurisdiction. As a result, the physical nature of the sea challenges governance and the politics that emerge (Steinberg and Peters 2015: 260). In contesting the abstract nature of recent scholarship on verticality Steinberg and Peters propose a "wet ontology" which acknowledges how the ocean enables one to think about "the volumes within which territory is practised… and where

power is simultaneously projected on, through, in and about space" (2015: 261). Whilst acknowledging that legal domination of the seas has gained much attention, Steinberg and Peters argue that recognising the ocean territory as volume allows one to understand that "struggles for space and resources... [are no longer] fought on a planar level" (Steinberg and Peters 2015: 253). This thesis takes this as a departure, recognising that accumulation strategies under the blue economy including marine mining, will take place in a volumetric space.

Recognition of the spatiality of the sea as a resource frontier is integral to understanding the political and governance challenges that arise from this space. The emergence of the marine scape as a potential new resource frontier offers the opportunity to re-engage with this debate and to conceptualise how its unique geography, the materiality of resources and the technologies of extraction complicate this discourse and present challenges for those seeking to secure mineral wealth. The sea itself is fluid and dynamic and can offer a new perspective in a globalised world, and not just as a space that facilitates movement between regions (Steinberg 2013). This argument will be advanced further in this thesis.

In popular imagination the sea continues to be regarded as an unbounded, lawless space, but following the implementation of UNCLOS III in 1982, 35 percent of the global ocean became state property overnight (Goudie 2009: 289–90). As illustrated by the Namibian case, the marine environment is not void but resource rich (Steinberg 1999; 403), which has driven states to territorialise the sea and exert sovereignty over its resources through the establishment of EEZs. Following the signing of UNCLOS III, an area of two hundred nautical miles[13] off each state's coastal baseline became "functionally" territorialised as an EEZ, a space within which various laws, actors and sovereign claims interact and compete. States were also able to submit claims, via the International Seabed Authority, to extend their EEZs in accordance with the geological distance of their continental shelves. Namibia was one of the states that submitted a claim for an extension, theirs amounting to of 1,062,000 km² (Republic of Namibia 2009: 32), a claim which overlapped another submitted by neighbouring South Africa. Territory is therefore an important theme to consider when discussing the relationship between space and power and in the case of the ocean there is a need to engage with how this flowing, voluminous and three-dimensional space, has been demarcated and territorialised.

Territory

Although the concept of territory is central to both political geography and international relations it is often overlooked as a topic of conceptual analysis, perhaps due to its prevalence and universality (Anderson 1992; Badie 2000; Elden 2010). Jeffrey Anderson (1992: xiii) notes that "politics is rooted in territory ... [but] the spatial dimension of the political economy is so prevalent that it is easily, if not frequently, overlooked". As Jean Gottmann (1951: 71) states, "one cannot conceive a State, a

[13] One nautical mile is equivalent to 1.1508 statute (land measured) miles (NOAA 2018).

political institution, without its spatial definition, its territory", however his work has been criticised by Stuart Elden (2010: 800) as being ahistorical. John Gerard Ruggie meanwhile has criticised the neglect of the concept of territoriality (1993: 174), a view shared contemporarily by Elden (2010) who argues that the poststructuralist movement away from the state is problematic and that the fear of falling foul to John Agnew's (2010: 801) "territorial trap" has meant that the concept of territory has been neglected rather than being subjected to careful examination.

As aforementioned, seabed mining involves a multiplicity of actors, both state and non-state, competing for ownership of the mineral resources that exist in its subsurface. This challenges the traditional construction of territory, which sees territory achieved through the demarcation of the world into "mutually exclusive states" within which each state exercises its power (Agnew 1994). Traditionally, political theory relied on the assumption that the state is not only a geographically fixed entity within its prescribed territory but that it acts consistently, irrespective of its place in the global geopolitical order (Agnew 1994: 53–54). The increasing mobility of capital, population and information challenge this ontological containment of states and their societies within sovereign space, as well as the failure to recognise role of temporal conditions, leading to John Agnew's conception of the "territorial trap" (1994: 77). This is further exacerbated by volumetric characteristics of the marine scape and the fact that the state has sovereign as opposed to territorial rights over the EEZ, themes that will be unpacked by this thesis.

The emergent actors in discussions of Namibia's blue economy and seabed mining are not limited to state actors. Agnew's analysis encouraged a move away from imagining sovereign power as existing only within the confines of national territory and state boundaries, arguing that states are neither contained nor constrained by the spatial boundaries that they administer (1994). This view was also proposed by Ruggie (1993: 165), who saw territoriality as a concept "unbundled" by both formal and informal agreements, including economic regimes. The work of Ruggie (1993) and John Agnew (1994: 77) highlights the absence of consideration of historical, socioeconomic and geopolitical conditions from studies critically analysing the territorial state. This idealisation results in blindness towards the ways in which the role of the territorial state has changed, and continues to change, particularly in the face of globalisation and, with relevance to this thesis, the emergence of new resource frontiers.

The spatiality of sovereign power needs to be conceptualised as working both within and outside the outer limits of territories that have been defined on a political map (Mountz 2013). Stuart Elden (2010: 800) agrees with this conceptualisation, arguing that "territory needs to be interrogated in relation to state and space, and that its political aspects need to be understood in an expanded sense of political-legal and political-technical issues". However, he also contests Agnew's "territorial trap", stating that the aforementioned interrogation would allow one to move beyond this trap and ensure that territory was not neglected. In his earlier work, Elden argues that "spatiality is as important as, but must not obscure considerations of, temporality and history" (Elden

2004: 109). This view was echoed in his 2010 work where he concluded that territory must be thought of as a fluid concept, that is both produced and influenced by a multitude of factors (2010: 812).

Territory must not be overlooked in the discussion of the sea, particularly because negotiations surrounding delimitation are still ongoing through the ISA. Discussions of territory have focused on landed terrestrial landscapes blind to the challenges and opportunities presented by ocean territory. The unique three-dimensional and voluminous nature of the sea also presents challenges in relation to its division and the creation of boundaries. Territory is often conceptualised as a static concept, however there is a need to progress this perspective. Traditional flat cartographic representations of the allow the ocean to be delimited by states, but Steinberg criticises this approach claiming that it fails to recognise the ocean's fluidity (2013). The sea does not just facilitate movement, but rather, it is characterised and constituted by movement (Steinberg 2013: 165): something that must be considered when researching the boundaries and legal regimes that apply to the marine scape. Territory is defined by international law, but the law's role and its history are often neglected. Unlike on landed territory, where physical boundaries can be erected in the form of walls, signage or fences, the ocean's boundaries exist as legal constructs that demarcate the water's surface; these lines do not have geophysical authority but are attached to a juridical system that does (Steinberg 2013: 162). These legal definitions also differ with competing claims to ownership and sovereign rights adhering to each plane.

Volume complicates traditional conceptions of territory and power. Steinberg and Peters argue that if terrestrial territory is defined as a "bounded area" then "volume is the amount of space occupied by a three-dimensional object or region" (2015: 254). Hence it is implied that if volume represents the capacity of a bounded container then, as proposed by Giddens, the "the container of power" is the state (1985: 120). This view is contested by Steinberg and Peters who argue that ocean volume operates very differently to grounded territory, challenging this profoundly terrestrial state ontology (2015: 254). The ocean enables one to think about "the volumes within which territory is practised…and where power is simultaneously projected on, through, in and about space" (Steinberg and Peters 2015: 261). In various framings, therefore, the sea is a space which offers a lens through which to study power from different angles (Steinberg and Peters 2015: 261). In order to truly understand the unique nature of the ocean as a site of extraction, however, one must analyse the spatial dimensions within which power is circulated and identify the multiplicity of actors and sovereign claims that operate within that space. This thesis will therefore build on the emerging literature to investigate how the sea resists or conforms to landed conceptions of sovereignty, recognising the challenges presented by its unique (geo)physicality.

Resource sovereignty

This thesis draws on theories of resource sovereignty to analyse how the unique (geo)physicality of the ocean opens new perspectives on theoretical debates of resource extraction. Space is endogenous to the analysis of interactions between institutions and

politics (Bebbington 2014: 16) and this thesis will build on the geographical and spatial understanding of the seabed as a site of resource extraction, considering its implications for resource sovereignty.

The emergence of sovereignty over resources

Given that nation-states derive much of their revenue and power from the accumulation of capital, control of mineral wealth can also become a presupposition of state power, as well as an interest which is aligned to the interests of capital (Emel *et al.* 2011: 73). "[Mining is] an industry distinguished from all others by the fact that in it the interests of the landowner and the capitalist coincide" (Marx 1976 [1867]: 626), an overlap that can often create conflict. The establishment of the EEZs emerged from the desire of predominately developing states to reconcile the "appropriation of nature" within the marine environment (Campling and Colás 2018). Competing sovereignty claims occur over resources both on land and within the sea; claims that are exacerbated by the involvement of state and non-state actors. National sovereignty over resources emerged initially through the dominance of global capitalism when colonisers attempted to enforce quantitative forms of measurement over areas of territory and resources therein, thereby rendering it legible to a centralised and sovereign state (Emel *et al.* 2011: 70). Thus, during colonisation, Namibian resources were graduated in accordance to the states their perceived development. That sovereignty effectively existed in a "linear continuum"[14] has been studied by Partha Chatterjee in India but not in the Namibian context (1993).

The notion of resource sovereignty transposes the concept directly into the economic sphere (Gümplová 2018), a transposition that is particularly evident in the emergence of the blue economy as a new frontier. The unique physicality of the marine environment alerts us to new perspectives on theoretical approaches to resource extraction. Resource sovereignty, at least in theory, "translates into both the entitlement and heterogeneous ability of states to pursue environmental and developmental policies within their own territories as they see fit" (Wapner 1998: 276). Thomas Biersteker and Cynthia Weber (1996) characterise sovereignty as a social construction, famously codified in international law in the 1962 UN Declaration of Permanent Sovereignty over Natural Resources. Signed in the historical context of anti-colonialism, the activation of this principle was an attempt to control the overexploitation that occurred during colonialism, with newly independent nations seeking to consolidate permanent sovereignty over their natural resources on the basis of self-determination (Schrijver 1997: 228). Gumplova argues that the utilisation of permanent sovereignty over natural resources by nation-states was "an essential prerequisite for economic development and the bulwark against predatory and imperial forms of economic power and economic domination, and hence [was] the bedrock of political independence" (2014: 102). This was echoed during the process of ratifying UNCLOS III wherein national sovereign rights were extended and codified in legal terms over maritime space. Developing states

[14] The concept of state sovereignty was graded as A, B or C based on a state's socio-economic achievement as approximated to the ideal of a European nation-state (see Anghie 2007: 148).

in particular felt that this extension of rights safeguarded these marine resources that they did not yet have the capacity to exploit (Suárez-de Vivero 2012), a concern that is reflected in the case of Namibia.

Nico Schrijver notes that the principle was initially concerned with two elements, "the economic development of developing countries; and the self-determination of colonized peoples" (1997: 95). However, following rapid decolonisation, the emphasis on individuals gave way to conceptualisations of state sovereignty (1997: 369-70). Jody Emel and colleagues agree that the exercise of sovereignty remained of much importance for post-colonial states following independence, particularly for African states, where the desire to assert sovereignty over internal natural resources remained an integral part of nationalist rhetoric (2011: 71). [15] While the process of land (en)closure has been central to scholarship on resource sovereignty (see Peluso and Lund 2011), the sea presents challenges to conceptualisations of new and old sovereignties. New ownerships are being transposed onto a fluid and dynamic space where sovereign claims vary and interact at different spatial levels within states' EEZs. Unlike landed sites of extraction, EEZs are not state territory but instead encompass different functional sovereign arrangements. However, these rights have not been uniformly assigned, but rather vary so that sovereignty exceeds territory, thereby creating a "hybrid maritime state" (Bridge 2014: 5).

Matthew Huber agrees with Emel and colleagues, arguing that the landscapes of energy extraction—in this case the sea bed—are related to state power and territoriality and are "often central to the production of narratives of nationalism and belonging… [rationalising] local geographies of dispossession and environmental destruction" (2015: 4). This view was also proposed by Michael Watts (2001) and Kristin Reed (2009) who, with particular reference to oil, argue that minerals are positioned as "magical" commodities. This positioning suggests that the extraction of these minerals will instantly ensures a nations (economic) development (Huber 2015: 4). Conceptions of state-based sovereignty are framed as antagonistic to foreign capital: as argued by Petra Gümplová, the notion of permanent sovereignty over resources "translates the principles inherent in the concept of sovereignty (independence, autonomy, non-intervention, and self-determination) into the economic sphere" thereby emphasising "territorially determined resource rights as an economic expression of state sovereignty" (2014: 93). The notion of the blue economy in its attempt to make the marine environment visible to capital, offers a clear example of how sovereignty in the form of "territorially determined resource rights" is being translated into the economic sphere.

The theorisation of exclusive control is contested by Emel and colleagues, who argue that this imagination blinds one to the role of external forces involved in mineral extraction (2011: 72). This is particularly true in the case of the emergence of the blue economy as a new frontier. With the advent of "expectations from the UN Member States to bring management of their EEZs into line with international best practice"

[15] Namibia, however, was still a mandated territory at the time of UNCLOS negotiations and was not granted independence until 1990.

(Winder and Le Heron 2017: 9), countries are increasingly engaging with blue economy initiatives under the guidance of external actors. It is evident that focusing on territory ignores the multiple actors involved in the delimitation of states offshore territory and in the consequential management of these spaces.

Given the historical context of anti-colonialism in Africa for African states the exercise of sovereignty remains vitally important. Historically, national sovereignty over resources emerged out of the dominance of global capitalism and colonisers' attempts to construct legible areas of territory which, alongside their resources, were adjudicated through a centralised and sovereign state (Emel *et al.* 2011: 70–71). As Sharad Chari argues, the ocean's circulation

> through African societies point to the diversity of ways in which "extraction" (whether of absolute surplus value through superexploited labour or rents through property in natural resources) is wrapped into real and imagined hopes of substantive social change for Africa's peoples and environs
> (2015: 84)

The importance of control over territory and the sea remains a contemporary issue with submissions for the extension of states' continental shelves (including those of Namibia) still under negotiation. However, the discourse used during negotiations on the ownership and governance of the marine scape consisted of an idealised vision of sovereignty, with political leaders articulating ideas associated with national sovereignty in opposition to foreign competitors (Dodds 2012: 993). This is contested by Emel and colleagues who argue that sovereignty in contemporary "resource nationalism" scholarship has often been constructed as if it operates in direct opposition to foreign investment with national states exerting exclusive control over internal resources. However, this viewpoint is misplaced: it stems from a predominantly territorial conception of sovereignty (2011: 70) but, as recognised by Schrijver, "principles and rules do not exist in a vacuum" (1997: 368). This perspective was also proposed by Gregory Fox and colleagues, who implied that the concept of exclusive state sovereignty has been usurped by non-state actors (2005: 388). To move beyond the Westphalian notion that sovereign states autonomously control their territory and population in isolation from external relations, one must analyse how sovereignty manifests and operates spatially (Agnew 1994). Resource sovereignty must therefore take into account the influence of non-state actors that shape the accessibility and control of resources and move away from the concept that territory and sovereignty are an "*a priori* attribute of the state" (Reeves 2011: 906, emphasis in original).

Permanent sovereignty over resources has not been a static construct, but one that is dynamic and that has been influenced by emerging environmental and developmental concerns (Schrijver 1997: 380). In opposing the notion that sovereignty is territorially circumscribed and therefore no longer institutionally confined to state apparatus, Emel and colleagues argue that sovereignty must be located within the flow of capital, knowledge and power (2011: 72). To consider the state as an exclusive actor is also to ignore the role of non-state actors that are involved in the struggle for, and allocation

and regulation of, resources and territory, leading one to question whether the state has full sovereign power (Emel *et al.* 2011: 73). The emergence of the marine scape as a potential resource frontier involves a range of actors internal and external to Namibia, which complicate ideas of state-owned resource sovereignty. Aihwa Ong has argued that "sovereignty... is not delimited by national borders" (2006: 92). This view is also proposed by Agnew who opposes the notion that sovereignty is territorially circumscribed, arguing that sovereignty must be located within the flow of capital, knowledge and power (Agnew 2005). As Gavin Bridge and Tom Perrault (2009: 491) argue, the "concept of governance specifically articulates the economic with the political". Conceptualising economic and political space as separate spheres is problematic when looking at the governance of subsurface resources. Considering the state as an exclusive actor ignores the role of non-state relations which are also involved in the struggle for, and allocation and regulation of, resources and territory. This thesis will therefore consider the role of non-state actors in the marine scape.

Sovereignty over resources manifests itself differently in an interdependent world. The Law of the Sea vests the right to permanent sovereignty to the state only, however international agreements such as the Biodiversity Convention increasingly involve instruments that oblige all states to exercise sovereignty not only to manage their own natural resources, but also to adhere to responsibilities related to the conservation of nature and the environment (Schrijver 2008 : 393). Schrijver defines the environment as a space which is a new common concern of mankind which moves it beyond the remit of state sovereignty over resources (Schrijver 2008: 388, 393). The blue economy has not yet been considered by this literature (except for my preliminary work on the matter — see Carver 2019), a gap which this thesis will address. This is arguably evident in the emergence of the blue economy, which has a strong conservation framing and calls on states to ensure the health of the marine environment. Schrijver therefore argues that the conceptualisation of sovereignty as something that is confined to state rights is an oversimplification. In his analysis he argues that "there is need for an integrated and comprehensive approach with respect to: international assistance for the exploration and sustainable exploitation of natural resources and poverty alleviation" (Schrijver 2008: 394). This thesis will uniquely investigate these challenges with relation to the blue economy. States such as Namibia that are embroiled in the blue economy agenda, in which the rhetoric and financial incentives employed by multinational organisations are predominantly conservation focused, are also investigating the possibility of exercising their rights to exploit the minerals within their EEZs. This thesis will therefore uniquely identify who is defining both the blue economy and the seabed mining agendas.

Where state ownership does exist over resources, developmental states' strategies "are not uniform across the national territory" and it is this gradation of sovereignty and citizenship that enables states to capitalise on global and local opportunities (Ong 2006: 72, 77). This distortion has masked the interests of communities, which in turn remain unaddressed (Melber 2014). In her work on variegated sovereignty in China, Ong argues that sovereignty is not a "container concept" but is instead the result of administrative decisions. She analyses the creation of political space and differentiated

spaces of governance and argues that states deploy sovereignty in a flexible manner (Ong 2006: 70). This gradation of sovereignty is also utilised by state governments to legitimise their policies (Dodds 2012: 993; Elden 2009) but can additionally provide opportunities for political elites to accrue rent. As argued by Keith Barney (2009, 146) frontiers can be prepared for capital accumulation by several actors, including powerful individuals with close political ties (2009: 146). Henning Melber (2014) argues that this has been evident in Namibia, where claims have emerged that the distinction between the state and political parties, and between political and public interest has been blurred by SWAPO. With no clear policies to redistribute wealth obtained through resource rents, Namibia has seen a decline in income and per capita wealth (Lange 2004: 257). Concurrently, the blue economy is framed as a development opportunity (Republic of Namibia 2017) but there is need to antagonise this.

Divisions also exist in Namibia due to apartheid rule. Divisions of sovereignty based on urban and rural divides were analysed in Mahmood Mamdani's (1996) work on the bifurcated state. In his analysis of equatorial Africa and later South Africa, Mamdani argued that a dualism of power had emerged during colonialism with indirect rule established in rural areas, enforced by local chiefs. Conversely, direct rule was applied in urban centres, with the bifurcated state ruling by race, bringing together blacks and whites, as citizens, divided by different privileges afforded according to race (1996), a practice also demonstrated in Namibia.

The commodification of nature that takes place within the blue economy, and the global opportunities presented by mineral extraction, highlight the need to consider that sovereignty can exist beyond state boundaries. As part of his broader analysis of the state, James Scott argues that global capitalism, much like the developmental state, acts as an "agency of homogenisation, uniformity, grids and heroic simplification" (1998: 8). However, James Ferguson is critical of this, disagreeing particularly with the notion that this state-based framework can be applied directly onto the analysis of global corporations. With a focus on oil extraction, Ferguson argues that the presence of "extractive enclaving" which characterises the sector contests Scott's concept of administrative grids (2005: 378).

Extractive industries, including marine mining, are commonly characterised by a sharp disconnect between production and the local population, where neither the resource nor money touch a state's landed territory (Ferguson 2005: 378). With reference to Angola, Ferguson argues that contemporary investment in mineral extraction in African states has been territorialised but with minimal economic benefit to the wider population (2005: 378). Local technical and human capital is also infrequently involved due to the industry importing the majority of its equipment and labour.

Across the African continent, "useful" enclaves become secured and "governed through private or semi-private means" (Ferguson 2005: 380). Ferguson argues that this global method of mineral extraction has been witnessed previously during periods of colonial rule, where mineral extraction occurred despite the absence of a state institution (2005: 380). However, state institutions were not absent in Namibia, due to the colonial state

ruling with powerful state apparatus and these apparatus influence current accumulation strategies as will be unpacked by this thesis. There is also a need to recognise that the rhetoric surrounding homogenisation and standardisation (2005: 381) should not be placed onto emerging resource frontiers, such as the marine scape. Questions remain as to how this argument will be reflected, for example as to whether the sea space will be characterised by "useful" enclaves that are out of sight and out of the mind-set of the general populace. These are vital questions which will be addressed by this thesis.

How does the sea challenge sovereignty?

The geophysical properties of the marine sphere exacerbate sovereign claims; the marine sphere's fluidity encompassing the national and foreign interests that coalesce within (Havice 2018). If sovereignty is not static, then how will the opening of the marine environment as a new potential resource frontier impact understandings of resource sovereignty? As previously illustrated, the ocean's unique fluidity presents challenges to territorialisation and resource extraction, but how does the sea conform to or resist against traditional conceptions of resource sovereignty?

The unique nature of the sea leads one to ask how the opening of a new potential resource frontier will impact understandings of sovereignty. As Sami Moisio and Anssi Paasi argue, if sovereignty is not perceived as limited to the confines of territory and state space is conceptualised as something that exists on multiple spatial levels (2013: 257), then the marine environment has the potential to further complicate our understanding of sovereignty due to the ocean's aforementioned physical and spatial characteristics. Moreover, Moisio and Paasi highlight the importance of recognising how the states' borders are constituted and enforced as a result of economic, cultural and political factors (2013: 257). These factors need to be considered when analysing the construction of Namibia's blue economy. This thesis will unpack the (geo)physical characteristics of the marine scape, to identify how they complicate ownership claims in the marine scape, addressing this gap in the literature.

The involvement of non-state actors in the blue economy and marine mining is particularly evident in Namibia's case due in part to the unique nature of marine mineral extraction and, consequentially, the technologies required. As Emel and colleagues argue:

> While the landowner is endowed with exclusive sovereignty over subterranean resources, it may not have sovereignty over the financial-technical and logistical means of producing and selling these resources within the context of the competitive world market
> (Emel *et al.* 2011: 73)

a factor which is strongly highlighted in the Namibian case. Edyta Roszko argues that "sovereignty does not exist in a social vacuum" but rather that various perceptions of territoriality intersect, alongside international and national laws and local nationalism (2015: 245). She further proposes that sovereignty is not just a legal issue, but one that involves a diverse range of state and non-state actors, thus echoing Elden's call for

renewed attention regarding the relationship between sovereignty and territory in terms of its conceptual, historical and legal background (Elden 2009: 177). This is evident in Namibia where its phosphate mining projects are characterised by Omani and Israeli investment. Namibia also continues to have strong postcolonial ties to South Africa's economy. Other sovereignty claims to be considered include those from multinational corporations and the fishing industry, to ensure that a diverse range of state and non-state actors' claims are antagonised.

Analysing Namibia's ocean as a "space of politics" can afford insights into contemporary debates such as that surrounding resource sovereignty (Steinberg and Peters 2015: 260). As Scott demonstrated, focusing on Zomia in South East Asia, a relationship exists between geophysical factors and the politics and governance that operate within that space. In Zomia space was integral to the avoidance of political control, with the hillsides allowing populations to live outside the remit of state surveillance and consequential governance that had characterised the lives of lowland populations (Scott 2009). Hence it was implied that geophysical factors such as height and depth could lead to the manifestation of different geopolitical arrangements (Scott 2011: 57). Steinberg and Peters agree with this conception, asking if "the ocean, when understood through a 'wet ontology', [could] generate a 'wet' politics similar to the politics of altitude and terrain identified by Scott in Zomia?" (Steinberg and Peters 2015: 260). This thesis therefore moves away from a terrestrial lens to ask how traditional conceptualisations of resource sovereignty to ask how these are complicated when applied to the marine scape.

According to Steinberg and Peters, the unique nature of the ocean requires one to develop a new understanding of the governance and politics (2015: 261) to which this dynamic space adheres to and challenges. This thesis will therefore also evaluate the ways in which Namibia's EEZ resists or conforms to landed conceptions of resource sovereignty. It will uniquely analyse seabed mining in Namibia to investigate what resource sovereignty looks like when placed in the context of the marine scape and consequently, how do these sovereign claims challenge the notion of the blue economy.

Concluding remarks

This chapter has located a significant void in the literature on resource sovereignty: namely, there has been little in the way of attempts to address the contestation between the blue economy and marine mineral extraction. The chapter began by addressing the literatures around the blue economy, establishing the traditional views about the sphere before proceeding to evaluate the critiques arising from critical strands of literature highlighting the ways in which that sphere can be and is manipulated. While scholarship has recognised that there is a lack of a uniform definition of the blue economy, there is little engagement with what the concept of the blue economy means to individual states, and the consequences of divergent interpretations. This thesis aims to contribute to the literature on the blue economy by analysing how the blue economy has come into fruition in Namibia. It also aims to unpack these diverse interpretations and their consequences. The chapter then proceeded to engage with the literature around issues

of space and territory: the unique nature of the sea, the laws that pertain to this space and the potential complications this presents to traditional notions of sovereignty over resources. This is especially relevant in the case of Namibia where, as the next chapter will articulate, seabed mining projects have been met with contention from state and non-state actors. The literature has engaged with the spatialities pertaining to sites of extraction – including the role of the vertical and of volume. However, there is an absence of engagement with the role of space in discussions of seabed mining. Chapters 5 and 6 will therefore conceptualise the marine scape as a site of extraction before proceeding to analyse how this space complicates traditional notions of resource sovereignty.

Chapter 3

Methodological issues and historical context

Introduction

One evening in early 2017, I sat down for dinner with friends, both local Namibians and internationals. We laughed as our host, one who arguably personifies the urban educated elite of Windhoek, filmed our reactions to the meal he had prepared. This was an informal occasion but, as the host introduced me, he told the group: "You've got to ask her what she's doing here". Responding to my mention of marine phosphate mining, these individuals began a lively discussion. They told me about the Namibian shareholder involved with NMP, which they called "another one of Knowledge Katti's ventures". [16] They also highlighted their concerns surrounding the potential impact: one individual said, "I am worried for Namibia if this goes ahead". Due to ethical considerations, there were limitations to my ability to contribute to the conversation but they asked, "Please, can I read your thesis when you're done?" Interestingly, these individuals were neither directly nor indirectly involved with the marine environment or marine phosphate mining but they were clearly aware of the nuances surrounding these issues and were interested in how the Namibian state was addressing their concerns.

Informal conversations like the abovementioned were common throughout my scoping and fieldwork periods and reminded me of the words of an interviewee, a high-level civil servant, who had previously informed me that "the Namibian population doesn't really care about [phosphate mining]".[17] This presumed disconnect was in part due to the assumption that the majority of citizens' physical distance from Namibia's marine scape equated to a lack of interest on their part. However, observing these individuals' responses illustrated the contrary and a disconnect between elites' perceptions of local knowledge and the reality of their knowledges. Whilst I am aware that the aforementioned individuals are not representative of the Namibian population, I observed that this interest was not limited to the educated urban elite. From the individuals I played sports with to taxi drivers and to housekeepers, all responded with similarly interested and emotive opinions. These exchanges represented the fact that, despite most Namibians being geographically dislocated from the marine environment, they had followed the negotiations and were questioning the extent to which Namibia had ownership over the minerals therein. Furthermore, this illustrated to me that Namibia was a "real-world" case through which one could investigate the themes identified relating to this emerging site of extraction.

[16] Knowledge Katti is a Namibian businessman operating in the oil and gas sector. His company represents the 15 % Namibian share in the NMP Ltd venture.
[17] Interview 44.

Allowing insight into the interactions between state and non-state actors involved in the maritime sphere, Namibia was selected not because of its adherence to pragmatic variables, such as "time, money and access", which Jason Seawright and John Gerring caution often effect case selection (2008: 295) but rather due to its uniqueness. Namibia's geographical and geological characteristics make it one of a few countries where seabed mineral exploration is viable under current technological constraints. Due to the contemporary nature of debates surrounding the blue economy and marine mining, this thesis utilises a case study methodology to investigate a specific and complex phenomenon (see Yin 2009: 11, 2013: 321). Following a period of intensive desk-based research, an initial scoping trip conducted in 2016 offered me an understanding of the particularities of the Namibian case, including its political and institutional context (see Stake 1998). The scoping visit also confirmed Namibia's validity as a case study for this thesis (see Stufflebeam and Shinkfield 2007; Yin 2009, 2012).

Alongside analysis of policy documents, including National Development Plans and INGO strategy documents, newspaper articles and field observations, this thesis draws on empirical data obtained through semi-structured interviews. The thesis's fieldwork therefore includes my informal observations during an initial two-week scoping visit in July 2016, as well as interviews conducted in Namibia and South Africa during a ten-week period between February and April 2017. A final period of fieldwork was undertaken over a two-week period in July 2018. This period of fieldwork afforded me the opportunity to interview new and previously unavailable interviewees, test my conclusions thus far and gain an insight into how discussions of phosphate mining had progressed. The earlier scoping exercise enabled me to establish contacts, build relationships with potential interviewees and make logistical arrangements, thus increasing my productivity and efficiency during the subsequent fieldwork period and equipping me with an in-country perspective of the ongoing debate. This entailed sixteen interviews with actors central to Namibia's marine environment, which informed the direction of this thesis and its research design. These initial meetings and discussions were also integral to building trust with potential participants. One individual told me, "as Namibians, it takes us time to trust"[18] and these informal conversations were integral to forming relationships with people who contributed to the 2017 and 2018 fieldwork periods either directly (by subsequently giving interviews) or indirectly (by signposting me to relevant participants to interview).

Most interviews referred to within this thesis were undertaken during fieldwork in Namibia (primarily Swakopmund, Walvis Bay and Windhoek) between February and April 2017, while some others took place in South Africa in February 2017. This fieldwork period had ethical approval from Lancaster University's Faculty of Science and Technology Research Ethics Committee. To increase my potential of being granted official researcher status by the Namibian government, I accepted a Visiting Scholar position at the University of Namibia (UNAM) and was granted a Research Visa, through this association, by the Namibian High Commission. The Research Visa

[18] Interview 8.

increased my freedom of movement within Namibia and assisted in obtaining access to interviewees within government ministries. Having an official visa meant that I complied with Namibian law and reduced interviewees' suspicion. Interviewees were open to participating in my study as they felt that the visa gave legitimacy to my presence in Namibia. Additionally, the visa literally gave me access to buildings as it had to be presented to security when I entered certain ministerial offices. The Visiting Scholar position also increased my access to potential interviewees as it enabled me to attend relevant UNAM events during the 2017 period of fieldwork.

Over this period 47 interviews were completed. 43 interviews were undertaken in country, with the full informed consent of participants. Five individuals who I had interviewed in July 2016, and then re-interviewed as part of this fieldwork, also gave me additional retrospective consent to use their previous transcripts in this thesis. Here, consent was built up over an extended time period. Signed consent formed were obtained from all interviewees and all interviews were conducted in English, the official language of Namibia. This meant that a translator was not required, avoiding issues of confidentiality, distortion and compromised security (Jacobsen and Landau 2003; 190).

Following fieldwork, four further interviews were conducted from the UK via Skype.[19] While Skype interviews may provide interviewees with comfort it can present challenges for interviewing. This includes the inability to read nonverbal cues such as body language and a loss of intimacy between interviewer and interviewee when compared with in-person interviews (Seitz 2016: 232). There can also be challenges with the technology itself including connection issues which can result in segments of the interviews being inaudible (Seitz 2016: 230). Two of my Skype interviews suffered from connectivity challenges and interviewees were asked to repeat their responses to a question. There are advantages and disadvantages to this as, on one hand, interviewees have the opportunity to alter their original responses but, on the other hand, they also have the opportunity to refine their answers. It is impossible to know whether this occurred during my Skype interviews, but I am confident that interviewees responses were reflective of what they originally wanted to say.

Interviews

Interviewee selection

The participants interviewed during the fieldwork periods outlined above were for the most part high-level elite actors including, but not limited to, government ministers, directors of local and international NGOs, ministerial scientists, executives of mining companies, and programme managers in international development agencies. Elite individuals occupy key roles in power networks due to personal achievement, association or circumstances and offer insights into domination and authority (Undheim 2006). When analysing issues of a social or political nature, difficulties can arise when

[19] In these instances, consent was gained through scanned forms. One participant, who was interviewed via Skype gave informed consent verbally. They were unable to return a signed copy of the form via email due to technical difficulties.

deciding which individuals should be legitimate spokespeople or representatives. The actors interviewed for this thesis were vital to this thesis due to their involvement with either marine phosphate mining or Namibia's blue economy, or in some instances both. Thus, their understanding was vital to exploring the questions proposed. It must be highlighted that all interviewees were highly educated and elite actors. Clearly, those interviewees selected to participate in research are likely to influence its outcome through their viewpoints (see Dienfenbach 2009: 880). Some of the arguments put forward by this thesis are therefore, to an extent, informed by the views of the key actors interviewed.

This thesis did not aim to research the "typical" Namibian's understanding and interaction with the blue economy or marine phosphate mining, and therefore Namibian non-elites did not participate in the formal interviews. However, several relevant observations were drawn from Namibia's general population during the two fieldwork periods and these are referred to anecdotally within the thesis. In the initial phase of this project, desk-based research was conducted to identify relevant potential participants. This included analysing documents such as newspaper articles and lists of actors involved in official meetings relating to marine phosphate and Namibia's broader marine environment. I was aware that access to elites can be problematic, given bureaucratic rigidity and the suspicion of researchers owing to the potential threat they pose to the image of the companies or institutions in question.[20] To help mitigate these potential issues, individuals were contacted via email, and meetings were arranged during the first fieldwork period in Namibia in July 2016. These informal interviews and observations enabled me to create an actor map and establish a representation of the views of actors "on the ground".

Discussions and observations during the scoping visit also alluded to the fact that several actors central to Namibia's marine environment had not been involved in official discussions about the potential of marine phosphate mining. Contesting the generally assumed integrity and empirical value of qualitative interviews, Rosemary Deem notes that the selection of participants often ignores those individuals "who would enable contentious or debatable statements to be interrogated and cross-checked" (2001: 7). Thus, the organisations omitted from official discussions, individuals and informal advocacy associations were contacted in advance to mitigate the likelihood of the fieldwork results primarily reflecting the vested agendas of powerful actors. Participants were not chosen for interview via the specific networks or organisations they belonged to. The approach taken to identifying relevant interviewees for interview was broad and links were established through a variety of methods, including snowballing, which will be unpacked below. "Studying up" (Ostrander 1993: 7), which involves the interviewing of elites, presents a multitude of potential issues including that of access (Chandler 1990: 124). For the duration of both periods of fieldwork I resided with a group of Namibian residents and expatriates in Windhoek, to whom I had

[20] This concern was evident, as the Republic of Namibia brought in stricter rules pertaining to external researchers in the lead up to my scoping visit. As aforementioned, I obtained a Research Visa as a Visiting Scholar with UNAM to mitigate some of these concerns.

been introduced by a friend. The expatriates, who encompassed several nationalities (German, Italian, Moroccan and Ugandan), were all working for development organisations including the European Commission, local NGOs, UNDP and the World Food Programme. These individuals introduced me to their networks which enabled me access to high-level elite interviewees across various state and society organisations. Furthermore, one of the Namibian residents who owned and lived in the property was a recently retired environmental consultant, and accordingly gave me an insight into the sector and provided me with suggestions about who else to consider interviewing. While this presented concerns for me over participant anonymity, I was able to mitigate these by ensuring that I never revealed which of the suggestions, if any, I had acted upon or who I had ultimately interviewed.

Prior to conducting my interviews, I attended the 2017 African Mining Indaba[21] in Cape Town, South Africa. This event attracted high-level delegates from across, and outside, the continent: participants included government ministers, CEOs of major mining companies, and heads of associations and NGOs. Together, these individuals provided me with unparalleled opportunities to network with and access several prospective interviewees. It also provided me with an opportunity to participate in roundtables and through these to discuss themes relevant to my thesis with these individuals, who included the second post-apartheid president of South Africa, Thabo Mbeki. Additionally, in Namibia, I attended a Mining Shared Value[22] event on local content in Namibia's mining sector, which further enabled me to establish contact with potential interviewees.

Beyond initial networking, I used snowball sampling to identify additional potential interviewees. Each participant was asked at the end of their interview whether they could suggest any additional individuals for me to contact. The snowballing approach has its limitations: most prominent amongst these concerns is the fact that it can result in a narrow sample of interviewees who share similar characteristics (Magnani *et al.* 2015). However, the initial interviewees who were asked to identify additional participants represented a broad sample of actors involved Namibia's blue economy. Additionally, despite the concerns highlighted above, snowballing can help to identify individuals who are marginalised or who might experience social stigma (Noy 2008: 330). While my participants did not belong to "hidden populations" (populations that are "difficult to access and study") (see Heckathorn 1997; Sifaneck and Neaigus 2001), I found some elites to be "hidden-by-choice" (Noy 2008: 311). This meant that those who are most influential might not be the most visible (Undheim 2006: 104) but the snowballing approach, scoping visit and prior desk-based research helped me to locate some of those individuals. The fact that some elites chose to be hidden was particularly

[21] "Indaba" is a commonly used Zulu word for "business" or "discussion" (Gorach and Schneider 1997: 166; Henderson 1997: 118) and its use has been extended to being a descriptor of conferences across the continent.

[22] Mining Shared Value is an initiative of Engineers Without Borders Canada. This event launched their report on "Local Content in South Africa and Namibia" and was attended primarily by academics and policymakers.

true for those who worked within government institutions but simultaneously held anonymous associations with advocacy organisations.

Anonymity was offered to all interview participants and was selected by all interviewees without exception. Consequently, interviewees' names and job titles are not given in this thesis (Lancaster 2016). Any information disclosed by interviewees within their interview transcripts that might lead to their identification has also been redacted. Interviewees can be grouped into the following 12 categories according to the organisations they represent:

Category	Rationale informing selection
1. Business network representative	These representatives exist to serve their members – both local and international business players – and promote their interests in Namibia and represent them in the policy arena.
2. Government ministry representative	These representatives are civil servants who contribute to the creation of policies within Namibia. The ministries represented by this study are the Ministry of Environment and Tourism, Ministry of Fisheries and Marine Resources, Ministry of Works and Transport, the Ministry of Mines and Energy and the National Planning Commission. The role of each representative interviewed differs depending upon the ministry they represent but can include the drafting of relevant policy documents or the provision of scientific knowledge. This category also includes representatives of the organs responsible for granting Exclusive Prospecting Licences and Environmental Clearance Certificates to mining companies.
3. Independent consultant	These individuals have been employed, on an independent basis, to produce research and advise companies and government bodies on issues relevant to the current phosphate debate.
4. Individual affiliated to an environmental lobbying group	These individuals are anonymous members of environmental lobbying groups within Namibia. They lobby the Namibian government on issues of perceived environmental importance – including phosphate mining – and communicate their concerns to the Namibian public through the publication of articles and social media content.

5. Industry advocacy body representative	These representatives provide advocacy support to the above industries. Their networks support industry players and provide a coordinated response to policy debates such as marine phosphate mining.
6. Industry representative	These representatives are management-level individuals whose industries, such as fishing and phosphate mining, are dependent on Namibia's marine environment. They have a vested interest in the outcome of the phosphate mining debate and its implication on the industry they correspond to.
7. International (rest of the world) NGO representative	These representatives are based in Namibia and are both locals and internationals employed by INGOs. Whilst some INGOs' remits are not directly linked to phosphate mining they have contributed to debates on natural resource management in Namibia and/or its marine environment.
8. International (South African) NGO representative	These representatives work for NGOs based in South Africa but have an interest in the outcome of the blue economy and marine phosphate mining discussions in Namibia. As aforementioned, South Africa and Namibia continue to have political and economic ties following independence. The two countries share a coastline with their EEZs territorialising part of the transboundary Benguela Current Ecosystem and the states represent two- thirds of the Benguela Current Commission (the third being Angola). Civil society within South Africa has, therefore, followed and contributed to discussions on the potential of phosphate mining in Namibia. This involvement has been further exacerbated by the discovery of potential offshore phosphate deposits within South Africa's EEZ. NGOs are therefore particularly interested in the outcome of the Namibian debate.
9. International development agency representative	These representatives are both locals and internationals employed by international development agencies based in Windhoek. They bring with them an international network and agenda. Some of the individuals interviewed work for organisations that are advocating the blue economy agenda across Africa, including within Namibia.

10. Lawyer	These individuals have an in-depth understanding of Namibia's legal regulations that are relevant to the marine phosphate debate. Depending on their personal or professional remit, they provide legal support to the ministries and/or lobbying groups.
11. Local (Namibian) NGO representative	These local NGO representatives seek to represent Namibian civil society and influence policy. They have varied remits relevant to the phosphate mining debate. The NGOs involved in this study focus on a range of social, environmental and economic issues.
12. Stockbroker	These individuals support their clients (both individuals or institutions) to make informed investment decisions. They work with locally- and dual-listed stocks on the Namibian stock exchange.

Table 3.1. Interviewees and selection rationale

These groupings present challenges, however, as several interviewees fitted within more than one categorisation. For example, some individuals were government representatives and were found to simultaneously be anonymously affiliated with environmental lobbying groups. An additional limitation is that while this thesis has further unpacked these categorisations (e.g. "industry representative", could also be broken down further to indicate the industry represented (or instance, "fishing" or "mining") this is not uniform across all interviews referenced. This is, due to Namibia's small population and the connectedness of the network of elite individuals interviewed. In some cases, attributing these labels to interviewees increases the risk of anonymity being inadvertently breached.

Interviewing method and technique

The interviews analysed within this thesis were all conducted in a semi-structured manner. This method of interviewing enabled the interviewees to answer and elaborate freely when responding to my questions and simultaneously allowed me to pursue areas of interest that emerged throughout a given interview (see Huitt and Peabody 1969: 28–29). This technique enabled me to source rich "descriptive and anecdotal data" (see Jacobsen and Landau 2003: 190). In an under-researched area such as Namibia's marine environment, data obtained through interviews can provide much information about how institutions function, the relationships between these institutional bodies, implications of apartheid rule and the shaping of individuals' attitudes (Jacobsen and Landau 2003: 190). The fact that I conducted a preliminary visit, combined with the nature of the interviewing technique I employed throughout my main fieldwork period, meant that I gained an awareness of the context, which in turn reduced the likelihood that I would miss opportunities to gather data on essential variables, purely because I was unaware of them (see Jacobsen and Landau 2003: 191). My conversations with 16 actors informed the scope of my questioning and highlighted key variables to explore;

variables that I would have been unaware of if I had limited my prior research to desk-based document analysis.

For the main fieldwork period, I formulated an interview schedule, which was informed by prior research, observations and informal interviews from my scoping trip (see Annex 3). The questions comprised "main questions, follow up questions and probes" (Rubin and Rubin 2005: 200) to help guide the interview process. My initial questions asked each interviewee about themselves and the organisation they represented. These questions were designed to relax participants before I began my main line of questioning, and I found that interviewees became more confident, which was indicated by the fact that their responses often became lengthier as the interview progressed. Although I had a predetermined list of questions, the nature of my interviewing technique meant that the interviews became more fluid over time. I made every effort to make respondents feel that they could speak freely, and overall the interviews became more conversational over time. Despite there being some instances in which I had to steer participants back to the subject(s) at hand, I found that this method of interviewing enriched the data I received, especially because participants frequently introduced topics of discussion that I had been unaware of.

I chose to record the interviews via handwritten notes and/or audio recording, dependent on each participant's preferences. It has been argued that recording interviews by hand is considered superior to the use of audio recordings, as audio devices could make interviewees nervous and could also disengage the interviewer from the interview process (see Fasick 2001; see also Rohman and Rita 2013: 8; Wengraf 2001). However, my preference was to take field notes during the interviews, alongside audio recordings that could be utilised for verbatim transcription to fill in any gaps and to review my performance as an interviewer (as advocated by Fasick 2001: 551). This method enabled me to annotate transcripts with additional details and observations which provide contextual information to the final interviews and served to capture my own thoughts and interpretations (see Wengraf 2001: 132).

As the interviewer, I was aware that interviewees are "frequently politically conscious actors" (Alvesson 2003: 170). Interviewees may not necessarily have been able to answer my questions fully and may also have had their own intentions which might have led to different (mis)interpretations of the truth. Deliberate attempts may have been made to mislead me, or responses may have been based on what the interviewees thought was expected or socially acceptable rather than revealing their true thoughts (see Dienfenbach 2009: 881). Additionally, interviewees can use silence to influence power dynamics in the interview and to obscure their genuine thoughts (Bengtsson and Fynbo 2018: 28). I was aware of this potential and that silences might also indicate discomfort related to the interview set up (Bengtsson and Fynbo 2018: 33). As a result, I reflected on the silences throughout the interview process and ensured that interviewees were made to feel as comfortable as possible.

"Would I eat this if it was toxic?": Eating sediment and exposing power asymmetries

In March 2017 I visited one of Windhoek's industrial areas to meet with mining industry representatives. As we sat together in the company's glass boardroom, the representative explained to me that they believed that the concerns relating to plumes and the accompanied release of toxic materials caused by offshore phosphate extraction were inaccurate. Following this discourse, the representative requested that they demonstrate this inaccuracy. While I have experience of interviewing mining company representatives, I was unsure of what to expect given the physical office-based constraints of this demonstration. I watched as the individual walked to the table behind me and returned with a tray that had clearly been prepared in advance of our meeting. On this tray was a thick layer of dark sand with two accompanying white seashells strategically placed on top. As the representative ran their hands through the material, they explained that this dark sand was sediment that contained phosphate and was indicative of what would be extracted if mining was to go ahead. To my surprise they then proceeded to pick up a handful of this sediment and started to eat it, all the while asking me rhetorically whether they would be doing so if the sediment contained toxic elements.

As a researcher I am aware that attempts might be made to affect how I present my argument. While discussions of asymmetrical power are often perceived to be dichotomous in favour of the researcher (Ben-Ari and Enosh: 2013), by interviewing elite actors in Namibia I was able to gain an additional insight into the inherent power dynamics between researcher and interviewee. Every one of my interviewees had an agenda but the ways in which they chose to impart, or not disclose information, also reveals what they believed important for external researchers to be aware of (Monahan and Fisher 2010: 371). However, the nature of is the sediment-eating incident outlined above resonated with me. Given the individual's expertise, I had to trust that this was indeed phosphate-containing sediment. I had no way of verifying what material was eaten, and I was aware that, whatever material it was, it had not been extracted from the potential sites that we were discussing. It is entirely possible that through the performance of the interview this individual - like other interviewees in less overt ways - was trying to mislead me from the 'truth'. In misleading me from one version of the truth, they also led me to their version of the truth, illustrating what they believe important for researchers to be aware of (Monahan and Fisher 2010: 371). In some interviews, attempts to encode responses might be missed by me and in other cases interviewees might not even be aware of the encoded messages in their responses. However, in this Instance, what was clear to me was that this representative was using deliberate and planned methods to discount the challenges that were being raised against the proposed extraction. This caused me to reflect on questions of power dynamics within the interview process not just in terms of my own positionality but also in how interviewees also use their power to influence me as a researcher. While this was an isolated incident, the power dynamics between me and my interviewees requires further interrogation.

Because I have a friendship with several of my interviewees, I am aware that I may have been more open to being influenced by these individuals than I might have been by others. My relationships with these individuals could have meant that I assigned more value to their responses than I might otherwise have. I was also aware that several interviewees might be trying to influence me. In all instances, I tried to ensure that I took relevant field notes and considered my and their bias throughout. Sharan Merriam argues that the researcher should reflect on their role and position during interviews and identify whether triangulation is needed (2009: 148) yet I found that these relationships had their advantages.

As aforementioned, I had informal conversations with some participants in July 2016, followed-up by formal interviews between February and April 2017. The trust built between me and the interviewees through a combination of the scoping exercise, subsequent communication and informal meetings during the second period of fieldwork, was beneficial. These not only enabled me to (re-)interview participants formally in the second fieldwork period but, as predicted by Karen Jacobsen and Loren Landau, the time I spent interacting with these actors also reduced the likelihood that I, as the researcher, would be swayed by political statements and rhetoric presented to me by participants as fact (2003: 191). This is particularly important given the focus of my thesis and the political contention surrounding this issue. Despite this research's focus on elite interviewees there can be an inherent asymmetry of power between researcher and participant, particularly when undertaking cross-cultural research (Marshall and Batten 2004: 2).

While participants held the knowledge of their experiences and had the power to withdraw at any time from the interview, I set the agenda and scope of the interview in accordance with my research aims. Furthermore, this knowledge is then held and analysed by me, with interviewees' responses coded according to my knowledge and expertise (Ben-Ari and Enosh: 2012). Anne Marshall and Suzanne Batten argue that this is polarised in countries with a colonial legacy, where "knowledge and expertise" has previously been deemed to belong to the coloniser(s), including researchers (2004: 5). In the case of Namibia this is exacerbated by their apartheid legacy. This was reflected by one of my interviewees who said "We have lots of researchers but they come and interview and then we never hear from them again".[23] To help mitigate some of these concerns, I explained that my thesis would be accessible, online, to the public, via the University of Lancaster and that interviewees would be directed to the finished thesis upon completion. Steps were made to reduce the imbalance between the interviewee and myself and are discussed in the ethical considerations section below. In addition, I remained aware throughout the interview and analysis process that I was not a neutral actor and that inherent cultural factors would influence my interpretation and perspective (see Rubin and Rubin 2005: 20).

Responses given by interviewees offer only "part of the picture"—a fraction of the overall relations and events within a situation. My position as a white, non-Namibian,

[23] Interview 44.

female, external researcher with an English accent will have also (consciously or subconsciously) biased as well as either limited or increased what interviewees disclosed to me. This will have been the case regardless of the truthfulness of the information imparted. This may reduce the amount or validity of data collected. To ensure more depth, themes were triangulated with other sources of data (as recommended by Meijer *et al.* 2002: 146; see also Torrance 2012: 113), including participant observation and document analysis, as well as interviews undertaken during July 2016. These documents—official papers, legislation and policy statements—also reinforced the data obtained during the fieldwork stage.

Given that I was only undertaking fieldwork in Namibia at certain points in the year, some interviewees were unavailable to partake in this study. Unfortunately, several individuals also declined to participate in this study, which increased my reliance on other interviewees and the abovementioned documentation. Most of those who declined cited as their reason for not participating the High Court case between four fishing entities and the granters of the mining licence to Namibia Marine Phosphate Ltd. Some of these individuals had participated in informal interviews in July 2016 but later declined to participate again as the court case had since been presented to the courts. Justifications for non-participation were provided freely without being prompted: email correspondence between the author and one Minister stated, "We would have liked to speak to you with regard to PO4 [phosphate] but the case is in the courts". This meant that I was unable to interview as many individuals from the MET and MFMR as I had originally anticipated. However, five individuals were happy to speak with me, anonymously, despite the contextual and temporal circumstances.

I was unable to interview anyone from the Benguela Current Commission (BCC; an intergovernmental initiative which is integral to the management of the shared marine space of Angola, Namibia and South Africa). This was despite having met with individuals during the scoping visit, one of whom participated in an informal interview which ultimately helped to inform the direction of this thesis. Whilst it would be difficult to verify that the court case affected the willingness of prospective interviewees to participate in this study, this is the assumption I have made. Several interviewees independently mentioned that there have been recent issues in engaging with the BCC. One of these interviewees explained that the Chair had been due to participate as one of three panellists in a public discussion but called to cancel on the day of the event due to their reservations.

Despite the abovementioned limitations, positioning fieldwork at the centre of my methodology, I have been able to access primary evidence of the views of some of the major state and society actors involved in Namibia's blue economy and marine phosphate mining. However, as has been explained, results will always be distorted, to an extent, by the researcher.

Interpreting interviews

My interviews enabled me to obtain rich data, including narratives that offer insights into interviewees' experiences and behaviours. Narratives illustrate how interviewees link meanings and contexts and can provide the researcher with important details of events, actors, descriptions and relationships (Anderson and Kirkpatrick 2016: 632). Following transcription, my interview notes were coded first using open coding, where I identified themes that were relevant to my research. I am aware that, as the researcher, I have a central role in interpreting and deciding what is and is not to be attributed with importance. This interpretation was, however, also informed by desk-based research and the earlier scoping visit that was fundamental to the focus of my thesis. Following the identification of these themes, axial coding was then used to establish connections between categories (Corbin and Strauss 2008: 198). Axial coding enabled the exploration of these themes and then selective coding was undertaken to prioritise significant themes (Charmaz 2006: 46) and their theoretical contributions. During coding I was identifying patterns both within and between interviews. This enabled me to locate trends and inconsistencies in my interviews' stories and the process of continuously revisiting the information imparted during interviews enabled me to build a picture based on what was and what was not said. Triangulation with other sources including policy documentation, reputable news sources and academic articles enabled me to check the plausibility of certain statements against the experiences of the individual interviewed (Denscombe 2011: 189).

Alongside audio recordings I also used field notes. This enabled me to annotate my transcriptions with contextualising information I wrote down during the interview (Denscombe 2011: 173). Contextualising information included personal reflections on the location and the interview and other factors that might have affected my perceptions of the interview – including the abovementioned consumption of phosphate by an interviewee. I also analysed other sources, including National Development Plans and INGO strategy documents, which reinforced the validity of my data.

Archival research

During my fieldwork periods in both 2017 and 2018 I also undertook archival research at the National Archives of Namibia in Windhoek and in 2019 I did the same at the British Library in London. During my time at the British Library I also spoke with the curator of the African collection (and who was also the author of a prominent text on the History of Namibia) to help guide my research and identification of documentations.

The National Archives of Namibia, established in 1939 as the South West Africa Archive Depot (Republic of Namibia 2012: 4),[24]are reflective of Namibia's colonial experience and uncover the communities and societal space(s) that created them (Bastian 2006: 268). They reflect a dominant narrative which serves to silence others (Bastian 2006: 270). Thomas Richards describes the colonial archive as a "fantasy of

[24] Government records are only transferred to the archives after twenty years, so the National Archives advise that records pertaining to independent Namibia are limited (Republic of Namibia 2012).

knowledge collected and united in the service of state and Empire" (1993: 11). Archival activity needs to move beyond being extractive and attention must be paid to the strategies of institutions that produced the archives themselves (Stoler 2002: 90). Here, Ann Stoler describes the archive as "a repository of codified beliefs" with connections to "secrecy, the law, and power" (2002: 87). These repositories enable insight into decision-making and the (re)construction of colonial histories (Stoller 2002: 107).[25] My interests the archival materials were in the rhetoric used by the colonial state when discussing mineral concessions and how Namibian territory was understood and codified by these powers.

Ethical considerations

Informed consent

All interviewees quoted within this thesis have given their full informed, consent for their participation and inclusion in this study. Formal consent serves to give control to the participant in the research process, to make participating in research more appealing despite its intrusive nature, and to ensure that the participants' rights to privacy over their information are secured (Spicker 2007: 2; Tuckman 1999). Informed consent is an integral element of ethical research, particularly when working with individuals who could be perceived to be vulnerable due to "their perceived openness to coercion, exploitation or harm by more powerful others" (Crow *et al.* 2006: 84). Whilst participants in this study do not fit the common characterisation of the vulnerable research subject, their participation in research of this nature could leave them vulnerable to the risk of job loss. I perceived informed consent to be given only once interviewees fully understood what their participation in this study involved (see Crow *et al.* 2003; Tuckman 1999).

At the point of initial contact, participants were provided with information sheets via email. This gave potential interviewees the opportunity to make informed decisions before deciding whether to participate in the study. The Participant Information Sheet (PIS – see Annex 4) was designed adhering to the recommendations of Carole Truman (2003) and Sue Heath and colleagues (2007), who collectively suggest that the PIS should not appear too official for fear of making participants reluctant to partake in the study. The PIS provided a brief background to my study and explained how the data would be managed and stored, as well as how the information shared by participants would be disseminated (see Annex 4). The PIS did not provide an insight into my opinion(s) on any given topic, despite Phil Scraton's (2004) suggestion that researchers should provide such details. This was because I did not want to risk overwhelming or deterring individuals from participating through an overprovision of information (Alderson 2004; see also Harris and Dyson 2001), nor did I want to make participants feel that I was aiming for a certain response, thus influencing their answers.

[25] See Piggott 2005.

Whilst I endeavoured to ensure that participants were making an informed decision when determining whether they should participate in the study, Wiles and colleagues (2007) suggest that some individuals will be reluctant to read the PIS. Therefore, I summarised the information on the PIS orally before beginning each interview, keeping the explanation simple to reduce the risk of alienating or manipulating the thought process of the participant. I also gave participants the opportunity to withdraw from the study. Additionally, interviewees had the opportunity to ask questions to address any concerns or clarifications that they might have related to their participation (see Crow *et al.* 2006: 95).

For interviews undertaken in person a printed copy of the consent form (see Annex 2) was signed immediately following the interview. For those interviews undertaken via Skype, a scanned copy of the signed consent form was obtained via email following the interview. All participants were given the opportunity to decline or withdraw from the study completely. Furthermore, they were advised that they could contact me and withdraw their data from the study up until my thesis submission date. This practice of obtaining one-off rather than ongoing consent was observed to avoid oversaturating participants with requests and detracting from the fluidity of interviews (Crow *et al.* 2003). Though most interviewees had previously partaken in academic research projects, several individuals explained that they had never signed a consent form and asked for me to explain its purpose. The process of obtaining consent remains contentious due to its possible impact on the behaviour of participants, or its potential to discourage participants from participating in research[26] (Spicker 2007: 4). However, I decided that the ethical concerns outweighed the potential for practical issues (Spicker 2007: 5).

Anonymity

Despite challenges to the idea that participants want to be anonymous at all times (see Grinyer 2002), I found that all respondents, with the exception of one, wished to retain anonymity due to the contention surrounding the phosphate mining debate in Namibia and the interlinked nature of elite Namibian society.[27] Once I explained to participants that I would anonymise their data throughout my note-taking and transcription, as well as in my and research outputs, and that their data would be stored securely, they were all happy to give their consent.

Incentives to participate

Each participant was offered the opportunity to choose the location in which they were comfortable to be interviewed. This was particularly important due to the contentious nature of the research topic and the involvement of some of these individuals in the phosphate mining debate in Namibia. Interviewees included anonymous members of

[26] Concerns can include the fear of being identified as a participant due to their signature on the form as well as the fear of being bound into a contract.

[27] While I recognise that an elite group can be small and close-knit even in a state with a large population, Namibia's relatively small population of 2.6 million people has rendered elite actors easy to identify. The fact that Namibia has few urban centres exacerbates this potential.

the advocacy organisation "Swakopmund Matters" as well as individuals in organisations directly involved in the ongoing mining discussions. Approximately half of the interviews took place in cafés and in some of these cases, the cost of an interviewee's drink or lunch was covered. Although Marie Smyth (2004) argues that the provision of refreshments can be an incentive for individuals to participate in a research study, interviewees were not made aware prior to, or during the interview that I would cover these costs. This offer was made following, but not on condition of, the interview being undertaken and the consent form being completed.

Generalisability of the study

This research does not set out to be generalisable and does not claim to represent the totality of bureaucrats or Namibians. I therefore caution against overgeneralising this case study. However, by identifying overlaps and gaps, analytical generalisation with related research is possible (Yin 2013: 326). The Namibian case study was selected due to its critical nature as it is one of the first examples of where a state is debating the possibility of seabed mining in their EEZ. As such, the need for generalisability diminishes (Tight 2017: 29).

Namibia's marine scape: a historical overview

Before this thesis turns to its analysis of the contestations over accumulation in Namibia's marine sphere, it is imperative to consider the context within which these conflicts have emerged. In February 2017 I sat in the auditorium of the African Mining Indaba in Cape Town, South Africa, as the head of Anglo American addressed the audience of investors, mining companies and state representatives. Discussing the role of mining companies across the continent he declared that "the past is a foreign country… the past has little purpose in defining the future" (Cutifani 2017). In his endeavours to legitimise the (continued) involvement of mining companies on the continent, his declaration was an attempt to erase complex historical contexts. However, contrary to his sentiment, the past does much to define the future of extraction, both across the continent and in Namibia. The past has shaped and informed who has had access to or who has been excluded from Namibia's national space and the resources therein. The head of Anglo America's speech focused on terrestrial mining, but Namibia's terrestrial and marine environment have both been (re)shaped and (re)articulated throughout history. While this re-articulation will be discussed in detail in the empirical sections of this thesis, the (recent) historical context of Namibia must be understood as a prerequisite for discussions of sovereignty and the state and non-state actors involved in these articulations.

This section chronologically discusses the Namibian context, with particular reference to Namibia's historical relationship with the marine and coastal scape, drawing on archival research undertaken in the National Archives of Namibia in 2017 and 2018, alongside fieldwork and interviews. While I recognise that Namibia's history is not limited to its colonial experience, I begin with the German occupation in 1884. This period was crucial in establishing the divisive structures that have characterised and

continue to characterise Namibia. Second, this section will consider South African mandate rule and the (embedded) implications of apartheid rule, before providing a brief overview of Namibia's independence movement. Third, SWAPO's continued dominance in Namibia will be examined to illustrate how these experiences have established (pre)conditions that, contrary to the abovementioned rhetoric deployed at the African Mining Indaba, affect present day discussions of sovereignty.

"Look Mister, mooi klip [beautiful stone]": German colonial rule[28]

The centrality of mineral and natural resources to Namibia's colonial experience is evident. Namibia's (geo)physical characteristics – its dynamic coast and the Namib desert – and perceived absence of minerals initially rendered scepticism from colonial powers about its potential for occupation. As such, the first territorial claim did not occur until 1878 with the annexation of Walvis Bay by the British (Dreyer 1984: 497). Initially a German colony, then-German South West Africa was annexed in 1884 following petition by the trader Adolf Lüderitz (whose memory retains an association with independent Namibia through the eponymous port town) (Wallace and Kinahan 2011: 112, 116). Here, Namibia's mineral wealth was highlighted, and Germany legitimised state territorialisation through extraction (see also Vandergeest and Peluso 1995). This extraction included coastal diamond mining and large-scale foreign exploitation of marine species, including fish. This process was undertaken by contracted migrant labour (Paterson *et al.* 2013) who migrated into areas including Swakopmund and Walvis Bay. German domination saw the establishment of bureaucratic boundaries, judicial institutions and the devolution of authority over land as well as other concessions to white settlers (Wallace and Kinahan 2011: 148–149). This concession system enabled the colonial government to grant territory to mining interests (see Emel *et al.* 2011: 73), thereby articulating territories through capital (see Figure 3.1). As such, mining and particularly mining for diamonds – a practice that relied on the cheap supply of labour in (northern) Namibia – played a crucial role in financially sustaining German colonial rule, accounting for two-thirds of the state's income between 1909 and 1913 (Wallace and Kinahan 2011: 198–199).

[28] Colloquial stories in Namibia talk of Zacharias Lewala, (a railway worker) in Luderitz credited for catalysing Namibia's diamond rush. It is professed that one day, Lewala, who had mining experience in Kimberley, brought a rough diamond to his supervisor, August Stauch, saying "Look mister, mooi klip!" – using the Afrikaans for beautiful stone.

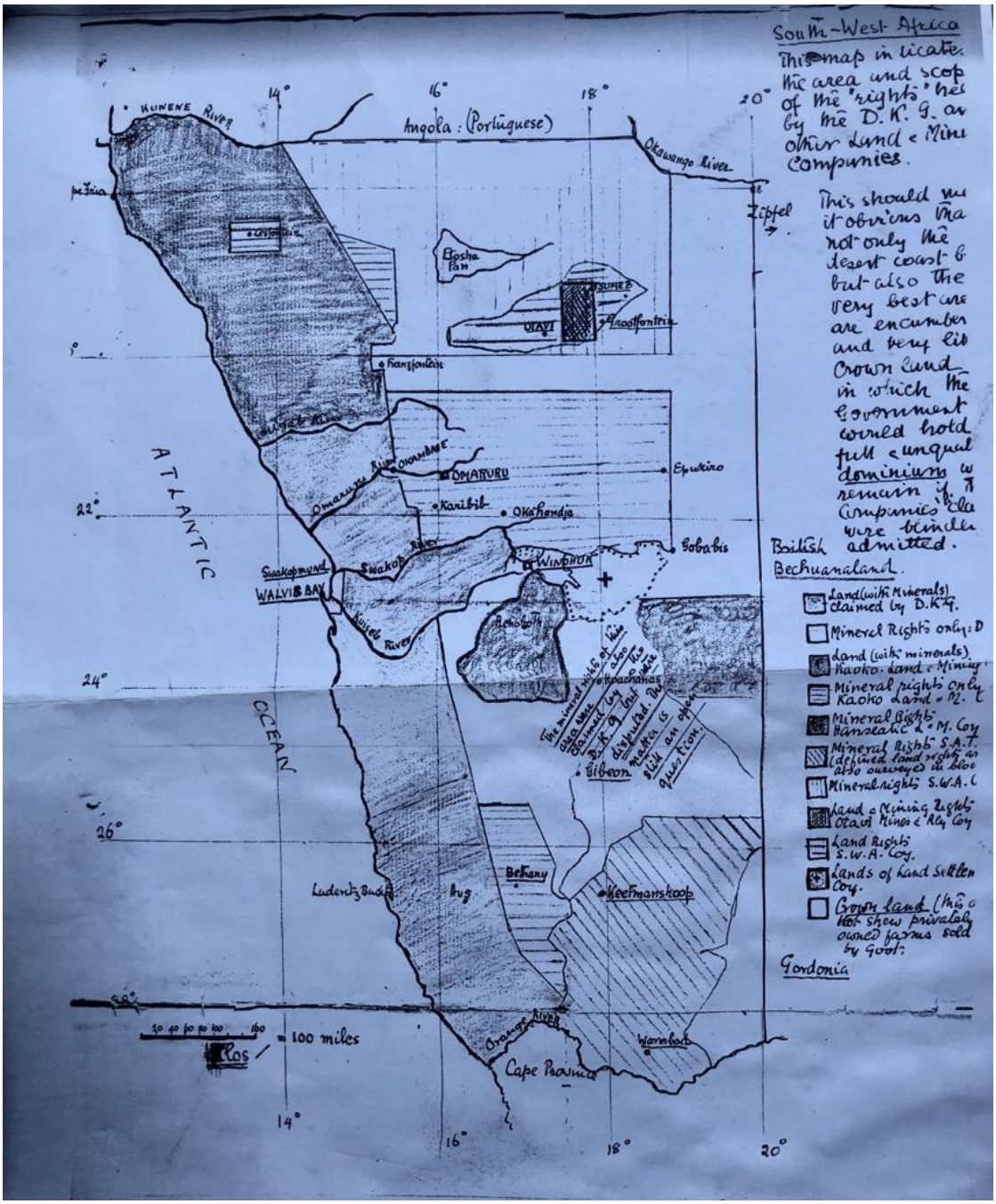


Figure 3.1. Map of mining rights under the German colonial administration (Image courtesy of the Namibian National Archive from an unpublished map)

Herero and Namaqua genocide[29]

The German concessions system contributed to land dispossession, concerns over which remain present in discourse today. German rule was also characterised by atrocity culminating in the deliberate genocide of the Herero and Namaqua people in 1904–05. The assertion that Namibia's land was a frontier that was "empty" or could be emptied underpinned German colonial rule (Madley 2004), the emptying of the land serving to justify the granting of land concessions to German settlers. In doing so Namibians were excluded from their land and subsequent grievances ran deep.[30] These grievances culminated in an uprising by the Herero against the expropriation of their land and cattle and in response the largest military campaign of Imperial Germany was launched.[31] The military campaign saw the colonial imagination that Namibia's land was wild extended to the people who inhabited it. Dehumanising terms were used; the Herero and Nama were referred to as "wild beasts" and "savages" in German discourse (Wallace and Kinahan 2011: 180). The dehumanisation and labelling of what Imperial Germany framed as the enemy worked to justify exploitation and violence (see also Keen 2008: 72) and the German incursion involved extreme acts of physical and sexual violence by German soldiers (Jones 2004), in what is recognised as the first genocide of the twentieth century (Cooper 2007: 113). General Lothar von Trotha, who led the campaign issued the following extermination order:

> The Herero must… leave the land. If the populace does not do this, I will force them with the *Groot Rohr* [cannons]. Within the German borders every Herero, with or without a gun, with or without cattle, will be shot. I will no longer accept women and children; I will drive them back to their people or I will let them be shot at. These are my words to the Herero people. [Signed] The great General of the mighty German Kaiser
> (Quoted in Gewald 1999).

The brutality of this extermination order resulted in up to 100,000 deaths.[32] Individuals who escaped were sent to concentration camps, located across Namibia with the perhaps most notorious situated on the coast of Lüderitz at Shark Island – or Death Island – where over 1,550 Nama died (Wallace and Kinahan 2011: 177). The stigmatisation of the Herero and Nama as "savages" saw those who escaped death subsumed into an exploited labour force, working in forced labour camps, where many prisoners died from the conditions that they were subjected to (Cooper 2007). Despite the terrestrial

[29] The application of the definition "genocide" has been disputed by the Germans and discussions of reparations are ongoing. Similarly, Germany is currently negotiating the return of an undisclosed number of Herero and Nama bones and skulls that were shipped to German pathological institutions during the genocide. These bones were collected under the authority of museums and research institutes in Imperial Germany. Eugen Fischer – whose 'fieldwork' informed his subsequent work with the Nazi part on Eugenics and the establishment of the Nuremberg Laws - also travelled to Namibia to undertake racial testing on individuals and remains of prisoners from the Shark Island concentration camp (Shigwedha 2016: 199).

[30] For an in-depth history of The Namibian War (1904–08) please see Wallace and Kinahan 2011.

[31] The Herero uprising, attributed to land dispossession, (ill-)treatment by colonial powers and the death of cattle from rinderpest, resulted in the death of 125 adult German male settlers (Hull 2005: 39).

[32] There is, however, no agreed figure on the number of lives lost to the genocide.

and coastal focus of colonial accounts and accounts of genocide, the sea itself also harboured acts of violence. Boats were used to incarcerate individuals offshore from Swakopmund, a space conceived by the colonial authority as beyond the realm of (terrestrially bound) law. Herero and Nama individuals were not only expropriated as claimants to the(ir) land, but their incarceration resulted in their exclusion from having a physical presence on the land itself. The dynamics of this incarceration and the myth of the emptiness of the maritime space will be expanded upon in this thesis's empirical Chapter 5.

The continuation of some of the complexities of Namibia's colonial experience, remain unaddressed. In Swakopmund a commemorative statue still stands guard alongside independent Namibia's 'State House'. The Marinedenkmal memorial – erected in 1908 commemorates the German lives lost during the German-Herero war (Garsha 2019: 92), erasing recognition of the Namibians who died and the atrocities it foreshadowed. Despite the statue's erasure of the Namibians who lost their lives, the ensuing contention has been made visible through the splashes of red paint covering the monument since it was paint-bombed. Activists who paint-bombed the statue argue that it is a monument to a racially-conscribed oppression, that continues today.

Figure 3.3. The Marinedenkmal memorial in Swakopmund. Image taken by the author (2018)

While elements of Swakopmund's landscape remain haunted by its past, elsewhere the past has been erased. In recognising the complexity of Namibia's colonial experience, it is important to note that the politics of (non)remembrance, and the sensitivities that

surround this, remain unaddressed (see Kössler 2007). Concentration camps across Namibia have been destroyed and there is little evidence of the violence that occurred there. In a cruelly ironic twist, Shark Island, the site of a notorious concentration camp, is today a campsite for tourists who pitch their tents against the winds that pummel the coast. The only indication that the genocide happened is a small commemorative plaque. The violence that occurred on the coast and within the sea is erased – its history sucked into its perceived assimilated void.

Namibia's marine environment played an integral role in Namibia's colonial history. As with its people, nature was conscribed as something to conquer; an adversary empty of society (Blackbourn 2006). This imagination was perhaps most prominent in discussions of the turbulent waters of the Atlantic Ocean and their impact on colonial powers' access to Namibia (Kalb 2018: 4). Both Swakopmund and Walvis Bay have prominence within colonial narratives. Walvis Bay was controlled by the British (from 1878-1910), whose seafaring power enabled them to enclave the natural bay which had long served Namibian whalers (Kalb 2018: 5). As such, this natural harbour remained enclaved for the entirety of German colonial rule. Swakopmund therefore offered the only alternative for German powers. In response to this, colonisers therefore ordered the construction of Swakopmund Mole –- an attempted artificial sea wall[33] - which subsequently gained its status as the main port for imports and exports within Namibia. Prisoners from the town's concentration camp were involved in the building of railways and harbour works[34] which formed the integral infrastructure to the economy of South West Africa (Wallace and Kinahan 2011: 175) and of independent Namibia. The perception that colonial powers had 'conquered' nature was cause for celebration with the Swakopmund newspaper *Deutsch-Südwestafrikanische Zeitung* declaring the success of the communities' 'fight against the sea' (Kalb 2018). This rhetoric of "fighting" and winning sees the colonial powers portrayed as victors that not even the sea could hold back. This simplification also flattens the embedded violence that these sites harbour (see Chapter 5): however, the (in)visibilities of colonial violence continue to remain apparent on the coast.

South African mandate rule and the road to independence

Following German defeat in the First World War, Namibia was governed by South Africa through mandate rule. However, the imposition of German structures in Namibia extended beyond their occupation (Melber 2014: 8). Namibia was fractionalised along both racial and urban/rural divisions (Du Pisani 2010: 74). Urban practices in Namibia adopted a process of "erasure and reinscription", with homogenisation policies working to erase Namibia's "black spots" (Muller-Friedman 2007: 31). Here, individuals racialised as non-white outside of the perimeter of white urban spaces (Muller-Friedman 2007: 31). This erasure of "black spots" was prominent in Windhoek, where the forced removal of the capital's black population to Katutura occurred in 1961 (Simon 1988: 55). The name Katutura in Otjihereo roughly translates to "the place where we do not

[33] This was successful only until a sandbank blocked the Mole in 1906.
[34] Forced labour was also utilised in the construction of a harbour in Lüderitz.

want to stay" (Ejikeme 2011: 88) is indicative of coercive relocation. However, despite its temporarily conscribed definition, Katutura's prevalent and precarious living conditions, and the legacy of South Africa's apartheid policies remain (Steinbrink *et al.* 2016). Forced removal was not limited to Namibia's interior: it also occurred in coastal towns. Mondesa township was established for Swakopmund's black population in 1960. Today Mondesa is a district of Swakopmund and is characterised by a peripheral informal settlement, the Democratic Resettlement Community (DRC). The DRC was established in 2000, following local government evictions of individuals from Mondesa, and originally given the acronym DRC because the community likened its experience to the Democratic Republic of the Congo's conflict (Muller and Mbanga 2012: 72). [35] Both Katutura in Windhoek and Mondesa in Swakopmund illustrate the entrenched colonial divisions that remain in Namibia today and continue to socio-spatially marginalise communities racialised as non-white.

Racial and urban-rural fractionalisations, once created were in turn institutionalised to enable the accumulation of capital. The mandated coloniser's domestic apartheid policies were administered and entrenched in Namibia – including via the Mines, Works and Minerals Regulations of 1968 – and just as the German government had done before, the South African administration set out to extract wealth from its colony (Wallace and Kinahan 2011: 205). The mandated coloniser's domestic apartheid policies were administered and entrenched in Namibia and mining continued to play an integral role in assisting the coloniser's pursuit of this objective. By the mid-1950s mining overtook agriculture as the main contributor to Namibia's GDP, a development made possible by South Africa's decision to open the sector to international capital (Du Pisani 2010: 74; Wallace and Kinahan 2011: 257), the effects of which inform present day engagement with foreign and direct investment (FDI). Concurrently, Namibia's economy became increasingly intertwined with South Africa's, and Namibia came to be regarded as South Africa's "fifth province" (Silvester 2015); a relationship that remains visible today, articulated through formalised institutions (Du Pisani 2010; Saunders 2016; Wallace and Kinahan 2011: 258) and permeating the national self-imagination, as indicated by interviewees referring to South Africa as "our big brother". [36] During mandate rule, mining concessions also migrated from land, with the first offshore diamond mining licence awarded in 1961 (Debmarine Namibia n.d.), thus indicating how land-based policies have historically been transposed onto and over the marine sphere and that Namibia's seas have been shaped by accumulation strategies.

Colonial rule not only led to the denial of Namibian ownership and governance over its territory and resources therein. It also extended to the governance of knowledge(s) (as will be discussed in Chapter 4). In 2017 I attended the opening of the University of Namibia's Veterinary School: the first of its kind in Namibia. During the School's inauguration the previous president, Hifikepunye Pohamba, referenced the country's colonial experience with respect to education. Standing on the stage, addressing the first

[35] Its name has since been adapted to the Democratic Resettlement Community.
[36] Interviews 4, 6, 41 and 43.

cohort of students and a collection of television cameras he argued that Namibia, and Namibians, had been deprived of opportunities during the period of colonial rule. He emotively declared that "[the South Africans] didn't build any universities. They denied us of education. Shame on them. Shame on them" (Pohamba 2017). This rhetoric of denial and the consequential imperative of sovereignty is often utilised in government fora and at public events within Namibia and the effects of its colonial experience remain entrenched, today, not only in the visible structures but in the (absence of) ownership of knowledge.

Towards independence[37]

The consolidation of South Africa's apartheid regime was intrinsic to the mobilisation of Namibia's liberation movement (Mwakikagile 2015: 88). Namibia's decolonisation was one of the most prominent of all independence processes in the latter half of the twentieth century, due not least to the involvement of the UN,[38] and the international agenda was one of decolonisation, not democratisation (Melber 2014: 8, 2003). The exploitation and denial of sovereignty experienced during colonialism was highlighted in an address by the Administrative Secretary of SWAPO, at a seminar entitled *"Mining Industry of Namibia: Legal Framework and Development Strategy Options"* at the United Nations Institute for Namibia, Lusaka on 28 April 1983:

> Comrade Chairman, the excessive dependence on *the* mineral sector has been deliberately created by the racist regime. Because of the abundance of relatively easy to work rich ore bodies *availability* of cheap labour under the contract labour system, the proximity of the South African economy and above all the colonial policies, South Africa and her allies have left no stone unturned to plunder *the* mineral reserves of Namibia.
> (Caroeb 1983)

The use of rhetoric such as "plunder", "impunity" and "complete disregard" when discussing South African, American, Canadian, French and British involvement with Namibia's mineral resources illustrates the absence of sovereign rights that Namibia had during colonial rule. However, this fractionalisation continued as despite independence being granted in 1990, South Africa continued to claim sovereignty over Walvis Bay, the site of proposed phosphate mining, until 1994 (Wallace and Kinahan 2011: 307). This is due to its strategically and economically important deep-water port. This deep-water port was of naval significance to South Africa and was used to transport mineral wealth, with ownership affording influence over Namibia's economy (Evans

[37] This is discussed in brevity, not due to disproportionate weighting being given to the other aspects, but due to its relevance within this thesis. See Mwakikagile (2015) and Tsokoyadi (2011) for comprehensive discussions of Namibia's liberation movement.

[38] Unlike in most African states, Namibia's decolonisation process did not take place against the backdrop of the development of Bretton Woods and the related Structural Adjustment Programmes. The International Courts of Justice formally recognised the illegality of South Africa's continued presence in Namibia in 1971 and called for immediate withdrawal (ICJ 1971).

1990). Independent Namibia's sovereignty was therefore neither a linear, nor smooth, process.

SWAPO: A *de facto* one-party state?

During decolonisation, the liberation movement, which was called the South West African People's Organisation (SWAPO), was the only internationally recognised representative of the Namibian people. The movement proposed to voice "the will-of the people" whilst interacting with international actors; however, SWAPO's replacement has come to resemble the very colonial administration Namibia originally struggled against (Dobell 1998) due to Namibia's decolonisation process and the involvement of external powers within it.[39]

Since independence, SWAPO has upheld the heroic nationalist rhetoric its representatives established during the anticolonial struggle, monopolising ownership of the liberation war to provide itself with political legitimacy and a justification for continued hegemonic rule (Malkki 1995; Melber 2014: 26, 2007). This political hegemony has led to accusations that SWAPO is blurring the "boundaries between party, government and state" (Melber 2003). The liberation struggle rhetoric used by SWAPO during the anti-colonial movement, and following independence, speaks of a united Namibia (SWAPO 1976: 39). However, questions remain as to whom these terminologies encapsulate and, to that effect, exclude. This concern will be unpacked in subsequent chapters. Today, high levels of inequality persist, such that Namibia ranks as one of the worst countries for levels of social disparity and divisions along both racial and class lines (Melber 2007b: 111; see also Frayne 2005; Winterfeldt 2002). This is exacerbated by the legacy of the inherent bias(es) of colonial rule. Nation-building in Namibia has led to marginalisation as opposed to integration; the fact that the sovereign state continues to represent the interests of a minority indicates that the formalisation of the state's self-determination aspirations in policymaking does not necessarily result in political freedom and economic benefit for its citizens (Melber 2014: 36, 81).

Despite the prominence of the claim of self-determination and sovereignty emerging as an integral element of the rationale of the Namibian independence movement, this ideal exists against a reality entailing the continued appropriation of public resources. Disputes over land remain, due to much of Namibia's productive land still being under the ownership of the white minority. The ongoing contestation pertaining to land rights (a colonial hangover that remains unredressed) has been cited as a concern by interviewees in terms of how Namibia will address the ocean as an emerging site of extraction.[40] Unlike land the sea is out of sight of the majority of Namibians; in other words, what happens in the sea is not normally visible, and therefore one cannot easily perceive who interacts with the space and, indeed, who is setting agendas within the environment itself.

[39] Interviews 11, 12 and 15.
[40] Interviews 4, 11, 16 and 21.

Concluding remarks

This section has provided context to the Namibian case study, moving chronologically from German occupation to present day Namibia. In doing so it has introduced the various struggles for sovereignty and processes of exclusion seen in the country. The section has also highlighted the embedded divisions that have underpinned this exploitation. These divisions continue to exist across the country both visibly and as rifts that have been subsumed into state structures or that have been rendered invisible, demolished or hidden under the surface of the sea. These fractionalisations continue to have implications for the ownership of knowledges, land and the resources therein, particularly when ownership issues have not been redressed. Due to the sea's offshore location, colonial narratives remain entrenched. The sea is conceptualised as a homogenous surface over which power is exerted and accumulation is legitimised. In direct contrast to the opening statement of the Anglo-American representative I listened to at the Mining Indaba – who claimed that the "past has little purpose in defining the future" (Cutifani 2017) – the past continues to affect ownership claims over Namibia's land and sea and the resources therein, to which this thesis now turns.

Chapter 4

Unlocking Namibia's blue economy

Introduction

This chapter argues that the framing of Namibia's blue economy remains ambiguous, at times purposefully. This ambiguity matters because its unevenness enables powerful actors – existent and emerging – to interpret the agenda in order to legitimise their ownership claims, operation and exploitation strategies within Namibia's marine scape. As the ocean emerges as a new 'frontier' under a multitude of agendas (Abbott *et al.* 2014), it is important to analyse the divergent interests that inform their conception. Although there has been scholarly recognition that the concept of the blue economy lacks a uniform interpretation (see Winder and Le Heron 2017: 10), there has been little engagement with the consequences of this. Concurrently, discussions of the blue economy have focused on the continent's fisheries and conservation priorities, with scant reference to the emerging frontier of marine-based mineral extraction. Establishing a coherent understanding and definition of the blue economy is therefore important not only on a global scale but also at the local level.

Due to Namibia's current economic situation, the potential benefits of its EEZ are regarded by the state as being of paramount importance. The marine scape is framed as one possessing the potential to transform the sovereign economies of African states (UNECA 2015) which is particularly pertinent given the continent's experience of exploitation during colonial rule. However, as this chapter illustrates, neither has the emergence of the blue economy agenda apolitical nor has the agenda been established in isolation from exogenous actors and interests. Given the increasing use of market-based mechanisms, governance space is becoming characterised by decentralised and diverse power structures (Kuus 2018: 1). These structures, and therefore related knowledges, are not confined to state borders; instead they transcend the nation-state as well as the agendas through which they are often discussed (Kuus 2018: 6). The transposition of concepts from elsewhere is therefore inherently political, as are the associated conflicts that emerge from the imposition of those concepts.

The importance of problematising and examining the origins and the framing of the blue economy became apparent throughout my periods of fieldwork, from 2016 to 2018. During this time, I witnessed the evolution of the agenda in the policy arena, changes to the discourse, and the increasing encapsulation of discussions of seabed mining within blue economy rhetoric. In mid-2016, when I undertook my first period of fieldwork, the concept of the blue economy was not yet commonplace within Namibia. Questions of the blue economy yielded little response, including when I raised them within government offices. Despite blue economy discourse emerging across the continent, the concept itself remained ambiguous in Namibia. For example, a ministerial representative, who was integral to emerging blue economy discussions explained to

me "I have no idea what the blue economy is".[41] However, concurrently, INGOs and local NGOs in both Windhoek and Swakopmund had begun to discuss the potential for engagement with this new agenda as they began to (re)define the marine scape and engage with Marine Spatial Planning (MSP) – a tool to promote the blue economy through planning and mapping.[42] These tools will be used to ascribe interpretations of and ownership claims over the marine scape. As the EEZ opened, emergent claimants began vying for legitimacy despite governmental ambiguity.

Following my scoping visit in 2016, the blue economy agenda had become more prominent in Namibia, which in turn was attributed to the recent conflicts over the potential for exploitation of mineral resources in the seabed.[43] During my subsequent period of fieldwork, in 2017, I met for a second time with the ministerial representative I quoted above and it became apparent that the marine policy landscape had by then shifted. This time, the ministerial representative explained that the blue economy was an opportunity for Namibia:

> There is high economic potential, but also the need to avoid conflict and environmental damage. There are teams of stakeholders in the ocean; fisheries are a big sector and so is mining, there is the potential for mineral resources to be exploited… we are trying to coordinate to manage this space sustainably.[44]

Recognising that there are divergent interests and therefore different ministerial agendas coalescing in the space, the ministerial representative explained that they, the ministries, were all "working for the same purpose – the wellbeing of Namibia – whether it's for the environment or development."[45] This rhetoric simplifies and flattens the coalescence of development agendas such that the sea is framed as a space that requires (re)definition, delimitation and management in order for its potential to be realised. This framing enables new entrants such as extractive industries to enter the marine scape, despite their contentiousness. The flattening of agendas is also challenged due to the (geo)physical properties of the ocean, its three-dimensional and fluid characteristics complicating the task of dividing the space for different uses.[46] Additionally, while discussing the unity of ministerial agendas, there was no recognition by the interviewee that inherent contradictions exist between the divergent paradigms of working for the environment or for development. Nor did they engage with the potential issues arising from ministries with differing remits "working for the same purpose",[47] such as limitations being placed on ministerial jurisdictions over the marine scape. These limitations are discussed later in this chapter.

The contention between divergent interests in Namibia's EEZ has led to the organisation of a governmental group to discuss this emergent contestation and by the

[41] Interview 8.
[42] See Boucquey and colleagues (2016) for further discussion of MSP.
[43] Interview 2.
[44] Interview 44.
[45] Interview 44.
[46] See chapters four and five for further discussions of challenges to demarcation in the marine scape.
[47] Interview 44.

end of my third visit in 2018, the blue economy had been formalised in the country's NDP 5. This illustrates the uptake of the concept and how it progressively became embedded in state discourse during the time between my initial and final fieldwork periods. The same ministerial representative mentioned above explained that the governmental working group's recent understanding of the blue economy followed their attendance, alongside other senior governmental representatives, at a training course on the agenda. This training had been run by the UN and, as the ministerial representative explained to me, while showing me a copy of Awni Benham's book,[48] had enabled participants to get "more understanding of what [the blue economy] is and what other countries are doing".[49] They also spoke of the now more established role of international donors, including GIZ, INGOs and local NGOs, in shaping the management of Namibia's marine scape. This indicates the role of divergent actors in the establishment of such agendas and the exogenous origins of concepts. This echoed the sentiment of another ministerial official who explained that a conference run by the European Commission was pivotal to their understanding of the blue economy.[50]

This chapter proceeds in three sections. Drawing on the abovementioned timeline, as framed in the vignette above, the first section of this chapter outlines the emergence of the blue economy and its inherently socio-political context within Namibia, before following the origin of the agenda. In doing so, it questions who is defining this concept and how it is being understood. The second section of this chapter then analyses competing discourses and interpretations of the blue economy by a multitude of actors. Despite Namibia's turn to the sea, the formalisation of the blue economy is not antagonistic to external actors and the embedded power dynamics. Emergent external interests and definitions focus on unlocking the economic potential of Namibia's EEZ and have led to the incorporation of a multitude of interests. In being 'unlocked', therefore, this space will also be (re)locked in an inherently exclusionary process. The final section of this chapter argues that the ambiguity of the blue economy concept enables capital and private sector interests to enter and define the blue economy in their own terms. This ambiguity therefore opens space for seabed mining.

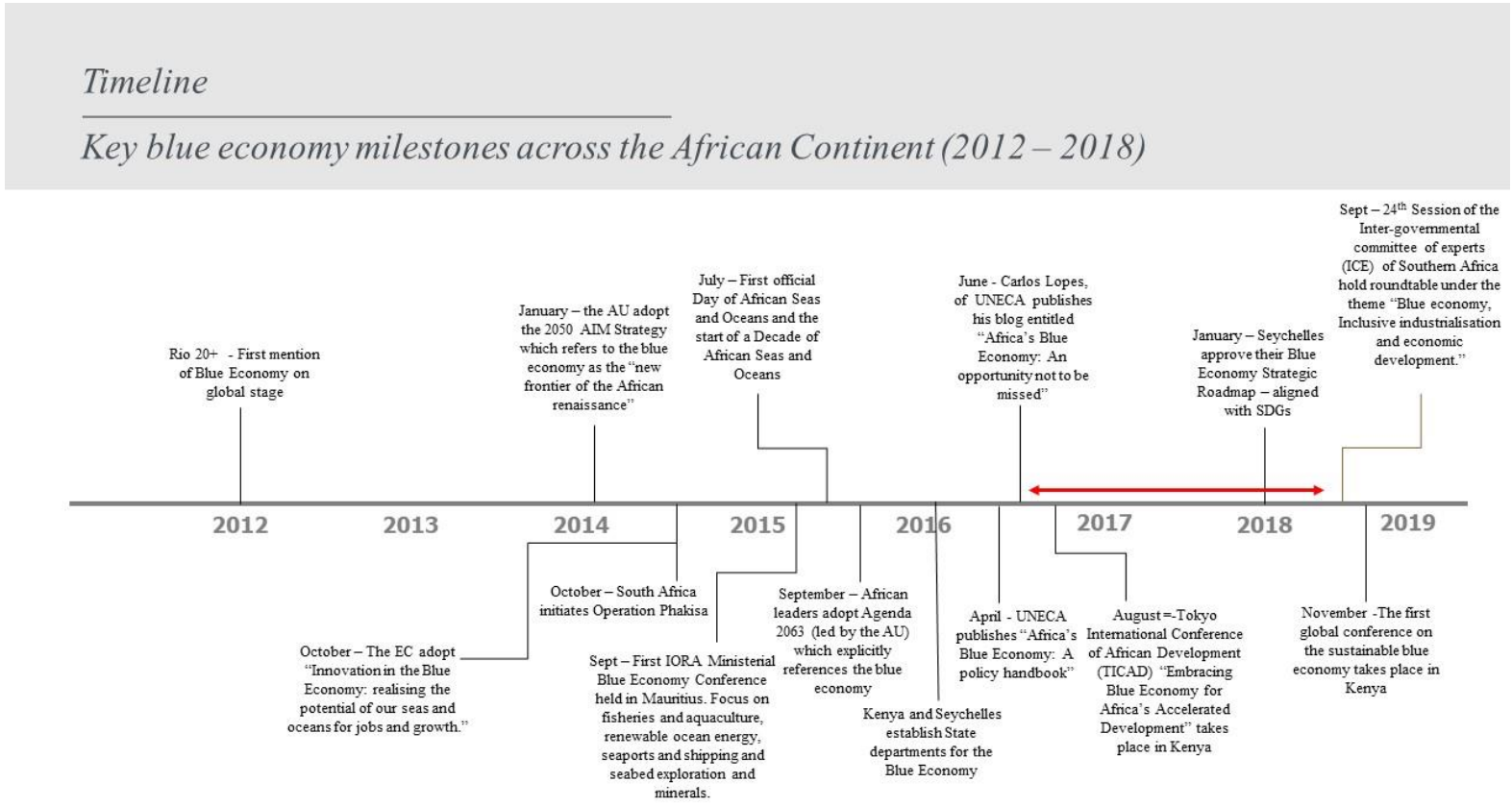
Background and Africa's emerging blue economy

The emergent understanding of the blue economy in Namibia reflects the rhetoric employed by external organisations who are involved in its formalisation. The concept of the blue economy has been adopted by multilateral organisations and, significantly, by the African Union. Despite the blue economy being a relatively recent framework, the agenda has been incorporated into the AU's 2050 Integrated Maritime Strategy and its fifty-year strategy, Agenda 2063, which aims to accelerate the continent's development and socioeconomic transformation (African Union 2015: 6) both of which Namibia has adopted. This uptake across the continent has been cited as a reflection of the AU's desire for the ownership and "Africanisation" of the region's maritime affairs

[48] Awni Benham is the honorary president of the International Ocean Institute, see Benham 2014.
[49] Interview 44.
[50] Interview 2.

(Ruppel and Biam 2016: 1), building on the continent's earlier success in international negotiations, including during the third United Nations Conference on the Law of the Sea (UNCLOS III) (Suárez-de Vivero 2012). However, this argument is an oversimplification that ignores the complexities of the blue economy and the politicisation of maritime realities. The global (re)focus on the ocean environment and subsequent attention on the blue economy have been motivated by several factors. The ocean's (geo)physical characteristics evoke imaginaries of a realm of (untapped) development possibilities which are bolstered by emerging sectors and interests, including marine mining, within this space (Silver *et al.* 2015). This has led to Namibia's marine scape and the natural resources within this space being conceptualised and commodified under a development "imaginary" (Jessop 2004; Neimark 2016) as part of the blue economy, by international organisations and governments. This (re)focus on the ocean's development potential is reflected across the continent where there has been an increase in efforts to organise meetings and governmental workshops and to implement the agenda in national and transnational policy arenas alike (see Figure 4.1 below).

Figure 4.1. Key blue economy milestones across the African continent (red arrow indicates fieldwork period)



The development imperative of the blue economy is clear: states' marine scapes are sites of potential that must be harnessed immediately. Following its global conception in 2012, the blue economy agenda has gained traction across the African continent, demonstrated by the increasing frequency of continent-wide workshops and

conferences (see Figure 4.1 above), a change which also illustrates a strong development trend. This is in line with the anticipatory politics from development organisations and the idea of Africa as a resource provider (Childs and Hearn 2017). The development trend is exemplified by the abovementioned role of the blue economy in the AU's 2050 Maritime Strategy and Agenda 2063. Agenda 2063 states that "the blue and ocean economy shall be major contributors to continental transformation and accelerated economic growth" (African Union 2015: 6). Similarly, in 2016, Carlos Lopez, the Executive Secretary of United Nations Economic Commission for Africa (UNECA), refers to Africa's blue economy as an "opportunity not to be missed" (UNECA 2015). This discourse has begun to be embedded on a national level with states including Kenya and the Republic of Seychelles implementing blue growth policies in 2018. Significantly, the first global conference on the blue economy occurred in Kenya in 2018, indicating the importance of the agenda to African states and the centrality of African states to global discussions of the blue economy. While the concept of the blue economy is relatively new in the field of global environmental governance, the potential of the ocean space is evidently framed as increasingly relevant to coastal states wishing to benefit from their waters.

The blue economy and "unlocking" Namibia's EEZ

The Namibian imagination of its EEZ and blue economy reflects the discourse that has emerged across the continent. The fact that Africa's seas are considered as a means by which states can achieve social and economic change is evident within AU discourse which declares that "if fully exploited and well managed, Africa's Blue Economy can constitute a major source of wealth and catapult the continent's fortunes" (UNECA 2015: x). This perception is reflected in Namibia's policy documentation, with the NDP5 stating that "by 2020, Namibia will have implemented a Blue Economy governance and management system that sustainably maximizes economic benefits from marine resources and ensures equitable marine wealth distribution to all" (Republic of Namibia 2017). Interviewees, including industry representatives and ministerial officials, spoke of the blue economy as a vehicle for societal change. When asked how they understood the blue economy, a ministerial representative's response echoed the AU's rhetoric that Namibia's EEZ is characterised by unlocked development potential:

> [the blue economy] is the most practical and best way to go about *unlocking countries* economic potential. For a long time, we have relied just on land resources without recognising the potential of oceans. There are only a few industries. If we can maximise these activities, it can give the potential for the economy to grow and diversify from traditional industries. There's a long way to go, but it's a step in the right direction and we can put all our resources into making this potential a reality. I am in full support of the blue economy.[51]

[51] Interview 44, emphasis added.

Here, the blue economy, and by association Namibia's EEZ, is framed as being 'locked', with their potential unrealised and inaccessible, opening-up questions about why there has been a global (re)focus on the oceans and the unlocking of their potential (Silver *et al.* 2015).Given Namibia's recent colonial history and strong assertion of sovereignty, the fact that this marine scape has formerly been "locked" could refer to its prior inability to exert sovereign rights over its territory, and the resources therein, under colonial rule (Wallace and Kinahan 2011).[52] However, rhetoric on the blue economy simplifies these concerns and resituates the sea as an opportunity, introducing an imperative for states to harness the development agenda and unlock the potential afforded by the sea. The idea that the sea can be "unlocked" also suggests that the blue economy will open Namibia's EEZ to new actors and projects attempting to access and benefit from this space. In being "unlocked", therefore, this space will also be (re)locked in an inherently exclusionary process (Peluso and Lund 2011). This access will not be uniform across all actors and challenges will emerge from those wishing to become gatekeeper(s) of this space.[53]

The blue economy agenda reconfigures Namibia's EEZ as a magic space that, if institutionalised and brought into economic fruition, will transform the economy (see Corson and MacDonald. 2012). This was observed when an industry umbrella organisation representative discussed how unlocking the blue economy could provide socio-economic benefit:

> The blue economy is new terminology. It is out there in the countries which are privileged to have a coastline. We [Namibia] have over 1,500 kilometres, a long coastline... The blue economy is looking at the ecosystem and that ecosystem is providing to the economy and providing socio economic benefits to the jurisdiction.[54]

These interpretations of the blue economy illustrate how the land and sea have been divided into separate, unconnected spaces of opportunity. Here the sea is framed as an untapped site of potential, with its value lying in its contribution to socio-economic development on land. However, this 'magic' development opportunity differs from that in relation to the green economy (Corson and MacDonald 2012). Unlike the green economy, which applies to terrestrial territory, not every state has or can benefit from an EEZ. While the blue economy is not limited to oceanic spaces – it can include rivers and lakes (UNECA 2015) – Namibia is framed as "privileged" in comparison to landlocked states. This privilege brings with it a further imperative for littoral states to harness and institutionalise this potential development opportunity. This framing also

[52] The discourse of the sea as a previously "locked" space also reflects colonial powers' lack of interest in the sea. During colonial rule the sea was framed as a space that was 'wild' and impossible to harness (see Chapter 5 for a further discussion of this).
[53] The blue economy's rhetoric of a "real and imagined hope" (Chari 2015: 84) allows the agenda to bypass the criticisms of certain actors, such as environmental and social organisations, who would traditionally position themselves as gatekeepers and critique the commodification of nature (Hannigan 2016).
[54] Interview 43, emphasis added.

presents an idealised vision, where the littoral state is assumed to retain sovereignty over these spaces, and thus to be privileged to harness and formulate these development opportunities, even if this means doing so antagonistically to external intervention (Agnew 1994).[55]

The idealised perception that the Namibian state is solely responsible for the "(un)locking" of its blue economy ignores the role of exogenous actors in this agenda. This perception therefore conceals the inherent power dynamics over who has the 'right' or 'correct' keys with which to access the potential of the EEZ. External actors are involved in the unlocking of the blue economy, which the Minister of the Ministry of Fisheries and Marine Resources (MFMR) reflected on during his speech at a Blue Economy workshop at the University of Namibia in 2019, stating that "collaboration from all key sectors as well as international partners are key in Namibia's quest to tap from this resource" (Esau 2019). Here the 'keys' to Namibia's EEZ are held outside of the state, in terms of both the establishment of blue economy policies and the subsequent projects that are encapsulated within the agenda.

Despite imaginations of the state as a gatekeeper to the blue economy agenda, external actors – both development and industry actors – are variously involved with the formalisation of the agenda in Namibia, with relationships linking across both global and local arenas. This is particularly true with discussions of the blue economy, given the unique (geo)physical characteristics of the marine scape which require specialist knowledges, financial commitments and data to if one is to understand and "unlock" its potential. Referencing marine phosphate mining, an industry umbrella organisation representative elaborated, explaining that mineral extraction in Namibia's EEZ "is a big opportunity that, with stringent environmental conditions, I believe will '*unlock*' further economic opportunities… You require resources, human capital, skills but most importantly, financial resources. The government has to get it from somewhere".[56] This illustrates the need to question the provenance of the agenda and its role in (re)configuring Namibia's EEZ.

Just "another pot of money"? – the provenance of Namibia's blue economy

While Namibia's turn to the sea is framed as a means by which to avoid replicating and repeating their colonial experience and relations, external actors' involvement in Namibia's marine space erodes this isolationist vision of state sovereignty and leaves state space vulnerable to external power dynamics and exploitation. With policies being configured outside the confines of the nation's space, observations from my fieldwork periods highlight that it is crucial for states to question the external provenance of the agenda and the inherently political and social dynamics embedded within it. These dynamics affect who is included within or excluded from the marine scape. Several key

[55] The idea of privilege is also problematically applied to "we [Namibia]" as a homogenous entity rather than recognising that the formalisation of the agenda and subsequent access to the proposed benefits of Namibia's EEZ are unlikely to be uniform (see Chapter 6 for further discussion of sovereign claims over this space).
[56] Interview 43. Emphasis added.

ministerial and umbrella organisation actors stated that they had little interest in the concept, comparing it to the green economy and arguing that it was "another buzzword",[57] coined externally, with little substance related to, or reflecting upon, Namibian agendas. This lack of ownership over the agenda is in direct contrast to the discourse of sovereignty that is associated with the agenda in general and the EEZ itself. Conversations with NGOs and local employees of international organisation involved in the blue economy and with the conception of tools to promote the agenda, such as MSP[58] revealed that Namibia's blue economy, and EEZ, are not being shaped in isolation. Confusion has emerged not only in response to the coining of the agenda, but also in relation to its formalisation: "at first I thought I understood the blue economy, before Paris [where several Namibian representatives partook in an event on MSP and the blue economy], but then I got more confused".[59] The role of international events and meetings in informing the governance, (re)configuration and (re)codification of space should not be overlooked (Campbell *et al.* 2015; Silver *et al.* 2015). While African states collectively held a key position allowing them to influence negotiations on the establishment of states' EEZs (Egede 2014), it is the INGOs and international organisations that have been central to the ongoing formalisation of the blue economy in Namibia.

Against the backdrop of a continent-wide uptake of the blue economy (see Figure 4.1 above), international development agencies and external states are central to its emergence in Namibia. The external provenance of the agenda and its dissemination is evident in Namibia. Where individuals were familiar with blue growth terminology, the blue economy had predominantly been disseminated through international development agencies in Namibia. Despite being classified as an upper middle-income country (World Bank 2018), Namibia is still reliant upon donor support and grants, particularly during its current financial crisis. In 2017, overseas development assistance totalled (US) $309 million, with (US) $122 million directed to social projects and (US) $83 million to economic projects (broadly defined) (OECD 2019).[60] However, Namibia's transition to upper middle-income status has meant that it is now ineligible for many of the development assistance funds it previously had access to and alternative sources of income are being sought, instead:[61] one interviewee in particular insinuated that the blue economy initiative is therefore of financial importance, referring to it as "another pot of money".[62] A local NGO representative explained that while they had heard of the blue economy in 2012, it was not until 2016 that the agenda appeared in the Namibian government's discourse (see Figure 4.2). This was in line with AU and UNECA

[57] Interview 43.
[58] MSP is also a term that evades a solid definition.
[59] Interview 40.
[60] Correspondence with a former representative for the NDP revealed that there is no register detailing donor country and type of assistance, despite efforts being made to that create one. In 2017 FDI contributed to 3.4% of GDP (World Bank 2018).
[61] During the UN's third international conference on development finance, which took place in 2015, Namibia's President Hage Geingob argued that this upper-middle income classification was preventing Namibia from accessing grants to help address development challenges.
[62] Interview 30.

discourse on the blue economy and occurs as MSP projects began in Namibia. This emergence was also reflected during my fieldwork, as illustrated by the vignette in the introductory section of this chapter, which found that ministerial engagement with the agenda was relatively dilute in 2016. This was followed by an observed increase in uptake by the Namibian government during subsequent fieldwork periods in 2017 and 2018.

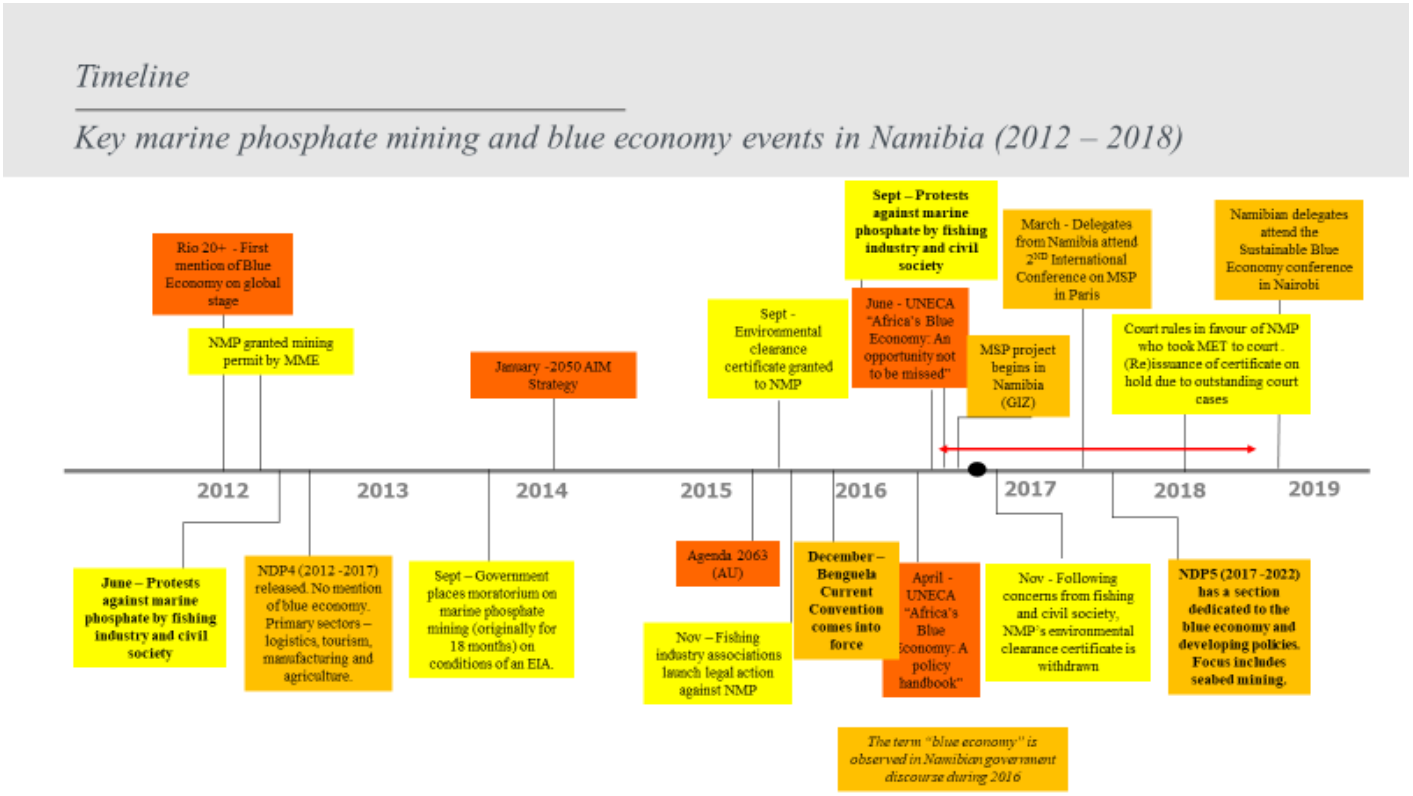


Figure 4.2. Key phosphate mining and blue economy events in Namibia (2012–18) (red arrow indicates fieldwork period)

During the three-year period over which this study was conducted, key ministry representatives participated in conferences and workshops that were run by the EC, including the "Marine Spatial Planning 2017" conference in Paris (see Figure 4.2), which included discussions on the blue economy. This conference was co-organised by the Intergovernmental Oceanographic Commission of UNESCO and the EC, and its sponsors included GIZ and other funding instruments of the German government. The

EC's role in Namibia is in line with Gordon Winder and Richard Le Heron's research, which revealed that the EC sponsored 21 events globally in 2014 (2017: 6). However, it is important to question the interest of external actors in this matter. Namibia, along with other southern African states including Angola and South Africa, are embroiled in a patchwork of geopolitical relations. The manifestation of external states' interests in the southern African states' EEZs is not limited to the provision of development assistance alone. These funding sources are embedded within (and contingent upon) the uptake of a neoliberal narrative offered by blue growth where economic performance, as opposed to social or ecological welfare, is the driver (Hadjimichael 2018).Through its status as an economic zone, Namibia's marine scape is opened to private expertise, which is expected by donors due to their development imperatives and related aid conditionalities.

Due to the absence of a globally accepted definition of the blue economy, each state and non-state actor holds a divergent and sometimes conflicting interpretation of what it is. These various definitions affect how the agenda is formalised by each state and consequently influence who is represented in or excluded from the marine scape. The organisations involved in the formalisation of Namibia's blue economy are and continue to be instrumental in developing and shaping Namibia's marine policy scape. Interviewees identified the involvement of the EC, as well as that of IOs and INGOs, including the UNDP, the World Wildlife Fund (WWF) and the World Bank in Namibia. The EC, like the AU, has an approach to the blue economy that is inherently focused on blue growth and economics, and that references the ocean's potential contribution to job creation, innovation and growth (African Union 2015; European Commission n.d.). The EC's strategy also specifically identifies seabed mining as one of the five sectors that the EU is aiming to develop due to its "potential for sustainable jobs and growth" (EC n.d.). In contrast, IOs and INGOs, despite holding divergent narratives, reference the importance of promoting "sustainable development" while ensuring a holistic sectoral approach to Namibia's blue economy. Given that the UNDP is the responsible UN agency in Namibia, their approach unsurprisingly focuses on development potential but with a sustainable narrative. They define the blue economy as a sphere that uses

> ocean resources for economic growth, improved livelihoods and jobs, while preserving ocean and coastal ecosystem health. [This] includes economic activities, such as sustainable marine energy, sustainable fisheries, better management of ocean waste and ocean-related eco-tourism
> (Kulkarni 2018)

In its definition the UNDP mentions potential activities including fishing and offshore wind and tidal energy projects (UNDP 2018) but it does not specifically name seabed mining. Given these definitions, it is unsurprising that discourse in Namibia regarding its marine scape has predominantly reflected the idea that its EEZ is an underused frontier that, by being brought into production, offers development potential.[63] This

[63] This discourse of under-use and its implications are discussed in detail in Chapter 5.

framing, conceptualises the marine scape as a 'new' development opportunity to be harnessed.

Despite discourse suggesting that the blue economy is an opportunity for states to benefit from their marine scape in a way that was previously denied during periods of colonial exploitation, Namibia's international relationships continue to replicate some of the dynamics observed during colonialism. Interviewees referenced South Africa's marine policies, particularly Operation Phakisa, explaining that they have encountered blue economy rhetoric in this context.[64] Operation Phakisa – Phakisa means "hurry up" in Sesotho (Republic of South Africa n.d.) - is South Africa's blue growth strategy which aims to unlock the benefits offered by its ocean economy (Findlay 2018: 248), and a representative of the Ministry for Works and Transport (MWT) explained that they had "seen what had happened in South Africa and the opportunities of using the ocean to address development issues".[65] However, Operation Phakisa's delivery programme was accused by an advocacy actor in South Africa of being a development-centric project that focused on industrial operations like shipping, oil and gas.[66] They expanded by explaining how the operation's "developmental" agenda is economic and extractive-centric:

> RC: How do you understand the term "blue economy"?
>
> Interview 39: …with all of these terms they are used in very different ways. [Operation] Phakisa brought stakeholders together to really focus on how much money we can make from the ocean. The conservation laboratory is an afterthought. Phakisa formalised the carving up of the ocean with a focus on the hardcore industries – mainly minerals and energy. But these are complex moving into the ocean.

Informal discussions also revealed a complex contemporary relationship between South Africa and Namibia, with South Africa referred to colloquially as "the mothership".[67] The perceived primacy of South Africa in Namibia's national imagination illustrates the embeddedness of the South African influence, which extends beyond the oft-cited tied currency to concrete policy ties.[68] The consequences of this are discussed below. Interviewees argued that states in southern Africa are watching how the other states proceed with the agenda.[69] Given that there are a multitude of definitions and interpretations of the blue economy it is of little surprise that confusion over a cohesive government argument remains.

[64] Interviews 13, 39 and 41.
[65] Interview 33.
[66] Interview 39.
[67] Whilst not mentioned in any specific interview this was how the relationship between South Africa and Namibia was referred to colloquially by acquaintances and friends.
[68] While policy ties between the two states exist, Namibia is an independent state. Namibia's mining sector is credited for having a comparably more favourable investment environment (Moolman 2018).
[69] Interviews 7 and 13.

Bluing the green: The emergence of Namibia's blue economy

International financial involvement and the commodification of nature is not new in Namibia. Like the concept of the green economy, the blue economy responds to calls for a "new economic paradigm": one that encompasses growth and environmental concerns (this argument has been made in relation to the green economy; see above). The 'unlocking' of the marine scape draws upon an established international involvement. Much like the green economy before it, the blue economy (and within it, blue growth) is presently accepted as the foremost solution to environmental degradation positioned under the auspices of sustainable development and poverty alleviation priorities, with the environment defined as a key driver of economic growth (see UNEP 2011). This commodification of nature and promotion of increased market access assumes to address concerns arising from an absence of clarity over the ownership of resources.

The green economy agenda has been publicly supported by the Namibian government (Faccer *et al.* 2014: 653) and Namibia's terrestrial approaches within this transition have received international praise (WWF 2013). The assumed similarity between the green and the blue economy has been recognised in Namibia, with an industry umbrella organisation representative explaining that

> I see [the blue economy] as an extension of the green economy. Green is more land based and looks at sustainable use so that land resources are available for future generations and for the benefit of the world. Now the idea has expanded into marine resources and into the ocean.[70]

The fact that the concept is seen as simply expanding the green economy into a new space has engendered generalised acceptance of the agenda as it enters Namibian discourse. The blue economy's transposition from a global to localised agenda assumes a Western-centric imaginary of the relationship between the land and the sea. The same imagination that portrays an externally-configured blue economy also considers the "blue" and the "green" to be separate from one another and this artificial division ignores the inherent and complex relationship between land and sea. In Namibia the green economy has been "blued"[71] despite emerging projects, including marine phosphate mining, not being confined to offshore spaces.[72] The bluing of the green economy is an oversimplification and ignores the characteristics of the seascape. However, the transposition of a land-based agenda to the sea reduces the potential of

[70] Interview 17.

[71] The semantics of 'bluing' Namibia's economy are particularly interesting given the Namibian context. The fact that the green economy and the blue economy have been assigned colours that are self-evident to Western thinking demonstrates the external origin and Western focus of the agenda. However, while the English language classifies colours using eleven separate categories, including blue and green, the Himba, an indigenous group of approximately 15,000 individuals in the north of Namibia (although there are no reliable figures (Minority Rights Group International 2008)), only have five. Moreover, their language does not separate and distinguish between blue and green. The binary itself is therefore externally constructed.

[72] These dynamics will be further discussed in Chapters 5 and 6.

challenge due to the generalised acceptance of, or apathy towards, these agendas. As such political and private interests appear to circumvent critique.

Old and new interests – funding Namibia's blue economy

The "pot[s] of money"[73] received by Namibia are inherently political and illustrate the divergent agendas in the emerging (re)articulation of Namibia's EEZ and the blue economy. The UNDP has been involved in the financing of aspects of the emerging agenda including by supporting initiatives such as the Benguela Current Commission (BCC).[74] The BCC is an inter-governmental initiative that manages the marine environment in the Benguela Current Large Marine Ecosystem (BCLME).[75] This transboundary collaboration between Angola, Namibia and South Africa aims to provide a vehicle by which the three countries can manage their marine environment (BCC n.d.). Here the UNDP alongside GIZ are responsible for conservation finance for capacity development for MSP, which is involved in the spatial (re)articulation of Namibia's EEZ under the blue economy. The fact that GIZ represents a country that previously colonised Namibia, coupled with the ongoing critique of continued German involvement in Namibia, further calls into question the potential erosion of democratic rights. Interviewees when discussing German involvement as a donor in Namibia, and South Africa's influence as well, referred to Namibia's past colonial experience, and the resultant complex relationships that exist today, which in turn influence the implementation of policies in Namibia's marine space.[76] The fact that a previous colonial power is involved in collection of knowledge pertaining to the marine scape the spatial reconfiguration of the EEZ has been raised as a concern by interviewees. Namibia's marine scape has historically been known and understood through the lens of the colonising powers. Despite now being independent the EEZ continues to be known and shaped through an external lens as opposed to local knowledges. Funding for the BCC is particularly orientated towards fisheries projects, which is indicative of the industry's historical dominance of the EEZ and of donor perceptions of the blue economy. Finance for the BCC comes from a variety of sources including from the Government of Norway (US $9.3 million) (BCC 2013). Each funding source is contingent upon the uptake of certain narratives within the marine scape. For example, the EC has contributed US $1.6 million to fund the ECOFISH component of the project – which develops a framework for an ecosystem approach to Namibia's fisheries (BCC n.d.) – and the Food and Agriculture Organization and the Global Environment Fund jointly offer funding for climate change projects and the administration of institutional management fora. Finally, the FAO and the WWF both provide funds to support fisheries surveys and ecosystem-centric approaches to fisheries. Here, the fishing industry is considered to be the central actor despite the open framing of the agenda.

[73] Interview 30.
[74] Interview 24.
[75] The Benguela Current Ecosystem extends from Angola in the north to South Africa in the south. The BCC was approached for involvement with this study, however they declined to participate.
[76] Interviews 2, 6, 20 and 43.

The fact that funding is predominantly focused towards fisheries is particularly interesting for this thesis as, while fishing is an important contributor to Namibia's GDP and employment rate, little of the fish is actually consumed in Namibia. Ninety percent of the country's fisheries production is exported, and primary foreign markets include those in the EU and US. Namibia's hake fishery is particularly dependent upon European markets, including those of France, Germany, Italy, the Netherlands, Portugal and Spain. Export markets have also been established in South Africa and Japan (FAO 2015). While the FAO's most recently available statistics about this matter are from 2015, the dominance of these end markets in Namibia's fishing industry were reflected during my fieldwork in 2017 when I visited a major fishing processing company in Walvis Bay. This company specialised in catching fish and then adding value to seafood products for the international market. As I was given a tour around the processing facility, the various processes involved in the preparation of fish caught in Namibia's EEZ for foreign consumption requirements was explained to me. This included value-adding processes such as filleting and preparing "boil in the bag" versions of fish that accorded to the preferences and regulatory requirements of EU markets (see Figures 4.3 and 4.4 below).[77]

Figure 4.3. Processing factory and filleting (Image courtesy of the author)

[77] The main end markets for this company were predominantly based in northern Europe – Austria, Belgium, Germany and Switzerland, with smaller volumes to be sent to France, Italy and Spain, whose markets all typically favour hand-filleted and moulded products (Interview 31).

Figure 4.4. Processing factory – workers filleting fish in accordance to export market standards. Image altered to hide identity of company (Image courtesy of the author)

The spatial (re)mapping of the seas, and identification of priorities, is therefore often aligned with economic and political agendas (see Chalfin 2015: 113). With the emergence of the blue economy in the environmental governance arena, a "(re)configuration of social relations and structures and a (re)codification of positions and perceptions" (Silver *et al.* 2015: 136) is being informed. External agendas are being transposed onto Namibia's EEZ – by which I mean that external concepts are imposed over a space where the state has sovereign rights in a way that (continually) opens, (re)articulates and closes Namibia's marine scape – thus eroding the rights that Namibia holds over the resources (and their management) therein. The ocean has been brought to the attention of the broader development community and preferred solutions – in this case the prioritisation of fishing as a historically dominant industry – are being offered by the actors involved in its (re)articulation. However, the emergence of seabed mining indicates that the opening of the EEZ to capitalist intervention under the blue economy, and the blue economy's vague definition, leaves the marine scape open to conflicting accumulation interests. These are in turn defining how the marine scape is being rearticulated.

Namibia's blue economy and the (re)articulation of the marine scape

"The story of Namibia and the blue economy is half-baked".[78]

This chapter has discussed the provenance of the blue economy, both within the African continent as a whole and within Namibian discourse specifically. The chapter has also highlighted some of the key funding sources associated with the agenda and identified

[78] Interview 27.

how external involvement in funding and development initiatives challenges traditional conceptualisations of sovereignty over the EEZ. However, it is important to unpack how the agenda is understood by the key actors involved in its formalisation and the subsequent re-articulation of the marine scape.

While the blue economy is divisive in terms of its semantics, distinguishing between the sea and land, it aspires to be inclusive in terms of marine activities. However, the implementation of the blue economy agenda on the ground is marred due to a lack of understanding about what it is: some of the key questions raised during fieldwork pertain to what the agenda professes to offer and whose interests it represents.

Formalised in 2017 in Namibia's NDP5, Namibia's EEZ is credited for its potential "significant contribution to [Namibia's] economic transformation agenda" through key industries including, but not limited to, fishing, tourism and seabed mining (Republic of Namibia 2017: 24). While the NDP5 does not provide a succinct definition of the blue economy, its conceptualisation is inherently economic. Namibia's EEZ is described by the state as a space which "provides valuable goods and services" and is considered to be "an important resource for tourism, fisheries, transport and logistics, as well as mining" (Republic of Namibia 2017: 24). Despite the Namibian government utilising the terminology and formalising the concept over the last few years, there remains little consensus among key actors within Namibia's marine sphere over the definition of the blue economy: A NGO representative explained in 2017 that they "have heard of [the blue economy] in terms of whatever fits at the time".[79] Its uneven and ambiguous definitions have resulted in the agenda being understood in multiple ways, the consequences of which, including the enabling of new entrants such as extractive industries to enter the marine environment under the guise of development, are unpacked below.

For many in Namibia, including ministerial representatives and those involved with environmental umbrella organisations, the blue economy holds little to no meaning at all, and this introduces a challenge to the idea of a locally-owned and -directed agenda. A representative of the MME who is involved with the formalisation of the blue economy in Namibia simply stated: "I don't understand what the blue economy is".[80] This lack of clarity over the concept was echoed by those involved with the governance of the marine space. This ministerial representative highlighted the lack of certainty over definitions of the agenda: "I first heard about the green economy and then the blue. It was at a UN conference. Then I was confused. What does this mean?"[81] Similarly, a representative from MET who was responsible for the ministry's involvement with the blue economy explained "the blue economy for me is not a very familiar term. It has to do with the economics and resources in the ocean and on the shore".[82] Here, the disparate global definitions of the blue economy have led to an absence of clarity over

[79] Interview 25.
[80] Interview 8.
[81] Interview 30.
[82] Interview 30.

what this agenda means to Namibia and how it will be consolidated within policy. A uniform understanding is lacking not only between non-state actors but also between key state actors involved with the local-level uptake of the agenda. Given the disparate interpretations of the agenda and the potential projects interested in the marine space, a lack of a state-level definition of the blue economy could result in access being led and legitimised by external and industrial actors based on its potential and imagined development outcomes.

Interests in the marine sphere and by association the blue economy are multifaceted and are associated with different scalar levels within states' EEZs. For example, conservation-based INGOs and the fishing industry may be interested in species that inhabit the water column, while extractive industries' interests are defined by access to and the ability to exploit the seabed, and external states interests could include the securitisation of, or rights of passage over the surface. Despite these actors operating within the same marine sphere, these disparate conceptualisations also affect how the blue economy will be enforced and formalised into policy. These interests are likely to also have more pronounced overlaps than on land.

Key actors who are directly involved in the formalisation or implementation of the blue economy hold various and sometimes dichotomous definitions to be true (see Table 4.1 and Figure 4.5), meaning that a given actor's preferred definition of the blue economy was often dependent on the industry that they represent(ed) or are/were otherwise involved with. Within Namibia the blue economy is seen as:

Interviewee	**Interpretation of the blue economy**
Conservation NGO	"It's taking advantage of untapped resources basically, but this needs to be in a sensible and environmentally responsible way".[83]
Environmental advocacy organisation representative	"It is very extractives based".[84]
Environmental NGO representative	"It has a biodiversity component, like the green economy. The question is how we use biodiversity within this".[85]
Environmental NGO representative	"I understand that the ocean can provide for people if done in a sustainable way. Different things can come into play. The blue economy is extremely critical in Namibia, which is drought ridden. I have different opinions; sustainable development is often misunderstood and misused. It can't be as industrial as it is because it can't be scaled back".[86]

[83] Interview 41.
[84] Interview 39.
[85] Interview 25.
[86] Interview 21.

Fishing industry representative	"I had a session on it the other day at it was introduced to individuals involved with getting resources out of the sea. All were involved in one way or another, such as mining, fishing, tourism".[87]
Fishing industry representative	"It is looking at the sustainability and protection of our oceans".[88]
INGO representative	"The blue economy means different things to different people…The term blue economy has more connotations of sustainability especially internationally".[89]
IO representative	"What is called the blue economy now, used to be called the ecosystem approach to fisheries management. This is the same thing".[90]
Mining industry representative	"The blue economy is the development of anything in the ocean with environmental consideration".[91]
NGO representative	"It is mainly fishing and diamond industry at present".[92]
Umbrella organisation representative	"The blue economy is based on the services the ocean can provide". [93]

Table 4.1. Interpretations of Namibia's blue economy

Actors' preferred definitions of the blue economy are often dependent on the industry that they represent(ed) or are/were otherwise involved with (Table 4.1). This tension is clear when considering the mining and fishing industry. Mining industry representatives spoke of economic potential, a sentiment that the fishing industry challenged when explaining their concern that the blue economy had been introduced to them as a means of "getting resources out of the sea".[94] Representatives of the fishing industry spoke of a blue economy that prioritises sustainability and the protection of Namibia's EEZ – a prioritisation that they considered to be incongruous with activities such as seabed mining. Similarly, local development NGOs saw the blue economy as a strategy through which the socio-economic potential of the ocean could be realised but explained that associated activities must not deplete the ocean. Environmental NGOs, on the other hand, spoke of the need to recognise the protection of biodiversity as a priority. This ambiguity over definitions has reduced Namibia's marine environment to a space that various actors, including the state, formalised civil society, or the two behemoths – the fishing and mining industries – can exert influence over and apportion in accordance

[87] Interview 36.
[88] Interview 31.
[89] Interview 13.
[90] Interview 24
[91] Interview 7.
[92] Interview 38.
[93] Interview 3.
[94] Interview 36.

with their own agendas, leaving the blue economy as a concept merely utilised to justify a multitude of emerging projects.

Those directly involved with the establishment of blue economy and MSP in Namibia described the agenda in various ways as demonstrated in the spectrum below (Figure 4.5) which illustrates how each actor is conceptualising the agenda:

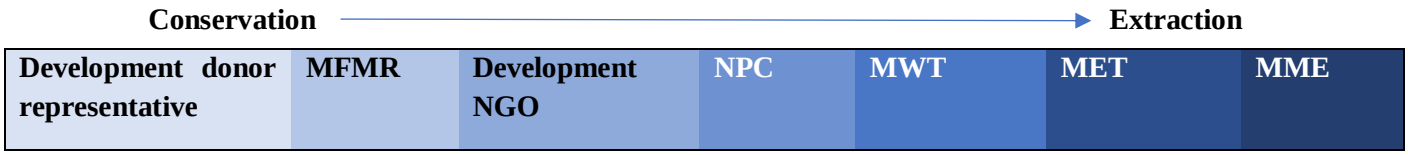


Figure 4.5. A spectrum illustrating conceptualisations of the blue economy, from conservation to extraction.

All of the individuals represented in the spectrum above, each of whom is directly involved in the formalisation of the blue economy in Namibia, referenced its development potential, reflecting the rhetoric employed by external organisations. However, the industries involved within this imagination differed from one account to the next, as did the presence of sustainable development discourse in the various definitions given. Only the development NGO worker and the MFMR representative referenced sustainability discourse, but even still they did so only after highlighting the agenda's socio-economic potentialities. Three of the interviewees included seabed mining in their definition, highlighting the centrality of this to emerging conceptualisations of a Namibian blue economy. Perhaps unsurprisingly, the MME representative focused on mining's potential contribution to the blue economy. However, the MET representative adopted a similar definition referencing but not expanding on the sustainable development element of the agenda. This ambiguity leaves space for private sector actors to enter and define the blue economy in their own terms. Interestingly, only one interviewee referenced the linkage between land-based and marine economies despite the majority of these individuals' traditional remit pertaining to terrestrial space. This again leaves space for private sector actors who profess socio-economic change, to define and ascribe the spatial dimensions and limits of their interests in the blue economy – including their interaction with both landed and offshore state space.

As indicated in interviewees' responses, Namibia's emerging blue economy is variously framed by actors as a development opportunity, a conservation space, the dominium of the fishing industry and/or as an empty and emerging frontier that can be shaped for exploitation (as seen with marine phosphate).[95] This open framing supports not only actors who already operate within this space, but also new entrants including marine mineral mining projects who are competing to enter and 'unlock' this space. However, this divergent framing has been met with resistance from formalised civil society organisations who have labelled the agenda as "half-baked"[96] and criticised its focus on

[95] Interview 13.
[96] Interview 27.

industrial exploitation. Here, its ambiguity appears almost purposeful, enabling actors to negotiate the boundaries of the blue economy without regulation.

The consequences of divergent interpretations

Framing the sea as a development opportunity enables new entrants such as extractive industries to enter the marine space, despite the ambiguities of the potential outcomes of such projects remaining contentious. While government officials in Namibia cite the blue economy as a means to unlock the country's economic potential, thus moving away from their traditional reliance on its land,[97] civil society organisations have warned of the environmental and social implications if the blue economy is used as an indiscriminate justification for projects in the marine sphere. The external articulation of the blue economy brings with it a group of economic decision-making powers that are involved in the (re)production of spatial dynamics and consequentially defining which actors have access to or are excluded from Namibia's EEZ and the resources therein. Within Namibia, emerging interests in blue economy go beyond fishing and include aquaculture, renewable energy and seabed mining as well as transportation (Republic of Namibia 2017). These activities do, however, overlap.

As has been identified, the dynamic marine space encompasses a multitude of overlapping uses, which in turn are often administered by multiple ministries (Winder and Le Heron 2017: 4; see also Arkema *et al*. 2006; Ban *et al*. 2014). However, when the agenda was institutionalised in Namibia's NDP5, the Ministry of Fisheries and Marine Resources was appointed as the overseeing ministerial department. While this ministerial jurisdiction appears logical, the blue economy offers justification for a multitude of projects, including fishing, tourism and mining, particularly those purposed for the promotion of (economic) development. The governance of such projects therefore sits across different ministerial remits including, but not limited to, the MET, MME and MWT, each of which have disparate interpretations of the agenda in accordance with their remit. For example, a representative from the MME spoke of it as a space of economic potential[98] whereas the MWT representative described a coordinated approach between sectors while also protecting "ecologically special areas".[99] This includes respectively, issuing mining licences, issuing environmental clearance certificates and undertaking monitoring. Divergent definitions of the blue economy also exist at both inter- and intra-agency levels in Namibia. While the blue economy professes to provide a 'new' space for the co-existence of overlapping governance, there are concerns about realising this on the ground.

Even where there is an understanding of the concept, results from my fieldwork have illustrated that there is a lack of uniformity between the different interpretations of the blue economy held by various government ministries. Concerns relating to this diversity of interpretations were articulated by an umbrella organisation representative:

[97] Interview 8.
[98] Interview 8.
[99] Interview 33.

RC: How do you understand the term blue economy in relation to Namibia?

Interviewee 17: In Namibia it is slowly and surely being brought into policy debates, but the term is thrown around without much understanding... In Namibia itself there have been little resources put into understanding what is beyond the coastline, nor the relationship between the land and sea. There is the MET and MFMR but there is no specific directorate dealing with this and the very important research to find the meaning behind the blue economy. Discussions were heightened by the recent phosphate debate.[100]

The fact that potential new entrants to Namibia's marine scape (including phosphate mining projects) are heightening discussions about the blue economy indicates the conflict(s) that can emerge where there is a neither a generalised understanding nor a uniform interpretation of the agenda.

Issues pertaining to the marine environment have been credited by ministerial representatives and NGOs with highlighting and exacerbating ministerial fragmentation. Namibia's formalisation of the blue economy agenda has highlighted the (geo)spatial limits, and therefore interests, of ministerial jurisdictions. The area up to the low-water mark is within MET jurisdiction while from the high-water mark upwards, MFMR is the responsible ministry. Ministerial authority is therefore blurred within the area between the low-water mark and the high-water mark. While MET retains responsibility for issuing environmental clearance certificates, including those for marine-based mining, the ministry has no coastal research staff except for ornithologists and zoologists. These (geo)spatial issues are also evident with regards to highly-mobile species, with sea birds falling under the MFMR's responsibility even though they breed on land.[101] These already complex grey zones are exacerbated by potential blue growth developments because, unlike with the green economy, blue growth projects may not accord to this stratified approach to spatial governance.

Getting to know the blue economy

Despite the overlapping of their responsibilities, which is particularly pronounced in the marine scape, ministries have been accused of not engaging in open dialogue and instead opting to act in isolation.[102] This presents potential wider implications of fragmented ministerial jurisdictions. Questions are being raised regarding the monitoring and governance of activities that fall under the blue economy remit, with ministries and industries alike asking where this responsibility lies, particularly concerning seabed mining projects. Data is not readily shared between or even within ministries, and MFMR is the only ministry with access to vessels to monitor projects within the marine sphere.[103] Even where there is the will to share data between

[100] Interview 17.
[101] Interview 1.
[102] Interviews 2 and 12.
[103] Interview 1 and 2.

ministries, issues of capacity present challenges. A representative of an independent policy think tank explained that:

> when we go into ministries, there are many cabinets of paper in the basement. We could have beneficial ownership of mining, but the licences are analogue. It takes days to find records and find shareholders. Internally they must face the same process.[104]

Concerns have also been raised about the absence of Namibian-owned data pertaining to its own EEZ. When asked about where the limited data on Namibia's EEZ is held, an advocacy actor explained that, "all data is from MFMR but it is hard to get. There are organisations like the BCC but they are very limited at the moment. They are more focused on a political platform between Angola and South Africa rather than research".[105] Interviewees expressed concerns about the functionality of the BCC, arguing that the convention's focus was on satisfying political agendas rather than ensuring the management of the BCLME itself. The inter-state arrangement still has issues of reciprocity and there is a divergence in availability of data between the three states, with an advocacy actor explaining that the BCC does not "have a lot of teeth",[106] a sentiment that was echoed by other interviewees.[107] Despite professing to reflect the Namibian governments rhetoric the BCC has been accused by interviewees of not reflecting Namibian interests, given that its research centred around South Africa. A representative of an environmental NGO agreed with these assertions and expanded upon them, stating that:

> There's some data on ocean but most work has been done in Cape Town; the research has been done in South Africa…. The BCC share data between Angola, South Africa and Namibia. But otherwise I wouldn't say there is much sharing of the data. In Namibia one problem is that there is no marine institute at universities. More is known about the ocean around South Africa as they have the capacity and less is known about the Namibian side.[108]

This ambiguity over the blue economy agenda and knowledge of the marine scape itself allows those with perceived knowledge(s) to enter the marine scape and define the blue economy. The role of external states in the uptake of the blue economy agenda in Namibia illustrates a form of institutional pluralism. As Andrea Nightingale (2005) argued in relation to community forestry in Nepal, "the experts taught us all we know" and this discourse is replicated in Namibia. This reliance upon experts is even more pronounced in Namibia due to its colonial experience and the offshore nature of the EEZ. Prior to independence, Namibia came to know its marine environment through

[104] Interview 12.
[105] Interview 28.
[106] Interview 39.
[107] Interviews 13, 14, 20, 27 and 28.
[108] Interview 38. Following my final period of fieldwork in 2018, the University of Namibia announced that it will be launching a blue economy course following the establishment of the proposed School of Marine Engineering and Maritime Studies (UNAM n.d.). I have not been able to confirm the progress of this proposal.

the latter's exploitation by external actors and colonial powers.[109] Despite present-day Namibian rhetoric invoking the idea of independence, the country remains reliant on external actors. The exercise of scientific authority in rendering the sea legible has implications on both the social and political highlighting the importance of understanding the power dynamics embedded in the articulation of space and its management (see Silver *et al.* 2015). Concerns around the role of external states in knowledge production was also raised by representatives from the MFMR who explained the role of German scientific vessels which are involved in monitoring Namibia's marine environment. These representatives explained that the MFMR is reliant upon these vessels to enable them to go out to sea and undertake their own data collection.[110] This continued reliance upon external actors' challenges state sovereignty over the implementation of the blue economy and associated activities such as seabed mining and is discussed below.

When discussing knowledge of Namibia's marine scape, an environmental organisation representative argued that "you have to trust the opinions of specialists. You do have to trust your experts".[111] They then continued to explain that this advice needs to be independent of Namibia. When asked to suggest a potential actor to take responsibility for this, the interviewee mentioned the BCC because, in their words, it receives external "country donorship" and offers "neutrality".[112] This demonstrates the distinctions made between different gatekeepers of knowledge, as professional and often external knowledges are (problematically) generally considered to be the most truthful and correct. In Namibia external expertise has originated from a patchwork of organisations and interests and is exacerbated by Namibia's comparatively limited data on its marine environment. Through these profusions of knowledge(s) power is exerted (Nightingale 2005: 600) and in the case of the marine scape, this contributes to its spatial reworking. While local actors are integral to initial development project strategies, local ownership often remains functional (see Perry and Keil 2013: 375). In Namibia, local actors are involved in the implementation of projects or the allocation of funding, but their involvement in the planning stage is limited.[113] As a union representative explained, "at a global level it has long been recognised that environmental issues are not separated from… social and economic [ones]. But this has not trickled down [to Namibia]".[114] Where there is structural ownership, this is likely to be dominated by elites, particularly with regards to the formulation of blue economy tools such as MSP. Given Namibia's relatively recent apartheid experience, elite domination is often further divided along racial lines. This view was articulated by a union representative who when asked about Namibia's blue economy explained that "the blue economy is coming through

[109] See Van den Bersselaar (2006) for further discussion on the dissemination and reception of "colonial expertise" within African states.
[110] Interview 2.
[111] Interview 14.
[112] Interview 4.
[113] The government's blue economy working group includes representatives from key ministries as well as INGO and donor representatives.
[114] Interviews 11 and 12.

international debates... These things will filter down. But there is not a down swell, this is not a bottom up concept".[115] The incoherence around the agenda, coupled with the associated ministerial fragmentation, as well as the lack of supporting structures required to enable the navigation of such formalisation, indicates that while Namibia's level of control over is blue economy agenda could be classed as "functional ownership" (Perry and Keil 2013: 375), its long-term strategy and ownership over the agenda still remains more elusive.

The actors and associated discourses involved in the blue economy and the EEZ are not confined to state organisations or international NGOs but also include those from the private sector. This is particularly true in the marine environment, where access to the marine scape and its unique (geo)physical characteristics require access to and possession of certain technologies, knowledges and finances. In the absence of Namibian knowledge and data about their EEZ, there is concern that it is the private sector who gets to know the ocean. In Namibia, the prospective mining companies have the power to access these knowledges due to their expertise and technologies. However, this enables a one-sided construction of knowledge, by the mining companies. This affords them the opportunity to access the potential of the blue economy and define the agenda. With both MSP and the blue economy acting as forms of institutional enclosure, these economies are "being planned under the auspices of external actors" (Winder and Le Heron 2017: 4). These spatial articulations are often determined by funding or project agendas leading to the longer-term, transformative impacts of both geopolitical and legal control over spaces. This sentiment was echoed by a financial research consultant who explained that "obviously the mines drive the initiative [the potential for marine phosphate mining] at the end of the day. They explore the ocean; they do a lot of the research that takes place and they drive the initiative".[116] Here, private sector accumulation is justified by the open framing of the blue economy agenda.

Marine phosphate mining and Namibia's blue economy

The ambiguity around the blue economy agenda discussed above has left space for contentious projects such as marine mineral mining to enter the EEZ. While the provenance of the agenda and involvement of international organisations has been discussed in this chapter, contestation over Namibia's marine sphere is not directed solely towards the blue economy itself. The flexible approach taken by ministerial, industry and NGO actors in interpreting the agenda, including its framing as a conservation agenda, has seen it garner support from a multitude of actors. However, in Namibia the absence of a uniform definition of the blue economy means not only that it has become malleable but that it is less critiqued by those who would traditionally have resisted such agendas such as conservation NGOs (see Hannigan 2016). Conservation organisations have been accused of overlooking the agenda's economic dimensions and potential contestations.[117] However, as previously discussed, this is not

[115] Interview 11.
[116] Interview 11.
[117] Interviews 39, 25 and 38.

reflective of all actors' positions, and when interviewed, several formalised civil society actors argued that the blue economy's professed sustainability is misleading.[118]

While marine phosphate mining has been discussed in Namibia since 2012, the subsequent formalisation of the blue economy has afforded projects legitimacy. The emerging potential for marine mining has begun to be discussed in relation to blue growth (UNECA 2015) and, concurrently with the formalisation of the blue economy, With offshore oil and gas reserves yet to be discovered, seabed mining has been central to discussions in Namibia. Speaking at the Sustainable Blue Economy Conference in 2018, Saara Kuugongelwa, the Prime Minister of Namibia, informed participants that Namibia is developing sustainable seabed mining (SBEC 2018). In (re)defining the ocean, seabed mining has therefore been central to discussions of Namibia's marine scape (the NDP5 references marine mining (Republic of Namibia 2017: 24)). Interviewees explained that seabed mining has also challenged people to (re)focus on what is happening in the sea, with projects accelerating interest in the blue economy agenda.[119] The centrality of seabed mining to discussions in Namibia was highlighted by a representative of a development NGO who explained that "Namibia's trigger [for a blue economy agenda] is that the state is increasing marine development without coordinated strategy between all sectors. The project is building on the phosphate mining conflict to get the MSP off the ground".[120] While initial interests in the blue economy may have been influenced by the conflict around phosphate mining, seabed mining remains central to Namibia's emerging blue economy.

Representatives of umbrella organisations and NGOs, particularly those with an environmental focus, referred to Namibia as a "laboratory" for external states to test technologies and policies alike. A representative from an independent policy think tank explained that this sentiment was widespread: "offshore projects are unexplored territory. That never quite goes away. That in itself makes people suspicious".[121] The individual voiced concerns that Namibia's blue economy and interpretation of sustainable development was driven by the pursuit of economic growth as opposed to ecological concerns, with seabed mining offering an example of where development potential is superordinate to potential environmental impacts. The conflict over potential phosphate mining projects highlights the divergent interpretations of the blue economy and how these are being utilised to support competing agendas in Namibia, such as conservation, fishing or seabed mining. As policies are being developed, external actors are involved. However, while the above section has discussed the role of IOs and INGOs, the framing of the blue economy as a development opportunity means that the "professional knowledge(s)"[122] that are shaping Namibia's marine scape

[118] Interviews 25, 27, 37 and 39.
[119] Interviews 2, 5 18 and 33.
[120] Interview 2.
[121] Interview 30.
[122] However, making this knowledge is work and is often unaccounted for. In adapting policy directives to local and national contexts the advancements of science are often unacknowledged (Neimark and Vermeylen 2017). See Neimark and Vermeylen (2017) for further discussion of labour relations and knowledge production.

also come from industry players. The fact that these organisations are regarded as an authority masks the inherent power dynamics and conflicting interests embedded within the provision of knowledge.

In the case of phosphate mining there is perhaps a sense that there is a need to avoid replicating the over-exploitation experienced (particularly terrestrially) during Namibia's colonial past. While rhetoric around jobs and growth have been of central importance within arguments designed to legitimise marine phosphate mining, these have been counteracted by those voicing environmental concerns. Competing agendas are emerging in Namibia as the state formalises and develops its blue economy policy. Winder and Le Heron speak of "a notion of creating and capturing blue oceans of uncontested market space through disruptive innovation" (2017: 11). However, while it can be argued that the marine scape is being (re)created and captured, the ocean is not an uncontested market space. Namibia's ocean scape has a complex history (see Chapters 3 and 5 for further discussion), which has been rearticulated and shaped over time. The contention surrounding marine phosphate mining illustrates that this is a contested space, despite development-centric discourse describing it and the blue economy as a "new frontier" (UNECA 2015: xi). In describing the marine scape as a frontier that can provide societal change, Namibia's EEZ is emptied of its complex social and spatial dynamics. Through this emptying, the space is rendered as open for exploitation and extraction.

Concluding remarks

This chapter has illustrated that the absence of a uniform global definition of the blue economy has led to a lack of understanding of the concept in Namibia, which in turn has meant that key actors involved in Namibia's EEZ have questioned the concept's coherence and relevance. This challenges the idea of a locally-owned and -directed agenda, highlighting that Namibia's blue economy, and consequently its marine scape, are not being shaped in isolation. The involvement of international organisations, INGOs and industry in the conceptualisation and formalisation of Namibia's blue economy indicates inadequacies in an idealised vision of ownership and sovereign rights. There are also power dynamics embedded in the articulation of this space and its subsequent management. Moreover, key informants revealed that international organisations such as the EC, GIZ and UNDP, and particularly donor-led initiatives, have been central to the emergence of the blue economy within Namibia. GIZ will be involved, through its role with MSP, in (re)mapping Namibia's EEZ. This chapter has argued that while Namibia's turn to the sea is considered as a means by which to avoid replication of their colonial experience and relations, this exogenous involvement continues to leave state space vulnerable to external power dynamics and exploitation.

Ambiguity over definitions has reduced Namibia's marine environment to a space that actors can exert influence over and apportion in accordance with their own agendas, thereby reducing the blue economy as a concept to one that can be utilised to justify emerging projects. The saturation of and incoherence between these definitions serves not only to constrain the agenda but also to leave it open to influence or manipulation

by various actors, including those hailing from the extractives industry. Even where there is a level of familiarity with the blue economy in Namibia, the lack of consensus over the concept's definition remains apparent. The multitude of conflicting interests in the blue economy also serves to exclude actors from the marine space. As such, the blue economy's increasing formalisation is articulated unevenly in Namibia and has inherently political implications.

The abovementioned external actors, while referencing sustainable development, consider the blue economy to be development-centric. This agenda can contribute to the socio-economic development of states including Namibia. Actors explained that the agenda could enable Namibia to unlock the potential within its EEZ. The fact that the blue economy does not have a unified definition has led to the agenda meaning different things to different actors in Namibia. Interpretations are often dependent on actors' interests in the marine scape, and this has resulted in the agenda being used to justify the continued inclusion of old entrants, or introduction of new ones, including marine phosphate mining actors. While this chapter has identified that the vagueness of the agenda justifies the establishment and continuation of projects such as marine phosphate mining, the results from my fieldwork have suggested that the conflict over Namibia's EEZ has encouraged a (renewed) focus on their marine policies, including those pertaining specifically to the blue economy. The fact that Namibia's ocean space is being created and (re)produced under a development agenda has seen it articulated as a "new frontier", engendering imaginaries of a socially empty space open for exploitation and extraction. The ambiguity of the blue economy's definition and its associated frontier discourse empties the marine scape resulting in the legitimisation of legitimise accumulation strategies, including those associated with the fishing and mining industries. This process, however, requires deeper analysis, as the frontier discourse hides the complexities, conflicts and claims to ownership that exist within Namibia's EEZ and its emerging blue economy agenda. These complexities are exacerbated by the (geo)physical characteristics of the marine scape. It is to this issue that this thesis turns in Chapter 5.

Chapter 5

Shaping of a frontier

Introduction

This chapter argues that, contrary to current blue economy rhetoric, Namibia's marine environment is not a 'new' frontier. It has, both historically – including through colonial projects – and contemporarily, been framed within a frontier narrative to conceptualise the space as void and underused. Through this framing, the marine environment has been rendered inert, with resources enumerated and ownership assigned, enabling their ingression into the capitalist system (Tsing 2003: 5100). The presence of minerals, combined with interest in the potential for those minerals' exploitation, has led to the deep being depicted as a "resource cornucopia" (Hannigan 2016: 13), a discourse that mirrors depictions employed to justify colonial land-based extraction. Through the rhetoric of frontiers, state and external intervention has been legitimised to "correct" this underuse through capitalist agendas, including marine mining. However, this chapter recognises that the conceptualisation of the marine scape as void is not limited to the blue economy agenda but has been (re)defined over time.

The continued depiction of the sea as an empty space was observed in Namibia during the fieldwork periods, but, as will be unpacked further, viewing the sea as an abundant frontier is simplistic and serves to devoid it of political and social forces. This is revealed through the emerging contention around phosphate mining. This chapter also reveals some of the complexities that this (over)simplification, and predominantly terrestrial thinking, masks. Considered by the African Union to be the "new frontier of African renaissance" (UNECA 2015: 7) the blue economy agenda frames Africa's seas, and their governance, as a technical challenge. Here this 'new frontier' must be 'made' intelligible; its characteristics and resources demystified to inform solutions for how to mobilise what is revealed (Li 2007: 57; Rose 1999: 33). The adoption of frontier rhetoric is evident in Namibia, its use not limited to the state level, instead acting as a one-size-fits-all justification for the various agendas, including extractive projects, that have potential within this space. That the marine scape offers potential was explained by a conservation NGO worker who argued that, "It's a new area to exploit and people are always looking for something new. People have explored the land. Why not the ocean?"[123] Namibia is one of the only countries that is considering the possibility of seabed mining and offers an example of what Jason Moore described as a "commodity-*widening* strategy" (2010: 291, emphasis in original). The potential for the appropriation of marine phosphate sees Namibia's Exclusive Economic Zone (EEZ) framed as a site of production; its (imagined) disarticulation from the land and associated geopolitics, combined with the 'discovery' of 'new' commodities, offering promise to the region. In being considered as a site of potential capital accumulation (Campling *et al.* 2012),

[123] Interview 25.

emergent discussions of the blue economy hint at the benefits exploration and appropriation could afford those given access.

Namibia's marine scape is demonstrative of the practice and effect of "commodity widening," where searches to offset terrestrial mineral depletion lead to attempts to find new production frontiers (Saguin 2016: 572). Under the shadow of concerns that terrestrial phosphate supplies are depleting,[124] and geopolitical considerations related to the concentration of deposits in China and Morocco, offshore extraction is being considered in a way that typifies the early stages of how new commodity frontiers are established (see Campling 2012). Concurrently, the blue economy discourse is entwined with that of ecological sustainability, such that the blue economy is framed as a response to an ecological crisis that requires correcting (see Moore 2010). Marine phosphate mining and the blue economy agenda offer a new lens through which to analyse the frontier rhetoric that is being deployed in relation to the marine scape. Scholarship has often criticised such agendas for approaching the marine environment with a terrestrial epistemology, ignoring the complexities of this dynamic and volumetric space. The blue economy offers an economic governance structure to place over what is widely considered to be an empty, underutilised space. The disconnectedness of the sea scape has made it easier to regard this space as one that is empty, and the lack of knowledge about the marine scape is being (re)used as a justification for extraction, which is pertinent given Namibia's recent colonial experience. In recognising that these complexities are being flattened, this chapter progresses endeavours to characterise the marine environment as an emerging extractive space.

In simplifying the geophysical properties of Namibia's EEZ, the blue economy agenda renders the space legible to potential exploitation, thus opening this frontier to claimants. However, this chapter will argue that marine phosphate mining in Namibia challenges the idea that this space is apolitical. Drawing on scholarship including on land-based frontiers (Peluso and Lund 2011), volume (Bridge 2013) and the politics of the ocean (Steinberg 2001; Steinberg and Peters 2015), it offers a lens through which one can understand how the volumetric, fluid and three-dimensional nature of the sea as a site of extraction presents new challenges. Much of the discussion on the challenges that this unique site of extraction presents to sovereignty will be covered in Chapter 6. However, to introduce some of the vital and foundational challenges, this chapter will conceptualise Namibia's sea to illustrate the existence of complex social relationships that are both shaping and resisting the often-overlapping claims to ownership over the space and nature(s) therein.

With the above discussion in mind, the first section of this chapter will argue that Namibia's marine scape has been historically and contemporarily depicted as an empty space and (re)produced to legitimise access and exclusion. In doing so, this section will unpack how the blue economy acts to both open and close the sea to claimants under

[124] However, there are counter-arguments that phosphate could be recycled or used more efficiently (see Feldman 2016).

the pretence of development. The second section will discuss how the marine environment has been made visible to state and industry claimants. By highlighting some of the limitations of this predominantly terrestrial conceptualisation, this section will argue that marine mining offers a lens through which one can re-engage with the integral (geo)physical characteristics of the marine scape. Finally, this chapter will conclude that considering opening the sea as a potential site of extraction has served to flatten and exclude complex relations that exist within the marine scape.

Frontier imaginations and the emptying of Namibia's marine scape

"The marine environment is a *new frontier*. Diamond mining is happening, and *they are looking at new areas to suck up*."[125]

Perceived as peripheral to Namibia "sociologically, culturally, ethnically, politically and geographically" (see Kopytoff 1987: 197), the country's EEZ has come to be regarded as a frontier. Framed under this narrative, Namibia's marine scape is seen a site of potential and one that can be subject to appropriation and affected by economic-centric governance agendas. This site of potential, and associated mineral extraction, professes to contribute to Namibia's development narrative and transformation of the economy. The potential and hope embedded within the marine environment and the associated narrative(s) are particularly crucial given Namibia's current economic recession. Interests in the control of Namibia's marine scape are based on speculation over its production potential (see also Childs and Hearn 2017). These interests are not limited to states but include investors and corporations (Barbesgaard 2018: 131). Through frontier narratives, the marine scape, and by association phosphate, are 'made' "real, exploitable and controllable" (Childs and Hearn 2017: 849) and the dynamics and (geo)physical characteristics of the ocean are simplified.

Namibia's EEZ has recently attracted interest from a multitude of actors for the potential of marine phosphate extraction and, concurrently, development opportunities framed under the overarching logic of the blue economy. Frontiers legitimise access to lands and resources (Ribot and Peluso 2003), which in turn leads to the creation of "new resource subjectivities" and "new social and socio-environmental relations" within these perceived empty spaces (Peluso 2017). However, these frontiers are rarely as "empty" as rhetoric suggests (See Geiger 2008). The emptying of this space is not inadvertent: it serves several interests. In her analysis of smallholder farmers and resource frontiers in Indonesia, Nancy Peluso argues that fallow lands are, like Namibia's ocean, incorrectly narrated as "under-used" by state and corporate actors ignorant of the dynamics that engendered this "fallowness" (2017). However, to assume that actors are ignorant to these dynamics disregards the fact that there are always beneficiaries in every process, and some individuals therefore benefit when frontiers are opened. In the case of marine phosphate mining, the potential commodity chains will involve a wide range of actors from extraction through to consumption (see also Campling 2012: 253). The narrative of under-use was observed during fieldwork and in

[125] Interview 6, emphasis added.

policy documentation, where state and corporate actors alike have spoken of an emptiness that requires capitalist intervention to unlock the sea's potential: "By 2020, Namibia will have implemented a Blue Economy governance and management system that sustainably maximizes economic benefits from marine resources" (Republic of Namibia 2017: 25). Here, the blue economy rhetoric opens the marine frontier and both validates and facilitates the exploitation of minerals (Neimark and Healy 2018: 635) including phosphate. However, as discussed in Chapter 4, the Namibian case illustrates that state and corporate actors are not alone in employing such rhetoric. International actors – INGOs and IOs – speak of the "potential" and "renaissance"[126] that Namibia's EEZ offers, if only were its under-use to be corrected.

While the analysis of frontiers[127] has a predominantly terrestrial focus (see Peluso 2017; Rasmussen and Lund 2018), discourses constructing the ocean as a frontier borrow heavily from landed rhetoric, with little distinction given to the geophysical characteristics that might complicate the governance of the sea and the subsequent ownership and appropriation of the resources therein. These are important considerations as at the same time Namibia's sea space is being opened it is also being closed (Steinberg 2018), as it is demarcated with a multitude of (potentially overlapping) ownership(s).

The concept of the blue economy, like other (predominantly terrestrial) state simplifications, is more fixed and formulaic than the social constructs and practices that it is presumes to represent (Scott 1998: 46). It views the marine environment through "a single optic" (see Scott 1998: 15)[128] that in turn is confounded by popular opinion, which considers the world's oceans to be "wild" and "empty"[129] (see also Steinberg 2011). This is particularly true when one analyses discourse referring to portions of Namibia's coasts: "Skeleton coast", for example, conjures in the imagination images of a desolate unknown and dangerous area;[130] a coast that was no more favourably referred to as "the gates of hell" by Portuguese sailors during exploration in the 1400s (Jones 2017). This evocative discourse also brings to the fore the violence and exploitation experienced by both humans and non-humans during colonialism (DeLoughrey *et al.* 2011: 8). In being perceived as such the sea is often imagined to be imperceptible to humans and, therefore, also beyond the scope of the law. Due to much of the ocean being out of human sight, the sea is considered to be the ultimate frontier which also extends beyond the visibility of the law. The historical loss of lives during the slave trade and contemporary deaths of illegalised migrants at sea have been representative of this reality (Heller and Pezzani 2012). However, this peripheralisation illustrates that

[126] Interviews 18, 24, 26 and 29.
[127] This thesis regards frontiers as zones where the "economy, nature and society" collide; frontiers are often characterised by formation of "systems of legality… [conceived] in response to market imperatives" (Barney 2009: 146).
[128] James Scott used the example of German scientific forestry to illustrate that by viewing the forest solely as a provider of commercially viable wood, the environment and its subsequent management is rendered visible to the logic of state (1998: 15).
[129] Interviews 12, 13, 25, 33 and 38.
[130] The fact that Namibia's sea and coast was perceived as inhospitable was responsible, in part, for colonial powers initially overlooking the country (see Chapter 3 and Wallace 2012 for more detail).

the formation of the sea as a frontier is purposive and that the blue economy, with its development imaginary, is not exclusively responsible for current conceptualisation of the marine space as "empty". These frontiers have been "produced over long historical periods of marginalization and uneven development" (Neimark and Healy 2018: 637) to legitimise access and exclusion as well as (dis)appropriation.

Historical commodity frontiers

The sea as a "frontier" has a history that is characterised by its enablement of landed extraction and trade through the transportation of commodities, both environmental and human. Frontiers can be rearticulated and subsumed over time (Kopytoff 1987: 211) and in Namibia colonial history was arguably shaped by the ocean frontier – considered as a space to be explored and conquered – before being swept-up by the terrestrial frontier of colonial rule (see Kopytoff 1987: 211). The perception of the sea, as something that is "out of sight, out of mind"[131] has historically empowered the movement of individuals and resources, enabling the transcendence of national boundaries and increasing marginalisation. This was seen within the Benguela Current Ecosystem in the eighteenth and nineteenth centuries; during which Namibia's northern neighbour, Angola, was the principle supplier of slaves who were transported across the Atlantic bound for the Americas (Domingues da Silva 2013: 105). This constituted the commodification of bodies that were subsequently exploited further for their potential to extract commodities. However, unlike in the case of Angola's population, from which an estimated 3,607,402 Angolan slaves were exported between 1400 and 1900, a comparatively low number of Namibian slaves—194—are estimated to have been exported from Angola in the same period. This is argued to be in part due to Namibia being less developed at the time of exploitation (Nunn 2010), though other theories point to the inhospitable characteristics of Namibia's Skeleton Coast (Goldblatt 1971: 1).[132]

In some instances, however, these historical invisibilities have been made visible over time, transferring them from the "remote and lawless" sea to visible land-based territory. In doing so, events and horrors that were hidden or were not witnessed have been made visible (Baucom 2005: 218). This is illustrated by the case of the Eduard Bohlen II, a ship that was wrecked on Namibia's Skeleton Coast in 1909 and remains in situ within this (now formalised) National Park. While previous invisibilities, and in turn Namibia's maritime and cultural landscape, can be seen through phenomena other than the vessel itself (see Lehman 2018), the wreckage serves to "render the unseen visible" (Baucom 2005: 218). The shipwreck not only provides a snapshot of this 'landscape' but also shores past horrors and acts of lawlessness, bringing them into view to the human eye. Among its other uses, the Eduard Bohlen II served as a "passenger steamer, floating prison during the Herero holocaust, diamond miners living quarters, film set

[131] Interviews 27, 28, 38 and 39.
[132] It is important to note here that, while Namibia's experience of the slave trade was not as pronounced as Angola's, exploitation characterised its colonial experience (as was discussed in Chapter 3).

for an action packed desert romance, home to assorted wildlife, and icon of the desert for wildlife tourists" (Harris *et al.* 2012: 112). Its use as a prison occurred in the shadows of the Herero and Namaqua Genocide when 282 Herero residing in Swakopmund were incarcerated offshore. These prisoners were then "offered" to a South African mining contractor as labour for South African mines. Their incarceration at sea meant that payment for both the labourers themselves and the required customs duty was void (Harris *et al.* 2012), due to their geographic location and "invisibility" designating them to be "beyond the law". This disconnect, and indicative "frontier" terminology enabled, and continues to enable, the conceptualisation of any given part of the sea as an alien site of potential (Hannigan 2016: 21) whose value lies in the transportation of goods and the exploitation of the resources below, or beyond, its visible surface.

The historical production and continued aesthetic treatment of the marine environment as empty and wild provides legitimacy for violence and appropriation within and over this space. This legitimacy is important given Namibia's colonial experience, where landscapes were "seen as a tabula rasa": a blank slate (Chari 2018). Terrestrially, Namibia's topography and climatic conditions led to an easy voiding of its landscapes during colonialism, clearing them of social relations and justifying settler's presence. This visual appropriation has continued beyond independence; for example, the Namibian Tourism Board (NTB) described the country as "rugged" and "empty and wide" in its 2009 advertising campaign (Lenggenhager 2009). Similar campaigns by the NTB in 2018 spoke of "forbidding" coasts while videos featured imagery of deserts, mountains and savannah accompanied by music proclaiming that "there's a land of wide-open spaces" (Namibia Tourism Board n.d.). Just as this rhetoric is used to encourage tourist travel, the emptying of land and sea scapes creates a "space of desire" (Tsing 2003: 5102) where exploration and the conquering of 'wilderness' can lead to wealth (Tsing 2003: 5106). Given the emptiness of these scapes, value must therefore lie in the speculation and appropriation of untapped wealth (Tsing 2003: 5104). The framing of Namibia's marine environment as a wild space conjures up imaginaries of mining companies' adventurous and entrepreneurial spirit – an imaginary perhaps particularly accessible due to Western imaginations of shipwrecks and treasure hunting in the sea. The imaginary that links exploration to wealth was echoed in interviews for example, when asked why Namibia continues to consider phosphate mining despite controversy, a stockbroker replied; "the mines drive the initiative at the end of the day. They explore the ocean."[133] Similarly, a representative of the MME clarified that "if the deposit is there and they can make money then they will explore."[134] During the fieldwork period it became apparent that similar rhetoric has also been embedded colloquially. For example, the language of "moon landscapes"[135] and "vast spaces"[136] are still routinely cited in conversations about land and marine scapes in Namibia.

[133] This section returns to the previously referenced quote from Interview 5.
[134] Interview 44.
[135] Interview 7.
[136] Interviews 25 and 27. This specific term also referenced colloquially during conversations with acquaintances.

To illustrate the governance implications of voiding landscapes, Sharad Chari draws on archival photographs of waterways taken during British colonial rule in South Africa. These photographs offer an insight into the metaphorical lens through which colonial powers justified spatial imaginations and the imperative of bringing these "wild swamps" into modernity (Chari 2018). This "swamp mentality"[137] was observed by an NGO representative in Namibia during a focus group discussion I conducted in Windhoek. When discussing the potential challenges and opportunities presented by phosphate mining, participants mentioned their perceptions of, and connection(s) to, the sea as a potential site of extraction:

> Interviewee 27: [The sea] is out of sight, out of mind.
>
> Interviewee 28: There is a general lack of understanding about how the marine ecosystem works and how to interact with it.
>
> Interviewee 29: Yes, we know more about the moon and space. [The sea] pushes people away as it is too conceptually large. It's easier to deal with what is in your face.
>
> Interviewee 28: So little is known about the sea, that it is overwhelming.
>
> Interviewee 27: But the sea's wild nature is a positive wild nature. [One of the participants][138] touched on this: swamps were once known as dark and evil places, but we call them wetlands now. The oceans in part are still emerging from this swamp mentality.

This swamp mentality historically had serious implications for the imagination of these spaces, which were characterised as being waterlogged and uncultivated. As with the sea, these spaces were constructed as existing in contention with humans: a space to be ignored at best or, at worst, feared. Yet, when functionalised as wetlands, these swamps became visible through their capital and social value, their potential uses justifying new modes of governance and conservation agendas. However, in contrast to the wetlands that Chari refers to and the terrestrial frontiers discussed in the cases of Indonesia (Peluso 2016, 2017) and Laos (Barney 2009), the offshore location of, and lack of knowledge about Namibia's marine space exacerbates perceptions of wilderness. The fact that Namibia is characterised by vast areas of uninhabited land and an inhospitable coast only serves to consolidate this:

> RC: What challenges and opportunities do you think seabed mining will present Namibia with?
>
> Interviewee 13: The lack of understanding is big… to some people the sea is the final frontier. Our marine ecosystems are still wild, and this excites them and challenges them.

[137] Interview 27.
[138] Details removed to ensure anonymity.

In fact, several interviewees compared general familiarity with, and knowledge of, this potential site of extraction to that of the moon or space,[139] a perception that also plays into and legitimises the narrative of speculation, exploration and risk undertaken by prospective mining companies. This absence of knowledge, or lack of ownership over knowledges, perpetuated feelings that one is disconnected from the sea. The same deficit was also observed in other interviews:

> RC: How are you involved with Namibia's marine environment?
>
> Interviewee 38: My interest is in anything to do with the ocean, environmentally, physically, biologically… people have the idea that the ocean is so large that we won't have an impact on it. This is not true. The fact that it is "out of sight, out of mind" is a huge concern to me. I would like to inform the public about these concerns, but it is a very difficult topic to explain as when it comes to the ocean things are difficult to understand.
>
> RC: Why do you think it is difficult to understand?
>
> Interviewee 38: I think the understanding of the ocean here is close to none. Namibia's aesthetic beauty is terrestrial, and we have a very patriotic way of looking at the environment. I have been told that since school… I think people are scared of the enormity of the ocean: it is such a big thing to get across to people. I think this is because of the lack of the understanding: for example, we only really see the beauty of the ocean when whales and dolphins pop up.

While its geophysical properties have perpetuated a (perceived) feeling of disconnection between many Namibians and the sea, it is the absence of knowledge pertaining to the marine environment that has solidified its conceptualisation(s) as an empty frontier. This consideration of the marine environment as wild has rendered it liminal and beyond the control of the state (West *et al.* 2016). Much like colonial-era conceptions of terrestrial Namibia as a blank slate, under which notion the unknown and the absence of knowledge was used to justify extraction, this ethos is being applied to the potential of the sea scape. The sea is therefore articulated as a complex space, which Namibia is considered to be institutionally and infrastructurally unable to develop or govern without the assistance offered by external intervention. The "wild" characteristics of the ocean and its "enormity", exacerbated by the majority of Namibia's citizens' physical disconnection from the ocean and their minimal coastal habitation and artisanal fishing practices, combine to mean that the sea is labelled as a site of exception (see Butler 2004: 61). As such, the sea's depiction as an abundant "underused" frontier renders it as an empty space awaiting claimants who extend beyond the state to include industry and non-governmental actors. This rhetoric also invokes the idea that the Namibian state's capacity to develop this space is limited (see also Watts 2018: 479) and justifies the presence of these external claimants. When asked why the sea is perceived as a blank space a former NGO worker explained:

[139] Interviews 1, 21, 27 and 36.

> Interviewee 15: Most ordinary Namibians feel some sense of ownership and pride about the Okavango river[140] – if someone was to push for the river to be drained or to become part of an agricultural project there'd be an outcry because people have camped there, and they know the river. They fish in the river – I don't think the ocean has that same reach. Although you do hear a lot of Namibians who love to go and stand with their fishing rods on the beach, the ocean doesn't have the same sense that this is part of our natural heritage. I also think that we don't know much about our ocean. It's cold, it's inhospitable and it's not the kind of place where you imagine biodiversity or something precious. It's nothing beyond a resource that can be utilised.

This perception of the sea supports Steinberg's (1999) argument that the ocean has long been communicated as a "non-territory", one that is external to political society. However, as the contention surrounding marine phosphate in Namibia illustrates, the sea scape is not at all a void (Steinberg 1999: 403). The increasingly recognised potential of the marine scape has catalysed a desire amongst states globally to delimit the sea and exert their sovereignty over its resources through the establishment of EEZs. This process is ongoing as Namibia and other states besides are negotiating the delimitation of their EEZs in accordance with the extent of their continental shelves,[141] indicating that territoriality and the extent of sovereign rights are not static, but rather this is a fluid process (Elis 2015).This territorial fluidity and expansion of state peripheries is particularly unique in the case of Namibia, which remained under South African mandate rule during UNCLOS negotiations. As such, they were represented by the United Nations Council for Namibia, which operated as a signatory. Upon independence, Namibia gained control of its EEZ. However, this control was incomplete at the time: Walvis Bay and Penguin Island remained annexed by South Africa until 1994. Here, Namibia's sovereign rights over its marine scape remained fractured and fluid even following independence.

The establishment of the EEZs emerged from the desire predominantly amongst developing states to reconcile the "appropriation of nature" within the marine environment (Campling and Colás 2017); a will present in Namibia, given its recent colonial experience. As Brenda Chalfin (2015) argues, "maritime territorialization is [both] a precondition for offshore extraction" and "a reaction to offshore activity". Such preconditions and reactions can be observed by states with reference to the blue economy agenda. As frontiers open, questions regarding legislative instruments, authority and capital emerge (Watts 2018: 480). By simplifying and codifying the marine environment, through the blue economy, and thus rendering it legible to capital, the marine environment is demystified and is subsequently easier for state actors to

[140] The Okavango river flows across Angola, Namibia and Botswana and has historically been characterised by conflict over access (see Hitchcock 2002 for more information).
[141] Interviews 1, 21, 27 and 36. In 2009, Namibia sought to extend its EEZ in accordance to the outer limit of its extended continental shelf. Namibia's submission claims that its continental margin extends beyond the 200 nm from the territorial baseline to encompass a submarine region of 1,062,935.85 km² (Republic of Namibia 2009: 3).

manipulate and, therefore, to exploit (Scott 1998: 15). This simplification is also applied to the actors therein, reducing social complexities to ensure that they are consonant with state agendas (Harmon 2003). However, the desire for legibility is not only held amongst the Namibian government: it is also sought by prospective mining companies who depend upon divisive techniques to ensure the exclusivity of their licences prior to investing financial capital (Hannigan 2016: 17). The complexity of the marine scape and the multiplicity of actors that interact therein is reduced; thus its "ecological configuration" is ignored until it disappears, only to be rendered visible as an economic resource to manage or exploit (Vandergeest and Peluso 2011: 588; see also Scott 1998: 13). This was evidenced by a former NGO worker who explained:

> Interviewee 15: The ocean is seen as an extension of the desert and the only value that comes out of it is fish quotas and oil, if oil was found. I don't think that it is perceived in the same way as terrestrial land is perceived, that there's biodiversity and an ecosystem. I think it is perceived more as a blank space that could make a couple of people rich one day and maybe, by inference, the country wealthier.

In accordance with James Scott's conclusions regarding scientific forestry, similarly the oversimplification of the marine environment occurring when it is presented as a blank space masks both socio-economic contention and the (geo)political dynamics that exist within this space (Campling and Colás 2017). This opens the state to opposition and resistance from society – as has been seen in Namibia – as the latter look to "modify, subvert, block and even overturn the categories imposed upon it" (Scott 1998: 49). Within Namibia, marine phosphate mining has begun to render the marine environment visible, creating a new politics. While there have been attempts to render the environment "empty", interviews and informal conversations in Namibia have indicated otherwise. Given the inhospitable nature of Namibia's coast and the low levels of artisanal fishing, one would expect levels of engagement with proposed activities in the ocean to be limited. However, the Namibian case study illustrates that the marine scape is not apolitical: understandings and definitions come from both the characteristics of the environment itself and the politics shaping it: as Michael Watts argues, "the logics of extraction figure centrally in the making and breaking of community: how communities are imagined or not and ruled or not at a multiplicity of scales" (2004: 195). While Watts's critique is community-centric, the imagination of an extractive space and embedded relationships are affected by extraction projects. The response to the potential for phosphate mining challenges this imagination of the sea as apolitical, illustrating that this alluded disenfranchisement from the marine space as an extractive sphere is misguided. When asked about how they felt about the response to phosphate mining in Namibia an environmental NGO worker explained:

> Interviewee 38: I am pleasantly surprised by the issue of phosphate mining. I thought I would be the only one against it, but I looked and saw loads of phosphate groups on Facebook and people writing letters to newspapers. It's a new form of mining and it's never been done before. People completely fear it [the mining].

The vast geography of Namibia's terrestrial environment, its low levels of population density and its limited areas of coastal settlements have perpetuated the imaginary that the citizens' physical disconnection from the marine environment extends to personal and/or emotional disconnection. Despite many residents of urban centres such as Windhoek having limited physical interaction with the coast or sea, cultural and spiritual connections can, and do, extend beyond locality. A close acquaintance of mine, an Ovambo individual[142] who I saw daily over the three periods of fieldwork, explained this dichotomy. This acquaintance lived in Katatura (a township in Khomas, created in 1961 following the forced removal of black Namibians[143] under apartheid rule), but they worked in a house in Klein Windhoek (an affluent and white-dominated area of the city, nine kilometres from Katatura). During my final period of fieldwork, in 2018, they excitedly told me about their first trip to the coast. Accompanying the family for whom they worked, they had visited Swakopmund whereupon they encountered the sea for the first time. They spoke of how cold the ocean was and proceeded to show me a two-litre bottle that they had filled with sea water to put on a shelf in their home. When I asked them what the significance of this bottle of water was, they explained that it was a "lucky charm" that would preserve the safety and health of their family. This spiritual belief was one that they and their family shared. Even though they had experienced no prior interaction with the sea, the sea for them had nevertheless become embedded and revealed in landed experiences and imaginations in more complex ways. This practice has also been observed across other southern African states, including South Africa (Mboweni and De Crom 2016).

The post-colonial state and the external institutions seeking to formalise the sea as an apolitical extractive frontier have also attempted to simplify what is a complex terrain of modernity and tradition. Chatterjee describes this complexity as "the presence of a dense and heterogenous time" (2004: 7). While the discussion above was an isolated occurrence, such conversations begin to indicate a diversity of knowledge about and relations with the sea. These relationships can, and do, transcend Western conceptions and constructs of temporality. To reduce this complexity would, Chatterjee argues, "endorse the utopianism of Western modernity" (1999: 132). In doing so, these more-than-human connections with the sea would be assumed to be "archaic and backward" (Chatterjee 1999: 131*)*. However, an important question remains as to how the ocean's perceived emptiness is engendering and enabling rhetoric. The marine environment

[142] The Ovambo have historically lived in the Northern interior regions of Namibia but have increasingly migrated to the capital, Windhoek (Wallace and Kinahan 2011: 77).
[143] This forced removal had parallels with the, more prominent, displacements observed in apartheid South Africa, including District 6 in Cape Town.

being made visible in Namibia and actor's claims to this space are shaping these discussions.

Volumetric frontiers

The conceptualisation of the blue economy – and by association of Namibia's EEZ – as a 'new frontier' enables perceptions of emptiness to be reworked into claims over this space. While the consequences of this are unpacked in Chapter 6 it is necessary to first discuss how the voluminous maritime space is flattened by frontier rhetoric. Through frontier rhetoric this 'scape' extending up to 200 nautical miles from the coastal baseline becomes amorphous in shape and size. While the EEZ acts as an extension to coastal state's jurisdictions, Namibia's sovereignty over this space, like that of other states over other spaces, is limited by the geophysical constraints imposed by the environment itself (Campling and Colás 2017). Liam Campling and Alejandro Colás (2017) define EEZs as "terraqueous territories" that separate the political (sovereignty) and economic (property ownership) rights, which, Gordon Winder and Richard Le Heron (2017: 14) note, enables the remapping of the ocean space as a resource for exploitation. This is evident in Namibia, where the ocean space is being (re)mapped through the designation of Exclusive Prospecting Licences and Mining Licences, which constitute divisions pertaining to exploitation potential. However, this remapping needs to be understood with reference to the unique geophysical characteristics of the marine space. Attempts to harmonise non-state actors' mobility over the seas, with the appropriation of resources therein, is best understood by moving away from traditional "flat" or two-dimensional ontologies to consider the volumetric, three-dimensional space through which resources are circulated and controlled (Bridge 2013). While there has been recognition, that there is a need to move beyond viewing territory on land as two-dimensional divided and bound areas, if one is to reconceptualise territory and demonstrate the verticality of geopolitics (Elden 2009; Sloterdijk 2002), then fluidity and the volumetric also need to be considered in relation to the sea. Bridge elaborates:

> The "concession" is the classic spatial form of property around which this struggle takes place: an exclusive right of access to resources beneath the surface, the concession makes possible processes of primitive accumulation while leaving intact the state's broader claims to territorial sovereignty
> (Bridge 2013)

The role of the vertical and of volume has been considered in relation to mining concessions but has predominantly focused on the terrestrial (Bridge 2013; Elden 2013). Considering the political and legal techniques associated with the capture and control of resources, the reciprocity that exists between the surface and subsurface is defined, in many instances, as a "split estate". On land, this split estate is characterised by issues of verticality and highlights the disconnect that exists between surface and subsurface rights. With surface rights facing vulnerability from below, this division of ownership, which operates on the vertical, complicates accessibility to mineral wealth (Bridge 2013: 56), illustrating how depth and volume must be considered by those wishing to 'capture'

mineral resources. In the sea, however, this conceptualisation is complicated by the (geo)physical characteristics of and rights pertaining to the sea.

Within Namibia, various sovereign claims compete to own this dynamic space. However, this is further complicated due to the multiple and interdependent layers in the sea space (Ryan 2015). As marine phosphate is mobilised through the sea's volume, it will interact with a multitude of legal, historical and institutional characteristics at different levels and planes. Sovereignty over marine phosphate is therefore determined by the acquisition of rights at different stages of its movement. These vulnerabilities illustrate how space and territory need to be considered three-dimensionally, rather than as planate areas on a map. The importance of recognising the three-dimensional nature of Namibia's marine space was highlighted by several interviewees. For example, a representative of the MFMRs unpacked this issue during a discussion about the uncertainty over the potential impact of phosphate mining on the fishing industry:

> RC: Why do you think there is uncertainty about phosphate mining?
>
> Interviewee 3: The uncertainty is that the ocean is a 3D environment and you can't really see what's going on. The sediment and plumes can be carried by currents. The marine ecosystem is large. On land the ecosystem is open. It's more easily visible and you can judge the impact. Mines have been there for many years and there is an awareness of impacts and more information has been shared. The possible impacts for offshore mining are new.
>
> RC: Could you expand on what you mean by the ocean being a 3D environment?
>
> Interviewee 3: In the water column, from the shore or 1,000 metres offshore, everywhere there is life be it demersal fish or phytoplankton. In the sediment there are a lot of processes undertaken throughout. The nutrients are cycled there, like in a food chain. It is an ecosystem and it is balanced. One of the concerns is that if you remove part of the seabed you will disturb a lot of fauna. We have a unique system where a lot has settled over the years on the seabed. This is continually being fed by other organisms and by the decomposition of organisms. The oxygen is minimal, but hydrogen sulphide can control this. There are also pockets of methane gas and mud removal creates disturbances. The impact of that on the surrounding environment is the concern and more research on this needs to be done.[144]

As demonstrated by interviews from the fieldwork periods, it is evident that the current approach of zoning activities and dividing the space into EPLs and mining licences, particularly when considering seabed mining, ignores the three-dimensional aspects of the marine environment. Current approaches to delimiting the marine scape in Namibia view the space through a two-dimensional cartographic approach (see Figure 5.1 below). For example, the MME's Mining Cadastre Portal maps the mining licences and claims that exist both terrestrially and offshore in Namibia, including those for marine

[144] Interview 3.

phosphate extraction. Concessions take the form of demarcated blocks in the sea space to illustrate where ownership or exploratory rights have been ascribed. However, this two-dimensional representation ignores the sea's dynamism and fluidity: the very same characteristics that affect the ability to demarcate both the marine scape and the ownership(s) therein.

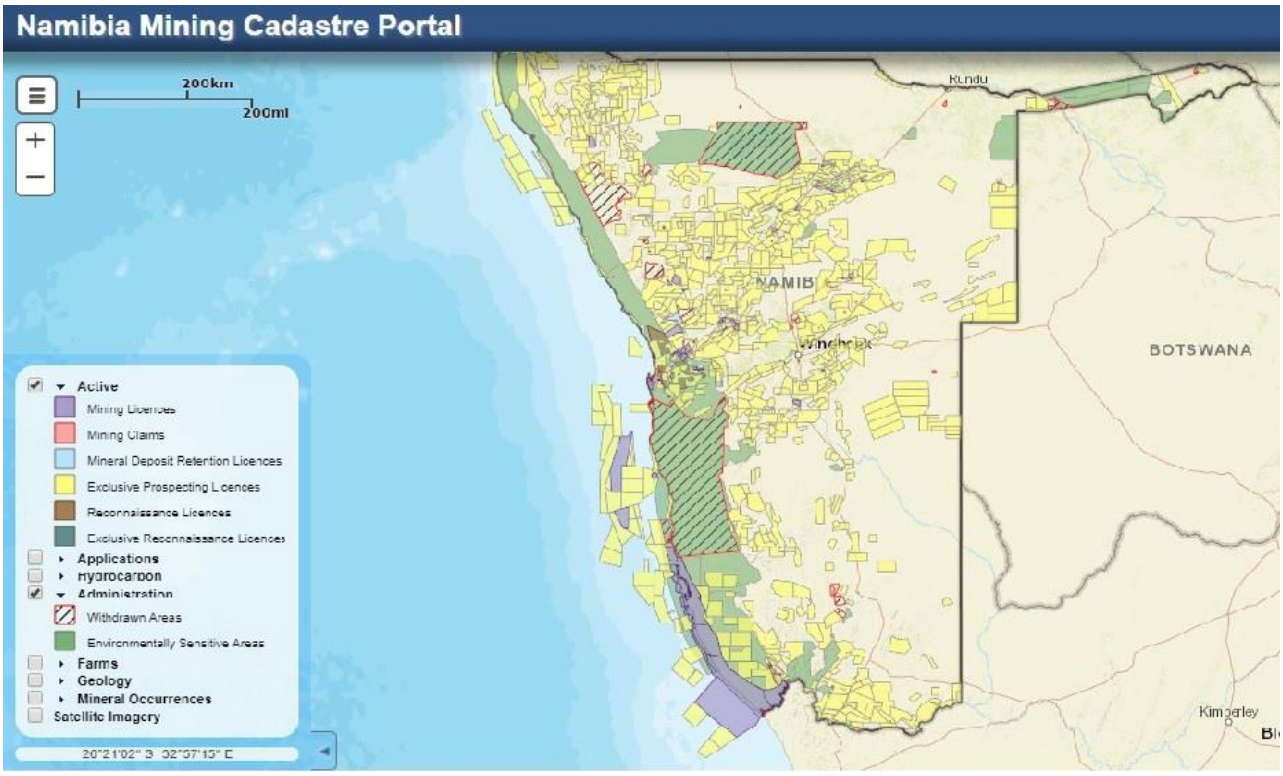


Figure 5.1. Namibia Mining Cadastre Portal: Map of licences and claims.[145]

If as in this case a two-dimensional, cartographic approach is taken, the complexity of Namibia's maritime space is not only emptied but flattened. This flattening enables the marine environment to become legible to the state and industry, thus allowing for the transposition of capitalist agendas onto the marine scape and the division of ownership over the seas. By reducing the geophysical complexities of the sea, governance agendas appear intelligible, particularly given the limited information on, or access to, the sea. By ignoring the three-dimensional characteristics of the sea, the potential environmental impacts also appear to be reduced. Unlike on land, projects are unlikely to be visible to much of the population, as potential impacts move through(out) the water column, undefined by temporality. This concern was shared by an environmental NGO worker who, when raising concerns about the Environmental Impact Assessment, stated that:

[145] MME and Trimble Land Administration 2019.

> the sea really complicates things. In the NMP [Namibian Marine Phosphate Ltd] report they said that [phosphate mining] will affect only two percent of the ocean but this is the area on the sea floor. They are not looking at the water column or longitudely and latitudily.[146]

Concerns about the potential impacts of ignoring the sea's three-dimensional characteristics were shared by other interviewees:

> RC: How does the deep-sea complicate mining projects?
>
> Interviewee 39: With the ocean space the way the receiving environment is, the ecologies are so different. Access to data, there is limited data. It is also less of a cumulative historical development in the sea bar fishing. Industries haven't developed and changed over centuries like on land, moving from agriculture to mining to industrialisation… Compliance and monitoring there is more expensive. The user profile is also different: it is more limited. It is a very different environment with different stakeholders and different potential growth areas. Energy is also very different within the ocean space. If people just tweak terrestrial thinking and try and apply it to the ocean, then this is problematic. The blue economy ecosystem could be great, but this isn't likely to be the case. It's basically just zone this and zone that. It prioritises major industry.

Development agendas, such as the green economy, have traditionally operated on land, where exploitation and extraction have advanced and progressed over time. However, when it comes to seabed mining, minerals move through time at a faster speed than they would on land: wrenched from the depths into modernity, they skip the evolutionary experiences of terrestrial mining. Therefore, for example, while fish have historically been exploited, the blue economy agenda attempts to govern a largely untapped space with undefined and fluid ownership(s). Given the emptying narrative of frontiers, the sea is stripped of social dynamics and the number of actors within the scape is reduced, so that the extractive industry is seen by the government as one of the only potential actors in the EEZ. This simplification has been met with contention in Namibia where this fear was echoed by a representative of the fishing industry who spoke of their concerns that "the sea has been cut up into squares for oil prospecting, but what if it is cut up for minerals? We already have exploration blocks."[147] With ocean governance and liberal norms enclosing oceans "as state property, creating, devolving and enforcing property rights" (Mansfield 2004: 315), it is imperative to understand how this space is being interpreted and articulated in Namibia. Fieldwork results indicated that current approaches to the demarcation of ownership were insufficient due, in part, to the inability to physically delimit the space, and that they were complicated by the physical

[146] Interview 38.
[147] Interview 36.

characteristics of oceans. The challenges of this were raised by interviewees when they considered claims to both the space itself and resources therein:[148]

> RC: What differences do you see between the blue economy and the green economy?
>
> Interviewee 1: Well, the blue economy is three dimensional, and I think that's very different and difficult to grasp. And then you know, you don't have clear borders and you can't see! You can't see the damage you're doing. The mitigation compared to terrestrial and marine mining for example: the mitigation measures are so much more difficult, because you can't put up a fence to avoid anything coming in.

The rhetoric of fences, borders and enclosures are typically associated with emerging sites of extraction. Their deployment enables the physical demarcation of ownership and the restriction of access. However, with marine mining the deployment of these spatial tools is not always feasible. Despite this, current approaches to marine mining and the blue economy have been accused of having a predominantly flat approach whereby Namibia's sea is considered to be simple to delineate. Adopting a terrestrial lens when analysing actors' claims over the marine space flattens the complex relationships and overlapping claims to ownership that will be further discussed in Chapter 6. This is exacerbated by the marine environment's fluidity and lack of visible and distinct boundaries. Unlike landed territory where physical boundaries can be erected in the form of walls, signage or fences, the ocean's boundaries exist only as legal constructs that are demarcated across the water's surface.[149] These lines do not have geophysical authority, but they are attached to a juridical system that does (Steinberg 2013: 162). These boundaries have also been shaped by narratives that "coexist and even frequently overlap" (Hannigan 2016: 135), as illustrated by the competing claims over Namibia's marine space. One interviewee elaborated on this point, stating:

> In Namibia's ocean space and even on the land adjoining the ocean there seems to be less of a clear definition of who the rights-owners are, who are the people who have lived them in the past, do they still have rights in those areas? It's much vaguer.[150]

The lack of a definition specifying who does or does not qualify as a rights-holder is particularly evident and relevant in Namibia. Terrestrially, disputes over land rights remain following independence due to much of Namibia's productive land remaining in the hands of the elite white minority, and the capture of resource rents are therefore ongoing (Melber 2014: 92, 103). During the fieldwork periods, interviewees cited terrestrial disputes over land rights when raising their concern that if the Namibian state

[148] The implications of this insufficiency on potential beneficiaries, should the space be developed, are discussed in Chapter 6

[149] As one interviewee, a Ministerial representative, stated when describing the complications of ownership in the marine environment: "you can't put up fences in the ocean" (Interview 1).

[150] Interview 15.

is struggling to negotiate land, then the sea presents even more of a challenge due to its lack of boundaries, the primacy of marine extraction technologies and the multitude of competing inherent interests that exist in this space, for example. In Namibia, much of the coast has been denoted as inhospitable due to its characteristics being antithetical to human settlement. While established coastal cities exist (including Swakopmund and Lüderitz), their complex colonial history has further complicated ownership claims over this space. This complication deepens when one considers questions of ownership in the sea. As Michael Watts argues, the opening of a frontier often involves an "intrusion on native territory" and through its enclosure, authority is established using violence against native inhabitants (2018: 479). However, in the case of marine mining, the absence of literal inhabitants in the sea and littoral inhabitants on the adjacent coast challenges conceptions of what constitutes "native territory". As such, the temptation for the state in Namibia has been to devoid the sea of rights-holders in order to establish new legislative measures and authority that in turn emerge from the narrative of frontiers (see Watts 2018: 479–480). While the voluminous nature of the Earth and its implications on the politics of the subsurface have been discussed in relation to the terrestrial extraction of resources, the blue economy agenda in Namibia overlooks the interplay that exists between the levels at which activities and stakeholders operate (across the surface, water column and seabed). Additionally, some have raised concerns that phosphate mining could have transboundary effects: "If you divide things up there are overlaps. This is the ocean; some resources also straddle borders."[151] These concerns consequently affect the actors interested, and involved, in discussions around bringing these extractive sites into fruition.

This vagueness over land and terrestrial jurisdiction also extends to Ministerial remits: Ministry representatives spoke of a "grey zone" that exists between the high and low water marks, where the respective jurisdictions of MET and MFMR overlap and remain undefined. However, the terminology itself, "blue economy", particularly when placed in opposition to the "green economy", further exacerbates the distinction between landed and offshore territory and fails to encapsulate not only the politics that exist below and, on the surface, but also the interrelated nature of the land and the sea. As a sectoral umbrella organisation representative explained, "The green economy is compartmentalised. The green and blue, they are both dependent on one another: they don't exist in a vacuum". The temptation to "untether" the land and sea from one another has historically dominated Western constructions of these spaces (Silver and Campbell 2018: 3). However, when analysing the case of marine phosphate mining in Namibia, the interrelated nature of spatial dynamics is clear.

Invisible materiality

In working to simplify the marine scape and devoid the space of its dynamism, frontier rhetoric also masks the materiality of the very minerals therein that legitimise the opening, and subsequent closing, of the marine scape. To enable engagement with the

[151] Interview 3.

emerging conflicts, the unique spatial dynamics of these potential sites of extraction and the resource itself must first be understood (Bebbington 2014: 4). As the marine scape is made legible through frontier logic, and opened to extraction, the seas' 'resources' are also made (see Childs 2018; Richardson and Weszkalnys 2014). In the same way that frontiers are created, "resources are not just there" (Richardon and Weszkalnys 2014: 12). They are made, over time, through entangled processes and human labour that also legitimise control of this potential extractive scape (see Richardson and Weszkalnys 2014). While scholarship has engaged with the consequential spatial and social dynamics associated with the production of offshore oil and gas (see Geiger 2008), the potential exploitation of marine minerals in Namibia at the proposed depths produces a different extractive scape. This is despite arguments from prospective companies stating that the effects would be the same as those had by the diamond mining that has historically characterised areas of Namibia's coasts and shallows for over a century.[152] However, opponents disagree. For example, a development donor representative countered this perspective, stating "phosphate companies are using the argument that Namibia is already doing this type of mining, so this is the same. But phosphate is finer in its makeup. It's a lighter material so more likely to cause a plume."[153] Concerns relating to the unique materiality of the marine phosphate are central to the contestation. These dynamics should not be masked as they impact ownership claims, which will be unpacked in the subsequent chapter.

When dealing with unknowns, equating such extraction to ongoing projects is an attempt to minimise conflict. However, unlike in the case of offshore oil extraction, the potential extraction of minerals, including phosphate, does not occur at a point source. To adopt a two-dimensional, terrestrially configured lens is to mask the interactions that will occur during marine phosphate mining. Trailing suction hopper dredges are proposed to suck ore containing sediment from the seafloor, manipulating the seabed and causing resources to move through space and therefore different legal regimes (also raising environmental concerns in doing so). The process of extracting phosphate is also likely to interact with fish and other species, both on the seabed and in the water column. The mobility of fish through this space differs from that of these minerals, their movement dependent upon geophysical characteristics such as depth and temperature (Campling 2012: 255). This highlights the complexities faced by the extraction of resources (both static and mobile) operating within a three-dimensional space. Phosphate is then deposited and processed onshore in plants which in turn may reside outside of a given coastal state's jurisdiction, illustrating that the marine scape does not exist in untethered isolation from terrestrial territory,

In Namibia, the attention of the mining industry has centred on phosphate deposits off the shores of Walvis Bay and Lüderitz, where the geophysical nature of the Namibian coastline has meant that substantive compacting work has already been done for mining companies. As such, these deposits are considered by such companies to be an "easy

[152] Interview 19.
[153] Interview 6.

grab."[154] Yet despite being articulated in this way these minerals are not just "packaged" but are physically and socially produced (Childs 2018; Tsing 2003: 5100). Their geophysical properties are essential to understanding how they come into existence and how they are then "made" into resources (see Childs 2018; Richardson and Weszkalnys 2014). Most authors including Richardson and Weszkalnys (2014) have posed this question with regards to the production of terrestrially extracted minerals (exceptions include Childs 2018). In doing so, these authors who focus on terrestrially extracted minerals not only overlook the unique geophysical conditions of the marine environment and accumulations *in situ*, but also the resources interaction with this frontier's dynamic environment throughout the process of being "made." With reference to terrestrial extraction, but also applicable to marine extraction, Gavin Bridge argues that "landscapes of energy extraction are portals, wormholes between two worlds in which time and space work differently." Below the surface deep-time processes occur to create minerals. "Aboveground and freed from geological fixity" they are "thrown into a tumultuous world of "social production" (Bridge 2013). Unlike on land, the seascapes of energy extraction work across more than two worlds. While deep-time processes have also occurred to create these minerals, which are fixed in the seabed, resources are thrown into a different tumultuous and dynamic scape. In doing so they interact with the sea as a site of social production, before they even reach and interact with the sea's surface or landed territory.

Namibia's ecosystem is inefficient and not very advanced, being as it is predominantly characterised by smaller organisms and fish. Consequently, phosphate is not recycled, and material takes longer to settle than it otherwise would, at depths of 100 to 800 metres. Due to this inefficiency, these settled phosphate deposits are estimated to be between 20,000 and 100,000 years old. Organic matter including phosphate then settles and is subsequently buried on the sea's subsurface. This sediment then transforms into phosphorite, which takes the form of nodules or thick crusts, which in turn are found most abundantly on the continental shelves of south-western African states (Giresse 2007: 245, 259). Deposits will often be between one and two meters thick but there are pockets where more is accumulated, following periods of intense currents. As a result, Namibia's seabed is not smooth: distribution of sediment is patchy and can occur over vast areas. Much like with mineral extraction on land, on Namibia's seabed there are pockets and depressions (where no phosphate collects) and hills (where more phosphate has accumulated). As such, this potential extractive scape, characterised by "punctuated, discontinuous geographies," can be divided into discrete concessions when the concession-holder is sovereign (Bridge 2013). This was observed by interviewees who argued that concession-holders have been in the process of dividing this emerging extractive scape.

The division of the marine environment by concession-holders serves to illustrate how the rhetoric conceptualising African states' EEZs as a resource frontier has been formalised in Namibia. However, the use of "frontier" language was challenged by civil

[154] Interview 32.

society actors and fishing industry representatives within Namibia, who regarded this use of rhetoric as an attempt to justify the infliction of violence on the environment. Similarly, Paige West and colleagues argue that the divisive nature of such interventions can fuel social conflict (2016). As an advocacy organisation representative elaborated:

> Interviewee 39: Seabed mining is often phrased as a new frontier, but we need to look at this properly. We can't just go and rip up the oceans. Seabed mining is touted as an opportunity for resources that we need. It's easy for governments to make bizarre claims like "phosphate will be used for food security", but we need to look at these resources properly within the blue economy.

This frontier rhetoric not only attempts to justify bringing the marine space into "useful" capitalist production but has also legitimised the observed brutality of language employed when discussing this potential extraction in Namibia, Here, with reference to terrestrial extraction, Lewis Mumford argued that, "mine: blast: dump: crush: extract: exhaust-" act as the "syntax of modernity" (Mumford 1934: 74).[155] The language employed by interviewees in Namibia when describing extraction techniques – phrases recounted during interviews such as "rip", "suck up" and "pump out",[156] for example – are indicative of similar conceptualisation of emerging modernity and its implications on the marine space. Such phrases also indicate perceptions of violence that the marine space would incur, should phosphate mining be awarded clearance (see Chapter 1).

The potential of marine phosphate mining has been credited in Namibia with highlighting the complexity of the marine scape and the proposed blue economy agenda. The unique characteristics of phosphate and its extraction exposes conflicting interpretations of the marine scape and its ownership. These interpretations urge observers to look beyond conceptualisations of the marine sphere as a resource space, an interpretation that strips the ocean of the dynamics and articulations of power that are central to understanding how sovereignty is interpreted and projected. Instead, one is encouraged to view the ocean as an "arena wherein social conflicts occur, and a space shaped by these conflicts" (Steinberg 2001: 20). The characteristics of phosphate offer insight into the complexity of the marine scape. They are integral to understanding the emerging state and non-state interests in Namibia's EEZ, and their impact on sovereign claims will be discussed in Chapter 6.

As illustrated above, the Namibian case study supports Peluso and Lund's argument that landscapes, and, to this degree, seascapes are far from static. These emerging frontiers are not simply sites where the present and tradition meet in opposition (2011: 668). Rather, they are temporary and incomplete (see Gramsci 1971) and furthermore are constantly being reworked. On the topic of land, and particularly agrarian environments, Peluso and Lund contend that the emergence of new crops, actors and legislative instruments creates an opportunity to "possess, expropriate or challenge previous land controls" (2011: 668). In the case of marine mineral extraction in Namibia

[155] Gavin Bridge (2013) also acknowledges Mumford's syntax.
[156] Interviews 6, 14, 31, 35 and 39.

and more generally, this newness is not limited to opportunities to "possess, or challenge" nor to the actors involved – though the involvement of these actors must be challenged due to the perpetuation of the power structures favouring the positions of old, established actors in the Namibian context. In the place of new crops, there are new minerals, and with these come new technologies required for their exploitation and new laws that remain under defined. And, while there are "new enclosures, property regimes and territorializations" (Peluso and Lund 2011: 668), these are also being challenged at a time when the delimitation of states' EEZs is ongoing. In recognising these challenges their implications on ownership claims must also be identified.

These frontiers and minerals therein create heterogenous sites, where historical dominance, rights and sovereignty are challenged and exist contemporaneously with the new. As the blue economy agenda in Namibia demonstrates, these sites are being constantly (re)produced and (re)articulated, situated and solidified by the perspectives and historical trajectories of those who apportion claims over them (Peluso 2017). As such, these ownership claims are "products of complex webs of social relations and accumulated notions of rightful access or patters of control" (Mathevet *et al.* 2015: 16). Steinberg (2018) asked "who is served by the incorporation of the frontier?" In the case of Namibia, the state has framed phosphate mining as a development opportunity: a project to address chronic unemployment and food insecurity. However, industry benefits from these extractive spaces opening and incoming international industry actors bring with them the technology and expertise that the Namibian state has little access to. Similarly, opening Namibia's sea as a new commodity frontier will lead to the establishment of new legislation, infrastructure and as Liam Campling argued in relation to tuna extraction, the creation of "new geographies" (2012: 256). With a multitude of different organisations and projects interested in entering this "site of potential" (Hannigan 2016: 21), the blue economy acts to formalise these "panacea-like governance arrangements" (Silver and Campbell 2018: 11). While these arrangements act to open Namibia's marine space, they are also acting to close it. Therefore, to expand on Steinberg's question, it is equally important to question "who is excluded by the incorporation of the frontier?" This will be unpacked further in Chapter 6.

Concluding remarks

To conclude, the potential for marine phosphate mining in Namibia, combined with the encroaching blue economy agenda, illustrates how frontier rhetoric continues to be used to justify the opening of new commodity frontiers. This is despite the fact that the marine scape is not a 'new' frontier. By utilising frontier discourse, emerging sites of extraction are emptied, and the social complexities therein are diminished to a point where social relations can be assimilated into emerging spatialities. In Namibia, the physical disconnection of most citizens from the sea, coupled with a predominantly industrialised fishing industry, has further enabled its marine space to be rendered apolitical. However, as discussed, this oversimplification masks a multitude of complexities and relations with the marine environment, which Chapter 6 will unpack in more detail.

The metaphorical emptying of Namibia's seas has been used by development agendas and industry to justify the emerging zonation and divisions that are being applied to the marine space: its emptiness proclaiming the space as in need of state or external intervention. Under this logic, new entrants can be afforded space and projects will operate within their designated zone(s), mitigating any potential for conflict. However, the Namibian case study, and protestation against marine phosphate mining, illustrates that terrestrial thinking should not be applied to these potential commodity frontiers. The dynamics of the sea space, notably stemming from its volumetric, three-dimensional characteristics, complicate this predominantly two-dimensional logic. Unlike terrestrial sites of extraction, the fluidity of the sea, the lack of boundaries and challenges to physical demarcation indicate some of the challenges to operating within this space. This is further exacerbated by the problem of the unknown: that is, that the data pertaining to the sea is limited, even within well-established industries such as fisheries. As projects progress, this data and knowledge is also likely to develop, resulting in a fluid (re)production of space.

This chapter has articulated the importance of also considering the physicality of minerals and its interaction with space. Namibia's inefficient ecosystem has led to phosphate deposits being described as an "easy grab," enabling concession-holders to divide the marine environment into (potential) extraction licences. This narrative also frames extraction as an adventurous endeavour that requires not only specific technical apparatus but also an appetite for risk related to supposedly exploring and conquering what they consider to be a vast and empty space. The proposed method of extraction illustrates how phosphate will move through different layers of this three-dimensional environment, potentially interacting with mobile and migratory fish species therein, before being transported to landed territories. While the blue economy narrative works to enforce the imaginary that the marine environment exists in isolation from states' terrestrial territory, this illustrates that they are in fact inextricably connected. Recognising this is integral to discussions of emerging ownership claims over this space.

Considering the ways in which Namibia's marine environment has been articulated as a frontier provides a lens through which one can analyse the emerging and competing claims to sovereignty over this space, which is addressed in more detail in Chapter 6. Recognising that frontiers have been produced over time foregrounds the importance of considering both contemporary and historical dynamics. These dynamics have engendered the idea that many Namibians are disenfranchised from the marine environment thus enabling it to be conceptualised as a lawless, wild place to be feared. As such, the sea's potential has become an arena for industrial entrants. As this chapter has discussed, the opening of the sea also means the closure of the sea, meaning that these relations have enabled certain actors to exert sovereignty over the sea space as well as marginalising and disenfranchising others. Chapter 6 will further analyse the competing claims to sovereignty that have emerged during discussions of marine phosphate mining. Furthermore, it will unpack how key actors are thinking about this unique scape and will demonstrate how the sea resists traditional notions of sovereignty.

Chapter 6

Resource sovereignty, lost at sea?

"I know that there are EEZs but if it has to be sustained then no company has the right. You can't destroy it for one person. They [the mining companies] don't own the ocean, they don't own the right to destroy it."[157]

Introduction

The blue economy presents opportunities for new forms of capitalist accumulation and this has resulted in struggles over who can accumulate in the marine sphere. This chapter analyses the resultant emerging and competing claims to sovereignty over this "new" resource frontier, including by state and non-state actors. In discussing sovereignty over this frontier and resources therein, it undertakes a rigorous analysis of the complications created by the ocean as a three-dimensional, voluminous, "borderless" space. The chapter argues that dichotomous interpretations of sovereignty have been mobilised, including by the state and mining and fishing sectors, to support differing agendas. In doing so this has both included and excluded different actors from the blue economy agenda.[158] In recognising that terrestrial epistemologies cannot be directly applied to the marine environment (Dodds 2012; Steinberg and Peters 2015), this chapter highlights how current discourse in Namibia continues to perceive the ocean through the lens of landed imaginaries. It also investigates how the discourse therefore ignores the manner in which the unique nature of the marine environment complicates traditional conceptualisations of resource sovereignty. Rhetoric around these imaginaries also often fails to recognise that the "blue" and "green" economies[159] do not exist as separate, unconnected entities; rather, they are inextricably interlinked. This is particularly evident in Namibia, where minerals harvested offshore will be "landed" and processed onshore.

The potential of phosphate mining highlights the complexity of Namibia's marine scape and of the proposed blue economy agenda. While the blue economy attempts to achieve harmonisation between overlapping interests, seabed mining has been met with contention from both internal and external actors. This illustrates how interest in and ownership over the marine scape is not circumscribed. This chapter therefore unpacks the various sovereign claims over the marine scape that have emerged through discussions of seabed extraction. In so doing, the chapter will identify how traditional

[157] Interview 21.
[158] This thesis positions itself under the third form of political ecology, as articulated by Darcy Tetreault (2017). It aims to analyse accumulation strategies with relation to Namibia's marine sphere, identifying who has control over this emerging site of extraction as well as the actors "involved in the institutional and discursive fields of power in which they operate" (Tetreault 2017: 18).
[159] The green economy attempts to combine development and conservation visions and is grounded in capitalist logic (Silver *et al.* 2015; see also Corson and MacDonald 2012; Haas 2012: 95).

conceptualisations of resource sovereignty are challenged by the (geo)physical characteristics of the marine environment. Here, the state is positioned as a *de facto* landlord of the EEZ, responsible for the delimitation of activities and the conditions of production.[160] These legitimacies have political and economic origins and the state attributes weight to them. This weighting depends on factors such as the potential for rent accumulation and the historical context(s) under which these uses came into fruition. However, definitions of who possesses the rights and the ability to accrue rent in the marine scape, and the land adjoining the sea, are vague. This has led to the emergence of two dominant claims from the fishing and mining industry.[161] However, this binary is overly simplistic and requires interrogation which this chapter will use as an entry point to analyse who is included or excluded from the marine scape.

This chapter begins by analysing how the fishing industry and the MFMR has been positioned as sovereign actors within the EEZ, entangled in imaginations of state and economic sovereignty.[162] Unlike traditional conceptualisations of resource sovereignty, seabed mining is proposed to occur offshore and at depth, in a three-dimensional and voluminous space. This therefore presents challenges to terrestrial understandings of sovereignty over resources, as claims do not adhere to a planar level, revealing conflicting interpretations of sovereignty within different spatial dimensions. These claims coalesce and in doing so they interact with other sovereign claims and accumulation strategies.[163]

Through the lens of seabed mining, the second section of this chapter discusses how the unique (geo)physical characteristics of the marine scape complicate previous and emerging ownership claims. Discussions of the blue economy are currently being framed through a two-dimensional lens, such that it is simplified to the point that it is regarded as a basic territorial conflict between two industry stalwarts. In unpacking the three-dimensional aspects of this contestation, this section challenges the extent to which sovereignty can be exerted over a fluid volume, that is not contained (Steinberg and Peters 2015). This section also discusses how the state is (problematically) framed as the gatekeeper to the EEZ. Here, the state is positioned in a manner suggesting that it will ensure that any exploitation of resources is undertaken for the benefit of all

[160] The state has a varied role in the management of its EEZ, including via the management of resources and through the regulation of industries operating therein (Steinberg and Peters 2015).
[161] The lack of cumulative historical development in the sea has resulted in a lack of development among industries operating within the marine scape when compared to their equivalents on land.
[162] This section also references the previous denial of spiritual sovereignty, but this is not an expansive discussion.
[163] While this chapter includes responses from formalised civil society actors, the question of how representative Namibian civil society is remains under-analysed. Throughout my fieldwork, interviewees argued that the current imagination of Namibia's formalised civil society requires antagonising. Concerns were raised about representation and civil society was criticised for being representative of only one voice: that of the white elites. This fact has been alluded to throughout my research, but a comprehensive analysis of post-independence civil society (environmental or otherwise) is outside of the remit of this chapter. In any case, I attempted to address this by ensuring engagement with more representative organisations and actors.

Namibians as per state legislation. This assumption requires interrogation on several accounts, however, and will be discussed in the following section of the chapter.

Through its analysis of the potential beneficiaries of phosphate extraction, the third section of this chapter recognises that it is important to investigate whose sovereignty the state represents, especially under the binary produced by embedded systemic apartheid structures. Additionally, elite involvement in marine phosphate mining has been questioned by interviewees. This accrual of rent is perceived to be easier for elites to achieve due to the sea's characteristics. The same characteristics also provide justification for external involvement and Foreign Direct Investment (FDI) due to the technologies required to extract in and manipulate volume, contradicting the imaginary of the state's sovereignty over its EEZ. Defining the EEZ as a space that is ripe for accumulation leaves it vulnerable to external exploitation, particularly as phosphate does not even have to ever touch state territory. The rhetoric claiming that marine phosphate extraction will provide Namibian jobs has been challenged, and the mining activities' offshore, remote position leaves the seascape vulnerable to enclaving. While scholars have recognised that sovereignty does not exist in a container (Ong 2006), the offshore nature of this mineral extraction enables capital to "hop" (Ferguson 2005) from the EEZ (which is not state territory) to be beneficiated on an external state's terrestrial territory. In doing so, the mineral can bypass state territory altogether.

"Gods of the marine environment": Namibia's fishing industry

The definitional ambiguity of Namibia's blue economy (as unpacked in Chapter 4) has created a situation whereby a multitude of interests and actors can be afforded space and legitimacy within the EEZ. While the proposed blue economy agenda attempts to achieve harmonisation between overlapping interests, the prospect of offshore phosphate mining in Namibia has been met with controversy. The contention over potential marine phosphate mining projects has predominantly centred around the fishing and mining industries. This contestation therefore provides an analytical point through which to unpack sovereign claims in this dynamic scape.

The blue economy has opened Namibia's EEZ to disparate claims that overlap with and challenge the remits of presently established actors therein. Throughout my fieldwork it became apparent that the perceived dominant actors were those representing the fishing industry, which in turn has historically dominated Namibia's marine scape. These actors are also the dominant adversaries to marine phosphate mining. As such, their ownership claims within and over the marine scape must be unpacked. Due to its precise geophysical composition, Namibia's EEZ has been described by key actors as being insular and dominated by a few players.[164] Describing Namibia's blue economy (and by extension its marine environment), interviewees representing industry, umbrella organisations and NGOs highlighted that it is the dominion of the fishing

[164] Interviews 1, 4, 8, 25 and 42. This evokes geopolitical realist understandings of "The Great Game" where the confrontation between land and sea was considered as an objective historical process rather than a process influenced by (changeable) socio-political considerations.

industry.[165] Given its historical overexploitation by external actors and the associated denial of sovereignty over resources fisheries have emerged as one of the only actors operating within the marine scape. Therefore, imaginaries of the sea as a space dominated by fishing activities act to exclude other claims to the environment, such that it remains conscribed as the preserve of the fishing industry, its value reduced to the fishing resources therein.[166] The fact that the fishing industry has established itself as sovereign, particularly within discussions of the blue economy, is not necessarily incidental.

Fishing in Namibia is enshrined in discourse of state sovereignty and subsumed under nationalist rhetoric. Previously, during colonial rule, nature was reconfigured as a resource: ownership was assigned, and attributed value, and in this way fish and land-based minerals were transformed into assets (see Andreucci *et al.* 2017; Felli 2014). Despite being established by colonial powers, this framing of the land and sea as (a provider of) "assets" formed a baseline for discussions of sovereignty during decolonisation. Productive space and the resources therein, both on and offshore, were ascribed at independence as "belonging to the state" (Republic of Namibia 1998), thereby reconstructing them as independent Namibia's national assets. Following independence, the much-lauded Namibianisation fisheries policies,[167] which sought to address years of exploitation and ensure that Namibians were the majority shareholders of fishing companies whilst promoting job creation and income generation for the government (Erastus 2002: 43), were heralded as a success story. Today, Namibia's fisheries are, in part, celebrated as a national asset: "the backbone of the Namibian economy".[168] Fisheries are therefore collectively situated as an essential component of independent Namibia's economic sovereignty, and one that contributes to a wider, national idea(l) of state sovereignty that in turn stands to be challenged by new entrants.

The imagination that fish are an essential national asset – and the associated Namibianisation policies – therefore provide legitimacy for fisheries to assert themselves collectively as the dominant actor and accruer of rent in the marine scape. In doing so, they established themselves as the protector of Namibia's economic sovereignty and, by association, its EEZ. The fact that marine mining threatens something so integral to Namibia's success has polarised discussions of the blue economy. Comprising an average of 3.5 percent of Namibia's real GDP, the fishing industry contributes to Namibia's regional and international economic profile, particularly due to its role as a large employer in the Erongo region (Chiripanhura and Teweldemedhin 2016: 7).[169] Namibia is the second-largest exporter of fish from the continent, accounting for 15.8 percent of Africa's exports and 0.6 percent of global trade

[165] Interview numbers 1, 7, 8, 13, 19, 23, 25 and 43.
[166] The MFMR's 2017–20 plan outlines its vision for Namibia as "a leading fishing nation" (MFMR 2017: 8).
[167] See Sowman and Cardoso (2010) and Sjöstedt and Sundström (2015) for more information on Namibianisation policies.
[168] Interview 42.
[169] The Erongo region is an area that encompasses Swakopmund and Walvis Bay. The fishing industry is the largest employer in Namibia (NPC 2018: 17).

in 2010 (Tall n.d.)[170] and in 2017 fish accounted for Namibia's second-highest amount of export revenue being overtaken only by minerals.[171] The sector has also been championed as a contributor to food security (Chiripanhura and Teweldemedhin 2016: 7), although domestic consumption accounts for only ten percent of fish harvested (MFMR 2013).[172] Despite having a relatively small domestic market,[173] fisheries are integral to independent Namibia's national discourse. The discourse pertaining to fisheries remains shrouded in sovereignty rhetoric.

Prior to independence the marine environment was subject to (over)exploitation and was described as a "virtually free for all fishing zone" (OECD 2004: 210); earlier, overfishing during the colonial period led to the near depletion of Namibia's fish stocks (Sjösted and Sundström 2015: 80). Anti-colonial narratives remain present in Namibian discourse with its Marine Resources Policy referencing a history of "plundered fish stocks" (MFMR 2004: i) and arguing that

> the fish stocks we inherited in 1991 had been severely over-fished by foreign distant water fishing fleets. In addition, pre-Independence participation in the Marine Resources Sector by Namibians was the preserve of a privileged few. (MFMR 2004: i)

Namibia's claim to an inherited marine scape therefore capitalises on Namibia's history of overexploitation by reinforcing the imagination of an idealised vision of state sovereignty, and the perception that the domain must be protected from a recurrence of exploitation, by external actors.

The potential of marine phosphate mining compromises a vision of sovereignty perpetuated by the fishing industry. Given that Namibia experienced over-fishing, when sovereignty was denied, the existence of fish themselves has seen them positioned as indicator of successful sovereign policies in the marine scape. Namibianisation policies aim to redress previous overexploitation and protect the fishing industry from a recrudescence of the exploitation of Namibia's resources by external actors. Initially considered to be indicative of SWAPO's successful management of the country's natural resources following independence (Oelofsen 1999) – a claim that this chapter will later challenge – Namibianisation was enshrined in nationalist rhetoric, as the policy's etymology dictates. These nationalistic narratives bypass non-state claims to sovereignty and attribute the state inherent rights that (in principle) supersede private ownership. As a result of this supposition, the potential to extract marine phosphate therefore challenges not only the collective status of fisheries as a national asset but also the idea of Namibia's wider economic and state sovereignty over resources. A

[170] South Africa closely follows, providing 12.3 percent of Africa's exports (FAO n.d.). These are the most up to date available statistics.
[171] Collectively fish and crustaceans were one of the top earning export commodities in terms of value, accounting for an annual average value of NAM $6,529 million between 2008 – 2017 (NSA 2017).
[172] This statistic has been taken from MFMR's 2012-13 Annual Report. This is the most up to date published statistic.
[173] Fishing is a low contributor to GDP when compared to mining, which accounted for 11.3 percent of GDP in 2017 (NCP 2018: 8).

conservation INGO representative elaborated on this when they were asked why they felt there had been such a strong response to phosphate mining in Namibia:

> Fishing is one of the key industries in Namibia. [Namibians] pride themselves on their fisheries as a *national asset.* I think they are one of the top three to four countries in Africa for producing fish therefore the potential loss of resources is very important. *They haven't got much else going on*. In South Africa fishing is not as big a priority to highlight the risks we are playing with here.[174]

The perception that Namibia does not have "much else going on" provides justification for the framing of its seas as the dominion of the fishing industry, and for the continuation of the perceived centrality of fisheries as a collective contributor to economic sovereignty and protector of sovereign resources. However, the blue economy opens the marine scape to new activities, including mining, that threaten this ideal.

The historical context(s) under which actors entered the marine scape – and the associated erasure of social dynamics discussed in Chapter 5 – continue to influence the Namibian state's attribution of weight to different uses. The fishing industry in Namibia has consequently been accused of assuming a "king of the castle" attitude in regarding the marine scape as solely its own domain. [175] Here, the fishing industry is portrayed to be the sole, legitimate ruler of the EEZ, thereby moving away from the principle of state sovereignty and replacing it with the idea of one sovereign industry: in this case, fishing. In accusing fisheries of assuming a sovereign-like mindset, an environmental umbrella organisation representative, also claimed that the Minister of MFMR "sees [the marine domain] as his chiefdom. He is the *god* of the coastal and marine environment".[176] The use of the word "god" indicates that the dominant power in the marine environment is perceived to be that of the MFMR and associated fishing industry. However, the use of the word also brings to the fore the spiritual dimensions of oceanic sovereignty discussed in Chapter 5. Here only a god could rule over or own the sea. The fact that the Minister of the MFMR is perceived to be the only individual that knows and can tame the sea, by virtue of their position and power to access and manipulate the marine scape, enables them to appear god-like: their sovereignty over the domain unquestionable.[177]

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[174] Interview 13.
[175] Interview 5.
[176] Interview 23. Emphasis added. This point is supported by Andrzej Polus and colleagues who, while discussing the potential for offshore oil concessions, presciently warned that while their inability to be looted reduced the potential for conflict over resources, conflict could emerge instead between the oil sector and the fishing sector due to the latter's (perceived) integral role in Namibia's marine scape (2015).
[177] Discussions of spiritual sovereignty are outside of the remit of this thesis. However, following the arrival of Christian missionaries in the early nineteenth century, Namibia became one of the most Christianised countries on the continent (Horn 2008: 410). As such, Namibia experienced the suppression of its spiritual sovereignty which may have contributed to the present-day a dominance of discussions of economic and state sovereignty in the marine scape, in which fisheries are framed as the sovereign.

Fishing versus mining

New and emerging industries, including seabed mining, directly challenge the sovereign claims of the fishing industry and their (perceived) ownership over this space. When competing claims emerge, as they have with marine phosphate mining, these spaces become arenas of contestation within which conflicts play out (Peluso and Watts 2001a, b). However, unlike the arenas of contestation discussed by scholars such as Peluso and Watts, the volumetric nature of the sea complicates these conflicts and will be unpacked below. Those actors who already operate offshore are challenged by other potential players agitating for influence in the same space.[178] While the state as a *de facto* landlord is responsible for attributing licences to the fishing industry and awarding mining licences to marine phosphate projects, both entrants have different, but entangled, claims to ownership in the marine scape. While the challenges that arise from the mobility of fish between landowners in the marine sphere have been considered by wider scholarship (see Campling and Havice 2014: 722), there are concerns from the fishing industry that extraction has the potential to interact with the property rights of fish, challenging and threatening fishing rents. The mobility of fish also brings in external sovereign views and challenges, with the potential to further entangle the sovereign powers of multiple states and non-state actors.

The economic potential of phosphate mining has acted as a catalyst for the emergence of contestation in the marine scape. The contestation between fishing and mining capital interests was evidenced by an industry umbrella organisation representative who voiced concerns about protestation affecting projects, when "[the mining industry] are underpinning the Namibian economy".[179] Here it is apparent that (at least) two different visions of sovereignty are coalescing within the marine scape and alternative arguments for economic sovereignty are entering an arena traditionally dominated by other players. For example, the MFMR, which is responsible for the blue economy as per the NDP5 legislation, has been accused by other ministries, mining industry actors and (formalised) civil society of possessing "a vested interest and [being] territorial."[180]Here, "territory" is framed in a functional manner, indicating how the principles inherent to sovereignty have been translated into the economic sphere. The environment has been made visible through capital, a process that masks the (geo)physical dynamics of the sea, and in turn emphasises the importance of territorial rights. Indeed, in Namibia's marine environment, according to one interviewee, new entrants are a "clear danger to an old industry… When money matters, issues come to the fore and they create a situation where you protect an existing industry".[181] In this way, seabed mining threatens to erode traditional economic and state sovereignty as imagined through the fishing industry.

The contestation between two industry stalwarts (fishing and mining) is predominantly viewed through a terrestrial lens that simplifies this contention. In doing so this lens

[178] Interview 8.
[179] Interview 43.
[180] Interview 23.
[181] Interview 16.

obscures the fact that these struggles over resources will happen at depth and in a voluminous space. As such, the contestation over the entry of marine phosphate mining into the marine scape is simplified and has been described as a "basic territorial conflict"[182] for ownership of the space. This is an oversimplification, however on two counts. Firstly, conflict is never basic. Secondly, the phrase "territorial" – a word derived from "*terra*" or "*la terre*", – pertains to the land, and emphasises distinction from the sea (Elden 2011: 805; Lefebvre 1974: 374–375). Additionally, the EEZ is not formalised as state territory but is instead characterised by different sovereign rights. Given that the marine scape possesses different (geo)physical characteristics as it is a three-dimensional, volumetric and fluid space, territorial conceptualisations of contestation cannot be transposed to the sea. While the role of the vertical and volume has been recognised in land-based discussions of sovereignty (see Bridge 2013; Elden 2013), conflicts in the sea occur in a dynamic space. Here, there exists a multitude of interests, and these interests coalesce rather than adhere to the expected planar level that they profess to occupy (the seabed, water column or surface). These characteristics therefore complicate discussions of sovereignty and challenge the perceived simplicity of such conflicts. This contention enables one to unpack the ways in which discussions of sovereignty are complicated by the marine scape's unique characteristics. This chapter now turns to discuss how these characteristics affect accumulation strategies, through the lens of seabed mining.

The characteristics of seabed mining

Despite the accumulation of phosphate deposits occurring in the seabed and subsoil, extraction in Namibia will not be a static process, and nor will minerals move between discrete points (see Steinberg and Peters 2015: 257). Up to five vertical meters of mineral-containing sediment is proposed to be extracted from the seabed, using a trawler suction hopper. This material is not fixed (Steinberg and Peters 2015) and will be dragged horizontally across the seabed in a process that occurs within the volume that encapsulates it. As discussed in Chapter 5, Namibia's seabed is not smooth, illustrating the heterogeneity of volume (see Billé 2018). Additionally, deposits vary: there are hills – evidence of accumulation where long-past violent currents and tides have compacted the sediment – and rivets – where currents and tides carved out the organic matter, passing them to fish and other species to consume.[183] These deposits have formed over time as a result of previous phenomena and their movement across the seabed is projected to release plumes. These plumes are predicted to occur when the sediment is disturbed and may release toxic materials or suffocate species on the seabed. As the material is sucked up through the tube, there is concern from both the fishing industry and conservation actors that plumes will be left behind to interact with the water and species around it, thus illustrating the dynamism of the marine scape.

[182] Interview 23.
[183] Interview 32. See Chapter 5 for further discussion of the characteristics of the seabed.

The suction hopper which will contain the sediment also coalesces with the water, through each movement. As the sediment moves up through the water column it will interact with the species, activities and legal regimes that pertain to each area. As sediment comes to the surface, it is landed onto a vessel. Here the sediment will either be sorted – the phosphate separated and thrown back into the sea below, coalescing with the water before resettling elsewhere – or landed for beneficiation on terrestrial territory, Namibian or otherwise.[184] Throughout this process marine phosphate will interact with different actors, at different levels, with different understandings and interpretations of sovereignty. This entanglement and resultant contestation are evidenced through fishing and mining entities. As a business network representative explained: "Fishing is against mining. It is now a case of who is going to win".[185] The idea that this individual was drawing on was that a competition exists between two entities who hold differing but overlapping claims to the marine scape, however this is an oversimplification.

The unique characteristics of the potential extraction of marine phosphate move discussions away from traditional understanding of vertical sovereignty, to consider the role of volume. Mining and fishing activities do not adhere to terrestrial imaginations of a split estate and nor do they pertain to one planar level, or sovereign regime, within the EEZ. When asked how the marine environment complicates discussions of resource ownership, a mining industry representative explained that:

> On land the resources are in one particular place. Fish are not stationary. How do you then say the fishing happens within this fishing area here? How do you say that they're not going to go over and swim or cohabit in an area that's being mined? From that angle it is quite difficult. It's quite blurred.[186]

Marine phosphate mining has been positioned as a "clear danger"[187] to fisheries due to the potential for associated plumes to detrimentally interfere with fish species, especially hake and their breeding grounds.[188] In Namibia, hake must be fished at depths greater than 200 meters and trawling typically occurs at a depth of between 200 and 400 meters (Gordoa *et al.* 2006). Phosphate mining is proposed to initially occur at depths of between 180 and 300 metres (NMP n.d.), although deposits occur at depths of up to 800 metres.[189] In contrast to the horizontal planes that divide the marine scape into the seabed, water column and surface, hake exhibit both horizontal and diurnal vertical behaviour, meaning that they also move up and down the water column. In doing so, they typically aggregate at the bottom during the day and migrate upwards during the

[184] There is not yet clarity on where beneficiation will take place, whether in Namibia or in pre-existing plants in South Africa.
[185] Interview 7.
[186] Interview 17.
[187] Interview 16.
[188] Interviews 4, 5 and 11. Hake is the most important species to Namibia's fishing industry. While the hake spawning peak occurs in October (Gordoa *et al.* 2006), this is not uniformly the case.
[189] Interview 34.

night (Huse *et al.* 1998: 369, 372).[190] This vertical movement influences fishermen to adjust their strategies accordingly by shifting to deeper waters.

Given the marine scape's volumetric, three-dimensional and fluid characteristics the fishing industry, NGOs and INGOs expressed concern that if plumes occur as a result of phosphate mining, the potential release of toxic minerals would negatively affect the marine environment and associated fish species. A representative of the MFMR argued that this potential was complicated by the EEZ's (geo)physical characteristics, saying that, "With marine mining, if you pump out back waters into the ocean there are problems. With terrestrial mining it might release a bit of dust into the desert."[191] In the case of the former, this could negatively affect the fishing industry's accumulation strategies.

Unlike in the case of terrestrial mining, the implications of environmental issues are not confined to one location or, indeed, one state: plumes have the potential to circulate sediment through the three-dimensional environment, with impacts moving from the seabed to the water column. Seabed mining is not discrete and occurs in a volumetric space as discussed above. These plumes will not be static phenomena; the released minerals will disperse into the water column, interacting with the turgidity of the sea and its currents. The differing challenges presented by seabed mining were articulated by a ministry representative:

> RC: Why do you think there has been such a response to marine phosphate mining compared with terrestrial mining?
>
> Interviewee 8: Obviously terrestrial mining is on land and you can see what you are dealing with. In terms of the ocean, it is a column of water and you have to use technologies to see what's on the ground. You need specialised equipment to mine offshore and you have no direct contact with the seabed, so you have to use technology to see what's down there. When mining offshore it is easy to extract the deposit, you don't need to dig. On land, first you have to dig and mine ore meters down. The fluidity of water is also a challenge. When you mine in water there is the potential to carry the sediment away. It's not as easily controlled as when on land.

As a result, the released material will no longer exist at a discrete point in terms of location or time. The volume in which it enters shifts, such that the material and its associated impact no longer exists at that locality (see Steinberg and Peters 2015). In the case of currents and flows it may also not remain in or affect Namibia's EEZ. Concerns that the affects may be transboundary, impacting South Africa's or Angola's EEZ have been raised.[192] This has the potential to affect external states' strategies in their EEZs. States invest in protecting breeding grounds for the mobile species that they

[190] Hake are often found to amass around sixty meters from the bottom however, younger hake do move more extensively than those over 20 cm in size (Huse *et al.* 1998: 372).
[191] Interview 31.
[192] Interviews 5, 13, 41 and 42.

deplete. This means that they, as well as transboundary states, benefit from the resultant catch as the mobile species move in. However, the practices in other EEZs, including seabed mining projects, can also affect accumulation strategies in another state's EEZ.

The impacts of activities also cease to apply to one timeframe. Impacts of marine phosphate mining are unlikely to be immediately visible: a union representative explained, "If [hake] are affected then this will be seen years later as stocks deplete. When phosphate mining starts, operations may not see an immediate change. But the fish stocks will deplete as a result, taking decades or more to recover".[193] Terrestrial understandings of resource sovereignty therefore simplify the reality of how the marine scape constantly changes over time and its impact on sovereignty. As this volume is constantly moving and changing the state cannot own, or have sovereign rights over, the volume itself. The process of seabed mining moves away from the traditional container concept of state sovereignty (Steinberg and Peters 2015; see also Agnew 1994). Sovereignty over that volume is therefore temporary. The volumetric marine scape evolves and is eroded by previous and continued overfishing that itself may not be immediately obvious. This is evident when considering that the environment Namibia inherited at independence, due to time lags and the effects of trawling and overexploitation, may not have been immediately indicative of the marine scape that Namibia consequently had sovereign rights over.

The potential of phosphate mining clearly indicates that by perceiving the environment through an economic lens, one can determine the competing and conflicting claims occurring within and characterising this fluid, three-dimensional space. However, discussions of sovereignty continue to adhere to two-dimensional and terrestrially-influenced thinking. As such, fishing industry representatives also argued that they do not want to see "the sea carved up into blocks [for mining] like it has been on land."[194] This ignores the fact that neither fish nor the proposed method of seabed mining are static. As discussed in Chapter 5, the marine environment complicates these issues of ownership, its physicality affecting the potential for demarcating these blocks.

Controlling the marine environment

Challenges to delineation complicate traditional strategies of exerting resource sovereignty and bring conceptualisations of territory into focus. Here, "blocks" are imagined as spaces to be filled by the seas' volume, enabling the exertion of sovereignty over the apportioned sea. However, water is not static and does not adhere to containment by the state or an industry (Steinberg and Peters 2015: 254). This perception is being challenged further by the emerging contestation over phosphate mining in Namibia: one industry organisation representative explained, "If you divvied things up there will be overlaps in the ocean… Until now everyone has been responsible for their own resource. There are some resources that straddle the borders".[195] Unlike in the case of landed extraction, where there is legislation that addresses reimbursements

[193] Interview 8.
[194] Interview 36.
[195] Interview 36.

when mining licences overlap with agriculturally-productive land,[196] marine phosphate mining has created contention due to its potential effect upon fishermen's accumulation strategies. The dynamics discussed above support the imagination that the opening of the blue economy has led to the fishing and mining industries being considered as the only potential controllers of this space due to their ability to control volume. The rhetoric of "control" was observed throughout the fieldwork interviews conducted for this thesis.[197]

The fishing industry's understanding of marine phosphate mining as a challenge and their desire to control narratives pertaining to the marine scape was conspicuous throughout fieldwork. The industry's discourse centres on the sea's economic potential, as opposed to its social, cultural or environmental importance, reflecting the historical and continued commodification of the space. In various capacities fisheries have been involved in generating media interest and public discussion, including publishing articles and coordinating protest walks. They are supported in their efforts by formalised civil society, and particularly by advocacy organisations such as Swakopmund Matters which is an organisation with an anonymous membership. Capitalistic regimes have been accused of using the oceans as a laboratory (Campling and Colás 2017: 3), and these actors have suggested that this is occurring in Namibia (in their words, Namibia is a space in which other states can test their own technology).[198] Interviewees voiced their concerns that other states have not considered exploitation in their own EEZs due to their fear of environmental damage occurring, but are nevertheless using Namibia as a laboratory under the guise of development.[199] This has resulted in claims that the process of granting licences for seabed mining in Namibia has been opaque:

> *The whole process [of granting licences] is totally un-transparent*. The company was given the green light and then this was leaked on social media, I assume by people who were unhappy... This resulted in outcry from the population which led the Ministry to withdraw the certificate. One mining company is saying that they can't withdraw and there is one court case…The people are concerned. Why must we be the guinea pig country? *Fishing plays a huge role in the economy. Someone else should do it*.[200]

Such concerns illustrate that industry actors, particularly those already operating in the sea, feel that state processes pertaining to seabed mining are not transparent. This opaqueness allows for the proliferation of various (mis)interpretations of what seabed mining will mean in Namibia and who is included within or excluded from the marine sphere. This absence of transparency was highlighted by an independent think tank representative who explained that:

[196] Interview 17.
[197] Interviews 3, 4, 6, 8, 11, 15, 20, 21 and 30.
[198] Interview 41.
[199] Interviews 4, 18, 33, 35 and 42.
[200] Interview 35. Emphasis added.

> The issue is that the [mining] legislation is old, and the framework is a mess due to issues of capacity in the ministry. Well, capacity or will. With transparency the focus is on licencing, who gets it and what it is worth. Mining companies are also asking for transparency with mining licence applications. You can always say who this opaque structure benefits as there have been corruption allegations before. There is now a new minister in power who has a more positive agenda. It is hard to disentangle.[201]

The physical disconnection between land and sea, and the comparatively limited knowledge of Namibia's sea, has led fishing industry representatives to argue that the reason that concessions are being granted is because the sea is understood by both policy makers and industry players to be remote, limitless and set away from public scrutiny. Here, access to the marine scape is afforded to those possessing specialised technologies that can work in, and manipulate, a fluid and volumetric space. This challenges the idea that there is only one way of knowing the marine environment and that this knowledge solely belongs to the fishing industry. This challenge was expressed by a ministry representative who explained that they perceived the fears about phosphate mining to be unfounded, and that these fears instead resulted from a lack of understanding:

> It is a new activity in that particular space. There's already an industry [fishing] that's been there for many years so there is a lack of understanding and misconception, and fears of the unknown and what will happen. Their main business is fishing. Therefore, I wouldn't expect them to fully understand mining.[202]

The latter sentence was meant pejoratively, which is indicative of the contention between the fishing industry and the mining industry as well as the level of contempt that they hold for each other when discussing the potential for such projects. The fact that this contention is caused by simply "a lack of understanding" links back to discussions in Chapter 4 where it was argued that knowledge-holders – those who know the marine environment – have the keys to unlock the potential of Namibia's EEZ. However, the fishing industry professes to offer visibility to this debate through its position as a trusted defender of the space and its (apparent) legitimacy in Namibia's marine scape.

Environmental Impact Assessments

Unlike conflict over landed concessions which often arises between mining projects and local communities, contention over phosphate mining is on an industry versus industry basis, which each industry vying to operate within a state space. The fishing industry's involvement in the marine scape extends beyond the operational. Alongside claims to the EEZ itself, fisheries are also positioning themselves as custodians of living resources. The dynamic nature of seabed mining and overlap of resources has seen the fishing industry employ narratives to the effect that the extraction of a non-living mineral

[201] Interview 12.
[202] Interview 43.

(phosphate) is in direct contention with living things. A fishing industry representative explained that "mining resources are finite; they have to be mined in a way that is sustainable. Fish are not finite; they are a living resource and it depends on how they are looked after".[203] Here, the non-living minerals are represented by the fishing industry as being situated in opposition to fish. In response to the abovementioned environmental concerns, representatives of the fishing industry have called for a full, independent and transparent Environmental Impact Assessment (EIA) process to be undertaken prior to any mineral extraction being allowed to proceed. Interestingly there are calls for the full EIA process to encapsulate both the marine-based and landed components of extraction, calling into question the untethered conceptualisations of the blue and green economy.[204] They have also voiced concerns over the potential bias of EIAs commissioned by the mining industry in general, as well as the short timeframe within which this specific EIA was achieved.[205] In raising these concerns the industry is situated as the custodian of fish, and therefore the gatekeeper of living resources whose future is dependent on human governance.

The potential for phosphate mining has led to the fishing industry's monitoring practices being called into question. The industry does not undertake EIAs itself and has been accused by civil society of causing extensive damage to the seabed through bottom trawling.[206] As such the industry and the MFMR have been blamed for being "holy about the marine environment"[207] in so far as they appear to consider it to be their domain to exploit and damage as they wish, rather than one that they are required to protect. During my fieldwork interviews, interviewees were quick to critique current fisheries practices and the hypocrisy of the industry, members of which do not uniformly undertake EIAs themselves. For example, a mining umbrella organisation representative explained that "fisheries have resisted… saying, we don't need to do EIAs".[208] This discrepancy was echoed by an environmental NGO representative who argued that:

> The blue economy is mainly fishing and the mining industry at present. Of course, they'd like to expand but the problem with both industries is that there hasn't been EIAs. They have been able to do whatever they want to do. We need to look at these industries too. The phosphate discussions have brought this to the fore.[209]

However, a fishing company representative argued that this oversight and absence of EIAs is a result of the lack of baseline knowledge on the marine scape, given Namibia's colonial experience:

[203] Interview 36.
[204] Interviews 4, 14 and 36.
[205] Interviews 6, 12, 16, 17, 18, 21, 22, 31, 36, 38 and 42.
[206] Interview 1.
[207] Interview 14.
[208] Interview 7.
[209] Interview 38.

> There has not been an EIA on trawling or longlining, and I don't know if it's been done in any fishing companies. There are critics about trawling. We fish at a three-hundred metre depth. There is a lot of trawling that has happened, but we don't know what's changed.[210]

The domination of the fishing industry in what was a previously open access space, subject to colonial exploitation, has allowed industry actors to avoid critique. Simultaneously, the space for formalised civil society is shrinking in Namibia, thus reducing the potential for challenge.[211] However, there is still hope that debates might bring objectivity to current ownership and operations within the EEZ that have remained unaddressed following independence and the formalisation of Namibianisation.[212] As the marine scape is opened to new projects, opportunities are also opened to critique actors, predominantly fisheries, and their practices.

The potential environmental effects of phosphate mining have been conceptualised through discourse around impact on jobs in the fishing industry and Namibia's wider economic sovereignty. This has been central to discussions on the potential challenges to the coexistence of the mining and fishing sectors, which in turn is discussed later in this chapter in relation to issues of graduated sovereignty. In a time when Namibia has such a high level of income inequality and is simultaneously in recession, this is very emotive for the public. However, proponents of phosphate mining have accused the fishing sector of encouraging an emotional and politically-charged debate.[213] In contrast to the dominant rhetoric from the fishing industry as a whole, a representative of the fishing industry challenged the utilisation of a job-related and divisive discourse, explaining that "if you ask any of my workers, they don't care whether it's for fishing or for mining. They just care about jobs".[214] These criticisms illustrate that the pretence of being a custodian of the environment masks the fishing industry's other concerns. The fear is not for environmental degradation alone but the effect that this will have on their sovereign claims over resources and subsequent rent accrual. This challenges the notion that either industry has more of a bearing than the other does on Namibia's economic sovereignty or national identity.

"One Namibia, one nation" – An illusion of sovereignty? [215]

In analysing the marine scape's three-dimensional environment, questions are raised as to who can accumulate in Namibia's marine scape under the auspices of the state. While the marine scape is not state territory, the state still operates as a *de facto* landlord over it due to the establishment of the EEZ and the sovereign rights associated with it. This is particularly important to Namibia given its recent colonial experience and continued

[210] Interview 31.
[211] Interviews 11 and 12.
[212] Interviews 2 and 31.
[213] Interview 7.
[214] Interview 31.
[215] "One Namibia, one nation" was a prominent slogan used during Namibia's postcolonial nation-building project. It embodies SWAPO's nationalist discourse and first emerged in the 1970s (Katjavivi 1989: 74–75).

fears that the marine environment will be carved up as the land was.[216] This chapter has thus far considered the competing claims to sovereignty under the presupposition that the state operates in isolation, but concerns have been raised regarding accumulation strategies. These accumulation strategies and divergent claims will therefore be interrogated in the following sections.

As analysed above, Namibia's marine environment is characterised by an entanglement of both rent and property relations, made explicit through the contestation between fishing and mining (see also Campling and Havice 2014: 722). The extraction of rent through regimes concerned with socio-ecological "assets", such as those proposed by the blue economy, are produced by establishing and regulating property rights (see Andreucci *et al.* 2017; Felli 2014). Here, the Namibian state has a central and politically informed role in rent relations, and through the institutionalisation of property rights and the delimitation of marine space into government-sanctioned concessions, rent is extracted (see Andreucci *et al.* 2017: 39). The ability of the state to establish its own policies without external interference is integral to the independent Namibian state. I observed the deployment of sovereignty rhetoric at the 2017 Mining Indaba. Here, both the Namibian Minister for Mines and Energy and the head of the Chamber of Mines presented on panels discussing the mineral industry in Namibia. I listened as the Minister for Mines and Energy spoke on a panel updating potential investors on Namibia's mineral industry. He stated that as some large economies, including the United States, are not members of initiatives such as Extractive Industries Transparency Index,[217] he consequently viewed these initiatives with suspicion. He argued that, in his opinion, "the sovereign right of African governments is being put in a publicly embarrassing manner" by these initiatives. Strong sovereignty rhetoric was also deployed during the Indaba's "Africa's Mining Vision" panel, at which discussants argued that states including Namibia have "the sovereign right at government level to make laws and deploy laws" (Minister of Mines and Energy 2017). This rhetoric illustrates the importance the Namibian state places upon Namibian sovereignty over resources whether or not this weighting in its discourse translates also to reality.

As a *de facto* landlord of its EEZ, the Namibian state can delimit the types activities allowed within this space and define the conditions of production (see also Andriamahefazy and Kull 2019), assigning not only Fishing Licences (Campling and Havice 2014: 714) but also Exclusive Prospecting Licences and Mining Licences to mining firms for the extraction of marine phosphate. Both activities fall under the blue economy's remit, which in turn legitimises opportunities for capital accumulation in the marine sphere. These opportunities are shrouded in development rhetoric (see Chapter 4), and discourse of economic potential which is pertinent given Namibia's current

[216] Interview 36.
[217] The EITI is a global standard to promote transparent and accountable management of resources, oil and gas. This standard requires signatories to disclose the flow of resource rents and how these benefit the public (EITI 2019).

economic recession. However, as this chapter has unpacked, this rhetoric has resulted in contestation between factions of capital, over who can accumulate under this remit.

While the potential extraction of marine phosphate has been shrouded in the discourse of sovereignty from both the fishing and the mining industries, and while the Namibian state has sovereign rights over the resources within its seabed, the precise meaning of this stipulation has interpreted variously by different factions of the Namibian government. One perspective, for example, is given in the Republic of Namibia's constitution, which declares that:

> the State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following: maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future.
> (1998: 46)

In line with this Namibia's Minerals Policy states that "the Ministry of Mines and Energy facilitates and regulates the responsible development of the minerals sector for the benefit of all Namibians" (Ministry of Mines and Energy n.d.). However, several interviewees highlighted that contrary to the above, dichotomous interpretations of sovereignty existed even at the state level.[218] For instance, the effect of the abovementioned issue of differing interpretations of the constitution was exemplified where different ministries, interpreted the stipulation "for the benefit of all Namibians" in antithetical ways to support their own agendas. This in turn has been exacerbated by marine phosphate mining. One interviewee explained: "the MME is using the constitution to back up their plans to mine [marine phosphate] for the benefit of all Namibians. The MFMR are using the same quote against this".[219] Interviewees also challenged the notion of the state acting "for the benefit of all Namibians", including future generations, questioning who benefitted from Namibia's resources and, going forward, who would benefit from the proposed marine phosphate mining developments.

While the state is framed as a landlord of its territory and resources therein for all Namibians, this is at least in part an illusion. Namibia is characterised by deep-rooted systemic division, including apartheid rule. This has been discussed in relation to land (Melber 2005; Wallace and Kinahan 2011), however there is also a legacy of exclusion in the marine scape. Therefore, before this chapter analyses the involvement of external non-state actors, it will challenge the state claim that emerging policies in the marine scape are for the benefit of "all Namibians".

Antagonising the Namibian binary: invisible marine scape, invisible marginalisation?

The legitimacy of "all Namibians" is nonbinary. The marine scape is not voided in a homogenous manner for all Namibian citizens; rather the pattern of voiding reflects

[218] Interview 1.
[219] Interview 1.

historical social gradation along racial lines. The erasure of Namibian citizens from the imagination and policies related to the sea scape has occurred both historically and contemporarily. This was recognised by a consultant who explained: "When you look at Namibia, colonialism and apartheid you can see that we couldn't enjoy permanent sovereignty over [our] natural resources. Resources should be used in a way to benefit the collective population, not only a minority or elite group".[220] Interviewees indicated that, immediately following independence, government policies were viewed by Namibians to be progressive and to be conducive to addressing these systemic inequalities.[221] While the marine domain was not historically considered to be the domain of "all Namibians", this binary can be further fragmented. Interviewees reflected on Namibia's history, expressing their sentiment that *de facto* apartheid policies are still in effect today.[222] This indicates that changes in the use of an environ or the resources therein are often informed by "deep-rooted, invisible, systemic conditions and historical conflicts" (Mathevet *et al.* 2015: 17). Despite the perception that the sea as invisible and that it is void of sovereign claims, the legacy of apartheid and marginalisation remains entrenched offshore.

While comparatively more NGO and government attention is given to terrestrial land rights, ownership claims and redistribution,[223] the invisibilities of divisive rule along racial lines, including apartheid, also remain in the marine scape. These subsequently serve to exclude claimants. The history of the sea is as much a part of Namibia's colonial experience as the land. Black Namibians were historically excluded from positions of power conferring ownership over elements of the fishing industry and remain excluded from it today. Most skippers in the industry are white and the trajectory of black employment continues to centre around their being exploited for cheap labour and via temporary work (Draper 2015: 294). This reflects the systemic conditions and conflicts that underpinned Namibia's colonial experience. Racial divisions in the fishing industry are also visible onshore. Each time I visited any given fishing company in Walvis Bay, I was driven through that company's secure and guarded gates. Nearby, the Kuisebmund township (the apartheid town for workers in Walvis Bay) stands as evidence of the (continued) disparities between workers and fishing quota-holders. Kuisebmund illustrates the entrenched colonial divisions that remain in Namibia today and continue to socio-spatially marginalise communities racialised as non-white, thus affecting their ability to assert claims to the marine scape.

Colonial violence has not existed in an isolated geographical location; rather, it has transferred from the land to the sea as well as from the sea to the land. Both Swakopmund and Walvis Bay have prominence within colonial narratives where they were described as safe harbours for colonisers and enablers of the expropriation of

[220] Interview 42. This was also referenced by interviews 11 and 12. The role of elites will be unpacked in the subsequent section.
[221] Interview 11.
[222] Interviews 6, 18 and 20.
[223] See Melber 2019 and Thomas Falk and colleagues (2017) for further discussion of terrestrial land redistribution.

resources (Kalb 2018: 4-5). This highlights how expropriation was central to the history of the marine scape. However, to refer to these areas as safe harbours is in fact to give them a clear misnomer that masks the brutality of colonial rule. During German colonisation, a concentration camp for the Herero operated in Swakopmund and its prisoners, some whom were incarcerated offshore, were involved in the building of railways and harbour works, including ports and jetties.[224] It was this infrastructure that "underpin[ned] the economy of South West Africa" (Wallace and Kinahan 2011: 175) and remains integral to the economy of independent Namibia today. Through the construction of these harbours, the (in)visibilities of colonial violence persist on the coast and are subsumed into the landscape and seascape.

The subsumed divisions also marginalise individuals and prevent them from having a voice in debates such as marine phosphate mining. When one walks through Swakopmund, it becomes apparent that the physical and structural remnants of Namibia's colonial past(s) continue to punctuate the coastal landscape. A single German colonial-style house framed by palm trees might, on its own, appear to be a peculiarity. However, collectively, the dominance of colonialism throughout the city's architecture has resulted in a spatial legacy that aptly sees Swakopmund colloquially referred to as "Bavaria on the sea" and "Little Bavaria" (see also Mwakikagile 2015: 308). This terminology alone reinforces colonial dominance. But colonial legacies and racial segregation continue beyond architecture and remain entrenched on the coasts adjacent to the proposed sites of marine phosphate mining. This entrenchment is not limited either to terrestrial localities or to the marine sphere. Over time, this violence and segregation has been both shored and unshored, illustrating that the marine scape as an entity is not disconnected from the land.

Structural embeddedness remains and areas adjacent to the coast are characterised by racial fragmentation. Those with properties or businesses are often elites, and particularly those within the elite who are racialised as white.[225] These individuals have also been vocal as civil society actors in the marine phosphate debate. As such, the outcry has been considered by several interviewees as being dominated by elite voices.[226] Whilst a formalised civil society exists in Namibia, involvement in civil society is often the preserve of educated elites who are shaping agendas, and this challenges the extent to which Namibian civil society is representative of the Namibian public. The dominance of a "white voice" has also been raised by interviewees concerned that white elites have often been the most vocal within both the NGO space and through advocacy networks in Namibia, a resonance that extends to marine phosphate mining. On this matter, interviewees referred continued German and South African presence in coastal towns, a sentiment that was also reflected colloquially.[227] These dominant voices also illustrate how sovereignty over resources is enacted when

[224] Forced labour was also utilised in the construction of a harbour in Lüderitz.
[225] Interviews 11, 15, 25 and 37.
[226] Interviews 11, 15, 25 and 37.
[227] Interviews 6 and 12.

an independent state's formalised civil society is not an ideal-type (Keane 1998: 6), but one that stands to shape the formalisation of marine policies in Namibia.

While discussing terrestrial land rights, but nevertheless also bearing relevance to the fisheries and the mining sector, a former local NGO worker spoke of the change in the government's flexibility and willingness to push through progressive policy changes to address the implications of apartheid and segregation immediately following independence:

> Since independence there was a genuine desire from the new government to give communities, black Namibians, the same rights over that commercial white farmers had held since before independence and that was risky, and I think that it's a product of its time. It was post-independence lots of energy and government wasn't yet this kind of monolithic beast that's highly centralised so there was this real desire to give rights back and to demonstrate that independence would look different to how things were managed in the past and as a result of that some quite ground-breaking and very progressive policies…. I think that as power gets consolidated and as things get more bureaucratic and government becomes more trenched it gets harder and harder to decentralise. I think that there isn't that same drive that there was initially.[228]

This was supported by an NGO worker who explained that the government contemporaneously became a centralised and monolithic behemoth that has allowed the elite capture of resource rent to take place on land and in the sea.[229]

Rent capture

Given its recent history of (over)exploitation and embedded apartheid policies, the post-independence Namibian government's agendas initially sought to address elite appropriation and structural divisions. Drawing on claims of national sovereignty particularly over resources, government policies were progressive. However, in recent years SWAPO's progressiveness has been criticised as being illusionary and claims of rent capture have arisen (Melber 2014). The contemporary political landscape in Namibia offers insight into the centralisation of the Namibian government's functions and the climate that has enabled the realisation of the potential for the capture of resource rents. This has been seen with regards to fisheries and is feared to be mirrored in the case of marine phosphate mining. The political landscape has been critiqued for enabling the practice of corporate representatives meeting politicians, often individually. An umbrella organisation representative explained the reasons why they felt that these private meetings occur:

[228] Interview 15.
[229] Interview 15; see also Melber 2014.

> Interviewee 11: Because of the general political landscape. There is an inbuilt SWAPO majority. There's no pressure for the ruling party to steer clear for fear of losing support because of the total hopelessness of the opposition parties. They are totally unable to provide a viable alternative, conceptually or organisationally, so you vote SWAPO or don't vote at all. This has paralysed things to some extent. There is no alternative that would allow the electorate to say no. There are parallels with the ANC in South Africa but in Namibia there is no public pressure on the government.

Despite being viewed internationally as a bastion for transparency in the extractive industry in Africa, Namibia's management of its mineral resources has been referred to as "opaque and vague" (Polus *et al.* 2015: 44). Throughout my fieldwork this concern was also raised about marine phosphate mining by various interviewees.[230] The Namibian state's actions have yet to reflect SWAPO's rhetoric, not least given that post-independence, economic policies have enabled the growth of a "parasitic class" which has come to appropriate public resources (Melber 2015). As such, the Namibian state is projecting a duality: while it articulates strong public sentiments against colonial oppression, this rhetoric is not always reflected in the state's actions. Given the blurring between the party and the state, concerns have been raised over the inevitability and endemicity of corruption in Namibia[231] and the government has been accused of continuing the exploitation of, and discrimination experienced during colonial rule (Melber 2007b: 110).

Namibianisation, which is arguably one of the flagship projects designed to reinforce the sovereignty of the Namibian state, has been criticised for enabling elites to accrue rent and has accused of being illusionary (Melber 2003). The question of Namibian ownership has been challenged, as its apparent simplicity is complicated when proxy- and cross-ownership occurs, and the state's share of resource rents is lowered (Kirchner and Leiman 2014; Melber 2003). Namibia's reliance on foreign investment in both the fishing and the mining sectors and continued exploitation by external states and industries, under the guise of nationalistic policies, indicates that declaring Namibian sovereignty over resources does not automatically translate into reality. Simultaneously, the presence of nationalistic resource policies does not mean that the extractive space is devoid of extraneous actors (Childs 2016). However, identifying the dynamics and actors involved in fisheries is fraught with difficulty (Winder and Le Heron 2017: 11); one fishing industry actor stated:

> Every country worldwide has a 200-nautical mile fishing zone, but in retrospect you have to ask to who this belongs to in Namibia. I don't think it belongs to Namibians…. I, as a Namibian, don't have a quota. We need to look at the ultimate beneficiary: these are mostly overseas.[232]

[230] Interviews 17, 21, 25, 29 and 35.
[231] Interviews 11, 12 and 17.
[232] Interview 31.

The latter point highlights the concerns held by domestic actors as most of the markets exist outside of Namibia (as discussed in Chapter 4). Therefore, if fisheries are framed as having ownership over the marine scape but do not represent Namibians' interests, then questions arise as to whose interests they represent instead and the extent to which Namibian sovereignty over resources is subsequently eroded. While states have sovereign rights over resources within the seabed, power dynamics affecting extraction operate across different planes: both internal and external actors are involved in the water column and surface of the environment and this influences the politics of the subsoil. These dynamics challenge a given states' sovereignty over its minerals, moving the capacity to direct property rights and rent in the sea away from that state. This becomes further complicated and commensurately more pertinent as the blue economy agenda begins to legitimise new accumulation strategies in Namibia.

While the Namibian state has sovereign rights over its EEZ, this legal precedent merely indicates the geographic location of ownership. It does not, however, account for the fact that the (geo)physical nature of the sea and the socio-economic relations therein affect the methods of appropriation of resources used by either the sovereign state or the capitalist firm (Campling and Colás 2017), or indeed who can access the marine scape to accumulate. Traditional, terrestrial approaches that enable claimants to secure access to land and resources include the delimitation of boundaries and the establishment of property rights (Sikor and Lund 2009: 14). These definitions of accumulation are determined not only by the state, but also by non-state institutions, which inform practices including through the provision of knowledge about potential sites of extraction, claimants and methods of accumulation (Sikor and Lund 2009). However, given the nuances of territorial stratification and projections of sovereignty that exist within the EEZ, the extent of involvement by representatives of donor organisations, industry and external states in the sea is opaque, particularly due to the three-dimensional and fluid nature of the marine sphere. The fact that the sea's (geo)physical characteristics complicate claimants' rights to accumulation was highlighted by a development NGO representative in Namibia:

> RC: How does working with the sea as a space differ from working on terrestrial land?
>
> Interviewee 40: The sea is out there, its not easy to access like land. This complicates it. Very few stakeholders can go and see what's happening there. The nature of the environment has complicated things. It [the sea] is also mobile. Resources are also mobile. Fish go here and there and this complicates things.

The sea's (geo)physical characteristics reduces the range of actors who are able to enter and unlock the potential of this space. Given the mobility of the sea and resources, mining can also affect fisheries' abilities to accumulate. An INGO representative in South Africa highlighted how this complicates claimants' rights to accumulation, when compared to terrestrial contestation:

> Interviewee 13: Terrestrial issues take place on someone's land. In the ocean there are not clear property rights and incentives for good behaviour and involvement are not there. The ocean is also far from the average person's daily existence: they don't engage with the oceans as much. There is also a difference with stakeholders. With terrestrial mines there are a lot more stakeholders due to property rights. In the marine environment there are fewer stakeholders, often with less legitimacy. If they are the landowner, then they have a legitimate right to complain and say don't mine. But if they are a member of the public why are they a relevant stakeholder?[233]

Here, "legitimacy" is gradated and attributed to select (human) actors and masks the interests of communities. When analysing the appropriation of marine mineral resources by the state, the physicality of the marine environment immediately presents challenges over who has access. These same challenges will be extended to other operations in the blue economy agenda, as "the marine sector does not have direct accountability. There's a perception that it is the domain of government and big business and not the domain of ordinary Namibians".[234] This perception has enabled the voiding of Namibian citizens' legitimacy within this space, leaving the fishing and mining industries in their place as the dominant actors. However, as demonstrated by the court case brought against the government by an appellant based in Windhoek, interests and claimants to the marine scape cannot simply be circumscribed by locality.

The combination of the emptying of the marine scape of potential claimants and the continuation of one-party dominance in Namibia has enabled the appropriation of resource rents by elites in both the mining and the fishing industry (Melber 2014). Additionally, this dominance is considered to enable the embeddedness of institutional apathy across public authority, such that paralysis permits a climate for the capture of rent. The fact that the offshore locality of marine mining projects moves this rent capture further from public scrutiny exacerbates this situation, and this has not been lost on local NGO, INGO and advocacy movements.[235]

Appropriate appropriation: Sovereignty for whom?

> *"The whole question of natural resources is whether they belong to the people of the country…there is unhappiness in this country. It all boils down to ownership... 85 percent in this are foreign. 15 percent will go into the pocket of one guy. Where is the benefit to Namibians?"*[236]

The above sections have illustrated the range of competing claims over the marine scape that are revealed when the marine scape is considered to be three-dimensional and untethered. While the state professes that "all Namibians" will benefit from its management of Namibia's resources, my fieldwork results have demonstrated that the

[233] Interview 13.
[234] Interview 15.
[235] Interviews 21, 27, 38 and 39.
[236] Interview 34. This ownership division was also cited in interviews17 and 38.

offshore location of marine mining erases the idea that this is a space for "all Namibian." In recognising this, it is important to question how rent is being accrued under the auspices of seabed mining and the blue economy and who will ultimately benefit. This includes antagonising elite involvement and reliance on FDI. States, under neoliberalism, have increasingly orientated their policies towards FDI. However, this orientation and establishment of an investment environment that enables FDI can result in the elite accrual of rent (Harvey 2005). Where state ownership over resources does exist, strategies of accumulation are uneven and this gradation of sovereignty and citizenship enables the Namibian state to capitalise on global and local opportunities (Ong 2006: 72, 77). This distortion has masked the interests of communities, which in turn remain unaddressed (Melber 2014). This chapter has so far unpacked the role of the state, and the conflicting interpretations of sovereignty that exist in the marine scape. However, despite the inherent divisions between land and sea that are encountered when studying the green and the blue economy, sovereign claims are not situated in isolation within the marine scape. The perceived disconnection between the Namibian population and the marine environment has exacerbated this distortion, with administrative decisions being made under the assumption that the marine scape is empty of social actors and dynamics. Rent appropriation from marine phosphate is framed by the Namibian state and industry actors as something that is in the interest of the nation and this sentiment is reflected by its inclusion in the blue economy agenda. However, this binary must be interrogated.

The blue economy presents opportunities for, and the legitimisation of, extraction. However, marine phosphate extraction requires new technologies and knowledges to be developed as a prerequisite, in the case of Namibia this requires external involvement. This in turn further enables the state and corporations to circumvent other actors, including civil society, and this is made easier due to the location and (geo)physicality of the sea.[237] Sovereignty is therefore not a "container concept" but is instead the result of administrative decisions that lead Namibia, as well as other states, to deploy sovereignty in a flexible manner (Ong 2006: 70). This gradation of sovereignty has been utilised by the Namibian government to legitimise its policies (see Dodds 2012: 993; Elden 2009) but additionally provides opportunities for political elites to accrue rent.

While Namibian ownership of the phosphate mining project has been highlighted by the mining industry and the MME, as above mentioned, a 15% stake has been attributed to an individual that interviewees described as a well-known "tenderpreneur".[238] A tenderpreneur (the word being a portmanteau of "tendering" and "entrepreneur") is a

[237] Given the absence of artisanal fishing and human settlement on Namibia's coasts, combined with the (geo)physical characteristics of the ocean, it is easier to erase inherent socio-political dynamics and contestation. However, contrary to this argument, the potential of marine mining has been met with resistance. Sovereign projections over both space and minerals therein remain important. This contrasts with the assumption that the physical distance between the population and the sea equates to a disconnection of interest. Union leaders and NGO representatives in Namibia take an antithetical stance to government ministries and mining companies by arguing that the disconnection between the populous and the sea as an extractive space has resulted in a more rigorous questioning of marine mining in comparison to that resulting from terrestrial extraction projects.
[238] Interview 11.

phrase used across Southern Africa to describe an individual who utilises their political influence to secure tenders and contracts (see Beresford 2015). As such, Namibian's have expressed dissatisfaction regarding the uneven distribution of resource rents stemming from their uncertainty as to who really benefits from the concept of "Namibian ownership".[239]

The idea of "Namibian ownership" of the project was criticised for equating to one Namibian individual's ownership, who is known for "paper pushing".[240] In voicing their concerns about the involvement of elite individuals in propositions, interviewees indicated that there was an embedded apathy throughout the Namibian population towards this matter as it was considered by Namibians to be commonplace.[241] A representative of a union organisation explained how the initial optimism about Namibia's sovereignty over resources and the potential benefits of exploitation had been eroded over time: "the question is not just to get one or two individuals into power, we need to spread benefits more widely… If you are seen at events and make donations, then it can enhance your career and you have access to tenders. We have moved from selflessness [pre-independence] to selfishness [post-independence]".[242] While discussing sovereignty over marine phosphate mining, several interviewees referenced the involvement of one businessman, who they named as Knowledge Katti.[243] Katti's perceived involvement with marine phosphate mining was summarised by a representative from an independent think tank, who said:

> [Katti] is an infamous character. He is a big part of the perception that corruption is entrenched…With mining most people assume that he has connections with the ministry. It is hard to know if entrepreneurs are just the lucky ones who got the tender and are the most visible.[244]

A union representative explained that "here we have corporate capture of the state, with access to resources there is the ability to cut politicians in. If this goes unchecked, then there is further corporate plunder".[245] This paper ownership moves the potential for marine phosphate mining even further away from criticism. In the case of terrestrial mine sites, or even offshore oil platforms, licensees can visit or see extractive sites for

[239] Interviews 17, 34 and 38.
[240] Interview 9.
[241] As a union representative explained, "there is a general passiveness amongst civil society… the contracting of social movements allows these deals to happen" (interview 11). This observation sits in direct contrast to the momentum that was visible during the independence movement, with concerns moving from collective struggle to individual struggles. The continued one-party dominance of SWAPO has also led to embedded apathy, both within and externally to state organs. Exhaustion following Namibia's independence movement campaigns, combined with the rise of a new generation of Namibians who did not personally witness previous struggles, has led to a reduction of public interest in engaging with issues such as rent-seeking. Similarly, the untouchability of those in power is exacerbated by an individual's "hero status". This exhaustion is apparent by the fact that one of the court cases brought against the MET over phosphate mining was raised by an individual, rather than an organisation, who challenged the MET over the issuance of an environmental clearance certificate.
[242] Interview 11.
[243] Interviews 9, 11, 12, 15, 18, 20, 34 and 38.
[244] Interview 12.
[245] Interview 11.

which they hold paper licences. However, the (geo)physical characteristics of the marine environment and the proposed methods of extraction diminish the ability of licensees to visit sites of extraction. Therefore, in the case of offshore marine mining, this flattened form of "paper ownership" over the seabed is intensified. These emerging sites of offshore extraction equate to two-dimensional cartographic representations during the issuance of mining licences which flatten and compress the (geo)physical complexities of seabed mining (see Chapter 5). Moreover, ownership is made visible in the form of a paper licence. In taking this form of ownership, the licences mask the inherent dynamics of extraction and the associated conflicts. This ownership also further bypasses state and public critique as representatives of either group are unable to visit or physically see the areas that are ascribed to these paper licences.

The distortion presented by the (geo)physicality of the marine scape is mirrored by claims of distortion within the echelons of the government. One interviewee explained that there was an embedded awareness of rent capture within government factions and that questionable relationships that were relevant to discussions of seabed mining, existed within the government.[246] Paper pushing, including for marine phosphate mining, which this individual explained is considered by industry and ministries to be dangerous to the marine environment, continues regardless. While individuals are geographically disconnected from the marine scape, the site of extraction has become visible through artworks, shoring concerns of rent seeking. Tenderpreneurship in Namibia remains contentious, not limited to public authority or among international and local NGOs. During my fieldwork I met informally with an artist called Fillipus Sheehama who is based in Katutura, Namibia. Sheehama's work has a strongly political focus, and this can be seen particularly vividly in a sculptural piece entitled *Tragedy of Africa* which follows his personal reflections on corruption, both within Namibia and across the African continent.

[246] Interview 11 (also supported by interview 17).

Fillipus Sheehama
Tragedy of Africa
2017
Mixed media (wood, recycled car parts, metal)
2448x2190mm
(Left) *The sculpture in full*
(Below) Close-up view of the bicycle chains, automotive parts and school desks used to construct the sculpture.

Photographs from StartArt Gallery, Windhoek, Namibia (2018)

Sheehama explained that *Tragedy of Africa* illustrates the continuation of endemic corruption and tenderpreneurship both in Namibia and across the continent. He said that, following independence, public works such as infrastructure projects have been opened-up for Namibians to bid on. However, he noted, these tenders are often awarded to individuals with close personal connections to government officials, which is a concern echoed by interviewees with regards to marine phosphate mining.[247]

The use of automotive parts in *Tragedy of Africa* is symbolic of inherent corruption but also of how, when awarded tenders in Namibia, tenderpreneurs are often known to buy luxury items like cars before even receiving remittance for the work (Start Art Gallery 2018). As such, each of these individuals will often possess a collection of vehicles. One interviewee explained, with reference to the individuals involved in marine phosphate mining like Knowledge Katti the ways in which flows of capital were made visible on the streets of Windhoek:

> We are so used to seeing corruption on the front pages. You can't be rich in this country as an entrepreneur unless you paid someone off. This is more of the concern than international involvement. It's because people see it. Most just read the Namibian newspaper, they don't have the skills to involved. What they do see is the black cars driving around and they ask about that guy.[248]

[247] Interviews 11, 12, 15 and 17.
[248] Interview 15.

These cars are imported into Namibia predominantly from outside the continent, meaning that money is moved away from the continent. This links to theories of the movement of capital, including the hopping of capital (Ferguson 2006). This "hop" is made easier by the fact that marine phosphate can bypass Namibian state terrestrial territory completely and be landed and beneficiated elsewhere, due to the offshore location of its extraction. By considering the blue economy and the green economy in isolation, one risks overlooking this potential. This means that resources that the state has sovereign rights over need never touch Namibian sovereign territory. These capital and accumulation strategies in the blue economy therefore become visible in different ways, through the manifestation of visible wealth flaunted by tenderpreneurs, thus indicating that discussions of sovereignty and the blue economy are not untethered but rather that their coalescence offshore also reaches terrestrial territory.

The increasing mobility of capital challenges the ontological containment of states and their societies within sovereign space. This, alongside the failure to recognise the role of temporal conditions, has created a "territorial trap" (Agnew 1994: 77). While this chapter has discussed the role of international companies operating within Namibia's fishing industry, it is also important to consider the role of the (potential) phosphate concession holders and their interactions with the local context. Namibia's national sovereignty is expressed by the state as something that exists in opposition to foreign capital (see Emel *et al.* 2011). This contestation surrounding rent can also be linked to historical conditions, and Namibia's unique colonial history has presented challenges to its sovereign rights and its ability to control rents. At the time UNCLOS was ratified Namibia was still under colonial rule with the UN acting as signatory (UNCLOS 1982: 139). Therefore, Namibia did not contribute to the construction and imposition of the legal regime that pertained to its state space upon independence and continues today. Additionally, scholars have recognised that the ocean's materiality forces foreign and national interests together (see Havice 2018), the case of Namibia illustrates the inherent power imbalance that exists between these interests.

Foreign direct investment – "[The mining companies] don't own the ocean"[249]

As has been identified throughout this thesis, the blue economy has opened the EEZ to private interests and FDI. FDI and national sovereignty coexist in Namibia where there is duality between a strong sentiment against colonial oppression and the state's actions. Public-facing discourse is shrouded in sovereignty, but at the same time the state operates as a gatekeeper one that is in turn networked to international players and businesses and reliant on overseas funds. This reliance was recognised by the Minister of Mines and Energy at the 2017 Mining Indaba who explained that "Resources must transform society and contribute to society and must sustainably be part of other areas of the economy. Without the private sector we are jokers." Although the EEZ acts as a legal enclosure to enable states to accrue rent from offshore mineral extraction, the unique geophysical characteristics of the marine scape also expose the limits to the

[249] Interview 21.

imposition of concepts of territorial sovereignty from land onto the matter of resource extraction in the sea.

While the Namibian state has sovereignty over its resources, this ownership is manipulated in order to make it legible to extractive industries. These industries interact with, and will ultimately extract resources from, Namibian territory or, in the case of offshore mining, spaces with articulations of sovereign rights. As such, even though the state is still one of the main actors in resource extraction, the state and associated elites remain reliant on external actors to enable the exploitation of marine phosphate and therefore power imbalances remain.[250] The offshore nature of these emerging enclave economies means that they are therefore simultaneously integrated into the "global economy and fragmented from national space" (Bridge 2015), thereby contradicting traditional imaginations of the Namibian nation (see Watts 2003). Unlike in the instances of some land-based frontiers, the prospectors involved in marine mining do not fit the traditional imaginations one might have of miners digging in the earth (see Emel *et al.* 2011). Technologies that can manipulate volume are, therefore, required from multinational corporations thus further exacerbating Namibia's reliance on FDI for the exploitation of sovereign resources for profit.[251]

The headquarters of multinational corporations involved in marine phosphate discourse are external to Namibian territory and this economic and political logic offers "a clear contrast to [James] Scott's theorisation of a rational, grid like developmental state" (Ferguson 2005: 378–379; see also Scott 1998). Unlike Scott's conceptualisation of a continuous national grid, the "usable" (Ferguson 2005: 380) areas of Namibia's marine environment will effectively be divided into exclusive sites of extraction. These enclaves are then linked into transnational trade and private governance networks (Ferguson 2005). For instance, previously and currently interested Joint Venture Corporations were and are headquartered in Australia, Israel and Oman. Additionally, seabed resources will be subject to "enclaving", wherein extraction occurs offshore and resources are landed only for the refining process. This process may take place on a state's terrestrial territory but could also bypass landed territory altogether to be taken to plants within other states' jurisdictions.

Although rhetoric suggests that Namibia will use phosphate primarily for agricultural purposes, thus contributing to food security, those doubting this position have suggested that the majority of phosphate will be exported.[252] James Ferguson argues that although contemporary investment in mineral extraction in Africa has been territorialised, this

[250] The state relies on external actors entering the marine scape. Concurrently external actors have expressed interest in undertaking projects in Namibia's EEZ. Both of these points were expressed by mining industry actors at the 2017 African Mining Indaba in Cape Town, South Africa. During the Indaba's phosphate mineral-specific "speed-networking" session, I spoke to an individual who had previously been involved with one of Namibia's original, and now abandoned, marine phosphate projects. They explained that the project was met with discontent from the fishing sector and this outcry contributed to their decision to withdraw from Namibia which is something that the government is looking to reduce.
[251] Interviews 9, 42 and 43.
[252] Interview 5.

investment has minimal economic benefit to the wider population (2005: 378). In Namibia, resource flows are replicated in the labour structures and technologies required to extract marine phosphate (Campling and Colás 2017). Despite industry rhetoric attempting to promote the idea that marine phosphate has the potential to contribute to employment, local individuals are unlikely to be involved. Though NMP and the MET argue that marine phosphate could provide up to 1,000 jobs, civil society actors, consultants and industry umbrella organisation representatives argued not only that this number was likely to be over-inflated but that, where jobs are provided, these are likely to be low-skilled roles.[253] This is due to the complexity of the operation, exacerbated by the offshore nature of extraction. Extraction will occur from vessels and will require specific technical skills, and this contributes to the likelihood that the industry will import much of its equipment and technical labour.

The portability of capital is more pronounced in the case of the seabed. In the seabed "useful" enclaves become secured and "governed through private or semi-private means" and unlike the continuous and standardised constructs of the state, enable capital to "hop" rather than flow (Ferguson 2005: 380). These networks thereby enable capital, such as phosphate, to bypass "contiguous geographical space" whilst avoiding the nation-state's grids of legibility that characterise Scott's theorisations (Ferguson 2005: 379). These theorisations resonated with the discourse utilised by the mining industry at the 2017 African Mining Indaba. I listened as the head of Acacia Mining – one of the largest gold producers in Africa (Acacia n.d.) – declared in his speech to a theatre full of investors and government representatives that "mines aren't portable, but capital is". In the seabed, mining sites are not only unportable but are also invisible and dynamic (due to the mobility of sediment and ocean currents): in this context, their existence is made visible through capital.

The abovementioned integration of "enclave economics" into the global economy highlights the blurring between the blue economy and the green economy. The "blue" and "green" do not exist as separate, unconnected entities; rather, they are conjoined. While it is important to recognise the distinctive characteristics of the marine scape, it is also essential to see that these distinctions do not "untie" the littoral state from the sea. This is particularly evident in Namibia because minerals harvested offshore are dependent on "landed" infrastructure for processing onshore, thus challenging ideas of where the marine environment begins and ends (Campling and Colás 2017; see also M'Gonigle and Dempsey 2003). Extractive industries are commonly characterised by a sharp disconnect between production and the local population, where neither the resource nor the money related to it touch a state's landed territory (Ferguson 2005: 378). This is particularly evident with marine resources as they depend on marketability rather than direct consumption.

[253] Interviews 5, 11, 31 and 35.

Issues of monitoring

The offshore characteristics of extraction and the ability of capital to hop also present challenges to the state's ability to monitor activities. Despite being subsumed under nationalist rhetoric, the state's ability to monitor the extraction of fish and minerals was challenged by interviewees. Referring to current coastal mining practices, their concerns were further exacerbated by the remoteness of marine phosphate extraction. One consultant explained, "in Namibia as new discoveries are made, we can see that monitoring is not up to scratch. [Coastal] diamond mining has been self-monitored post-independence… the companies control information",[254] thus challenging further the idea of state control. This sentiment was strongly echoed by a development donor representative whose words reflected the concerns of enclaving discussed above: "Diamond mining has moved further into the ocean, in terms of the seabed. The downside is that this has happened in a vacuum. You need police clearance to visit; it's like a different state or country there".[255] For its part, the MFMR is concerned about whose remit monitoring such operations would come under, as this is a role belonging traditionally to the MET, but it would be taking place in an MFMR-owned space.

Ministerial jurisdictions lack coherence when applied to the marine sphere. For example, the MFMR has previously considered the marine scape to be its domain, but responsibility for the issuance of Exclusive Prospecting Licences belongs to the MME, whilst Environmental Clearance Certificates are overseen by the MET. This type of fragmentation also raises questions over the policy distinctions between the blue and green economy and the monitoring and management of extractive projects: primarily, where does responsibility for this lie? A representative of the MFMR explained this contention when asked about the challenges and opportunities presented by the potential for marine phosphate mining:

> You can't see things. On land you can quickly assess but you can't do that in the ocean. Conflicts in the ocean are hard to monitor; you need management plans to make sure everything happens. We have a mandate regarding living marine organisms and MET has an Environment Act and implements this. But we [MFMR] have access to the oceans and vessels and they don't.[256]

Levels of state capacity and access are integral to any discussion considering the monitoring of activities in the EEZ. In Namibia concerns were raised regarding which ministry (or even whether any part of the state, for that matter) had the capacity and institutional arrangements—including access to boats—to ensure that activities such as phosphate mining are monitored and that environmental standards are adhered to (Le Meur *et al.* 2016: 3). This is particularly challenging in a secluded space and at depths that the human eye cannot typically monitor. These concerns contradict the stance African states took during UNCLOS negotiations, proposing that the formalisation of EEZs would enable states to safeguard their resources to avoid being subjected to the

[254] Interview 4.
[255] Interview 6.
[256] Interview 3.

same levels of exploitation as they had experienced onshore (see also Egede 2011). The converse opinion exists in the mining sector within which there is a sense of pride derived from the potential to become one of the first countries to extract at such depths.

When questioned about the challenges of working in the sea scape, an industry umbrella organisation representative exclaimed: "we are world leaders, and this is something to be proud of, not ashamed of. The fact that no other country has done so shouldn't warp our thinking".[257] This illustrates the imagination that the state operates in isolation within its marine scape. A ministerial representative explained that "[Namibia] won't let armchair activists in the West determine the extent to which we will be allowed to use our resources or not",[258] thus confirming the continuation of this isolationist view.

As has been illustrated, the Namibian state is not the sole agent of rent within its EEZ. It is also involved in mediating domestic and foreign interests (see Campling and Havice 2014: 715), which in turn are confounded through legitimising agendas of accumulation, such as the blue economy. The potential for marine phosphate mining in Namibia has also been influenced by advances in technology as well as shifts in geopolitical and economic logic. Historically, capitalist engagement and appropriation within Namibia's marine sphere has been incongruous with, and often contradictory to, the concept of national sovereignty (for similar arguments, see Andreucci *et al.* 2017). The blue economy agenda, which erodes the involvement of the nation state in the governance of its sea (Easterling 2014; see also Chalfin 2018), offers legitimisation of new accumulation strategies and attracts investment that can also exploit gaps in regulatory space (see also Chalfin 2018). Given Namibia's current economic climate, the blue economy appears to offer a multitude of development opportunities. However, as illustrated, its EEZ is far from an empty space that can be simply divided, and nor can rights be easily assigned to new entrants. Political and economic realities are shaping contestations over the potential to accumulate marine phosphate, and these contestations are exacerbated by the marine sphere's (geo)physical characteristics. On this matter, one INGO representative argued that the enclaving of national space for phosphate mining will benefit the government through the accrual of rents and allow for power to remain in the hands of external actors, a "power [that] lies where the rubber hits the road".[259] This is an interesting idiom given that the unique spatialities of the marine scape complicate projections of power and sovereign claims. It would be more accurate to say that the power lies with those who can manipulate volume.

[257] Interview 43. To better illustrate this point, at the end of the interview, this individual produced a bar of Scorpion zinc (a type of zinc that is extracted on land). While I examined this, they explained that "this is element grade and proudly Namibian… This is the first time in history, in the world and we are producing in Namibia… This is pioneering technology and something to be proud of. Namibia Marine Phosphate is one of the warped conclusions." This viewpoint echoes the development-centric rhetoric of the blue economy agenda and the discourse of 'potential' existing in Namibia's marine scape, waiting to be harnessed.
[258] Interview 15.
[259] Interview 15.

Concluding remarks

To conclude, the unique and highly politicised nature of phosphate and its extraction exposes conflicting interpretations of the 'marine scape' and ownership over it, resulting in multiple and often dichotomous interpretations of sovereignty existing even at the level of the nation-state. These interpretations have been mobilised by the state and the mining and fishing sectors to support differing agendas. The potential of seabed extraction highlights the complexity of the 'marine scape' which has become inextricably linked to the blue economy agenda. The marine scape is therefore characterised by a constant (re)negotiation of sovereignty from both state and non-state interests which are forced together due to its fluidity and interdependent "layers". This is further challenged by the mobility of the mining processes and the species that coalesce with this non-point-source mining.

By unpacking the three-dimensional marine scape, one is able to bring claims and claimants into view. This includes the practices and environmental concerns associated with pre-existing industries being brought to the fore, such that they can no longer be situated as sole custodians of the EEZ. Actors have raised concerns about the effects of marine mining on the environment and especially biodiversity; their concerns pertain to the seabed, water column and the surface level. Some actors are also concerned about landed elements, where the volumetric characteristics of the marine scape are brought into sight. But these division and representation issues are also graduated along social/racial lines.

Interest in Namibia's EEZ, blue economy and resources therein extends beyond the economic and technical. The blue economy and subsequent zonation of the ocean appeals to governments as it circumvents the politics of groups with environmental concerns (see Hannigan 2016: 131). This circumvention is further exacerbated by the erosion of civil society space in Namibia. The state therefore becomes a site of struggle through which opportunities for accumulation are legitimised and the designation of who gets to accumulate is informed by the blue economy regime. Because the groups involved are circumvented, power remains in the hands of others. The fact that Namibia's current economic situation and reliance on donor involvement are associated with its formalisation of the blue economy raises questions not only around the ownership of the concept, but by association, ownership of the space itself. Here, rent offers an explanation for the salience of the blue economy in Namibia, where resource control is situated as having paramount importance in enabling development potential.

A by-product of the fetishisation of the idea of national sovereignty over resources is that the influence of international instruments and organisations over the governance of resources is overlooked (Miller 2005: 201–202). As illustrated, Namibia's blue economy serves to justify international involvement that can supersede the sovereignty of the state. While, as the Namibian case illustrates, the blue economy presents opportunities for new forms of capitalist accumulation, this has resulted in struggles over who can accumulate in the marine sphere. Sovereign arguments are used and manipulated by actors including the fishing industry to serve their own goals and are

not in the interest of the nation. These struggles bring to the fore the political and economic realities that are shaping these contentions, particularly with regards to Namibia's fishing industry. The complexity of this space and the dynamics that this chapter has demonstrated allow us to consider the varying articulations of power that in turn are central to understanding how sovereignty over the 'marine scape' is projected. While the state has encouraged investment, the (geo)physical characteristics of the marine scape exclude actors, such as civil society, with the result being that the power lies with those who can manipulate volume. The role of external actors in the formalisation of the blue economy agenda, shaping of the marine scape and subsequent extraction projects has been highlighted throughout the three empirical chapters. Approaching the marine scape as a site of extraction with a two-dimensional and terrestrial lens masks the coalescence of ownership claims that exist therein. It also hides the reciprocity that exists between the land and sea. This enables the perpetuation that the Namibian state exerts its sovereign rights over the marine scape in isolation from other actors. This oversimplification ignores the actors that are included in and excluded by the blue economy agenda and the resultant conflict(s) that this may cause or exacerbate.

Chapter 7

Conclusion

This thesis has made extensive use of fieldwork and interviews to reveal and draw attention to the interactions between the blue economy, marine phosphate mining and the claims to ownership over the resources therein. Drawing on theories of resource sovereignty, this thesis has analysed how the unique (geo)physicality of the ocean has opened new perspectives on theoretical debates of resource extraction. The findings of this thesis have implications for practice for those engaging with the blue economy and marine mining in the Namibian context. As will be summarised below, this fieldwork has conceptualised the seabed as an emerging site of extraction and has drawn-out intricate details about the coalescing claims to ownership from different state and non-state actors in Namibia. This analysis has occurred at a critical point when the contestation over seabed extraction and the formalisation of the blue economy in Namibia has been increasingly prominent and complex. This chapter will begin by summarising the key arguments and findings of this thesis, drawing on this thesis's six research questions. This chapter will then discuss the implications, recommendations and limitations of this research before establishing the potential for future research.

Summary and key findings

This thesis has made contributions primarily to four areas of literature: firstly, scholarship on Namibia's current context and recent history; secondly, research on the blue economy; thirdly, conceptualisations of the seabed as an extractive frontier; and fourthly, on the study of resource sovereignty. This thesis has established a critical analysis of the emerging blue economy in Namibia, from which it has also critiqued the emerging and competing claims to sovereignty over this 'new' resource frontier, including by state and non-state actors.

Central to this thesis's argument has been the understanding of the marine scape as an extractive space that is three-dimensional and fluid. Similarly, the unique method of seabed mining and the role of volume has been considered throughout. This thesis argues that the blue economy's governance structure works to simplify and flatten the complex geophysical characteristics of Namibia's EEZ, thus rending the space legible to potential claimants. However, the dynamics of the sea space, notably stemming from its volumetric, three-dimensional characteristics, complicate this predominantly two-dimensional logic. With recognition of how the framing of the blue economy as a new frontier has enabled the ingression of the marine scape and the resources therein into capitalist systems (Tsing 2013: 5100), this thesis has argued that the emptying of the sea is not new. Namibia's marine scape has continually been reproduced and voided over time to legitimise extractive and exploitative strategies. The opening of the sea through the blue economy and potential for extraction paradoxically also means the closure of the sea. The thesis has therefore argued that both contemporary and historical

dynamics pertaining to the marine scape must be considered in discussions of sovereignty or disenfranchisement from the sea space.

Taking the above understanding as its point of departure, the thesis has established a critique of sovereign arguments pertaining to Namibia's marine scape and the resources therein. This has highlighted the dichotomous interpretations of sovereignty that have been mobilised by both the state and the mining and fishing sectors in support of diverging agendas. By undertaking an analysis of the complications created by the sea as a voluminous, three-dimensional and dynamic space, this thesis has been able to argue that claims to sovereignty are complicated by the (geo)physical characteristics of the marine environment. In doing so it has rejected the idea that traditional terrestrial conceptualisations of resource sovereignty can simply be transposed onto the marine scape.

This thesis opened with an introductory chapter which outlined the Namibian context and established the research problem that the thesis addressed: namely, the emergence of marine phosphate mining and associated claims to sovereignty over the EEZ. The introductory chapter began by detailing the global emergence of the blue economy and the EEZ as a site of extraction before providing an overview of seabed mining (including marine phosphate mining). It then provided relevant background information on the contestation over seabed mining in Namibia. Before proceeding, this chapter also provided a brief overview of Namibia's history, with particular focus on its colonial history (a more detailed and focused section on Namibia's history with the marine scape was subsequently provided in Chapter 3). This section was imperative to underpinning this thesis's understanding of the context under which discussions of the blue economy and seabed mining have emerged in Namibia.

Following the introductory chapter, this thesis then proceeded in five substantive chapters. Chapter 2, the literature review, provided an analysis of the key literatures on the areas of the green economy and the blue economy, space and territory and resource sovereignty. In doing so, it identified that there is no specific strand of literature linking these fields of scholarship, which this thesis has addressed. Chapter 3, "Methodology and historical context", then established this thesis's methodological approach, highlighting the rationale behind the use of semi-structured interviews and reflecting upon the methodological issues and limitations encountered during the study. This chapter also reflected upon my positionality as an interviewer and the process of elite interviewing. Following the establishment of the methodology, this chapter provided context on Namibia's history, with a particular focus on the country's relationship with the marine scape. The chapter introduced some of the historical struggles for sovereignty and the embedded processes of exclusion that underpinned exploitation. In doing so, it argued that these divisions continue to exist across Namibia and have implications for discussions of ownership.

This thesis's empirical chapters (4, 5 and 6) drew on fieldwork and scholarship to address the key research questions and the problems outlined above. Chapter 4, "Unlocking Namibia's blue economy", evaluated how the blue economy has emerged

in Namibia despite the fact that there is no agreed global definition of the concept of the blue economy. The chapter identified how the ambiguity of the concept has effectively reduced Namibia's marine environment to a space that actors can exert influence over and apportion in accordance with their own agendas. The chapter argued that because of this, the concept of the blue economy can be utilised to justify incursions by emerging projects, such as marine phosphate mining. Despite the central importance of sovereignty to the rhetoric of the independent Namibian state, in formalising the blue economy agenda, Namibian is not operating independently. Divergent definitions of the blue economy are informed by external actors, which in turn challenges the idea that the blue economy is a state-led project. This has resulted in a heterogeneity in opinions within Namibia about what the concept means. The absence of a uniform approach to the blue economy is also exacerbated by the fact that different actors' remits pertain to different spatial dimensions, including the ministries whose responsibilities encompass certain specific sections of the EEZ (for example, land, coast or beyond the high-water mark). This ambiguity therefore enables the private sector to enter under the guise of development and define this space. The overall result has seen Namibia's EEZ rearticulated as a "new frontier" which has enabled it to be emptied for exploitation and extraction and redefined by private interests.

Chapter 5, "Shaping of a frontier", discussed how frontier rhetoric continues to be used to justify the opening of new commodity frontiers in Namibia, namely for phosphate extraction. However, it argues that the marine scape is not a new frontier. Drawing upon the findings of Chapter 4, Chapter 5 demonstrated with the use of fieldwork transcripts how the geophysical characteristics of the EEZ as a site of extraction, have incorrectly enabled the marine space to be rendered apolitical. This emptying has legitimised new entrants' space in designated zones. However, this chapter argued that the marine scape's volumetric, three-dimensional characteristics complicate this predominantly two-dimensional logic. The absence of physically demarcated boundaries and the fluidity of the sea challenge predominantly terrestrial conceptualisations of sites of extraction. Additionally, this chapter argued that the physicality of the proposed minerals and their interaction with the marine scape affect conceptualisations of emerging sites of extraction. The chapter found that, in the case of phosphate mining, the interplay between different planar levels and associated social and legal concerns is evident. This process also illustrates how, despite the divisive semantics of the blue economy versus the green economy, the marine environment is also inextricably connected to states' terrestrial territories. These spaces and agendas should therefore *not* be considered to be untethered and future scholarly engagement with seabed mining projects would do well to ensure that they are not considered in isolation.

On the basis of the aforementioned conclusions from Chapters 4 and 5, Chapter 6, "Resource sovereignty, lost at sea?", discussed how the opening of the marine scape as a potential site of extraction has resulted in the (continued) closure of the sea to certain actors. The chapter argued that rent offers an explanation for the salience of the blue economy in Namibia, where control over resources within the EEZ is considered to be of paramount importance in enabling development potential. The emerging claims to

capitalist accumulation have resulted in struggles over who can accumulate in the marine sphere. Through the lens of marine phosphate mining, this chapter unpacked how actors are negotiating their influence within, and over, this unique space. In doing so it also identified how these same actors are, tangentially, excluding others. The chapter recognised that traditional exertion(s) of sovereignty over resources, as evidenced in terrestrial mining, are complicated due to the marine sphere's (geo)physical characteristics and the perception that it is comparatively underdeveloped when considered in relation to land. Building on Chapter 5's findings, Chapter 6 argued that the unique characteristics of phosphate extraction exposes conflicting interpretations of the marine scape and ownership over it. It highlighted that this has resulted in multiple and often dichotomous interpretations of sovereignty existing even at the level of the nation-state.

Findings, reflections and implications

This thesis's first research question was: "How has Namibia's blue economy and the associated discussion of marine phosphate mining emerged?" In its analysis of the emergence of the blue economy in Namibia this thesis has found that this process is informed by a multitude of agendas, thereby supporting the predictions of Abbott and colleagues (2014). The concept has been articulated in such a way that it professes to offer development potential to independent states, which in turn want to ensure that the previous colonial exploitation that they experienced on land is not repeated in the sea. This rhetoric is evident in its uptake in Namibia and it has enveloped seabed mining under the auspices of the blue economy's development potential. However, tracing the provenance of the agenda has revealed the indigenous non-state actors and exogenous actors involved in its conception. Neither has the emergence of the concept in Namibia been apolitical nor has the agenda been established in isolation from exogenous actors and interests. Given the increasing use of market-based mechanisms, the governance of the EEZ is becoming characterised by decentralised and diverse power structures (see Kuus 2018: 1; Wedel 2017: 154). These structures, and therefore related knowledges, transcend the nation-state as well as the agendas through which they are often discussed (Kuus 2018: 6). Comprehending the extent of this involvement, and the political motivations behind it, is essential if one is to understand how the blue economy agenda is being used to (re)conscribe the marine scape. This is particularly true given the associated conflicts – such as those observed in Namibia – that can emerge from the imposition of the concept.

This thesis's second research question was: "How is the blue economy understood within Namibia and what are the consequences of this?" Drawing on the work of Silver and colleagues (2015) and Winder and Le Heron (2017), this thesis recognised that the absence of an agreed definition of the blue economy agenda has direct consequences for countries that are formalising the agenda. This thesis has argued that the framing of Namibia's blue economy remains ambiguous, at times purposefully. This ambiguity matters both because it hinders internal ministerial coordination and because its unevenness enables powerful actors – extant and emerging – to interpret the agenda in

order to legitimise their ownership claims, operation and exploitation strategies within Namibia's marine scape. While scholarship has begun to engage with the understanding and definition of the blue economy at a local level, this engagement has predominantly focused on fishery and conservation priorities (see Andriamahefazafy and Kull 2019; Barbesgaard 2018). There is presently scant reference in the literature to the role of marine-based mineral extraction.[260] By deploying the lens of marine phosphate mining, this thesis has contributed to addressing this void by demonstrating that Namibia's marine scape is being 'unlocked' by agendas such as the blue economy. Concurrently, this space is also (re)locked in an inherently exclusionary process. In Namibia the ambiguity of the blue economy concept has left it open to exploitation by capital and private interests, including marine phosphate mining, which have been able to (re)enter the marine scape and define the concept in their own terms. Establishing a coherent understanding and definition of the blue economy is therefore important not only on a global scale but also at the local level.

To address the problem articulated above, this thesis asked its third research question: "What work does frontier rhetoric do to empty and (re)make the marine scape as a site of extraction?" While this question has been addressed by scholars such as Peluso and Lund (2011) and Watts (2018) with reference to terrestrial land, this thesis answered it in relation to the EEZ. Contrary to the current blue economy rhetoric, Namibia's marine environment is not a 'new' frontier. Both historically – including through colonial projects – and contemporarily, the country's marine environment has been framed within a frontier narrative to conceptualise the space as void and/or underused. Through this framing, the marine environment has been rendered inert, with resources enumerated and ownership assigned, enabling their ingression into the capitalist system (Tsing 2003: 5100). The presence of minerals, combined with interest in the potential for those minerals' exploitation, has led to the deep being portrayed as a "resource cornucopia" (Hannigan 2017: 13), a discourse that mirrors depictions employed to justify colonial land-based extraction. Through the rhetoric of frontiers, state and external intervention has been legitimised to "correct" this underuse through capitalist agendas, including marine mining. However, this thesis has argued that the conceptualisation of the marine scape as void is not limited to the blue economy agenda but has been (re)defined over time, particularly during the period of colonial rule.

In simplifying the geophysical properties of Namibia's EEZ, the blue economy agenda renders the space legible to potential exploitation, thus opening this frontier to claimants. Drawing on this, the thesis's fourth research question asked: "How can the seabed as an extractive space be conceptualised?" While scholars such as Elden and Bridge (2013) have discussed the role of the vertical and volume on terrestrial territory, these concepts are challenged by the characteristics of and differing legal regimes pertaining to the marine scape. The work of Steinberg and Peters (2015) on volume has been essential to understanding the embedded dynamics of the EEZ, and this thesis has extended their

[260] While scholars such as Lu Wenhai and colleagues (2019) have addressed the blue economy, their interrogation of the concept is so far incomplete.

line of enquiry to consider the EEZ as a site of mineral extraction. The Namibian case study demonstrates how the volumetric, fluid and three-dimensional characteristics of the sea are central to any conceptualisation of this emerging extractive space. Current and future research and policy discussions of seabed mining should not ignore these characteristics and spatialities of the resource itself (Bebbington 2014: 4; Childs 2018). In unpacking the marine scape as a three-dimensional environment, one makes visible the claims and claimants that exist in this space. Furthermore, by analysing these vital characteristics, one reveals the existence of complex physical and social relationships that are both shaping and resisting the often-overlapping claims to ownership over the space and the nature(s) therein.

Having conceptualised how the extractive space can be understood as a site of extraction, this thesis then answered the fifth and sixth research questions, respectively: "What are the competing claims to sovereignty that have emerged from discussions of marine phosphate mining?" and "How does the sea resist or conform to traditional notions of sovereignty?" This thesis analysed the emerging competing claims to sovereignty over and within this "new" site of extraction, including by state and non-state actors within Namibia's marine sphere. In doing so, it illustrated the entangled relations that exist within the marine environment. While the process of land (en)closure has been central to scholarship on resource sovereignty (see Peluso and Lund 2011), the sea presents challenges to conceptualisations of new and old sovereignties. These enclosures are accompanied by new processes, new actors and the ascription of property rights with their definition referring to the potential for accumulation (for a discussion of the production of "urban-agrarian-natured" environments, see Peluso and Lund 2011). In Namibia, new ownerships are being transposed onto a fluid and dynamic space where sovereign claims vary and interact at different spatial levels within the EEZ.[261] These interpretations urge observers to look beyond conceptualisations of the marine sphere as a resource space, thus stripping the ocean of the dynamics and articulations of power that are central to understanding how sovereignty is projected and perceived. Instead, one is encouraged to view the ocean as an "arena wherein social conflicts occur, and a space shaped by these conflicts" (Steinberg 2001: 20). The absence of clear property rights and the inability of actors to claim legitimacy as rights-holders (through either historical or contemporary claims), which in turn is due to the marine environment's (geo)physical properties, has enabled the blue economy and its associated activities to bring this space into economic fruition.

The accrual of rent offers an explanatory point for the salience of the blue economy in Namibia. In recognising competing factions, this thesis discussed how the blue economy bypasses certain actors to legitimise accumulation strategies. Despite the marine environment often being viewed as an empty space both functionally and in terms of power dynamics, this is far from the case. State and non-state actors have begun competing for ownership over the marine domain and/or the resources that exist in its

[261] EEZs are not formalised as "territory" – territorial waters only extend to 12 nautical miles from the baseline of coastal states – but instead, different legal regimes are assigned to different aspects of sovereignty.

subsurface. This process of inclusion and exclusion is currently being conscribed in Namibia's EEZ, thus enabling different sovereign claims. The contention over potential marine phosphate mining projects has predominantly centred around their potential conflict with the fishing industry.[262] This contestation provided an analytical point through which this thesis unpacked the various sovereign claims in this dynamic scape. The unique physicality of phosphate and its extraction exposed conflicting interpretations of the marine scape and its ownership. It also exposed concerns with the operational practices of pre-existing industries in the marine scape which have, up until now, been masked due to the two-dimensional lens often applied to the marine scape.

Both the fishing industry and the mining industry operate under the imagination that the state is the *de facto* landlord of the marine scape and the resources therein, a sentiment that is echoed by the blue economy agenda within which the state is (problematically) framed as the gatekeeper to the EEZ. However, as this thesis has demonstrated, dichotomous state and non-state interpretations of sovereignty have been utilised to support differing agendas and identities, simultaneously including actors within and excluding actors from the EEZ and associated blue economy. These often-overlapping claims to sovereignty are complicated by the physical nature of the sea. Interactions with and within this space highlight the dynamics and articulations of power that are central to understanding how claims to the marine scape are expressed and how the state balances the interests and intentions of different industries. While an EEZ acts as an extension to coastal states' jurisdictions, a state's sovereignty over this space is limited by the geophysical constraints imposed upon it by the environment itself (Campling and Colás 2018). Furthermore, emerging and often competing claims to sovereignty highlight the fact that the ocean is far from an empty space and that it cannot be physically or figuratively disjointed from land.

Limitations

This study faced limitations pertaining to its fieldwork process, the range of actors interviewed and the availability of those interviewees. Ideally, I would have engaged with actors including those representing the Benguela Current Commission due to the latter's centrality in Namibia's blue economy and the transboundary management of the Benguela Current Ecosystem. However, the organisation declined to participate in the study, citing limitations stemming from ongoing court cases. This was echoed by several potential MFMR participants. Additionally, two of the study's scheduled interviews did not take place due to the non-availability of the interviewees concerned during my fieldwork period. However, I do not believe these limitations to have been detrimental to my study. As was discussed in Chapter 3, I have worked to mitigate potential and actual methodological issues and limitations to the best of my ability.

This study has discussed the blue economy and seabed mining in relation to Namibia, which in turn has a unique colonial history. While other states including South Africa

[262] This is in part due to the relative absence of coastal communities and artisanal fisheries in Namibia, when compared to other countries considering seabed mining projects.

and New Zealand are discussing similar projects, this study is not generalisable, and as such, contextual differences and the unique geophysical characteristics of different seascapes and minerals should be recognised in any further research.

Future directions and implications

This thesis has demonstrated that Namibia's EEZ, contrary to its framing as empty and as a "new frontier", is far from void. The thesis has illustrated that the offshore nature of the seabed as an emerging site of extraction can incorrectly mask the complex, coalescing claims to the marine scape. The contention over marine phosphate mining in Namibia highlights that traditional terrestrial conceptualisations of resource extraction are complicated by the geophysical nature of the marine sphere. Recognition of the spatial dynamics of both the site of extraction and the mineral itself reveals a multitude of sovereign claims that must not be ignored when discussing seabed mining (both in scholarship and in the policy arena). Relatedly, the blue economy and green economy should not be considered independently of one another. As marine mining demonstrates, they are inextricably linked, and this linkage is not always characterised by one state's marine scape interacting with its own terrestrial territory. Activities pertaining to a state's marine scape can bypass its territory altogether, complicating discussions of the agenda and the flow of capital. This thesis has focused on phosphate mining, but its central arguments will be applicable to studies analysing other methods of marine mineral extraction. Additionally, while this thesis recognises that the high-seas as an extractive space presents additional complex challenges, the thesis's underpinning research could inform discussions of sovereignty and frontier rhetoric in this space.

This thesis has recognised that the absence of a global definition of the blue economy has resulted in confusion and ambiguity at the national level. This has been exacerbated by the multitude of non-state actors who are involved in the formalisation of the blue economy in Namibia. Given that these interests are not apolitical, this thesis urges caution in analysing and assessing the emergence of the blue economy in Namibia and elsewhere. The critique offered by this thesis can also be applied to emerging blue degrowth discussions (see Hadjimichael 2018). While professing to offer an alternative rationale to blue growth, degrowth agendas have the potential to exhibit similar shortcomings. As demonstrated with reference to Namibia, contextual and historical issues need to be recognised, and their inherent and continued structural effects analysed. This is important when considering whose voices are represented or excluded by such agendas, a process which is complicated by the (geo)physical characteristics of the marine sphere. Finally, when seeking to establish blue degrowth, future studies would do well to ensure that they do not separate the green economy from the blue economy, as this would only serve to complicate discussions further.

On numerous occasions during my fieldwork for this thesis, food security was mentioned by several interviewees as a rationale for marine phosphate mining. Justifications from mining companies centred on the benefits of phosphate for Namibian agriculture, arguing that the mining would help Namibia to achieve food security, which is important to Namibia because the country is reliant on food imports, a situation that

is exacerbated by ongoing drought conditions (WFP n.d.). These debates fell outside the remit of this thesis, but the fact that emerging littoral frontiers are being discussed in relation to food security presents interesting dynamics for future investigation. This thesis has also provided a preliminary contribution to wider issues of monitoring and capacity pertaining to potential seabed extraction, particularly where it has highlighted challenges to ministerial capacity and the complications of jurisdictional remits. Future research could also explore issues related to securing resources; in so doing, future studies could antagonise how the marine environment complicates the securing of resources.

Concluding remarks

This thesis has challenged traditional thinking on the extractive scape and the claims to ownership that pertain to this space. Drawing upon three periods of fieldwork in Namibia, this thesis has encouraged an approach toward the blue economy that focuses on the political interests of the actors and organisations involved in its formalisation. In doing so, it has argued that the blue economy in Namibia is being defined by state and non-state actors with divergent interpretations and agendas of what the blue economy is. This ambiguity has enabled a multitude of interests, including those related to phosphate mining, to enter and begin to redefine the EEZ.

While this thesis began by introducing the formalisation of the blue economy in Namibia, it then focused on the potential for marine phosphate mining in Namibia. To consider this extraction via a terrestrial lens simply ignores the inherent dynamics and (geo)physical characteristics of the marine scape and of the mineral itself. In all of this, through its analysis this thesis has revealed a complex set of dynamics and actors in relation to Namibia's blue economy and the potential of phosphate mining. These divergent claims to ownership within this space coalesce and do not adhere to one planar level as traditionally discussed with regard to terrestrial mining. These contestations are not only limited to national-level actors – for example, between the fishing industry and the mining industry – but are also adopted by a cross-section of external non-state actors. Despite marine phosphate mining projects being framed under the rhetoric of sovereignty, the geophysical characteristics of the marine scape exacerbate the need for external actors to be involved, such that understanding and accessing this site of extraction is the preserve of those who can manipulate volume. Meanwhile, this excludes key actors, disenfranchising them from the marine scape. A significant number of the interviewees who participated in this study voiced their sentiment to me that they do not want Namibia's sea space to be opened-up for use as a laboratory for external states' accumulation strategies. Nor do they want to witness the sea carved-up like their land was.

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List of abbreviations

9/11	11 September 2001
AU	African Union
BCC	Benguela Current Convention
EC	European Commission
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
FAO	Food and Agriculture Organisation
FDI	Foreign Direct Investment
GIZ	Deutshe Gesellschaft für Internationale Zusammenarbeit
INGO	International Non-Governmental Organisation
LOS	Law of the Sea
MET	Ministry of Environment and Tourism
MFMR	Ministry of Fisheries and Marine Resources
MME	Ministry of Mines and Energy
MSP	Marine Spatial Planning
MWT	Ministry of Works and Transport
NDP	National Development Plan
NGO	Non-Governmental Organisations
NMP	Namibian Marine Phosphate Ltd
NTB	Namibian Tourism Board
OECD	Organisation for Economic Cooperation and Development
SIDS	Small Island Developing States
SWAPO	South West Africa People's Organisation
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea

UNCSD	United Nations Conference on Sustainable Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WWF	World Wildlife Fund for Nature

Annex 1 – List of interviewees

Interview number	Interview details
1	MFMR representative, Swakopmund, 2017
2	MFMR representative, Swakopmund, 2018
3	MFMR representative, Swakopmund, 2017
4	Fishing industry representative, Windhoek, 2017
5	Stockbroker, Windhoek, 2017
6	Development donor representative, Swakopmund, 2017
7	Mining industry representative, Swakopmund, 2017
8	MME representative, Windhoek, 2016
9	Private individual, Windhoek, 2018
10	MET representative, Skype, 2018
11	Union representative, Windhoek, 2018
12	Independent think-tank representative, Windhoek, 2018
13	International NGO representative, Cape Town, 2017
14	Environmental industry representative, Windhoek, 2017
15	Former NGO representative, Skype, 2017
16	Legal representative, Windhoek, 2017
17	Mining industry representative, Windhoek, 2017
18	NGO representative, Windhoek, 2017
19	Mining industry representative, Windhoek, 2017
20	NGO representative, Swakopmund, 2017
21	NGO representative, Swakopmund, 2017
22	NGO representative, Windhoek, 2017
23	Environmental industry representative, Windhoek, 2017
24	IO representative, Windhoek, 2017
25	NGO representative, Windhoek, 2016
26	NGO representative, Windhoek, 2016
27	NGO representative, Windhoek, 2017
28	NGO representative, Windhoek, 2017
29	NGO representative, Windhoek, 2017
30	MET representative, Skype, 2017
31	Fishing industry representative, Walvis Bay, 2018
32	Academic, Skype, 2017
33	MWT representative, Windhoek, 2016
34	Advocacy representative, Swakopmund, 2017
35	Fishing industry representative, Walvis Bay, 2017
36	Fishing industry representative, Walvis Bay, 2017
37	INGO representative, Windhoek, 2017
38	NGO representative, Windhoek, 2017
39	Advocacy representative, Skype, 2017
40	Development donor representative, Swakopmund, 2017
41	NGO representative, Skype, 2018
42	Consultant, Windhoek, 2017
43	Mining industry representative, Windhoek, 2017

44	MME representative, Windhoek, 2017
45	Development donor representative, Swakopmund, 2016
46	NPC representative, Windhoek, 2016
47	NGO representative, Swakopmund, 2017

Annex 2 – Consent Form

This is a copy of the consent form that all interview participants received during the interview.

Project Title: Exploring the 'blue economy': Sovereignty over resource frontiers and marine phosphate mining in Namibia.

Researcher: Rosanna Carver
Email: r.carver@lancaster.ac.uk

Please tick as appropriate

1. I confirm that I have read and understand the information sheet for the above study. ☐

2. I have had the opportunity to consider the information, and any questions I have about the project and my participation in it. ☐

3. I understand that I am under no obligation to take part in the study and have the right to withdraw from this study at any stage, for any reason, and will not be required to explain my reasons for withdrawing. If withdraw, at any point during the study, up until publication, my data will be removed. ☐

4. I understand that any information given by me may be used, anonymously, in future reports, academic articles, publications or presentations by the researcher, but my personal information will be kept confidential and I will not be identifiable. ☐

5. I understand that my name and my organisation's name will not appear in any reports, academic articles or presentation without my consent. ☐

I agree to the interview being AUDIO RECORDED and understand that data will be protected on encrypted devices and kept secure. ☐

I agree to the interviewer taking WRITTEN NOTES during the interview. ☐

I understand that this data will be kept securely, according to University guidelines, for a maximum of 10 years after the end of the study. ☐

_____ _____ _____

Name of Participant Date Signature

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher /person taking the consent_____

Date _____ Day/month/year

One copy of this form will be given to the participant and the original kept in the files of the researcher at Lancaster University

Annex 3 – Interview Proforma

Due to the semi-structured nature of my interviews, this schedule offers a guide to the questions that participants were asked. These questions were not asked formulaically, and therefore the exact wording of these questions may have varied during each interview. Additional questions were dependent on interviewee responses, on specific points of interest. Clarification of what the interviewee means by certain terminology might also have been sought, for example, "What do you mean by "capacity"?" Questions were also be used carefully to draw-out more in-depth answers, if necessary.

Introduction to the interview

Before the interview began, I introduced myself and provided an overview of the purpose of the interview. I explained how the interview data would be used and the measures taken to ensure that the data collected remained anonymous. I also explained that this data would be handled securely in accordance with the Data Protection Act 1998. I explained that I would be asking them if they are happy to sign the consent form. We also discussed permissions for use of audio recording and/or note taking during the interview. I informed the interviewees that they have the right not to take part in the interview, and to withdraw at any stage. Finally, I provided each interviewee with a copy of the project information sheet summarising these details and included my contact details and those of the University Data Protection Officer, Dr Hazel Hardie.

Opening questions

The questions in this section enabled me to develop a rapport with the interviewee and helped to develop a more relaxed environment.

- Could you tell me about the role of the organisation/ministry that you work for?
- How did you come to get this role/be involved in the industry?
- Could you tell me about your role?

Part 1 – Questions on the blue economy

- What is your understanding of the term "blue economy"?
- Where have you heard of the term "blue economy"?
- What does the "blue economy" look like in Namibia?
- What challenges and opportunities do you see the "blue economy" presenting?
- How is the blue economy different from the green economy?

Section 2 – Questions on marine phosphate mining

- How do you understand the debate surrounding marine phosphate mining in Namibia?
- What is your role and your organisation's role in this debate?
- What challenges and opportunities do you think deep sea mining will present to Namibia?
- How do you think that Namibia will have ownership of these resources? (*note to self: get interviewees to expand on what they mean by "ownership"*) -

  Sub question:

  What does the term resource ownership/sovereignty mean to you?
- Why do you think that there has been such a strong response to the phosphate mining debate in Namibia?
- How do you think deep sea mining sits within the concept of the blue economy in Namibia (*note to self: does it challenge the notion of the blue economy*)?

Section 3 – Questions on resource sovereignty

- How does working with the sea as a space differ from working on terrestrial land?

- What differences have emerged between discussions surrounding onshore, terrestrial, mining and offshore mining in Namibia?

- What challenges and opportunities are presented by the unique nature of the sea space, particularly when looking at mineral extraction in the sea? (*note to self: this may be encompassed in the above but ask if not*)

- Does the sea complicate ownership claims over resources?

- To what extent does the dynamic and wild nature of the sea complicate debates? Have some of these debates changed over time? *(note to self: e.g. historical relationships etc)*

Section 4 – Concluding questions

- Is there anything else that you'd like to tell me?

- Would it be possible for me to contact you at a later date should I have any additional questions?

Thank you for your time.

Closing the interview – checklist

1. Confirm whether the interviewee is happy with the interview process and their contribution.
2. Inform the interviewee again about their participation in the study and their ability to withdraw.
3. Check the interviewee is happy to proceed with the informed consent process.
4. Receive signed informed consent form (if applicable).
5. Leave copy of project information sheet and signed informed consent form with the interviewee.
6. Thank the interviewee and explain when they will next hear about the study and any subsequent publications.

Annex 4 - Participant information sheet

I am a PhD student from the Lancaster Environment Centre, Lancaster University, and I would like to invite you to take part in a research study about the blue economy in Namibia.

Please take time to read the following information carefully before you decide whether or not you wish to take part.

What is the study about?

The deep sea presents coastal states, such as Namibia, with a number of opportunities and challenges. This study will analyse at how the blue economy is understood and implemented, in Namibia, and the relationships that varying actors have with the deep sea space. In addressing the blue economy this research project also evaluates how resource extraction fits into current conceptualisations, drawing on the continuing debate surrounding marine phosphate mining.

Why have I been invited?

I have approached you because I believe that my research will benefit greatly from your insight into the subjects of the blue economy and/or the marine phosphate mining debate in Namibia.

I would be very grateful if you would agree to take part in this study.

What will I be asked to do if I take part?

If you decided to take part, this would involve an interview, which I expect would last up to 60 minutes, but could be shorter if necessary. During this interview I will ask a series of questions relating to the blue economy in Namibia. I will also ask questions regarding the current marine phosphate mining debate. This interview will be conducted in a place that you feel comfortable, for example your office or café, or otherwise via telephone or Skype. However, it is important that I highlight to you that interviews conducted via Skype are not wholly secure.

What are the possible benefits from taking part?

Taking part in this study will allow you to share your experiences of Namibia's blue economy. If you take part in this study, your insights will contribute to our understanding of the blue economy and different stakeholder's relationships to the deep sea space in Namibia. This study will also contribute to an understanding of the current marine phosphate mining debate in Namibia.

Do I have to take part?

No. It's completely up to you to decide whether or not you take part. Your participation is voluntary.

What if I change my mind?

If you change your mind, you are free to withdraw at any time during your participation in this study, up until the publication of this research. If you want to withdraw, please let me know, and I will extract any data you contributed to the study and destroy it. Data means the information, views, ideas, etc. that you and other participants will have shared with me.

Will my data be identifiable?

After the interview, only I will have access to the data you share with me. I will keep all personal information about you (e.g. your name and other information about you that can identify you) confidential, that is I will not share it with others. I will anonymise any audio recordings and hard copies of any data, removing any personal information.

How will my data be stored?

Your data will be stored in encrypted files (that is no-one other than me, the researcher, will be able to access them) and on password-protected computers. I will store hard copies of any data securely in locked cabinets in my office. I will keep data that can identify you separately from non-personal information (e.g. your views on a specific topic). In accordance with University guidelines, I will keep the data securely for a maximum of ten years.

How will we use the information you have shared with us and what will happen to the results of the research study?

I will use the data you have shared with only in the following ways:

I will use it for academic purposes only. This will include my PhD thesis and academic journal articles. I may also present the results of my study at academic conferences.

When writing up the findings from this study, I would like to reproduce some of the views and ideas you shared with me. When doing so, I will only use anonymised quotes, from my interview with you, so that although I will use your exact words, you cannot be identified in our publications.

Who has reviewed the project?

This study has been reviewed and approved by the Faculty of Science and Technology's Research Ethics Committee at Lancaster University, UK.

What if I have a question or concern?

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact myself:

Rosanna Carver: r.carver@lancaster.ac.uk

Supervisors:

Dr John Childs: **j.childs@lancaster.ac.uk**
Department: Lancaster Environment Centre
Office: A30, A - Floor, LEC lll
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Dr Ben Neimark: **b.neimark@lancaster.ac.uk**
Department: Lancaster Environment Centre
Office: A24, A - Floor, LEC lll
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If you have any concerns or complaints that you wish to discuss with a person who is not directly involved in the research, you can also contact:

Lancaster Environment Centre Director
Professor Philip Barker
p.barker@lancaster.ac.uk
Office: B061, B - Floor, LEC 1
Tel: +44 (0)1524 510262

Thank you for considering your participation in this project